mobile wallet account (step 370). Any of channels 111 may be used to perform these communications.

[00111] Figure 4 shows three different graphics (401-403) and corresponding method steps (410-490) that illustrate an unbanked subscriber making a withdrawal using a mobile wallet (and, by extension, using the mobile wallet transaction system 210). As above, the terms in the graphics include "$C" representing cash balance and "$E" representing eMoney balance.

[00112] To withdraw cash at an agent branch, a subscriber submits a withdrawal request using their application (401). The subscriber may also enter information about the agent branch (e.g. name of establishment, name of agent, location or other information) that allows the monetary transaction system 210 to identify the agent branch. The transaction processor 216 may then determine whether the unbanked subscriber has enough eMoney to withdraw the requested amount. If he or she does have enough eMoney, then the subscriber's eMoney is deducted and that amount is transferred to the agent branch's eMoney account (402). Then, the agent branch gives the subscriber the requested amount of cash (403). In this manner, any entity that has established itself as an agent branch (including retail stores, gas stations, service providers, etc.) can provide cash withdrawal to a mobile wallet subscriber (whether banked or unbanked). The agent's or agent manager's role is to verify the withdrawal request (e.g. via SMS on the agent's or agent manager's phone) and gives the cash to subscriber. The subscriber requests cash withdrawal from agent branch's eMoney account via the application, and receives physical cash from agent manager/agent. The mobile wallet platform processes the request, updates the agent

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branch's and subscriber's eMoney balances, logs the transaction, and sends transaction details to a specified bank at pre-determined intervals.

[00113] In one embodiment, the monetary transaction system 210 is implemented to withdraw funds at an agent branch using a mobile wallet. The communication module 215 receives a communication from an unbanked subscriber over one of a plurality of channels 111 connected to the monetary transaction system 210 (step 410). The communication indicates that the unbanked subscriber 205 desires to withdraw a specified amount of funds from the unbanked subscriber's mobile wallet account at the agent branch. The monetary transaction system 210 validates the status of the unbanked subscriber's mobile wallet account (step 420) and determines if the balance of the unbanked subscriber's mobile wallet account is sufficient to accommodate the requested withdrawal for the specified amount of funds (step 430).

[00114] The transaction processor 216 performs one or more of a limit check (to verify sufficient funds) and a velocity check (to verify the subscriber hasn't exceeded specified transfer limits) on the unbanked subscriber's mobile wallet account (step 440). The monetary transaction system 210 then returns a secure, perishable withdrawal code to the subscriber 205 over at least one of the plurality of channels 111 connected to the monetary transaction system (step 450). The monetary transaction system 210 receives subsequent agent branch communication over at least one of the plurality of channels connected to the monetary transaction system indicating that the withdrawal code has been presented to the agent branch (step 460). The monetary transaction system 210 then debits the unbanked subscriber's mobile wallet account by the specified amount of funds (step 470), returns a notification to the agent branch confirming the withdrawal (step 480) and notifies the

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subscriber that the specified amount of funds was withdrawn from the unbanked subscriber's mobile wallet account over at least one of the channels 111 connected to the monetary transaction system (step 490). Accordingly, the monetary transaction system 210 may be used to allow subscribers to withdraw cash using their mobile wallet applications at any store or other entity registered as an agent branch.

[00115] Figure 5A depicts a subscriber-to-subscriber eMoney transfer. To perform such a transfer, subscriber A (501) enters some type of identification information identifying subscriber B (e.g. subscriber B's phone number) and an amount of money he or she wishes to transfer. The transaction processor 216 of the monetary transaction system 210 determines if there are sufficient funds to complete the transfer. If sufficient funds are available, the monetary transaction system 210 decrements subscriber A's account and credits subscriber B's account (502). The system then sends some kind of notification (e.g. SMS) to subscriber B indicating that a certain amount of money was transferred to their account. Subscriber A may also receive a notification that the transfer was successful. Accordingly, eMoney may be transferred between two mFS platform subscribers, one or both of which may be unbanked. The monetary transaction system 210 processes the subscribers' requests, updates the subscribers' eMoney balances, logs the transactions, and sends transaction information to a specified bank when needed.

[00116] Figure 5B illustrates a subscriber-to-non-subscriber eMoney transfer. In graphic 505, subscriber A wishes to send eMoney to another individual that is not a subscriber to the mFS platform. The transaction is initiated in the same fashion as the subscriber-to-subscriber transfer scenario. However, since non-subscriber B does not have a mobile wallet account, the monetary transaction system 210 cannot credit them with

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eMoney. Instead, the monetary transaction system 210 sends a notification (e.g. via SMS) to non-subscriber B with instructions for how to pick-up the transferred money, along with an authorization code (506). The monetary transaction system 210 puts a hold on subscriber A's account for the amount transferred. Subscriber B then has a specified number of days to pick up the cash before the hold expires and the amount is credited back to subscriber A's eMoney account by the monetary transaction system 210.

[00117] When non-subscriber B goes to pick up the money at an agent branch, the agent branch's manager or agent verifies the authorization code via an agent manager or agent mobile wallet application (that, in turn, accesses the mFS platform). Once the transfer has been validated, the agent gives the cash to non-subscriber B. The agent branch's mFS account is credited with the transfer amount (507) and the user leaves with the cash in hand (508). The mFS platform processes the transfer request, updates subscriber A's eMoney balance, logs the transaction, and sends transaction details to a platform-specified bank.

[00118] Figure 6A illustrates a subscriber-to-subscriber international eMoney transfer. This embodiment is, at least in some respects, similar to sending eMoney to an mFS subscriber domestically. In this case the monetary transaction system 210 leverages one or more existing international money transfer organizations or "remittance companies" such as MoneyGram®. In some embodiments, MoneyGram® is pre-integrated to the monetary transaction system 210, but other international money transfer organizations may also be used. Still further, at least in some embodiments, subscriber B may need to have an eMoney account with a foreign mFS program that is also affiliated with MoneyGram® or another international money transfer organization.

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[00119] In Figure 6A, subscriber A initiates the international eMoney transfer at 601, the international money transfer organization (e.g. MoneyGram®) transfers the eMoney to subscriber B at 602 and subscriber B's eMoney balance is increased by the transferred amount. Thus, subscriber A requests to send eMoney from his or her eMoney account via the mobile wallet application. The eMoney is transferred using an international money transfer organization, and subscriber B receives a notification (that may, for example, include a reference number, among other information) that their eMoney balance has increased by the transfer amount. The monetary transfer system 210 processes subscriber A's request, updates subscriber A's and subscriber B's eMoney balances, logs the transaction, and send transaction details to a mFS platform-specified bank.

[00120] Figure 6B illustrates a subscriber-to-non-subscriber international eMoney transfer. In this illustration, subscriber A wishes to send cash to subscriber B who is not an mFS program subscriber. Similar to the scenario described in Figure 6A, the monetary transaction system 210 leverages various international money transfer organizations or remittance companies such as MoneyGram® to transfer the eMoney. Subscriber A initiates a typical eMoney transfer at 605 by providing non-subscriber B's identification information, as well as the amount to be transferred. The Monetary transaction system 210 recognizes the eMoney transfer is not destined for a domestic phone number and routes the request to the international money transfer organization (e.g. MoneyGram®) (606).

[00121] The international money transfer organization sends non-subscriber B a notification (e.g. via SMS) with instructions for how and where to pick up the money (in embodiments where MoneyGram® transfers the eMoney, the notification may include a MoneyGram® reference number (MGRN)) (607). Non-subscriber B can then show the

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MGRN to an agent at an agent branch (608) and then receive the cash (609). The monetary transaction system 210 then decrements subscriber A's eMoney account for the transferred amount. The monetary transfer system 210 thus processes subscriber A's transfer request, updates subscriber A's eMoney balance, logs the transaction, and sends transaction detail to a platform-specified bank. It should also be noted that an mFS subscriber may also receive money in a foreign country from either a subscriber or a non-subscriber in a similar manner.

[00122] Figure 7 illustrates a subscriber purchasing airtime using a mobile wallet. Mobile wallet platform subscribers may buy airtime by using their mobile wallet application 207. The monetary transaction system 210 will reload their airtime account within the mobile network operator's (MNO's) systems. The subscriber requests to purchase airtime by entering the request via the mobile wallet application or via a mobile wallet web interface. The monetary transaction system 210 then decrements the subscriber's eMoney account (701), while crediting the mFS platform's eMoney account (702). The purchased airtime is then added to the subscriber's airtime balance (703). The monetary transaction system 210 processes the subscriber's request, updates the subscriber's eMoney balances as well as its own eMoney balance, logs the transaction, and sends transaction detail to a mFS platform-specified bank.

[00123] In one embodiment, the monetary transaction system 210 is implemented to top up a prepaid mobile account from a mobile wallet. The communication module 215 of the monetary transaction system 210 receives a subscriber communication over one of a plurality of channels 111 connected to the monetary transaction system (step 710). The subscriber communication indicates that an unbanked subscriber 205 desires to top up a

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prepaid mobile account by a specified amount using a specified payment method from the unbanked subscriber's mobile wallet. The transaction processor 216 validates the status of the selected payment method (step 720) and performs a limit check and/or a velocity check on the selected payment method (step 730). The monetary transaction system 210 then debits the specified payment method by the specified amount of funds (step 740) and processes the mobile top-up via a billing system integrator and/or an aggregator (step 750), and notifies the subscriber that the prepaid mobile account was topped up over at least one of the channels connected to the monetary transaction system (step 760).

[00124] Figure 8 illustrates an embodiment where a mFS subscriber pays a bill using a mobile wallet. At least in some embodiments, the company that the subscriber wishes to pay needs to have signed-up to be part of the mFS platform. The mFS platform may publish a list of company names that have registered to be part of the mFS platform. This list of companies may include company IDs so that subscribers can know which company ID to enter in their mobile wallet application. Once the company ID is known, the subscriber can pay a bill by entering the company ID and the amount to be paid. The monetary transaction system 210 then decrements the subscriber's eMoney account (801) and credits the identified company's eMoney account (802). Accordingly, in response to the subscriber's request to pay bill via their mobile wallet application, the monetary transaction system 210 processes the request, updates the bill pay company's and the subscriber's eMoney balances, logs the transaction, and sends transaction details to the mFS platform-specified bank.

[00125] In one embodiment, the monetary transaction system 210 is implemented to pay a bill from a mobile wallet. The communications module 215 of the monetary transaction

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system 215 receives a subscriber communication over a communication channel 111 connected to the monetary transaction system (step 810). The subscriber communication indicates that unbanked subscriber 205 desires to pay a bill for a specified amount using a specified payment method from the unbanked subscriber's mobile wallet (e.g. eMoney). The monetary transaction system 210 validates the status of the selected payment method (step 820) and performs a limit check and/or a velocity check on the selected payment method to ensure the eMoney transfer is permissible (step 830). The monetary transaction system then debits the specified payment method by the specified amount of funds (step 840), processes the bill payment via a direct biller connection or a bill pay aggregator (step 850), and notifies the unbanked subscriber that the bill was paid using a communication channel (e.g. SMS) connected to the monetary transaction system (step 860). Thus, in this manner, a subscriber may use a mobile wallet to pay various bills including rent, utility, mortgage, phone, cable, medical and other bills.

[00126] Figure 9 illustrates a mobile wallet subscriber making a retail purchase.

[00127] Mobile wallet subscribers can make retail purchases at agent branches directly from their mobile device. Agent branches, as explained above, are retail stores or other entities that have registered with the mFS system and are able to accept mobile wallet payments. Accordingly, a subscriber can select the items they wish to purchase, and indicate (via the mobile wallet application) to the agent branch that they wish to pay for the items. The mobile wallet application then communicates with the agent branch and the monetary transaction system to indicate the price of the transaction. The monetary transaction system 210 then debits the subscriber's eMoney account (901) and credits the agent branch's eMoney account (902). The agent branch (and/or the agent manager or

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agent) receives confirmation that subscriber paid for the purchase. The subscriber may also receive a summary of the retail purchase and may be asked to confirm the purchase by entering a PIN. The monetary transaction system processes the purchase request, updates the agent branch and subscriber's eMoney balances, logs the transaction, and sends transaction details to a mFS platform-specified bank.

[00128] In one embodiment, the monetary transaction system 210 is implemented to make a purchase from a mobile wallet. The communications module 215 of the monetary transaction system 210 receives a communication from a subscriber over a communication channels 111 (step 910). The subscriber communication indicates that an unbanked subscriber 205 desires to purchase an item for a specified amount of funds using a specified payment method from the unbanked subscriber's mobile wallet.

[00129] The monetary transaction system 210 then returns a secure, perishable purchase code to the unbanked subscriber over at least one of the channels connected to the monetary transaction system (step 920) and receives a subsequent agent branch communication over a channel indicating that the purchase code has been presented to an agent (branch) (step 930). The monetary transaction system 210 validates the status of the specified payment method (step 940), determines if the specified payment method can accommodate a purchase for the specified amount (step 950), performs a limit check and/or a velocity check on the selected payment method (960), debits the specified payment method by the specified amount of funds (970), returns a notification to the agent branch authorizing the purchase (980) and sends a receipt to the unbanked subscriber over a communication channel. The monetary transaction system 210 may thus be used to make a retail purchase using a mobile wallet.

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[00130] Figure 10A illustrates a subscriber requesting a micro-loan. Financial institutions and potentially other mFS program participants may sign up to become money or eMoney lenders. Mobile wallet subscribers may be able to use their mobile wallets to request micro-loans from these approved lenders. The micro-loans are tracked by the monetary transaction system 210, and repayment reminders, interest and commissions are managed by the monetary transaction system. The subscriber requests a micro-loan from a lender, indicating the amount in the request, as well as other information such as the repayment date and the commission (i.e. interest rate). Potential lenders then have a chance to counter the loan request with their own terms. Once the lender approves the subscriber's request, the lender's eMoney account balance is debited for the specified amount (1001) and the subscriber's eMoney account is credited with the requested amount (1002). The monetary transaction system 210 processes the micro-loan requests, update the lender and subscriber's eMoney balances, sets up repayment schedules and reminders, logs the transaction, and sends transaction detail to a mFS bank. It should also be noted that while the term "micro-loan" is used herein, the loan may be for substantially any amount of money.

[00131] Following on the embodiment described in Figure 10A, Figure 10B illustrates a subscriber repaying a micro-loan. The subscriber may repay the loan using functionality provided in the mobile wallet application or in a similar web interface. Repayments can be made in installments or in full depending on the rules of the micro-loan. The subscriber enters the amount they wish to repay and the loan ID. The subscriber's eMoney account is then debited for the specified amount (1005), while the lender's eMoney account is credited the specified amount (1006). Both the lender and the subscriber may receive confirmation

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that the loan has been repaid via SMS or some other communication channel. The mFS platform thus processes the subscriber's micro-loan repayment request, updates lender and subscriber's eMoney balances, updates repayment schedule and reminders, logs the transaction, and sends transaction details to a specified mFS platform bank.

[00132] Figure 11A illustrates a subscriber receiving a direct deposit from an employer or other entity. Subscribers to the mFS platform have the ability to receive any direct deposit into their eMoney account. Subscribers may be asked by their employers to provide account information in order to set up direct deposit. The employer then submits a direct deposit request using their existing processes (i.e the processes they use for a normal checking or savings bank account). Once the direct deposit is set up and a payday arrives, the employer's bank account is debited for the proper amount (1101) and the employer's mFS account is credited with that amount (1102). Then, once the funds have been received at the mFS platform bank, the mFS platform bank sweeps the employers direct deposit balance (1103) into a mFS platform master account (1104) and notifies the mFS platform of each account to be incremented (including the subscriber's mobile wallet (eMoney) account). The subscriber's eMoney account is then credited with the paycheck amount (1105) upon which the eMoney may be used to pay for goods, pay bills, top up airtime, transfer to other entities or for cash withdrawal.

[00133] The subscriber does not need to have a bank account to participate in direct deposit. The employer's bank can communicate with the mFS platform's bank to perform the necessary steps in directly depositing the subscriber's paycheck in his or her eMoney mobile wallet account. The bank facilitates monetary deposit into the employer's bank account for direct deposit and performs an automated sweep of recent deposits from the

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employer's bank account into the mFS platform's master bank account. The bank also sends transaction details to the monetary transaction system 210 including transaction logs. The monetary transaction system receives a list of eMoney accounts that are to be credited directly from the employer (or bank), processes the list and requests to establish a direct deposit, updates subscriber's eMoney balance, log the transaction, and sends transaction details to the mFS platform bank.

[00134] In a similar manner, a subscriber may receive a government welfare payment directly on their mobile device. Figure 11B illustrates a subscriber receiving a government social welfare payment directly into their eMoney account. In some embodiments, subscribers may need to opt-in and register with the government program for which they choose to receive the payment via their mobile wallet. Once the funds have been received, the subscriber can use that eMoney for any goods or services, as described above. Once the direct deposit has been established and a payout has been initiated, the government's welfare account deposits the money (1110) into the government's bank account for welfare payments (1111) and performs an automated sweep of recent deposits from the government's bank account (1112) into the mFS program's master bank account (1113). The bank then sends transaction details to the monetary transaction system 210 regarding the deposit. The subscriber receives a notification that the welfare payment has been credited to their eMoney account (1114). The mFS platform receives an indication of eMoney accounts that are to be credited from the government, processes the welfare payments, updates the subscriber's eMoney balance, logs the transactions, and sends transaction details to the mFS platform bank.

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[00135] Figure 12A illustrates an agent administrator distributing eMoney to various recipients. An agent administrator, as explained above, is a person who acts as an agent company's representative. The agent administrator deposits, withdraws, and distributes funds into and out of the agent company's bank account. When an agent administrator deposits cash into an agent company's bank account, it is credited as eMoney to the agent company's account. In order to provide the agent branches with eMoney, the agent administrator first moves the eMoney from the agent company's account (1201) to the branch accounts (1202). This is performed using the agent administrator's mobile wallet application or portal. In an agent administrator money transfer, the monetary transaction system 210 processes the administrator's eMoney transfer request, updates the agent company and agent branch eMoney balances, logs the transaction, and sends transaction details to the mFS platform bank.

[00136] Figure 12B illustrates an agent company deposit. The agent company has an eMoney account in the monetary transaction system 210 that may also include a corresponding bank account (that may be created automatically upon creation of the agent company's eMoney account). After the agent company's bank account has been set up, the agent administrator can make deposits into that account. As Figure 12B shows, once cash (1205) has been deposited into the bank account (1206), it is transferred to a mFS platform master account (1208) that includes all or a part of the mFS platform's funds. The agent company's bank account is decreased by the deposit amount (1207), while the agent company's eMoney account balance is correspondingly increased (1210). At this time, the agent company account is credited with eMoney. The agent company's bank facilitates a physical cash deposit into the agent company's bank account and performs an automated

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sweep (1209) of recent deposits from the agent company's bank account into the mFS platform's master bank account. The agent company's bank then sends transaction details to the monetary transaction system 210. The agent administrator physically delivers the cash (or form of money such as a check or money order) to a bank branch for deposit. The monetary transfer system receives transaction details from the agent company's bank about recent transactions (including deposits, as shown in Figure 12B.

[00137] Figure 13 illustrates an agent company withdrawal. To make a cash withdrawal for an agent company, the agent administrator requests a withdrawal using the agent administrator mobile wallet application. The monetary transaction system 210 then notifies the bank that a certain amount of eMoney is to be transferred from the master mFS account (1302) to the agent company bank account (1303). When the money is in the agent company bank account, the agent administrator can withdraw the cash by traditional withdrawal means. The mFS master bank receives transaction details from the monetary transaction system 210 about recent transactions (recent withdrawals in this case). The mFS master bank performs an automated sweep (1304) of the mFS platform's master bank account to reflect the recent withdrawal request from agent the agent company (1301). The agent company's eMoney account is reduced by the amount of the withdrawal. The agent company also sends transaction details to the monetary transaction system 210. The agent administrator can request withdrawal via the agent administrator mobile wallet application and physically withdrawal cash (1305) from the agent company's bank branch (1306). The mFS platform processes the agent company's withdrawal request, updates agent company and agent branch eMoney balances, logs the transaction, and sends transaction details to an mFS platform-specified bank.

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[00138] Attention will now be turned to embodiments in which subscribers have bank accounts associated with their mobile wallets. The monetary transaction system 210 provides similar functionality to consumers that have bank or credit union accounts. Although many different transactions are presented herein, many more and varied types of transactions may be processed by the monetary transaction system. In the following figures, "$C" refers to cash balance, "$DC" refers to a debit card (prepaid) balance and "$PIN" refers to a recharge PIN value.

[00139] Figure 14 describes a subscriber deposit at an agent branch. The subscriber has a registered and activated (prepaid) debit card at an agent branch location. The prepaid debit card is associated with the mobile wallet application in the subscriber's mobile device. As such, the debit card is linked to the subscriber's account in the monetary transaction system 210. To deposit cash onto the mobile wallet, the subscriber informs the agent that they want to deposit a specified amount of cash (1401). The agent takes the cash and notifies the monetary transaction system 210 of the deposit using their point of sale (POS) system or the agent mobile wallet application (1402), and the monetary transaction system 210 credits the subscriber's mobile wallet account (1403). The funds collected at the cash register typically do not reach a bank account until the reconciliation and settlement of funds occurs between the agent and the mFS owner's bank.

[00140] The subscriber's bank then receives a settlement report from the card processor and receives funds from the agent's bank. The agent or agent manager physically deposits the cash into the subscriber's mobile wallet account via their POS system or agent manager/agent mobile wallet application. The monetary transaction system processes the deposit request, increments the subscriber's mobile wallet balance within the card processor

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and logs the transaction. An external card processor increments the subscriber's mobile wallet balance and sends reports to the bank for settlement on a regular (e.g. nightly) basis.

[00141] In one embodiment, the monetary transaction system 210 is implemented to deposit funds into a bank or credit union account using a mobile wallet. The communications module 215 of the monetary transaction system 210 receives communication from an agent branch over a communication channel (step 1410). The agent communication indicates that a subscriber 205 desires to deposit a specified amount of funds into a bank or credit union account. The transaction processor 216 validates the status of the bank or credit union account (step 1420), determines if the agent branch is authorized to deposit money (step 1430), and performs a limit check and/or a velocity check on the bank or credit union account (step 1440). The monetary transaction system then credits the bank or credit union account with the specified amount of funds (step 1450), returns a notification to the agent branch confirming the deposit (step 1460) and notifies the subscriber that the specified amount of funds was deposited in the bank or credit union account using at least one of the communication channels connected to the monetary transaction system (step 1470). Accordingly, cash may be deposited into a bank or credit union account associated with a subscriber's mobile wallet.

[00142] Figure 15 illustrates a subscriber deposit that is performed with a non-agent. In some economies, subscribers may have the ability to leverage other channels outside of agents to deposit funds onto their card. One deposit method is a PIN-based recharge that allows a subscriber to purchase a PIN worth the deposit value. The PIN can then be redeemed via an interactive voice response (IVR) system or via the subscriber's mobile wallet application. The mobile wallet application will allow the monetary transaction

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system 210 to deposit the funds onto the subscriber's card. The retailer's bank settles with the PIN card provider's bank and the PIN card provider's bank settles with the mFS platform's bank for the deposit. The subscriber gives cash to the agent (1501) which increases the agent company's physical cash (1502). The subscriber uses IVR or their SIM Application to recharge mobile wallet account using a PIN card (1503). In some cases, an agent may provide the PIN card (i.e. the prepaid debit card) to the subscriber. The monetary transaction system 210 processes the subscriber deposit request, increments the subscriber's mobile wallet balance within the card processor and logs the transaction. An external card processor decreases the subscriber's PIN card balance (1504), increments the subscriber's mobile wallet balance (1505) and send reports to the mFS platform bank for settlement.

[00143] Figure 16 illustrates a subscriber withdrawal at an agent branch. To withdraw cash at an agent branch from a (prepaid) debit card, a subscriber submits a withdrawal request using the mobile wallet application on their mobile device. The subscriber may also need to enter details about the agent branch that allows the monetary transaction system 210 to determine if the subscriber has sufficient funds on their debit card. The mFS platform then notifies the agent branch that it can give cash to the subscriber. If the subscriber has sufficient funds, the monetary transaction system 210 will decrement the subscriber's funds from their card (1601) and transfer it to the mobile wallet owner's account within the same card processor or bank. The agent branch (1602) then provides the withdrawn cash to the subscriber (1603).

[00144] Accordingly, the subscriber requests a cash withdrawal from their own mobile wallet account via the mobile wallet application. The agent or agent manager verifies the

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withdrawal request via POS authorization or SMS received on agent's phone and, once verified, gives cash to the subscriber. The monetary transaction system 210 processes the subscriber's withdrawal request, decrements the subscriber's mobile wallet balance within the card processor and logs the transaction. An external card processor decrements the subscriber's mobile wallet balance and sends reports to the bank for settlement on a periodic basis.

[00145] In one embodiment, the monetary transaction system 210 is implemented to withdraw funds from a bank or credit union account using a mobile wallet. The communication module 215 of the monetary transaction system 210 receives a communication from a subscriber 205 over a communication channel 111 (step 1610). The subscriber communication indicates that subscriber 205 desires to withdraw a specified amount of funds from a bank or credit union account. The transaction processor validates the status of the bank or credit union account (step 1620), determines if the balance of the bank or credit union account is sufficient to accommodate the requested withdrawal for the specified amount of funds (step 1630) and performs a limit check and/or a velocity check on the bank or credit union account (step 1640).

[00146] The monetary transaction system 210 then returns a secure, perishable withdrawal code to the subscriber 205 over at least one of the communication channels (step 1650) and receives a subsequent agent branch communication indicating that the withdrawal code has been presented to an agent (step 1660). The monetary transaction system 210 then debits the bank or credit union account by the specified amount of funds (step 1670), returns a notification to the agent branch confirming the withdrawal (1680) and notifies the subscriber that the specified amount of funds were withdrawn from the

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bank or credit union account using at least one of the communication channels connected to the monetary transaction system (step 1690). Accordingly, a subscriber can withdraw cash stored on their mobile wallet from an agent branch or a non-agent branch.

[00147] Figure 17A illustrates a subscriber withdrawal using an automated teller machine (ATM). Subscribers in many countries have access to ATM machines and can use their mobile wallets to perform withdrawals using their (prepaid) debit card at most ATMs. Banks provide ATMs to their customers (typically at no charge) and to non-customers (typically for a small charge). The subscriber requests a cash withdrawal from the subscriber's mobile wallet via the subscriber's debit card that is associated with the mobile wallet. The bank providing the debit card may receive settlement reports from the card processor and may transfer and/or settle funds from subscriber's account to the ATM network bank. An extern card processor decrements the subscriber's mobile wallet balance (1701) and sends transaction reports to the bank for settlement. Accordingly, once the withdrawal request has been received and the external card processor (e.g. Visa® or MasterCard®) (1702) has debited the debit card account, the ATM (1703) dispenses the withdrawn cash to the subscriber (1704).

[00148] Figure 17B illustrates a subscriber-to-subscriber money transfer. An mFS subscriber (1705) may send money to another mFS subscriber (1706). To do so, subscriber A enters information identifying subscriber B (e.g. a phone number, email address or other identifier). The monetary transaction system 210 determines if there are enough funds to complete the transaction, and if so, the monetary transaction system 210 decrements subscriber A's debit card and credits subscriber B's debit card. The subscriber, accordingly, may request to send money from their own mobile wallet (i.e. money stored on a (prepaid)

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debit card) account via the subscriber mobile wallet application. The other subscriber receives a notification that the balance of the debit card associated with their mobile wallet has increased. The bank receives a settlement report from the debit card processor and transfers or settles funds from subscriber A's account to subscriber B's account (if necessary). The monetary transaction system 210 processes the transfer request, updates subscriber A's and subscriber B's debit cards that are associated with their mobile wallets and logs the transaction. The external card processor decrements subscriber A's debit card balance, increments subscriber B's debit card balance and sends transaction reports to the mFS platform bank for settlement.

[00149] Figure 17C illustrates subscriber-to-non-subscriber money transfers. In this embodiment, subscriber A (an mFS subscriber) wishes to send money to another subscriber (a non-mFS subscriber). The transaction is initiated in the same fashion as described above in Figure 17B. However, since subscriber B does not have an mFS account, the monetary transaction system 210 cannot credit them with money. Instead, the monetary transaction system 210 sends a communication (e.g. a SMS) to subscriber B (1708) with an authorization code and instructions for how to pick up the cash. The monetary transaction system 210 puts a hold on subscriber A's debit card for the amount transferred (1707). Subscriber B has a specified time period in which to pick up the cash before the hold expires and the amount is credited back to the debit card associated with subscriber A's mobile wallet account. The agent branch verifies the authorization code via POS or their agent mobile wallet application (1709) and gives the cash to the non-subscriber (1710). (In some countries, an agent network needs to be capable of giving cash to a subscriber based on the money transfer reference number).

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[00150] The mFS bank receives a settlement report from the card processor and transfer and settle funds from subscriber A's debit card to the agent's bank (if necessary). The monetary transaction system 210 processes the money transfer request, decrements subscriber A's mobile wallet balance within the card processor, generates a money transfer reference number, authorizes the reference number to be paid out by the agent and logs the transaction. An external card processor decrements subscriber A's mobile wallet balance and sends periodic transaction reports to the bank for settlement. Thus, as seen in Figures 17B and 17C, money may be transferred from subscriber to subscriber and from subscriber to non-subscriber.

[00151] Subscribers may similarly send money internationally to both subscribers and non-subscribers. Figure 18A illustrates a subscriber-to-subscriber international money transfer. In this embodiment, subscriber A wishes to send cash to subscriber B who resides in another country. As in the embodiments described above where money was transferred internationally, the monetary transaction system 210 may use one or more international money transfer organizations or remittance companies such as MoneyGram® to transfer the money. Subscriber A initiates the international money transfer using his or her phone. Subscriber A's debit card account is decremented by the transfer amount (1801). The money is transferred between countries using an international money transfer organization (1802). In this case, subscriber B has an mFS eMoney account with a foreign mFS platform that is also affiliated with the selected international money transfer organization. That organization can then credit subscriber B's eMoney account directly (1803).

[00152] Thus, subscriber A requests to send money from their debit card account via the subscriber mobile wallet application. Subscriber B receives a notification (including a

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MoneyGram® Reference Number (MGRN) (or other reference number when other international money transfer organizations are used) and instructions on how to access the eMoney) that their eMoney balance has increased. The mFS bank receives settlement reports from the debit card processor and transfers and/or settles funds from subscriber's account to the international organization's bank. The monetary transfer system 210 processes the transfer request, update subscriber A's and subscriber B's eMoney balances and logs the transaction. An external card processor decrements subscriber A's mobile wallet balance and sends periodic transaction reports to the bank for settlement.

[00153] Figure 18B illustrates a subscriber-to-non-subscriber international money transfer. In this embodiment, subscriber A wishes to send cash to subscriber B who resides in another country. As above, the monetary transaction system 210 uses an international money transfer organization (1806) to transfer the money between countries. Once the transfer has been initiated by subscriber A, the international money transfer organization debits subscriber A's debit card account (1805) and transfers that money to subscriber B. Subscriber B (1807) receives a notification (e.g. via SMS) with pick up instructions and a transfer ID number. Subscriber B can then go to an agent company (1808), show them the notification (including, perhaps an authorization code), and receive the transferred money (1809).

[00154] Similar to the transaction described in Figure 18A, the embodiment of 19A illustrates a transaction where a subscriber receives an international money transfer. Subscriber B (1901) initiates a money transfer using their mobile wallet application. The international money transfer organization (1902) debits subscriber B's eMoney account balance. This money is then transferred by the international money transfer organization to

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subscriber A. Subscriber A receives a notification along with a transfer ID number indicating that their debit card account has been credited with the transferred money (1903).

[00155] Figure 19B illustrates a non-subscriber-to-subscriber international money transfer. This scenario is very similar to that described in Figure 19A from the mFS subscriber's perspective, except that their eMoney account is credited here, and their debit card account was credited in 19A. The initiator, subscriber B (1905), does not have an mFS account and, as a result, takes their cash to an international money transfer organization (e.g. MoneyGram®) or other remittance company's agent (1906) to send it to subscriber A's mobile wallet eMoney account. The international money transfer organization (1907) then transfers the specified amount to subscriber A (1908) and subscriber A's mobile wallet eMoney account is credited with the amount of the transfer. Subscriber A may receive a transaction ID number, along with an indication that the transfer has occurred. The mFS bank may receive settlement reports from the card processor and settle funds from the international money transfer organization's bank to subscriber A's mobile wallet account. The monetary transaction system processes the money transfer request, updates subscriber A's mobile wallet balance within the card processor and logs the transaction. An external card processor increments subscriber A's mobile wallet balance and sends periodic transaction reports to the mFS bank for settlement.

[00156] Other functionality described above in relation to using an eMoney mobile wallet account may also apply to banked subscribers using a debit card associated with their mobile wallet. Such subscribers may buy airtime for their mobile device, pay bills, make retail purchases, receive direct deposits, and perform other functionality.

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[00157] In one embodiment, the monetary transaction system 210 is implemented to add a mobile wallet platform stored value account to a mobile wallet. The stored value account may include eMoney or other monetary credits. In the embodiment, communication module 215 of monetary transaction system 210 may receive subscriber data for an unbanked subscriber 205 over a communication channel. The transaction processor may perform validation checks on the unbanked subscriber to validate that the unbanked subscriber is not exceeding a specified allowable number of accounts per subscriber. The monetary transaction system 210 may then send subscriber data to another entity (such as a third party verification system) for identification of the unbanked subscriber. The monetary transaction system 210 receives results from the third party verification system indicating that the subscriber data appropriately identifies the unbanked subscriber, creates a stored value account for the unbanked subscriber that maintains a recorded balance for the created stored value account, adds the stored value account to the unbanked subscriber's mobile wallet and notifies the unbanked subscriber of the addition of the stored value account over at least one communication channel connected to the mobile wallet platform.

[00158] In another embodiment, the monetary transaction system 210 is implemented to add a third party stored value account to a mobile wallet. The monetary transaction system 210 receives unbanked subscriber data, including account details, over a communication channel. The transaction processor 216 performs a validation check on the unbanked subscriber to validate that the unbanked subscriber is not exceeding a specified allowable number of accounts per subscriber. If the validation check is ok, the monetary transaction system 210 sends subscriber data to a third party verification system for

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identification of the unbanked subscriber. In some cases, validating the status of the sender or the recipient includes performing a check on the specified sender or recipient to comply with the office of foreign assets control. The monetary transaction system 210 then receives results from the third party verification system indicating that the subscriber data appropriately identifies the unbanked subscriber, and submits the unbanked subscriber's account details to a third party account processor. The monetary transaction system 210 receives an indication from the third party account processor that third party account processor created a third party stored value account for the subscriber. The transaction processor maintains a link between the subscriber data and the third party stored value account and adds the third party stored value account to the unbanked subscriber's mobile wallet. The monetary transaction system 210 then notifies the unbanked subscriber of the addition of the third party stored value account over a communication channels connected to the monetary transaction system.

[00159] In another embodiment, the monetary transaction system 210 is implemented to add a bank or credit union account to a mobile wallet. The communication module 215 receives subscriber data, including bank or credit union account details, over a communication channel 111. The transaction processor 216 performs validation checks on the subscriber to validate that the subscriber is not exceeding a specified allowable number of accounts per subscriber and sends subscriber data to a third party verification system for identification of the subscriber. The communication module then receives results from the third party verification system indicating that the subscriber data appropriately identifies the subscriber. Upon receiving these results, the monetary transaction system 210 submits bank or credit union account details for validation by the transaction processor, receives an

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indication that the bank or credit union account details correspond to a valid bank or credit union account, maintains a link between the subscriber data and the bank or credit union account and notifies the subscriber of the bank or credit union account validation over a communication channel.

[00160] In still another embodiment, the monetary transaction system is implemented to add a debit or credit card account to a mobile wallet. The communication module 215 receives subscriber data, including a debit or credit card account number, over a communication channel 111 connected to the monetary transaction system. The transaction processor performs validation checks on the subscriber to validate that the subscriber is not exceeding a specified allowable number of accounts per subscriber. The communication module sends subscriber data to a third party verification system for identification of the subscriber and receives results from the third party system indicating that the subscriber data appropriately identifies the subscriber. The monetary transaction system 210 securely stores the debit or credit card account number for access by the mobile wallet (e.g. in memory 217 or transaction database 225), adds the debit or credit card account number to the subscriber's mobile wallet, and notifies the subscriber of the addition of the debit or credit card account number. It should be noted that many other transactions can take place over the monetary transaction system, and that the embodiments described herein should not be read as limiting.

[00161] Embodiments of the invention can adhere to Know Your Customer (KYC) rules in the US by performing Customer Identification Program (CIP) checks as required by the Bank Secrecy Act and US PATRIOT Act. A minimum amount of information can be gathered about a customer, such as, for example, first name, last name, date of birth,

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government ID Type, government ID number and address. The CIP processes are designed to validate customer identity against government blacklists and assists in the prevention of money laundering and terrorist financing. A combination of non-documentary and documentary verification can be used to ensure beyond a reasonable doubt the identity of the customer.

[00162] Non-documentary verification can occur through the presentment of the information that was collected from the user to an external third party, such as, for example, Lexis Nexis®. Documentary verification can occur if non-documentary verification fails, then the user is asked to present an unexpired government ID. Various differ forms of identification including driver's license, passport, alien identification (e.g., green card or work visa), and Mexican Consular identification card, can be accepted.

[00163] Embodiments of the invention can perform Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) checks. AML and CFT checks can be performed using transaction monitoring methods to flag names and suspicious transactions for further investigation. The mobile wallet platform can perform AML and CFT checks on all electronic financial transactions to ensure that electronic funds are not being used for money laundering or terrorism. Transaction limits can be placed on user accounts. The transaction limits are fully configurable for each particular use case, channel and payment method that allows maximum flexibility to restrict higher risk use cases. Velocity checks can also be performed. Velocity Checks ensure that subscribers are not abusing the mobile wallet platform within the allowable limits.

[00164] Figures 20A through 20F depicts relationships between embodiments of various components within the monetary transaction system depicted in Figure 1. In

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particular, Figures 20A through 20F depict communications between the specific components within the monetary transaction system during an operation to deposit of funds within a financial account. The depicted interactions are representative of computer executed functions that enable the deposit of money through a mobile transaction system that is capable of functioning without an associated bank account.

[00165] Figures 21A through 21I depicts relationships between embodiments of various components within the monetary transaction system depicted in Figure 1. In particular, Figures 21A through 21I depict communications between the specific components within the monetary transaction system during an operation to withdraw of funds from a financial account. The depicted interactions are representative of computer executed functions that enable the withdrawal of money through a mobile transaction system that is capable of functioning without an associated bank account.

[00166] Figures 22A through 22J depicts relationships between embodiments of various components within the monetary transaction system depicted in Figure 1. In particular, Figures 22A through 22J depict communications between the specific components within the monetary transaction system during an operation to transfer funds between financial accounts. The depicted interactions are representative of computer executed functions that enable the transfer of money through a mobile transaction system that is capable of functioning without an associated bank account.

[00167] The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All

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changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

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CLAIMS

I claim:

1. A monetary transaction system for conducting monetary transactions between subscribers and other entities, the system comprising one or more of:

an integration tier operable to manage mobile wallet sessions and maintain the integrity of financial transactions, the integration tier also including a communication application programming interface (API) and other communication mechanisms to accept messages from channels;

notification services operable to send notifications through different notification channels including one or more of short message peer-to-peer, short-message services and simple mail transfer protocol emails;

a service connector layer comprised of a plurality of service connector modules operable to connect to third party systems, wherein each service connector module is deployed as a separate module intended to integrate an external service to at least a portion of system architecture;

business process services operable to implement business workflows, including at least one of executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects;

a payment handler service operable to use the APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors; the payment handler service using a common API wrapper to facilitate interactions with many different kinds of payment processors;

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a security service operable to perform subscriber authentication;

an authorization service operable to perform client authorization using a database-based access control list table;

a database operable to store financial transaction details, store customer profiles, and manage money containers; and

a rules engine operable to gather financial transaction statistics and use the gathered statistics to enforce business constraints including transaction constraints;

a mobile device configured to run a monetary transaction system application;

a monetary transaction system subscriber that has a profile with the monetary transaction system the subscriber profile stored in the database of the monetary transaction system, wherein the subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system;

a monetary transaction system processor that performs the one or more transactions specified by the subscriber, wherein performing the specified transactions includes communicating with the monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile determination made by the rules engine of the monetary transaction system;

at least one entity that is to be involved in the specified transaction, the at least one entity having a profile with the monetary transaction system; and

wherein the monetary transaction system is implemented to deposit funds at an agent branch, funds deposited by subscriber at the agent branch using the

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mobile device configured to run a monetary transaction system application, including performing the following steps:

receiving communication from an agent branch over one of a plurality of channels connected to the monetary transaction system message received by an integration tier of the monetary transaction system, the agent communication indicating that the subscriber desires to deposit a specified amount of funds into the subscriber's account;

validating the status of the subscriber's account; determining if the agent branch is authorized to receive deposited money; performing one or more of a limit check and a velocity check on the subscriber's account, the limit check determining whether sufficient funds are available to make the deposit amount, the velocity check determining whether the subscriber has exceeded a specified number of transactions within a specified time period;

crediting the subscriber's account with the specified amount of funds from the agent branch that is authorized to receive the deposited money;

returning a notification to the agent branch confirming the deposit; and notifying the subscriber that the specified amount of funds was deposited in the subscriber's account over at least one of the plurality of channels connected to the monetary transaction system.

2. The monetary transaction system of claim 1, wherein the monetary transaction system application provides a web interface that allows subscribers to perform the same functions provided by the monetary transaction system application.

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3. The monetary transaction system of claim 1, wherein the monetary transaction system application is provided on a prepaid or postpaid phone.

4. A monetary transaction system for conducting monetary transactions between subscribers and other entities, the system comprising one or more of:

an integration tier operable to manage mobile wallet sessions and maintain the integrity of financial transactions, the integration tier also including a communication application programming interface (API) and other communication mechanisms to accept messages from channels;

notification services operable to send notifications through different notification channels including one or more of short message peer-to-peer, short-message services and simple mail transfer protocol emails;

a service connector layer comprised of a plurality of service connector modules operable to connect to third party systems, wherein each service connector module is deployed as a separate module intended to integrate an external service to at least a portion of system architecture;

business process services operable to implement business workflows, including at least one of executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects;

a payment handler service operable to use the APIs of different payment processors including one or more APIs of banks, credit and debit cards processors,

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bill payment processors; the payment handler service using a common API wrapper to facilitate interactions with many different kinds of payment processors;

a security service operable to perform subscriber authentication;

an authorization service operable to perform client authorization using a database-based access control list table;

a database operable to store financial transaction details, store customer profiles, and manage money containers; and

a rules engine operable to gather financial transaction statistics and use the gathered statistics to enforce business constraints including transaction constraints;

a mobile device configured to run a monetary transaction system application;

a monetary transaction system subscriber that has a profile with the monetary transaction system the subscriber profile stored in the database of the monetary transaction system, wherein the subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system;

a monetary transaction system processor that performs the one or more transactions specified by the subscriber, wherein performing the specified transactions includes communicating with the monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile determination made by the rules engine of the monetary transaction system;

at least one entity that is to be involved in the specified transaction, the at least one entity having a profile with the monetary transaction system; and

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wherein the monetary transaction system is implemented to withdraw funds at an agent branch using the mobile device configured to run a monetary transaction system application, including performing the following steps:

receiving a communication from the subscriber from the mobile device configured to run the monetary transaction system, the communication indicating that the subscriber desires to withdraw a specified amount of funds from the subscriber's account at the agent branch;

validating the status of the subscriber's account;

determining if the balance of the subscriber's account is sufficient to accommodate the requested withdrawal for the specified amount of funds;

performing one or more of a limit check and a velocity check on the subscriber's account, the limit check determining whether sufficient funds are available to make the deposit amount, the velocity check determining whether the subscriber has exceeded a specified number of transactions within a specified time period;

returning a secure, perishable code to the subscriber over at least one of the plurality of channels connected to the monetary transaction system;

receiving subsequent agent branch communication over at least one of the plurality of channels connected to the monetary transaction system, the agent branch communication indicating that the withdrawal code has been presented to the agent branch;

debiting the subscriber's account by the specified amount of funds;

returning a notification to the agent branch confirming the withdrawal; and

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notifying the subscriber that the specified amount of funds was withdrawn from the subscriber's account over at least one of the channels connected to the monetary transaction system.

5. A monetary transaction system for conducting monetary transactions between subscribers and other entities, the system comprising one or more of:

an integration tier operable to manage mobile wallet sessions and maintain the integrity of financial transactions, the integration tier also including a communication application programming interface (API) and other communication mechanisms to accept messages from channels;

notification services operable to send notifications through different notification channels including one or more of short message peer-to-peer, short-message services and simple mail transfer protocol emails;

a service connector layer comprised of a plurality of service connector modules operable to connect to third party systems, wherein each service connector module is deployed as a separate module intended to integrate an external service to at least a portion of system architecture;

business process services operable to implement business workflows, including at least one of executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects;

a payment handler service operable to use the APIs of different payment processors including one or more APIs of banks, credit and debit cards processors,

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bill payment processors; the payment handler service using a common API wrapper to facilitate interactions with many different kinds of payment processors;

a security service operable to perform subscriber authentication;

an authorization service operable to perform client authorization using a database-based access control list table;

a database operable to store financial transaction details, store customer profiles, and manage money containers; and

a rules engine operable to gather financial transaction statistics and use the gathered statistics to enforce business constraints including transaction constraints;

a mobile device configured to run a monetary transaction system application;

a monetary transaction system subscriber that has a profile with the monetary transaction system the subscriber profile stored in the database of the monetary transaction system, wherein the subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system;

a monetary transaction system processor that performs the one or more transactions specified by the subscriber, wherein performing the specified transactions includes communicating with the monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile determination made by the rules engine of the monetary transaction system;

at least one entity that is to be involved in the specified transaction, the at least one entity having a profile with the monetary transaction system; and

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wherein the monetary transaction system is implemented to transfer funds using the mobile device configured to run a monetary transaction system application, including performing the following steps:

receiving subscriber communication from the mobile device configured to run the monetary transaction system, the subscriber communication indicating that the subscriber desires to transfer a specified amount of funds to specified recipient using a specified payment method from the subscriber's account;

validating the status of the subscriber's account;

performing at least one of a limit check and a velocity check on the selected payment method, the limit check determining whether sufficient funds are available to make the deposit amount, the velocity check determining whether the subscriber has exceeded a specified number of transactions within a specified time period;

validating the status of the specified recipient to ensure the specified recipient has a valid account;

debiting the subscriber's account by the specified amount of funds;

transferring the specified amount of funds to the specified recipient over at least one of the plurality of channels connected to the monetary transaction system;

notifying the subscriber that the specified amount of funds was transferred to the specified recipient over at least one of the plurality of channels connected to the monetary transaction system.

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6. The monetary transaction system of claim 5, wherein validating the status of the specified recipient comprises performing a check on the specified recipient to comply with the office of foreign assets control.

7. The monetary transaction system of claim 5, wherein the money is transferred internationally between the mobile wallets.

8. The monetary transaction system of claim 1, wherein a secure, perishable code is sent to the subscriber over at least one of the plurality of channels connected to the monetary transaction system.

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ABSTRACT

Embodiments are directed to monetary transaction system for conducting monetary transactions between transaction system subscribers and other entities. In one scenario, the monetary transaction system includes a mobile device that runs a monetary transaction system application. The monetary transaction system also includes a subscriber that has a profile with the system. The subscriber indicates a transaction that is to be performed with the monetary transaction system. The system further includes a monetary transaction system processor that performs the transactions specified by the subscriber including communicating with a monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile. The monetary transaction system also includes at least one entity that is to be involved in the specified transaction, where the entity has a profile with the monetary transaction system. This entity may be a person, a retail store, an agent or other entity.

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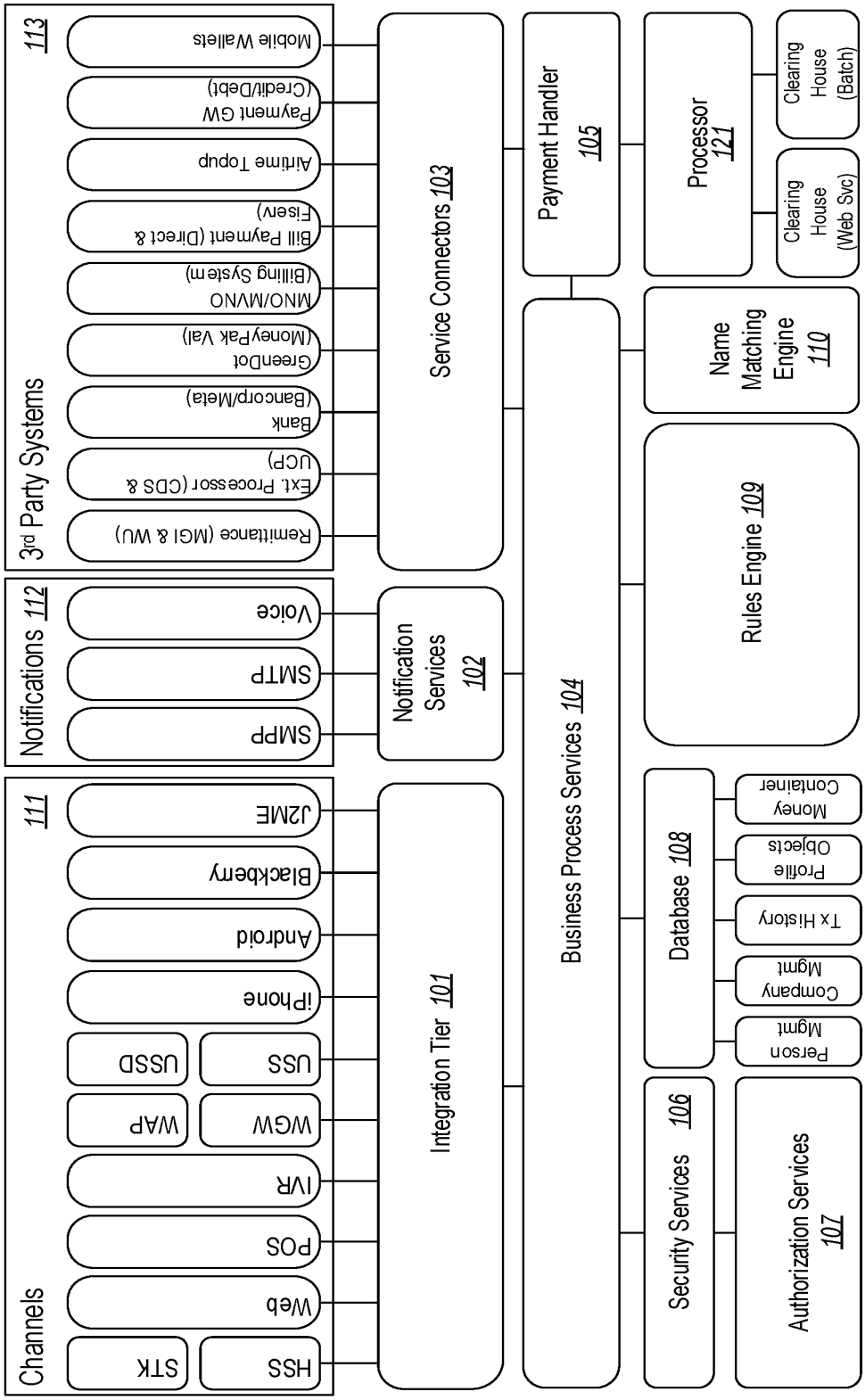

Channels 111
HSS
STK
Web
POS
IVR
WGW
WAP
USS
USSD
iPhone
Android
Blackberry
J2ME
Integration Tier 101
Notifications 112
SMPP
SMTP
Voice
Notification Services 102
3rd Party Systems 113
Remittance (MGI & WU)
Ext. Processor (CDS & UCP)
Bank (Bancorp/Meta)
GreenDot (MoneyPak Val)
MNO/MVNO (Billing System)
Bill Payment (Direct & Fiserv)
Airtime Topup
Payment GW (Credit/Debit)
Mobile Wallets
Service Connectors 103
Business Process Services 104
Payment Handler 105
Security Services 106
Authorization Services 107
Database 108
Person Mgmt
Company Mgmt
Tx History
Profile Objects
Money Container
Rules Engine 109
Name Matching Engine 110
Processor 121
Clearing House (Web Svc)
Clearing House (Batch)

Figure 1

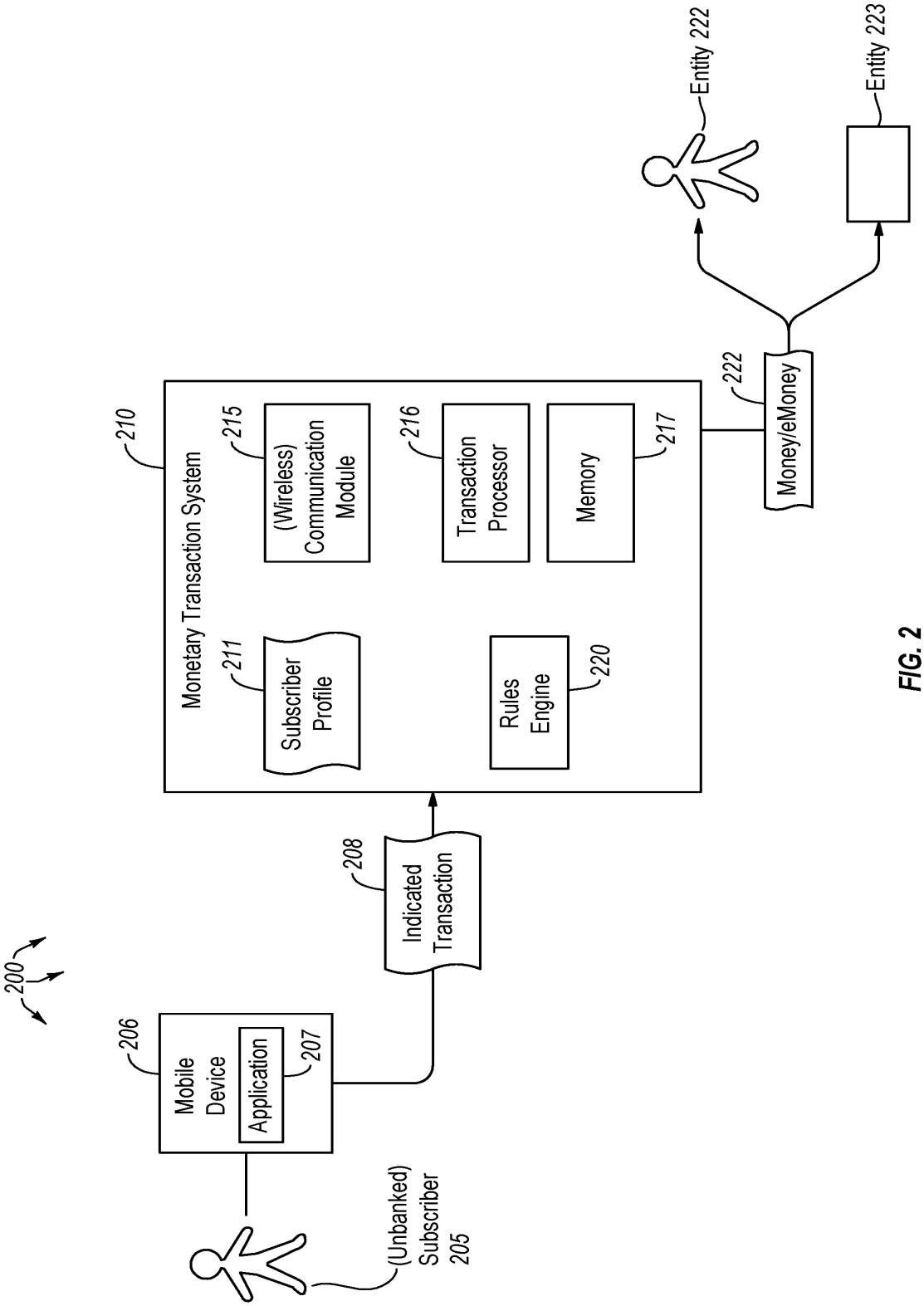
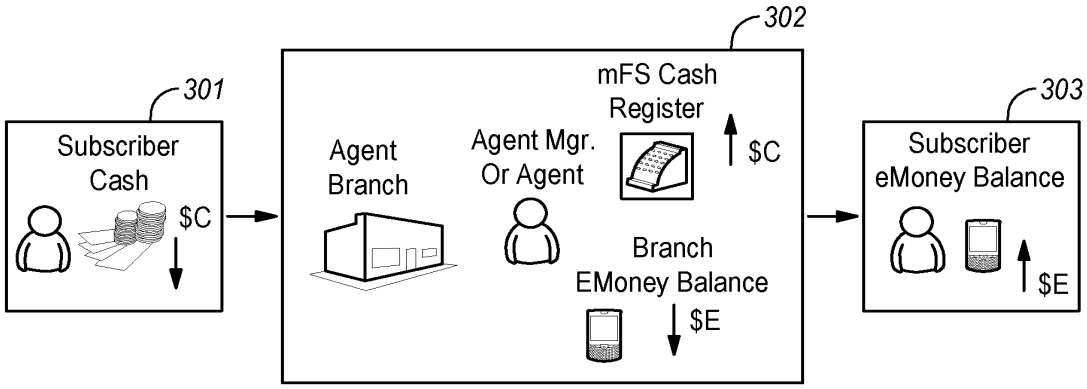

200
206
Mobile Device
Application
207
(Unbanked) Subscriber 205
208
Indicated Transaction
210
Monetary Transaction System
211
Subscriber Profile
215
(Wireless) Communication Module
216
Transaction Processor
217
Memory
220
Rules Engine
222
Money/eMoney
Entity 222
Entity 223

FIG. 2



Subscriber Deposit

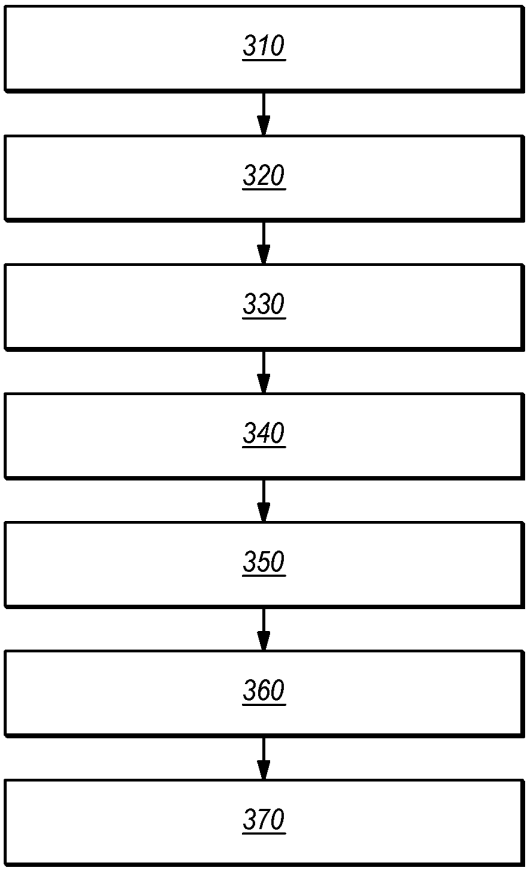
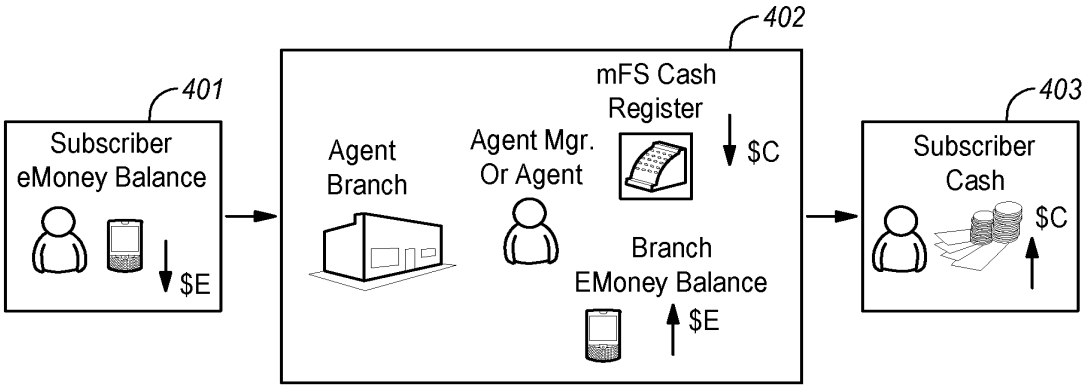


FIG. 3



Subscriber Withdrawal

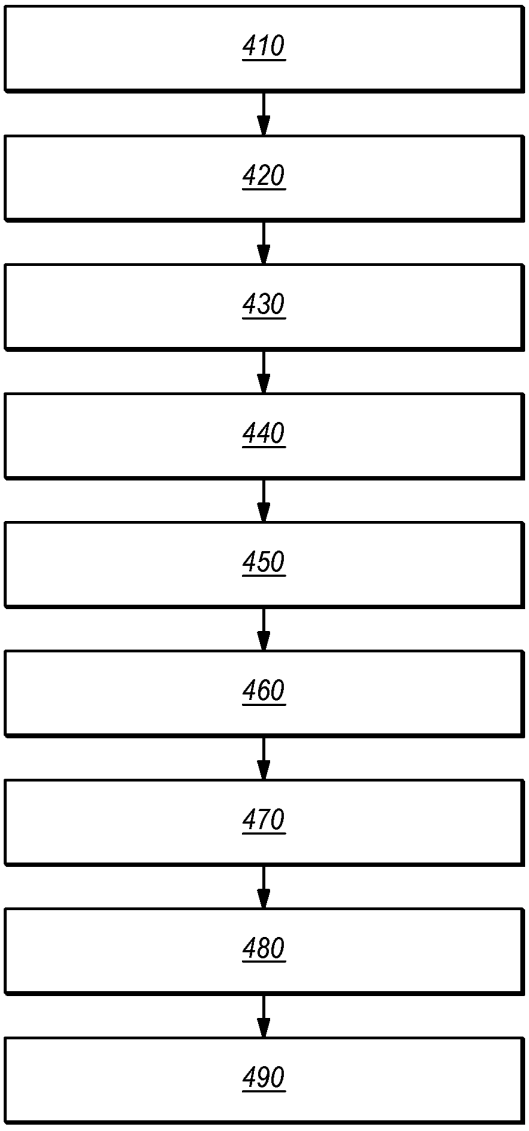
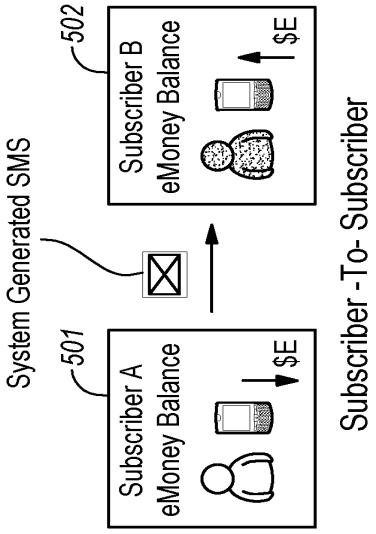
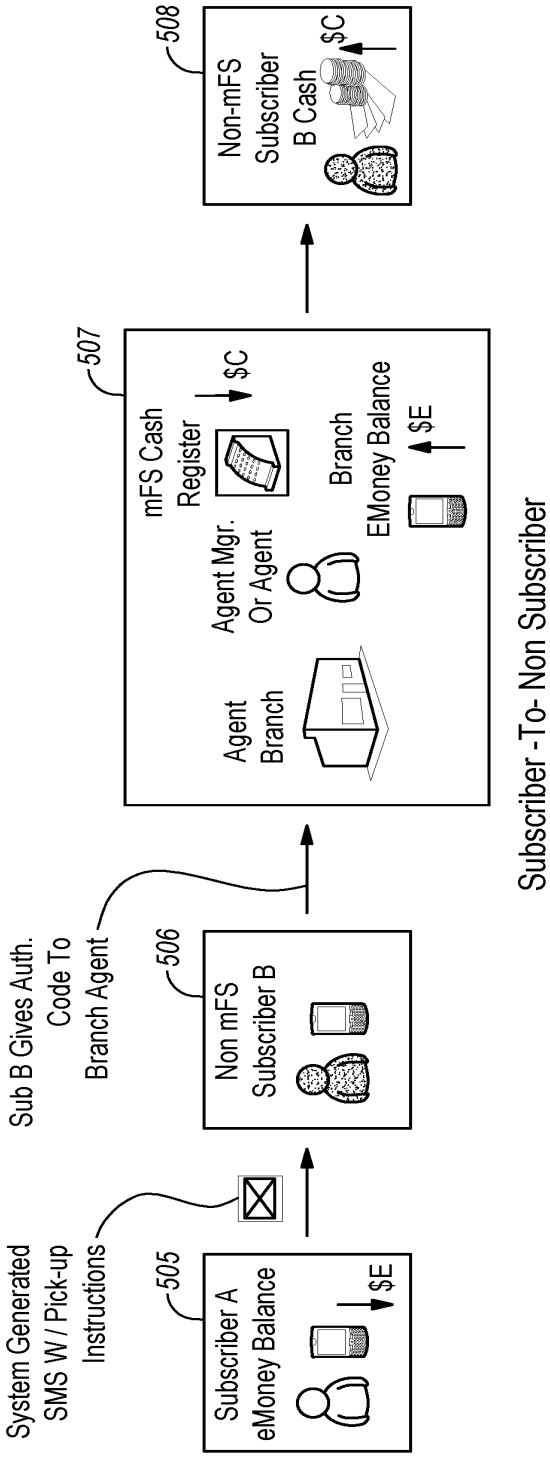


FIG. 4



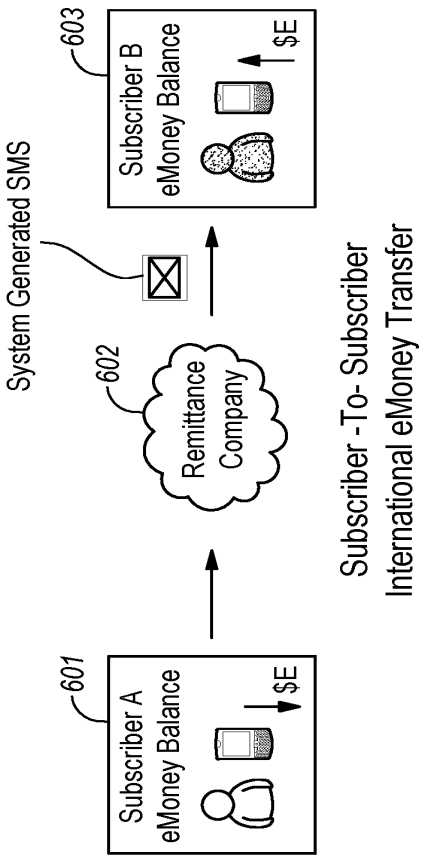
Subscriber -To- Subscriber
eMoney Transfer

FIG. 5A



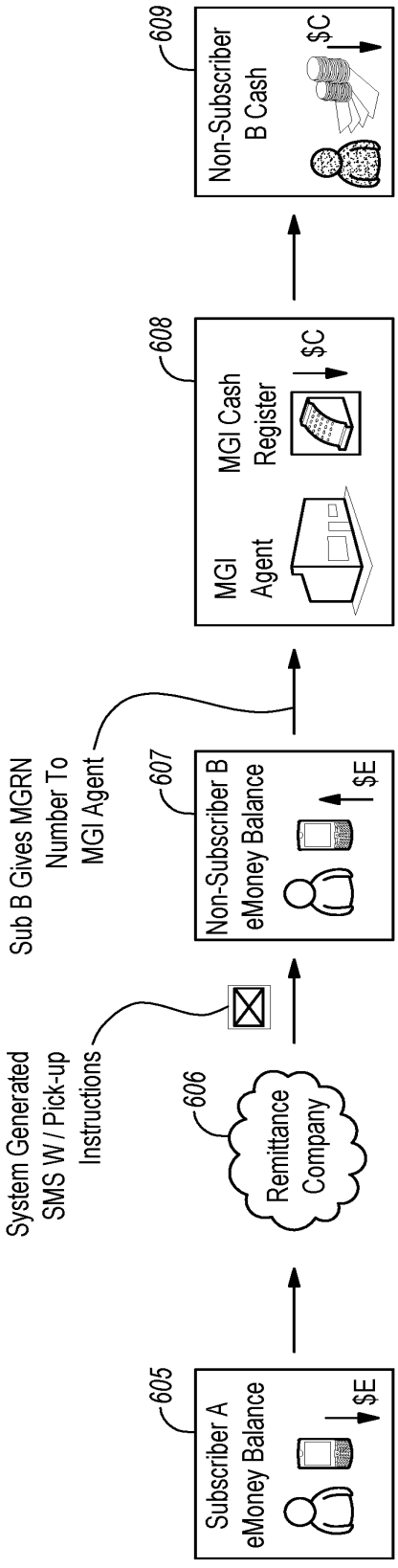
Subscriber -To- Non Subscriber
eMoney Transfer

FIG. 5B



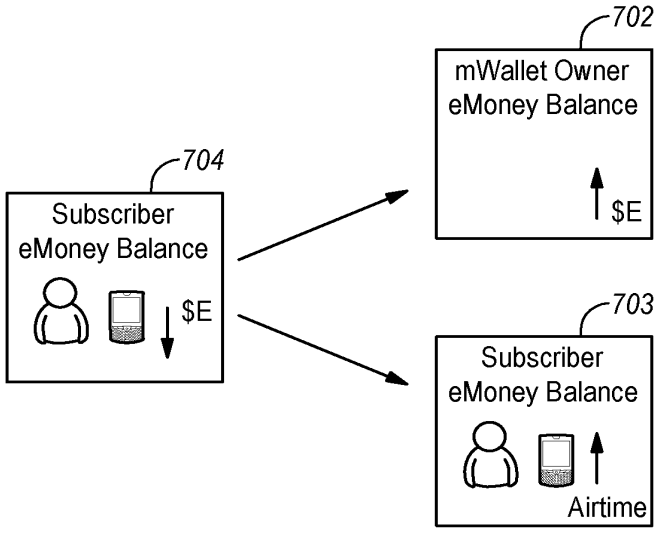
Subscriber -To- Subscriber
International eMoney Transfer

FIG. 6A



Subscriber -To- Non Subscriber
International eMoney Transfer

FIG. 6B



Subscriber Buys Airtime

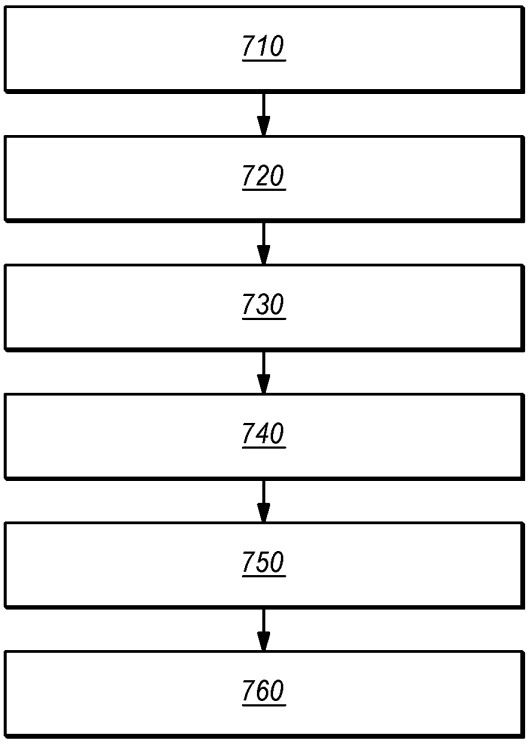
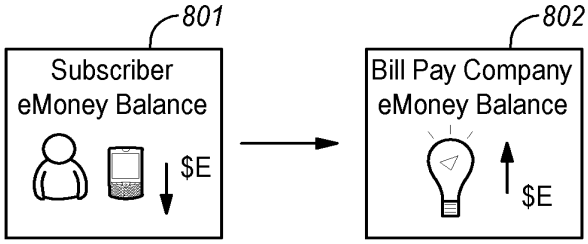


FIG. 7



Subscriber Pays Bill

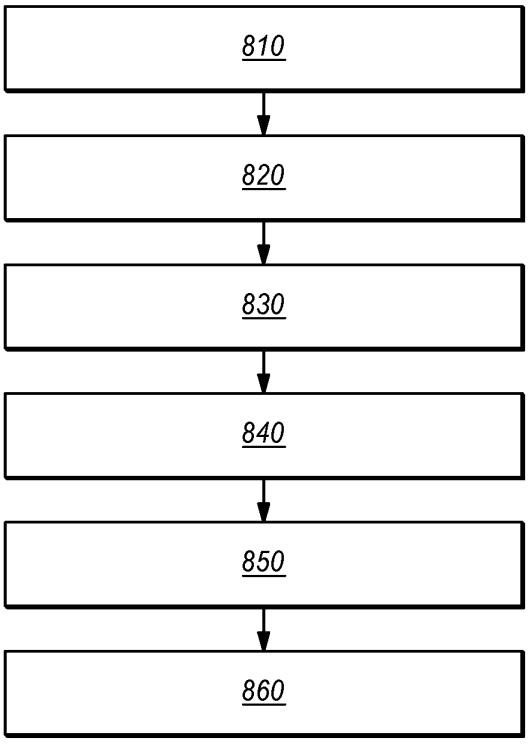
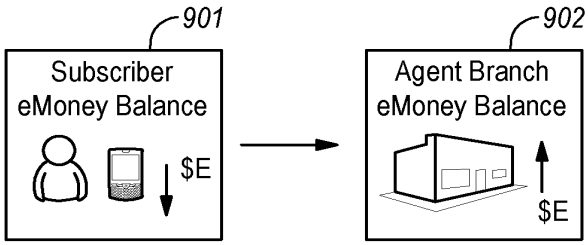


FIG. 8



Subscriber Makes Retail Purchase

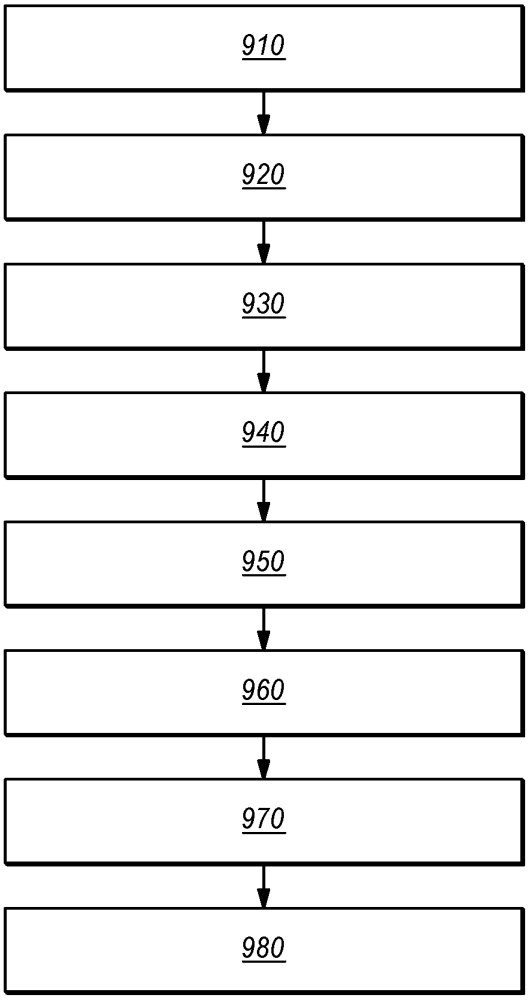
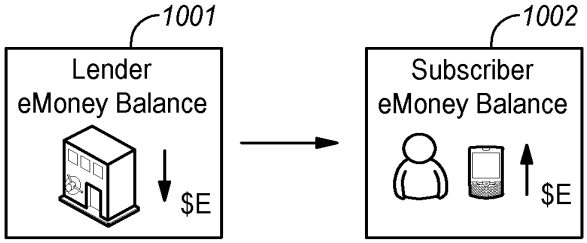
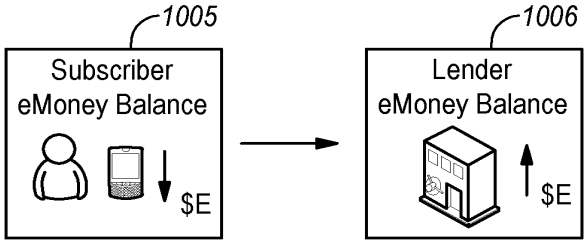


FIG. 9



Subscriber Requests Micro-Loan

FIG. 10A



Subscriber Repays Micro-Loan

FIG. 10B

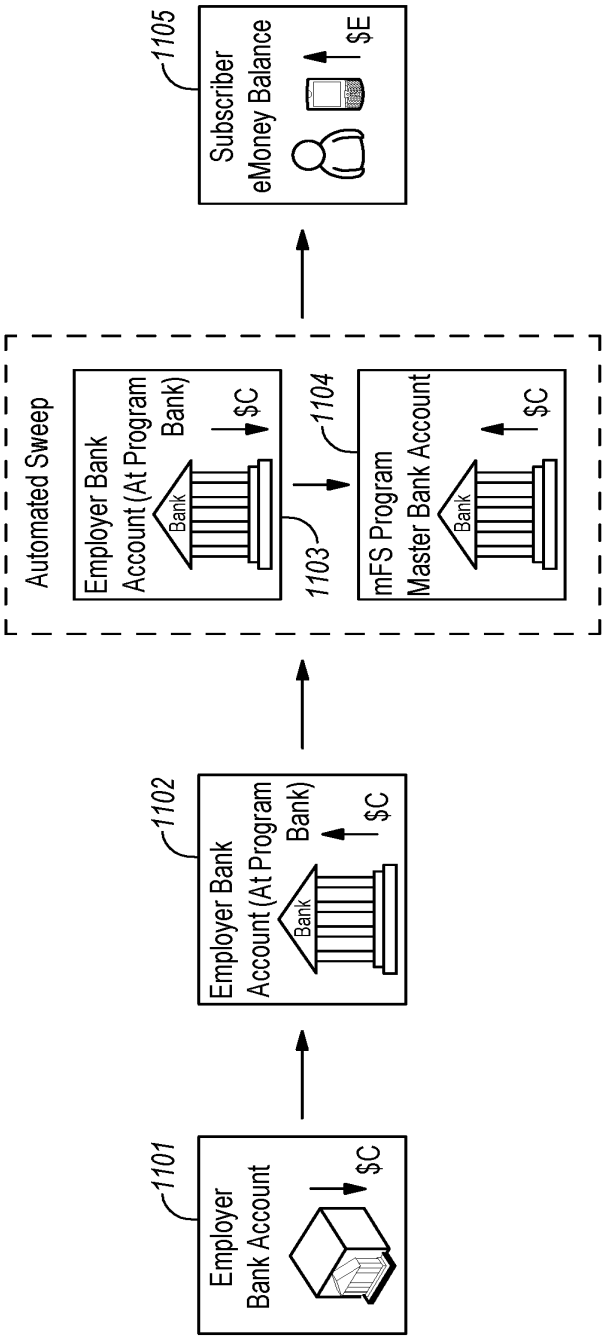
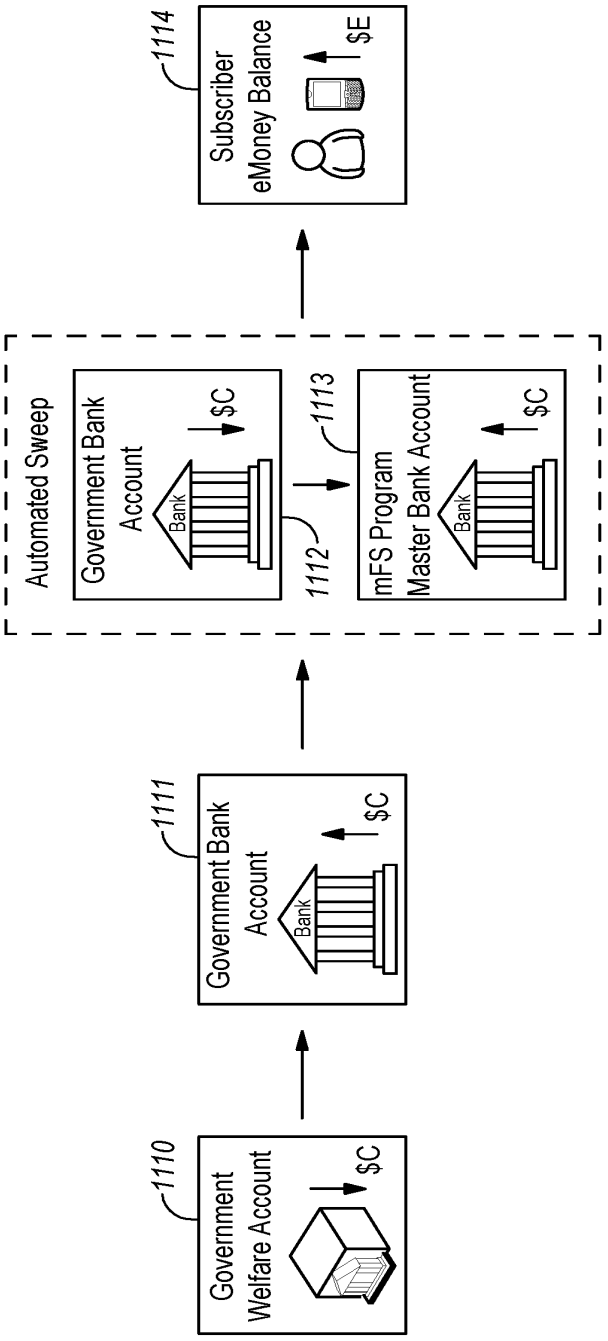

1101
Employer Bank Account
$C
1102
Employer Bank Account (At Program Bank)
Bank
$C
Automated Sweep
Employer Bank Account (At Program Bank)
Bank
$C
1103
1104
mFS Program Master Bank Account
Bank
$C
1105
Subscriber eMoney Balance
$E
Subscriber Receives Direct Deposit

FIG. 11A



Subscriber Receives Government Welfare Payment

FIG. 11B

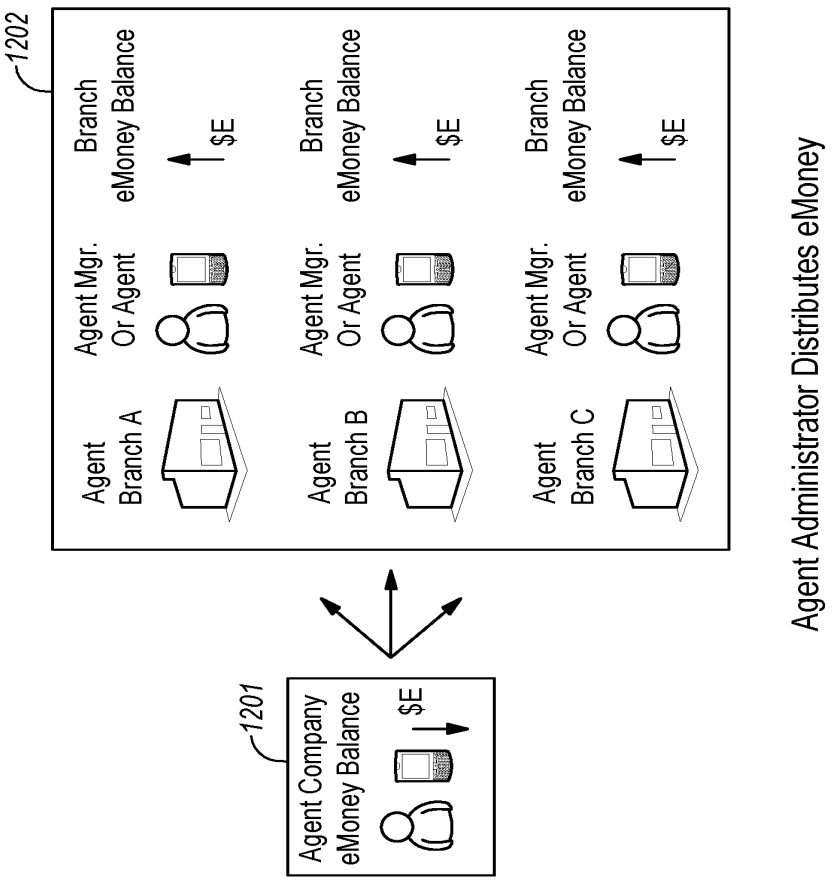

1202
Agent Branch A
Agent Mgr. Or Agent
Branch eMoney Balance
$E
Agent Branch B
Agent Mgr. Or Agent
Branch eMoney Balance
$E
Agent Branch C
Agent Mgr. Or Agent
Branch eMoney Balance
$E
1201
Agent Company eMoney Balance
$E
Agent Administrator Distributes eMoney

FIG. 12A

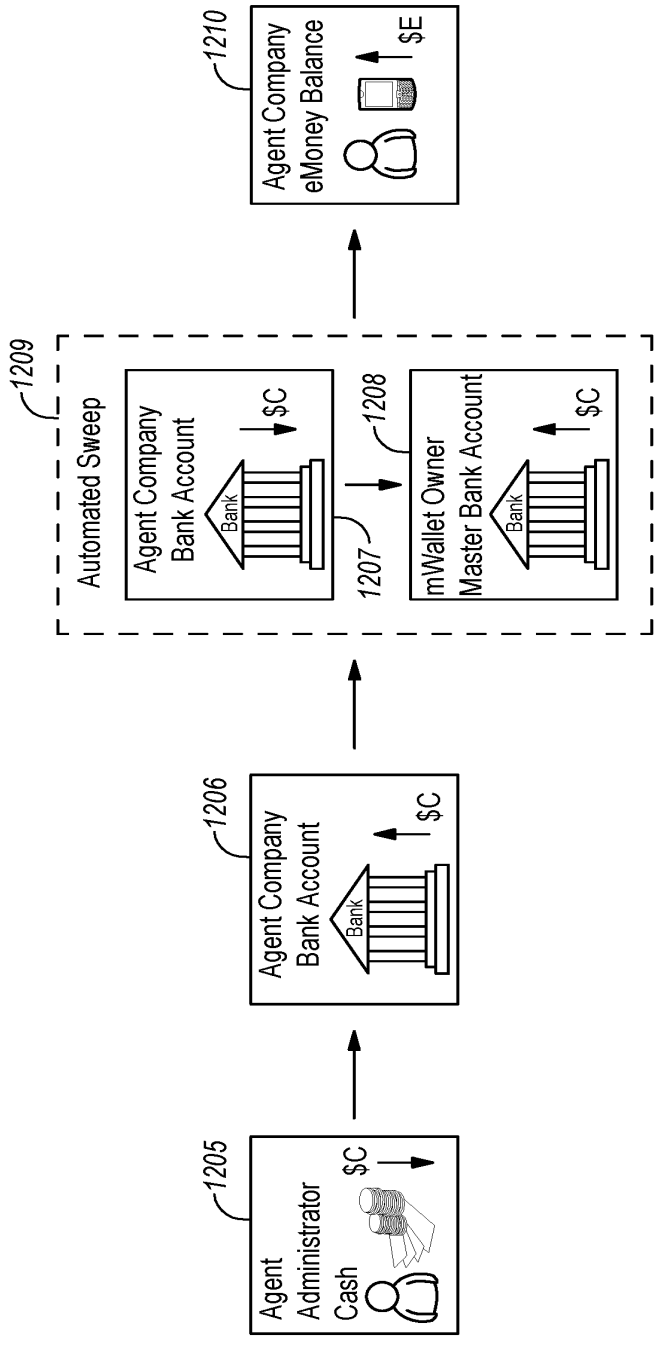

1205
Agent Administrator Cash
$C
1206
Agent Company Bank Account
Bank
$C
1209
Automated Sweep
Agent Company Bank Account
Bank
$C
1207
1208
mWallet Owner Master Bank Account
Bank
$C
1210
Agent Company eMoney Balance
$E
Agent Company Deposit

FIG. 12B

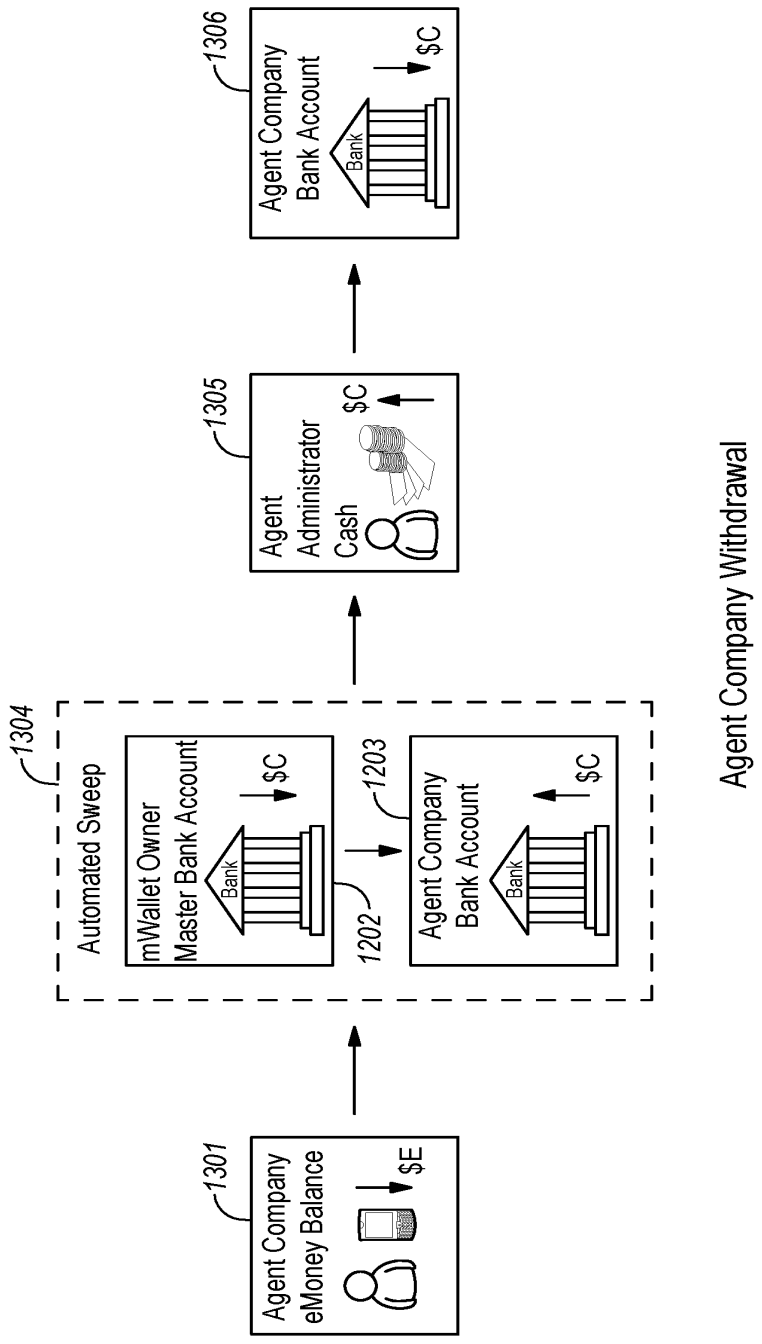
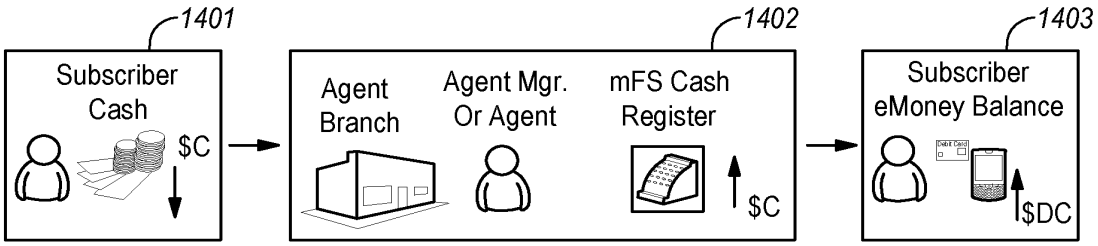

1306
Agent Company
Bank Account
$C
Bank
1305
Agent
Administrator
Cash
$C
1304
Automated Sweep
mWallet Owner
Master Bank Account
$C
Bank
1202
1203
Agent Company
Bank Account
$C
Bank
1301
Agent Company
eMoney Balance
$E
Agent Company Withdrawal

FIG. 13



Subscriber Deposit At Agent Branch

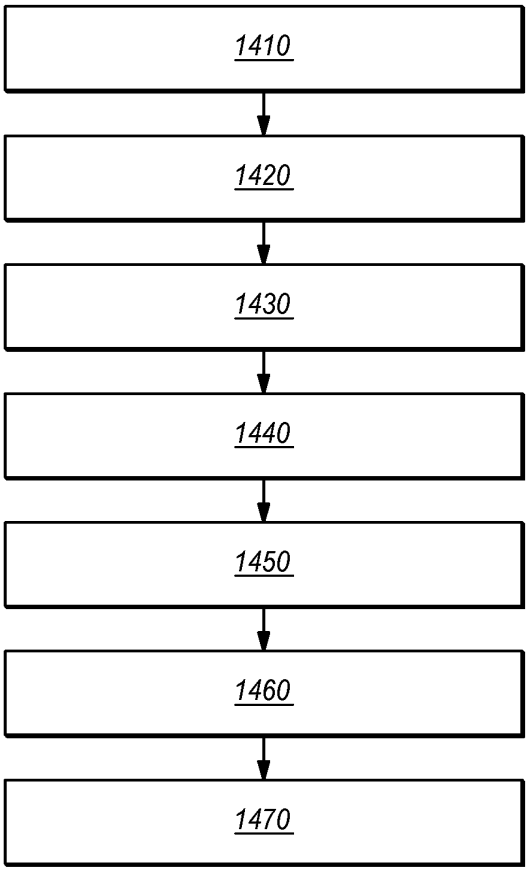


FIG. 14

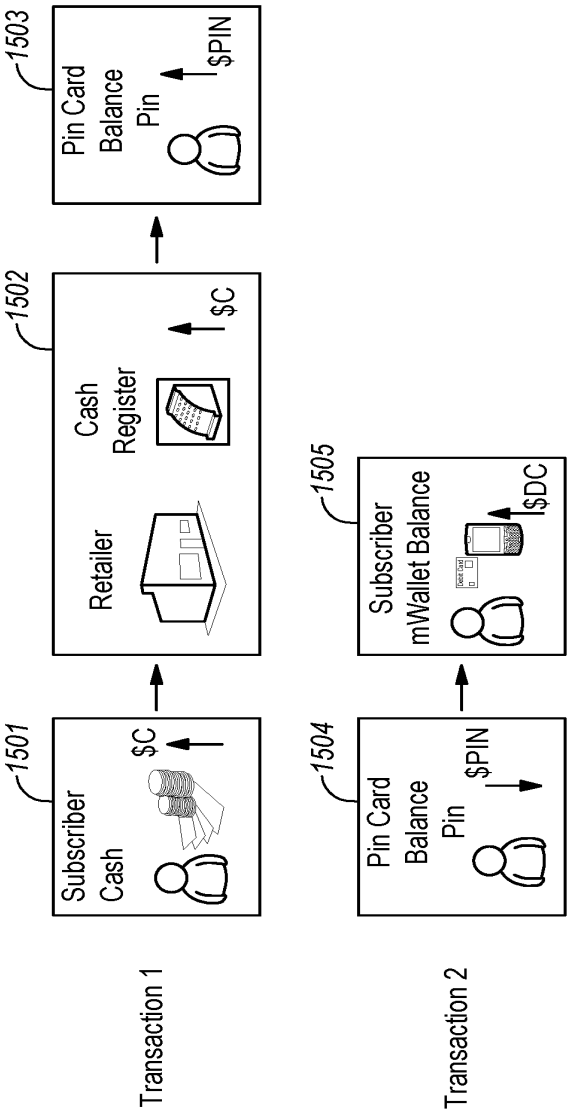
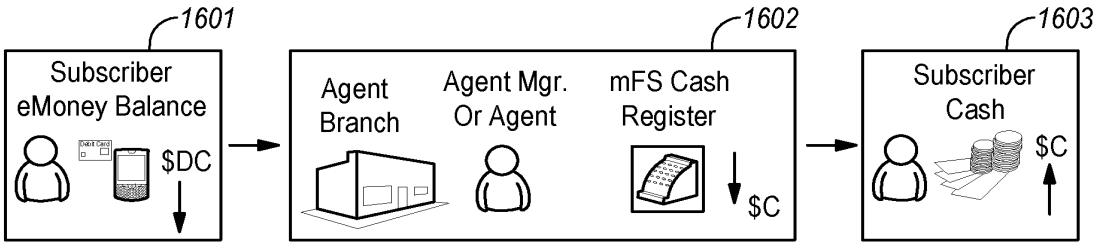

1501
Subscriber Cash
$C
1502
Retailer
Cash Register
$C
1503
Pin Card Balance Pin
$PIN
1504
Pin Card Balance Pin
$PIN
1505
Subscriber mWallet Balance
$DC
Transaction 1
Transaction 2
Subscriber Deposit (Non-Agent)

FIG. 15



Subscriber Withdrawal (Agent)

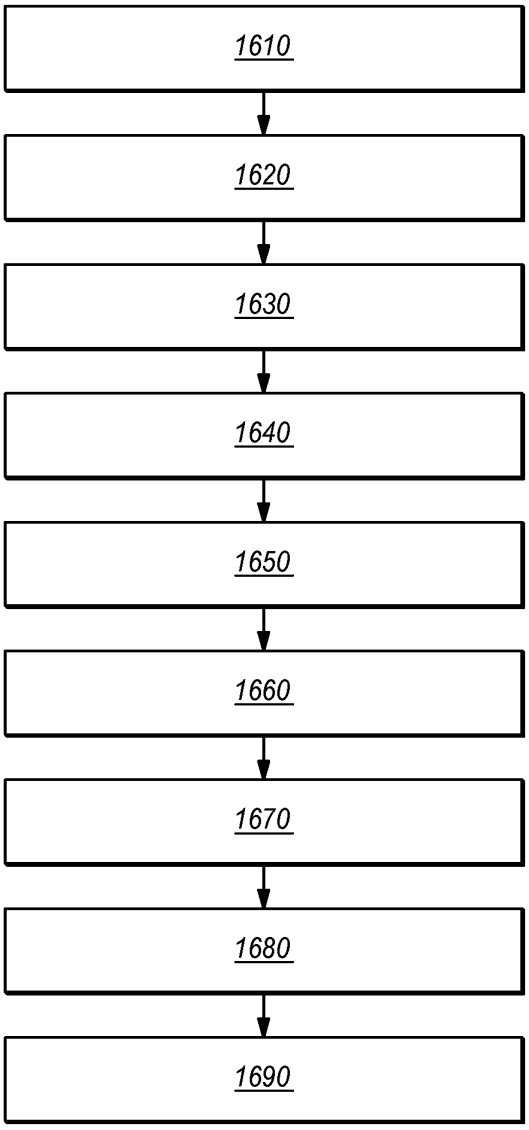
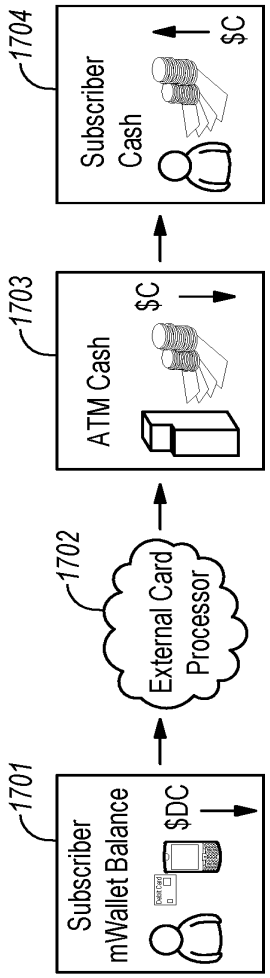
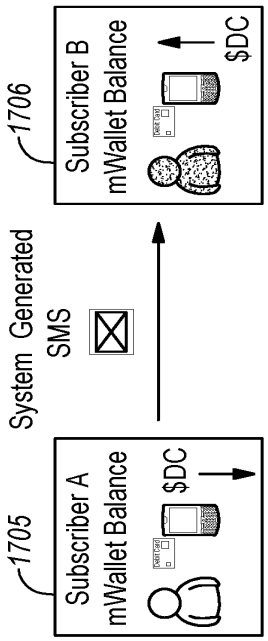


FIG. 16



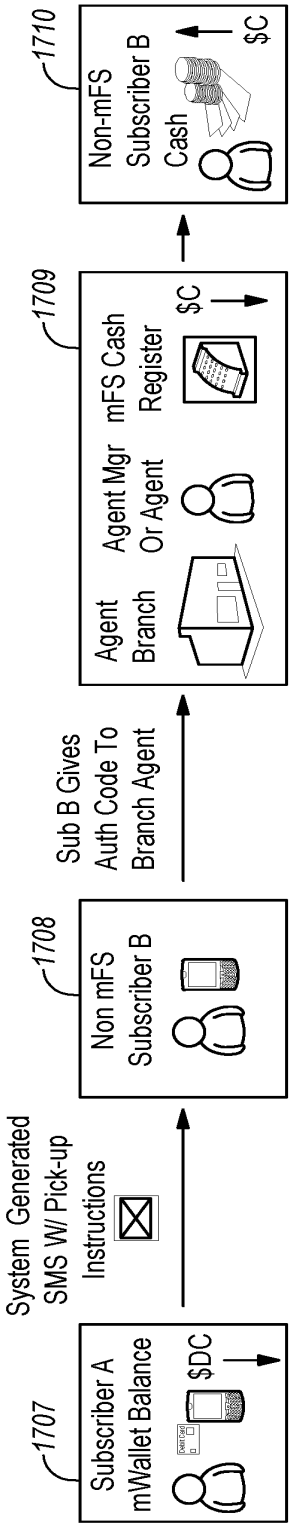
Subscriber Withdrawal (ATM)

FIG. 17A



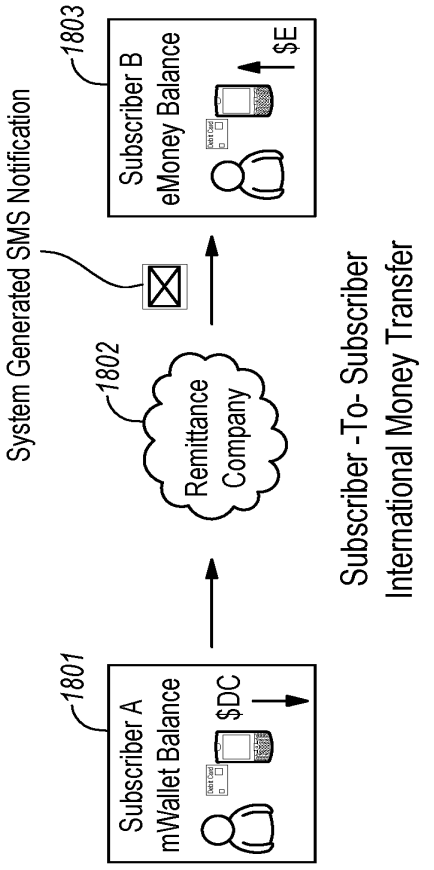
Subscriber To Subscriber Money Transfer

FIG. 17B



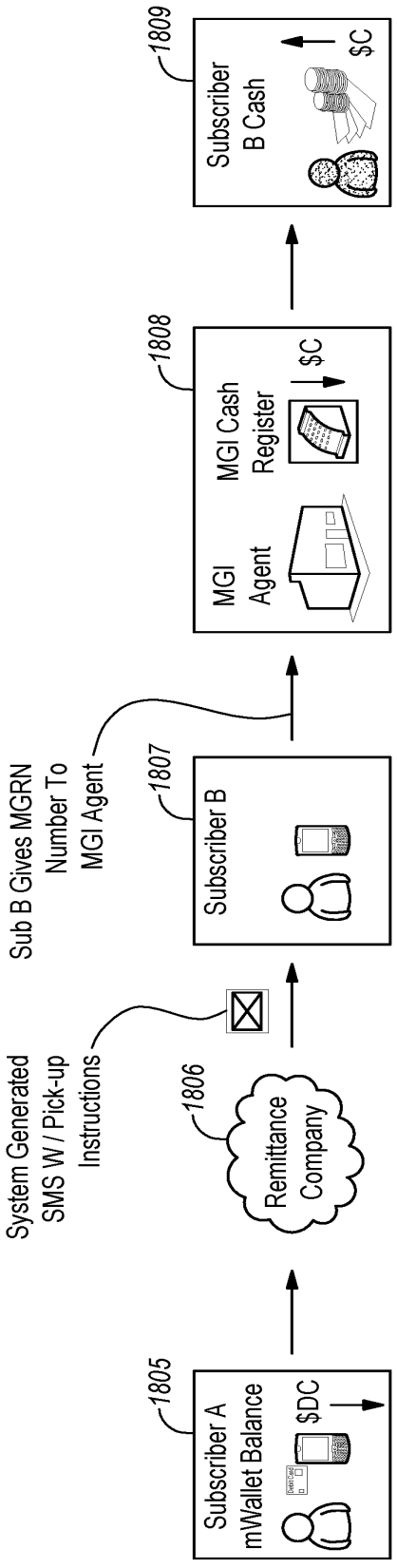
Subscriber To Non-Subscriber Money Transfer

FIG. 17C



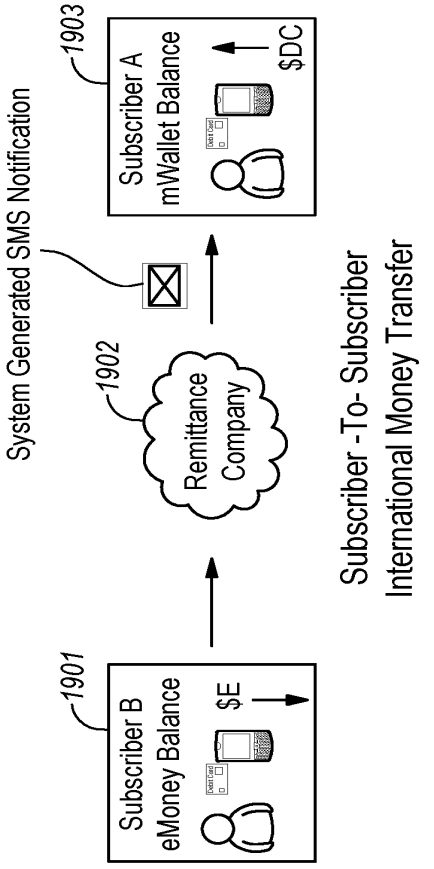
Subscriber -To- Subscriber
International Money Transfer

FIG. 18A



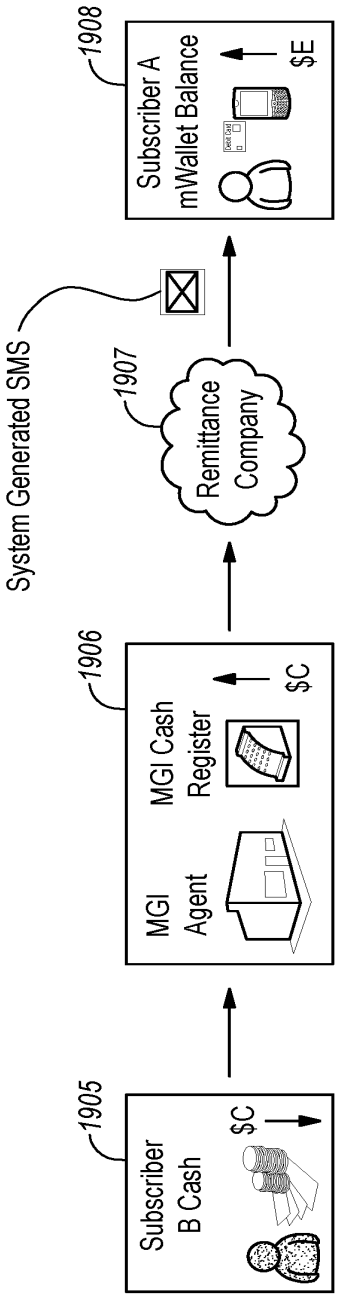
Subscriber -To- Non Subscriber
International Money Transfer

FIG. 18B



Subscriber -To- Subscriber
International Money Transfer

FIG. 19A



Non-Subscriber -To- Subscriber
International Money Transfer

FIG. 19B

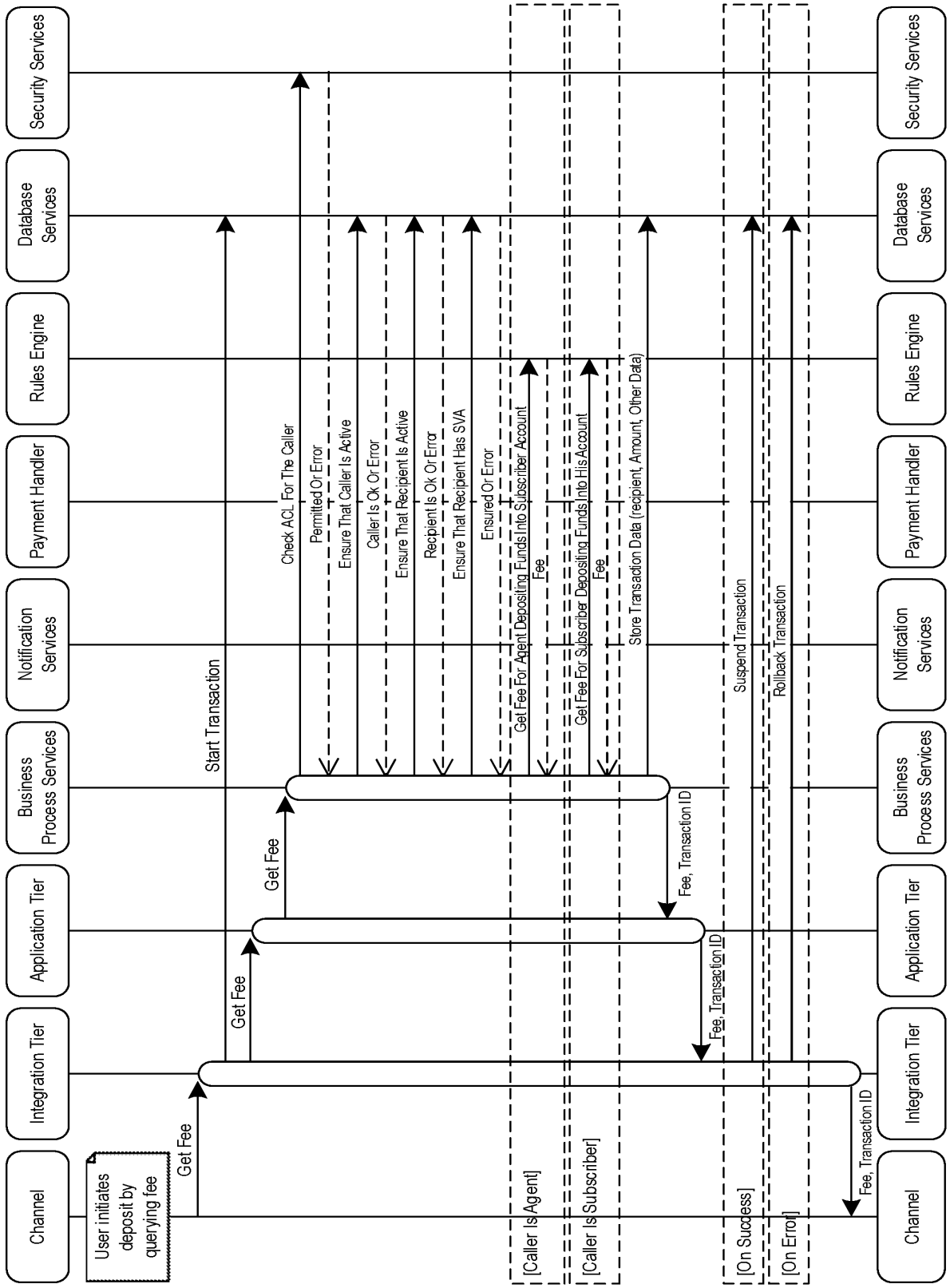

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
User initiates deposit by querying fee
Get Fee
Start Transaction
Check ACL For The Caller
Permitted Or Error
Ensure That Caller Is Active
Caller Is Ok Or Error
Ensure That Recipient Is Active
Recipient Is Ok Or Error
Ensure That Recipient Has SVA
Ensured Or Error
[Caller Is Agent]
Get Fee For Agent Depositing Funds Into Subscriber Account
Fee
[Caller Is Subscriber]
Get Fee For Subscriber Depositing Funds Into His Account
Fee
Store Transaction Data (recipient, Amount, Other Data)
Fee, Transaction ID
Fee, Transaction ID
Fee, Transaction ID
[On Success]
Suspend Transaction
[On Error]
Rollback Transaction

Figure 20A

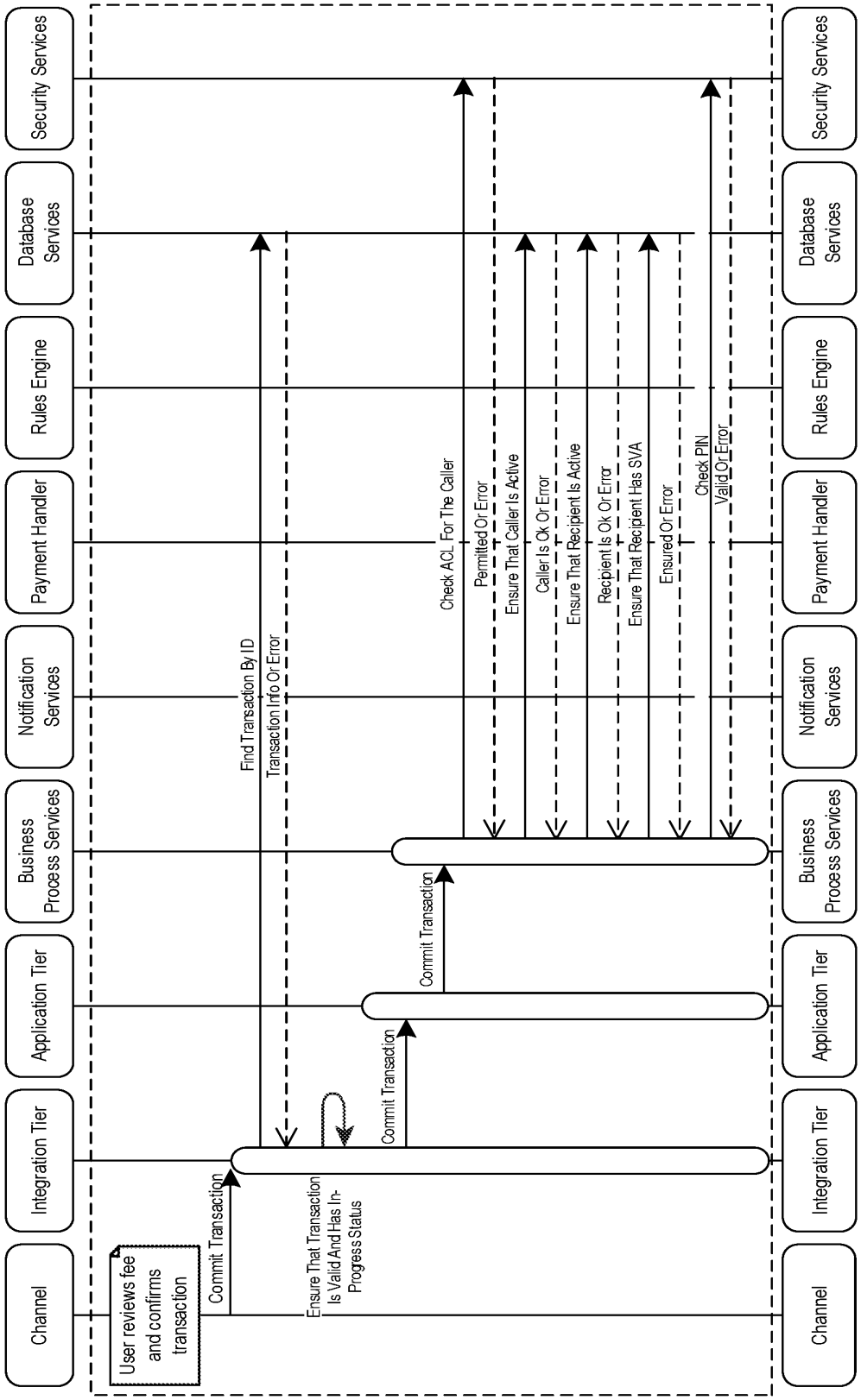

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
User reviews fee and confirms transaction
Commit Transaction
Ensure That Transaction Is Valid And Has In-Progress Status
Commit Transaction
Commit Transaction
Find Transaction By ID
Transaction Info Or Error
Check ACL For The Caller
Permitted Or Error
Ensure That Caller Is Active
Caller Is Ok Or Error
Ensure That Recipient Is Active
Recipient Is Ok Or Error
Ensure That Recipient Has SVA
Ensured Or Error
Check PIN
Valid Or Error

Figure 20B

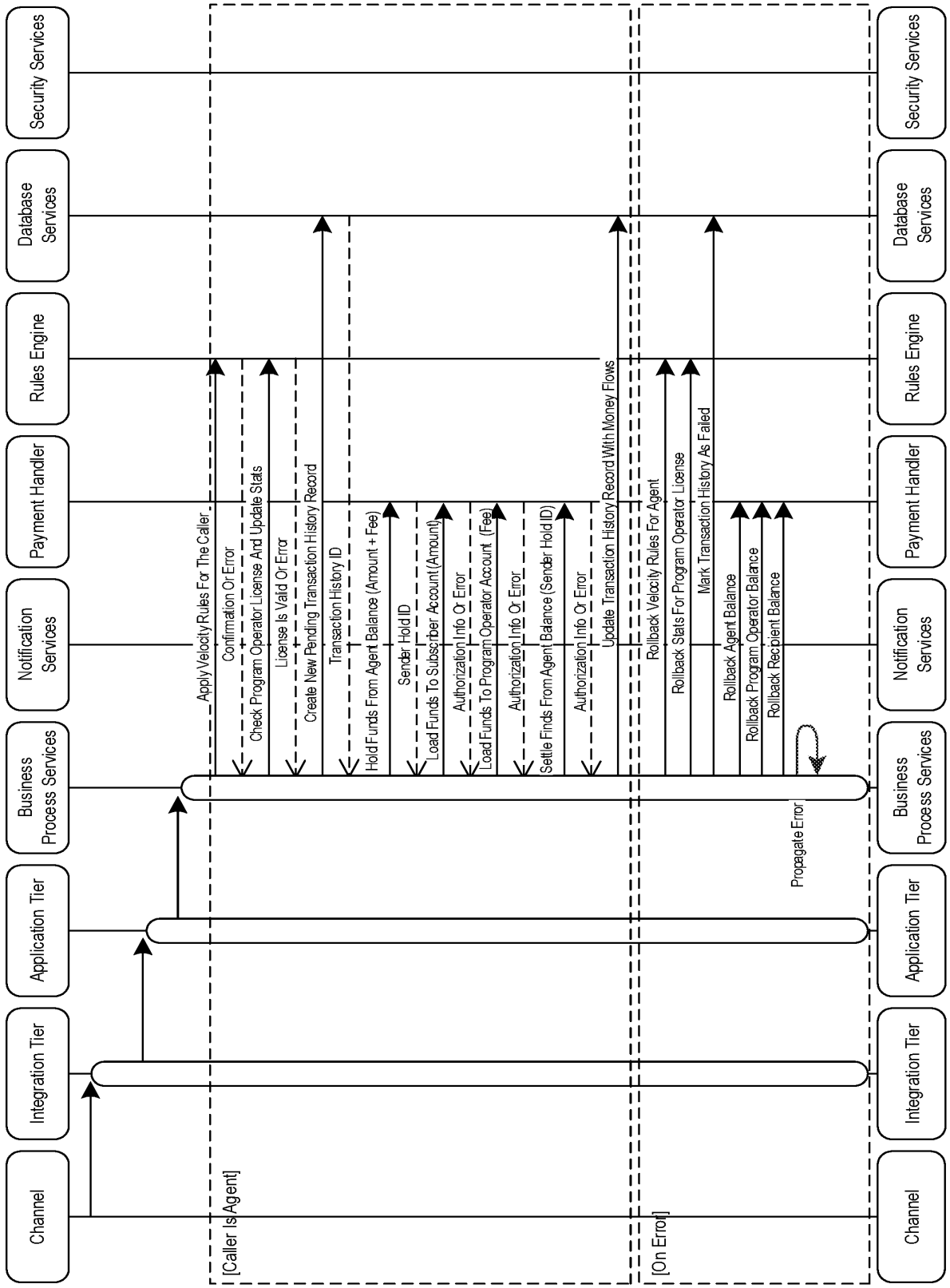

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
[Caller Is Agent]
Apply Velocity Rules For The Caller
Confirmation Or Error
Check Program Operator License And Update Stats
License Is Valid Or Error
Create New Pending Transaction History Record
Transaction History ID
Hold Funds From Agent Balance (Amount + Fee)
Sender Hold ID
Load Funds To Subscriber Account (Amount)
Authorization Info Or Error
Load Funds To Program Operator Account (Fee)
Authorization Info Or Error
Settle Finds From Agent Balance (Sender Hold ID)
Authorization Info Or Error
Update Transaction History Record With Money Flows
[On Error]
Rollback Velocity Rules For Agent
Rollback Stats For Program Operator License
Mark Transaction History As Failed
Rollback Agent Balance
Rollback Program Operator Balance
Rollback Recipient Balance
Propagate Error

Figure 20C

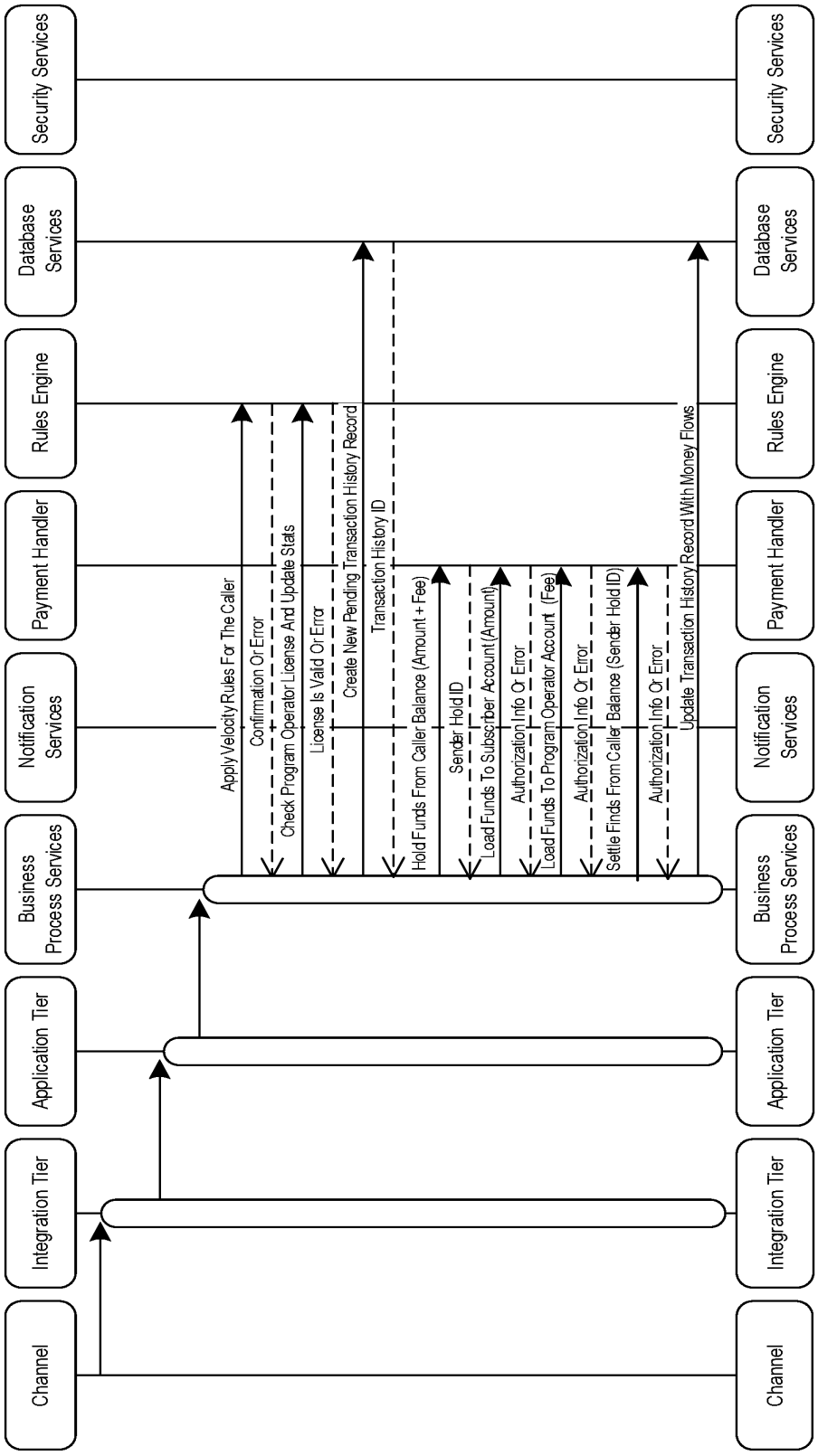

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
Apply Velocity Rules For The Caller
Confirmation Or Error
Check Program Operator License And Update Stats
License Is Valid Or Error
Create New Pending Transaction History Record
Transaction History ID
Hold Funds From Caller Balance (Amount + Fee)
Sender Hold ID
Load Funds To Subscriber Account (Amount)
Authorization Info Or Error
Load Funds To Program Operator Account (Fee)
Authorization Info Or Error
Settle Finds From Caller Balance (Sender Hold ID)
Authorization Info Or Error
Update Transaction History Record With Money Flows

Figure 20D

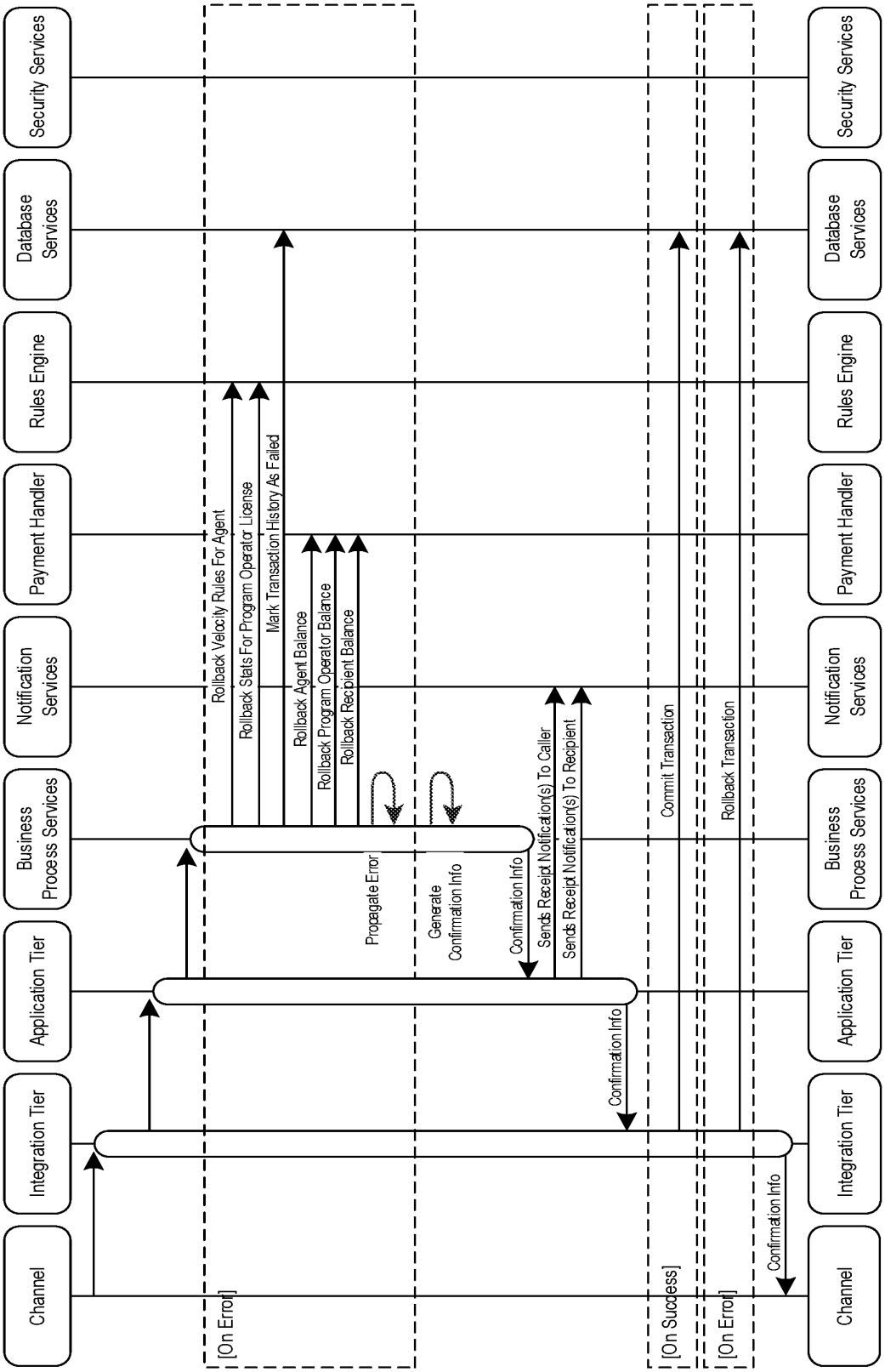

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
[On Error]
Rollback Velocity Rules For Agent
Rollback Stats For Program Operator License
Mark Transaction History As Failed
Rollback Agent Balance
Rollback Program Operator Balance
Rollback Recipient Balance
Propagate Error
Generate Confirmation Info
Confirmation Info
Sends Receipt Notification(s) To Caller
Sends Receipt Notification(s) To Recipient
Confirmation Info
[On Success]
Commit Transaction
[On Error]
Rollback Transaction
Confirmation Info

Figure 20E

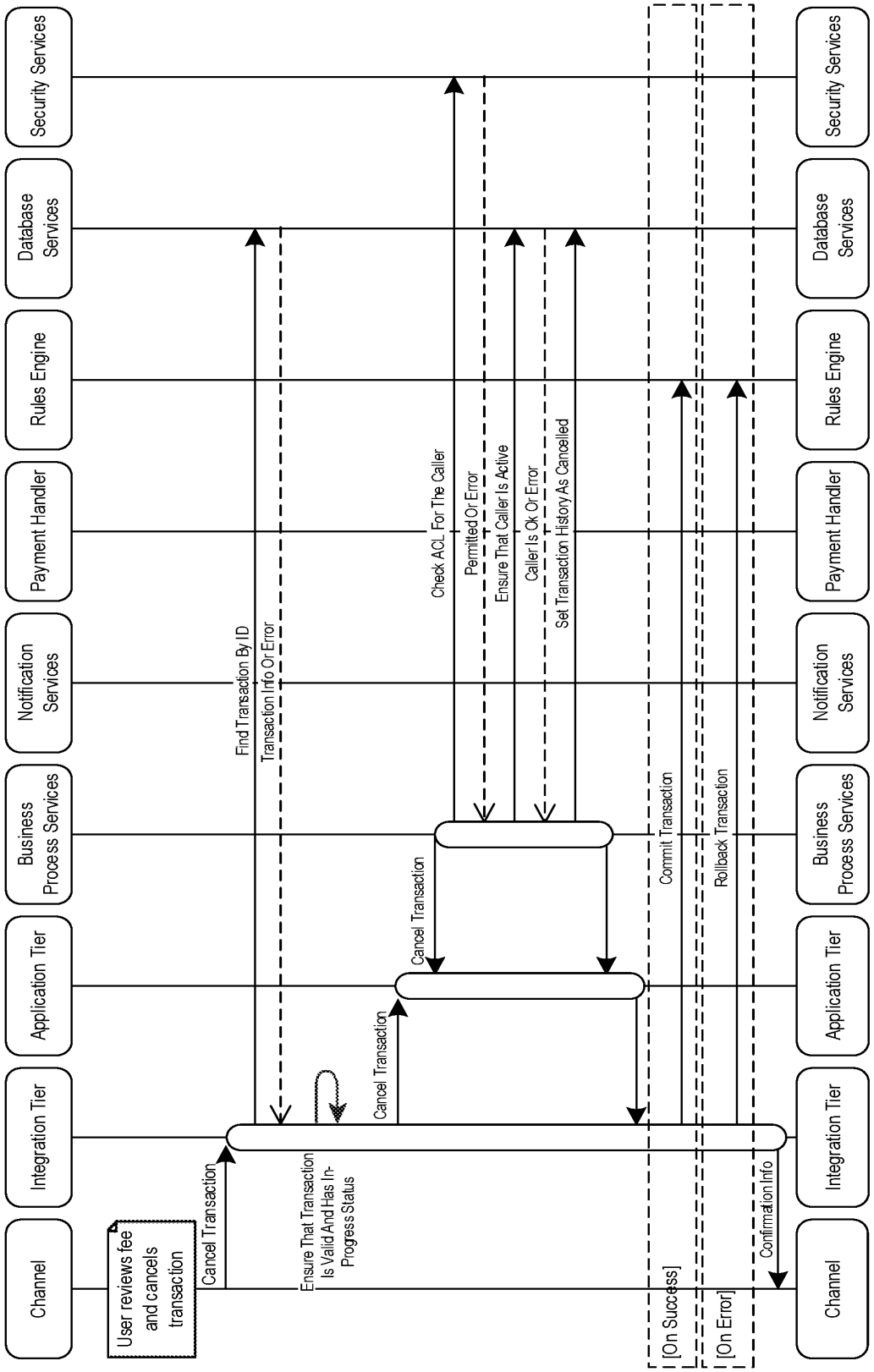

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
User reviews fee and cancels transaction
Cancel Transaction
Ensure That Transaction Is Valid And Has In-Progress Status
Find Transaction By ID
Transaction Info Or Error
Cancel Transaction
Cancel Transaction
Check ACL For The Caller
Permitted Or Error
Ensure That Caller Is Active
Caller Is Ok Or Error
Set Transaction History As Cancelled
Commit Transaction
Rollback Transaction
[On Success]
[On Error]
Confirmation Info

Figure 20F

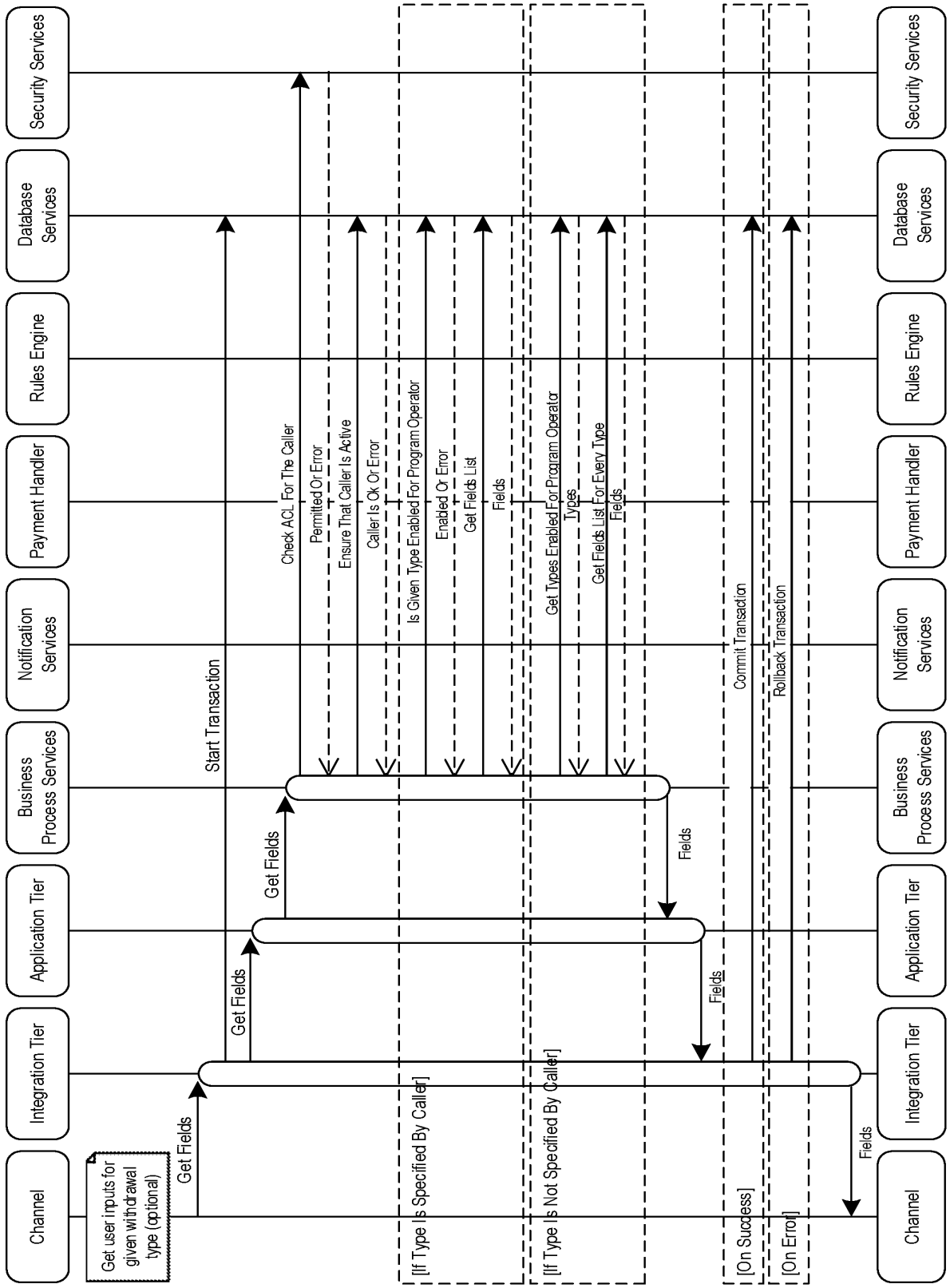

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
Get user inputs for given withdrawal type (optional)
Get Fields
Start Transaction
Check ACL For The Caller
Permitted Or Error
Ensure That Caller Is Active
Caller Is Ok Or Error
[If Type Is Specified By Caller]
Is Given Type Enabled For Program Operator
Enabled Or Error
Get Fields List
Fields
[If Type Is Not Specified By Caller]
Get Types Enabled For Program Operator
Types
Get Fields List For Every Type
Fields
Commit Transaction
[On Success]
Rollback Transaction
[On Error]

Figure 21A

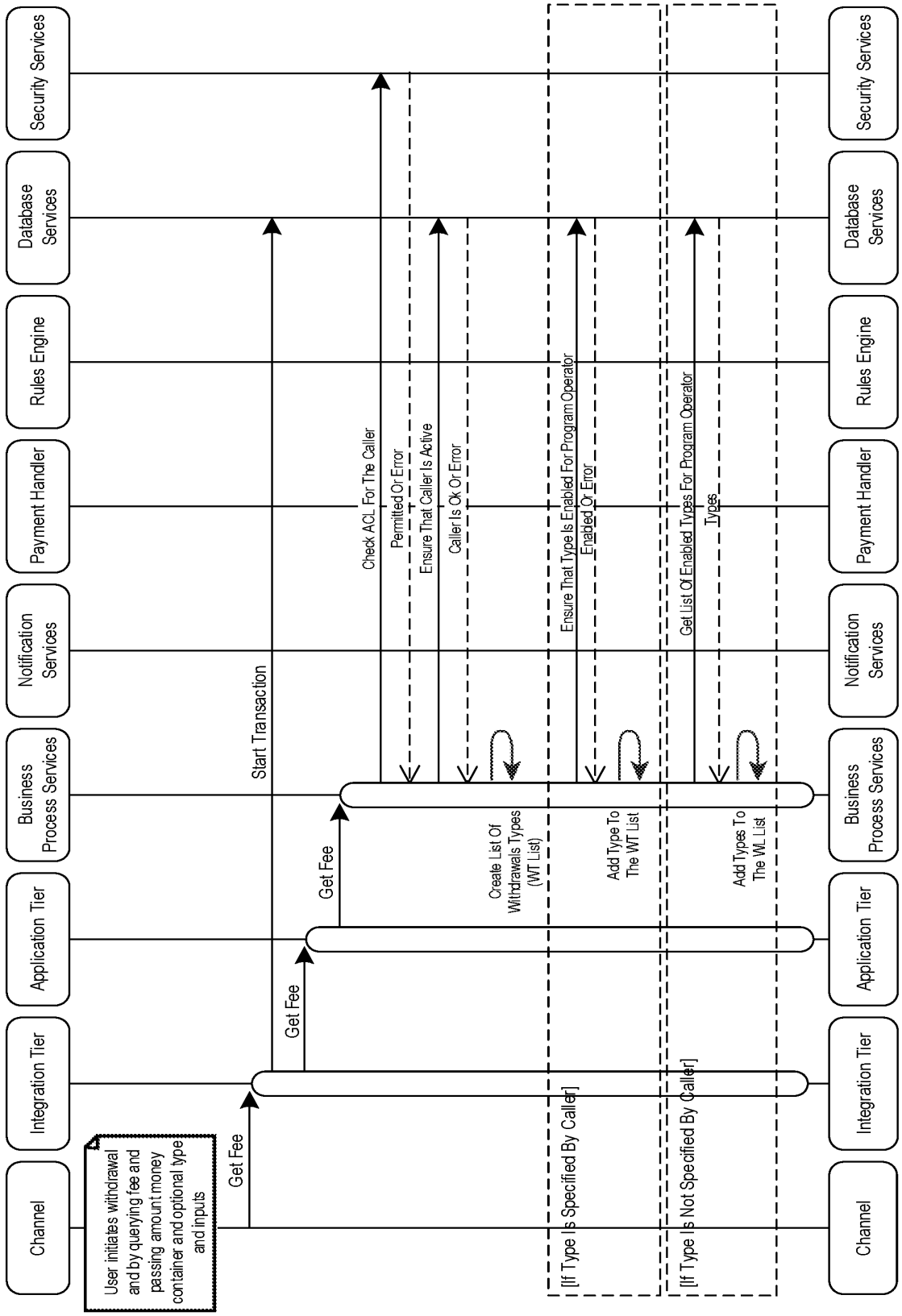

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
User initiates withdrawal and by querying fee and passing amount money container and optional type and inputs
Get Fee
Get Fee
Get Fee
Start Transaction
Check ACL For The Caller
Permitted Or Error
Ensure That Caller Is Active
Caller Is Ok Or Error
Create List Of Withdrawals Types (WT List)
[If Type Is Specified By Caller]
Ensure That Type Is Enabled For Program Operator
Enabled Or Error
Add Type To The WT List
[If Type Is Not Specified By Caller]
Get List Of Enabled Types For Program Operator
Types
Add Types To The WL List

Figure 21B

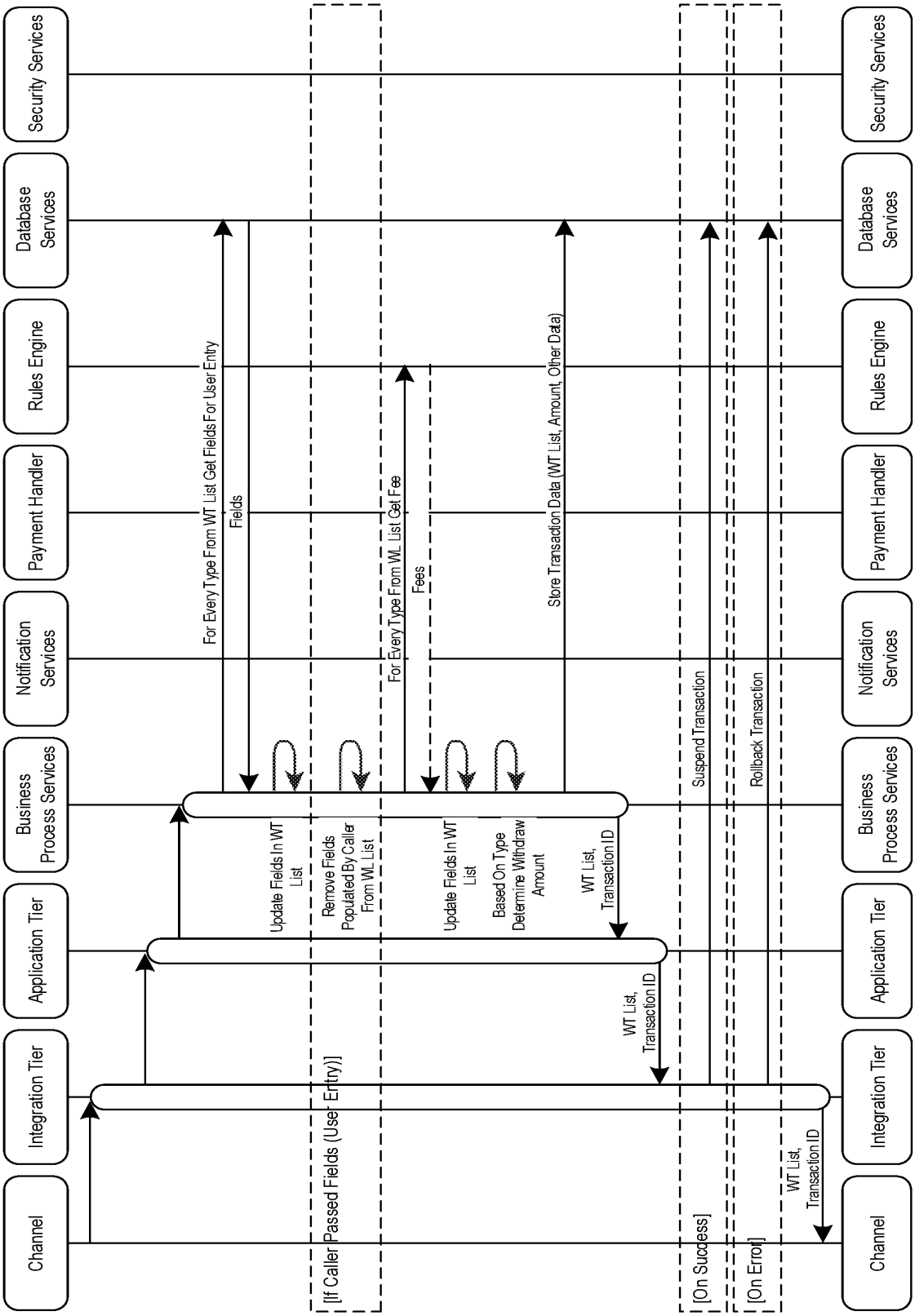

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
For Every Type From WT List Get Fields For User Entry
Fields
For Every Type From WL List Get Fee
Fees
Store Transaction Data (WT List, Amount, Other Data)
Update Fields In WT List
Remove Fields Populated By Caller From WL List
Update Fields In WT List
Based On Type Determine Withdraw Amount
WT List, Transaction ID
WT List, Transaction ID
Suspend Transaction
Rollback Transaction
WT List, Transaction ID
[If Caller Passed Fields (User Entry)]
[On Success]
[On Error]

Figure 21C

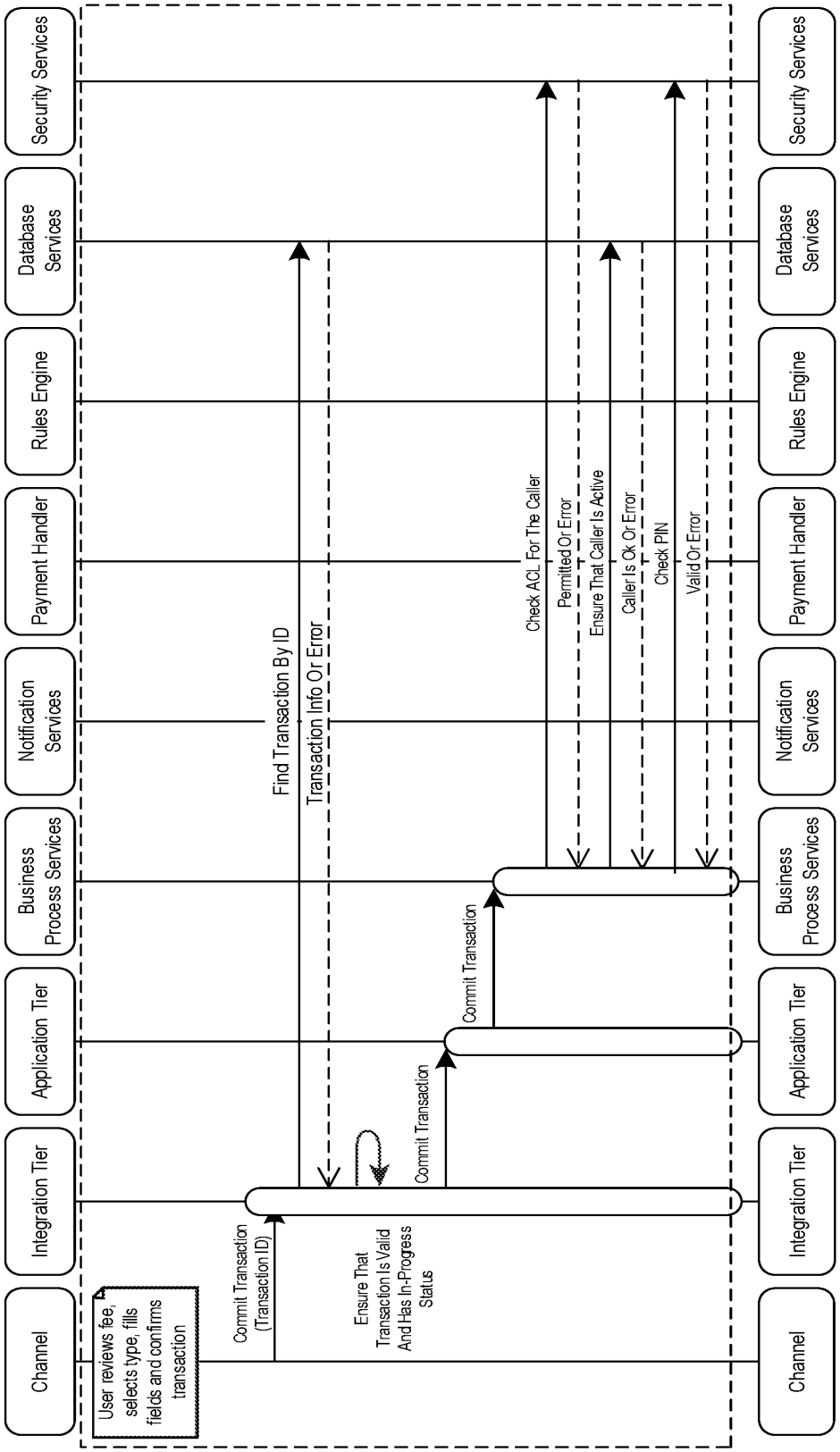

Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
User reviews fee, selects type, fills fields and confirms transaction
Commit Transaction (Transaction ID)
Find Transaction By ID
Transaction Info Or Error
Ensure That Transaction Is Valid And Has In-Progress Status
Commit Transaction
Commit Transaction
Check ACL For The Caller
Permitted Or Error
Ensure That Caller Is Active
Caller Is Ok Or Error
Check PIN
Valid Or Error

Figure 21D

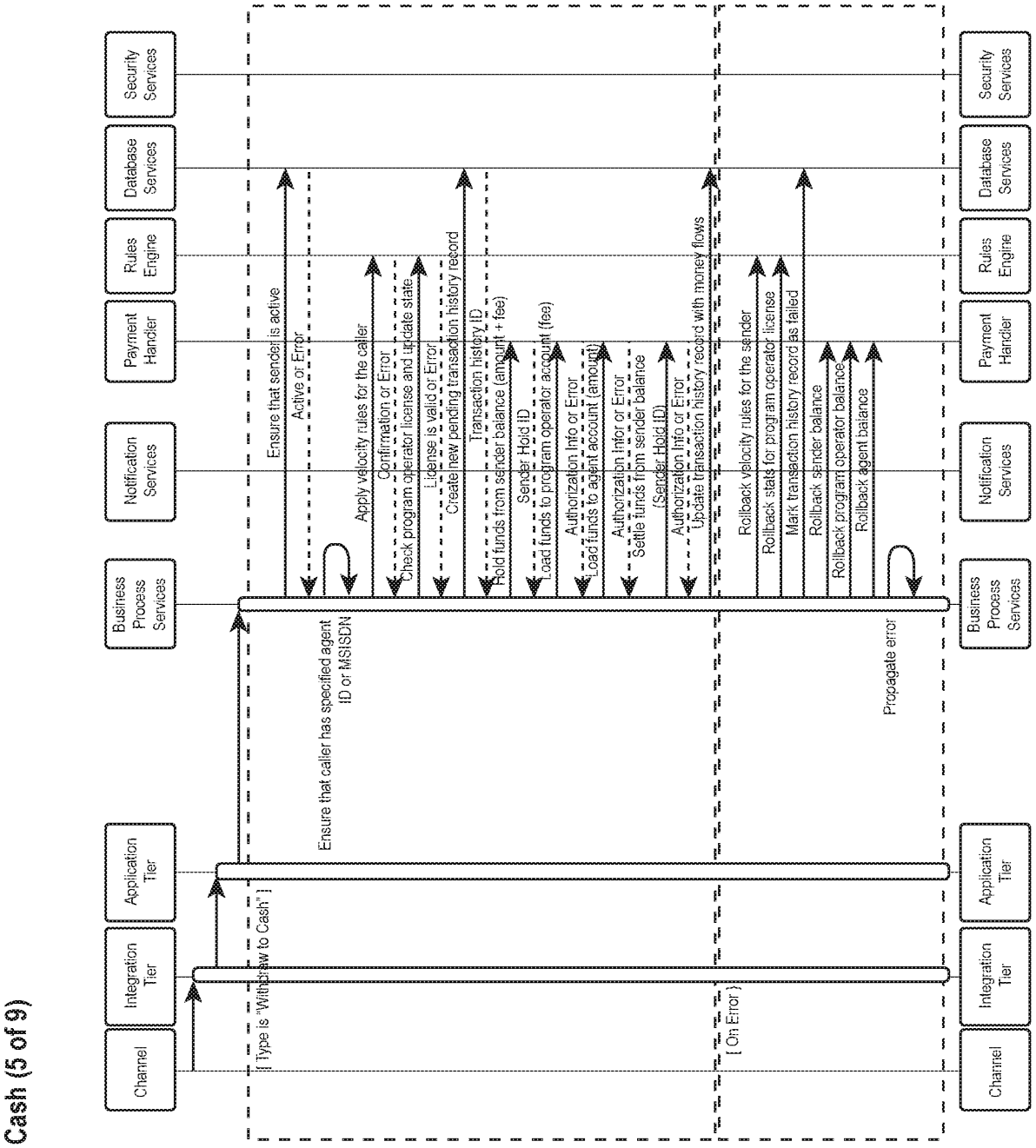

Withdraw Cash (5 of 9)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
[Type is "Withdraw to Cash"]
Ensure that caller has specified agent ID or MSISDN
Ensure that sender is active
Active or Error
Apply velocity rules for the caller
Confirmation or Error
Check program operator license and update state
License is valid or Error
Create new pending transaction history record
Transaction history ID
Hold funds from sender balance (amount + fee)
Sender Hold ID
Load funds to program operator account (fee)
Authorization Info or Error
Load funds to agent account (amount)
Authorization Infor or Error
Settle funds from sender balance
(Sender Hold ID)
Authorization Info or Error
Update transaction history record with money flows
[On Error]
Rollback velocity rules for the sender
Rollback stats for program operator license
Mark transaction history record as failed
Rollback sender balance
Rollback program operator balance
Rollback agent balance
Propagate error

Figure 21E

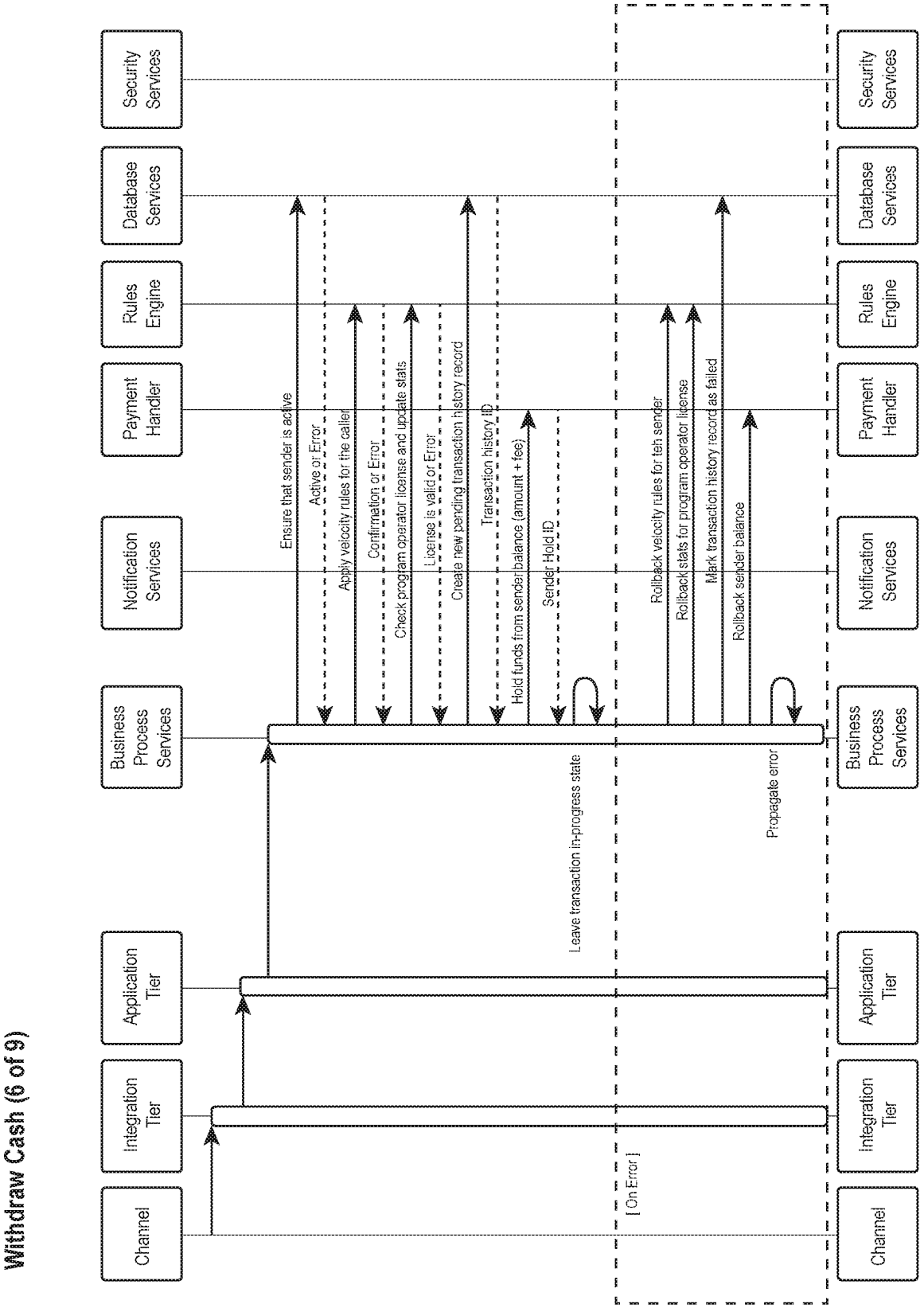

Withdraw Cash (6 of 9)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
Ensure that sender is active
Active or Error
Apply velocity rules for the caller
Confirmation or Error
Check program operator license and update stats
License is valid or Error
Create new pending transaction history record
Transaction history ID
Hold funds from sender balance (amount + fee)
Sender Hold ID
Leave transaction in-progress state
[On Error]
Rollback velocity rules for teh sender
Rollback stats for program operator license
Mark transaction history record as failed
Rollback sender balance
Propagate error

Figure 21F

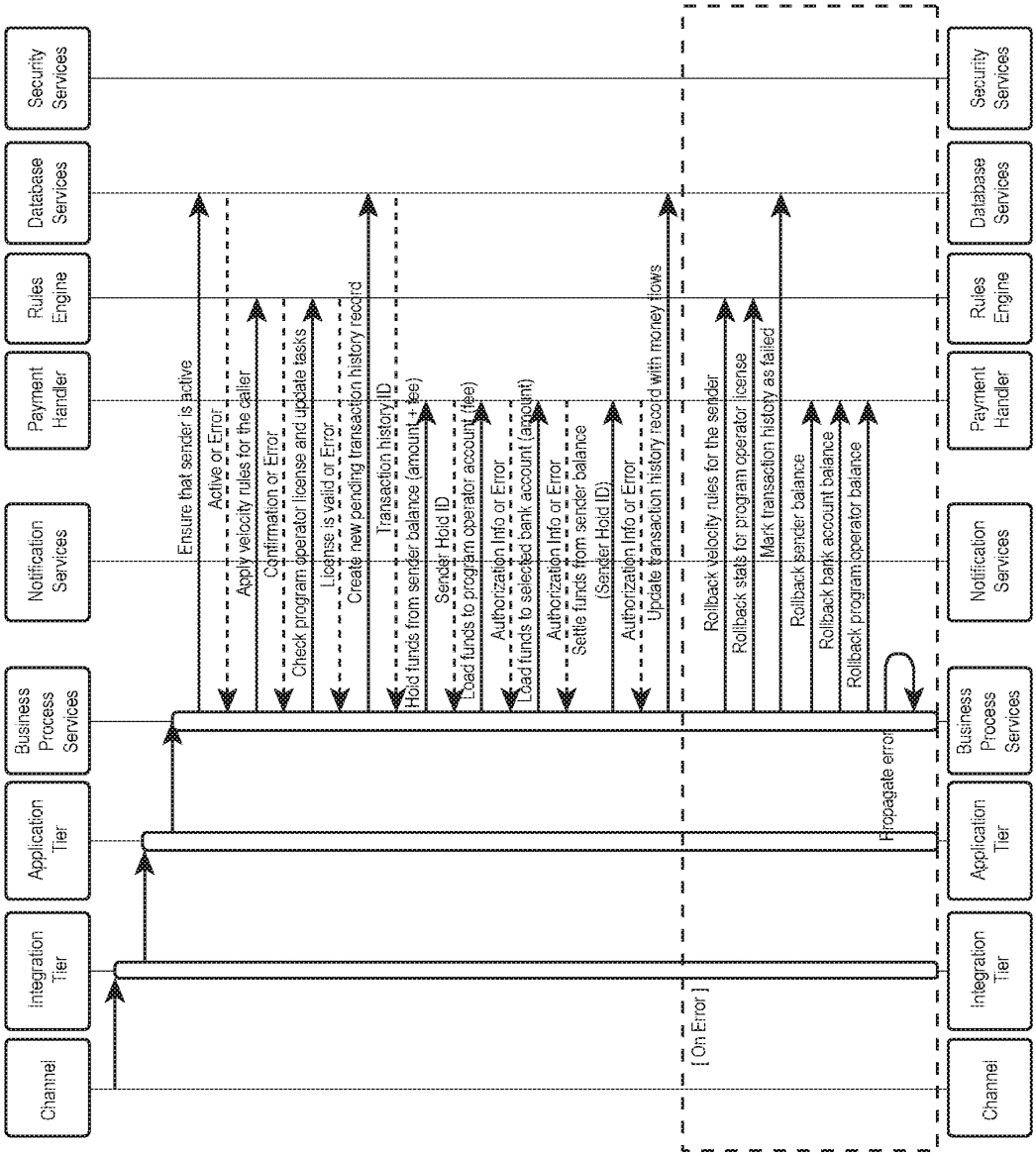

Withdraw Cash (7 of 9)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
Ensure that sender is active
Active or Error
Apply velocity rules for the caller
Confirmation or Error
Check program operator license and update tasks
License is valid or Error
Create new pending transaction history record
Transaction historyID
Hold funds from sender balance (amount + fee)
Sender Hold ID
Load funds to program operator account (fee)
Authorization Info or Error
Load funds to selected bank account (amount)
Authorization Info or Error
Settle funds from sender balance
(Sender Hold ID)
Authorization Info or Error
Update transaction history record with money flows
[On Error]
Rollback velocity rules for the sender
Rollback stats for program operator license
Mark transaction history as failed
Rollback sender balance
Rollback bank account balance
Rollback program operator balance
Propagate error

Figure 21G

Withdraw Cash (8 of 9)

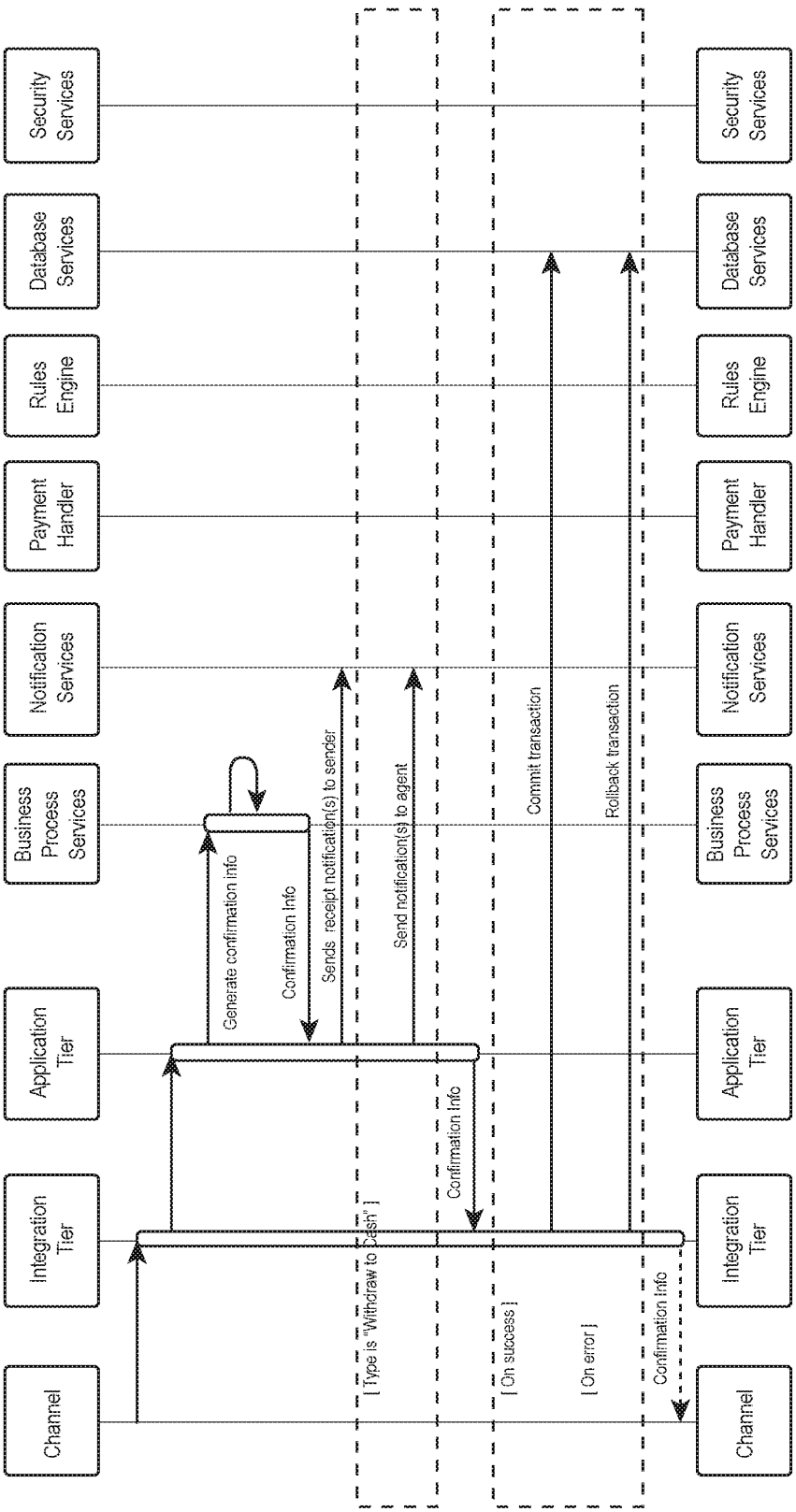


Figure 21H

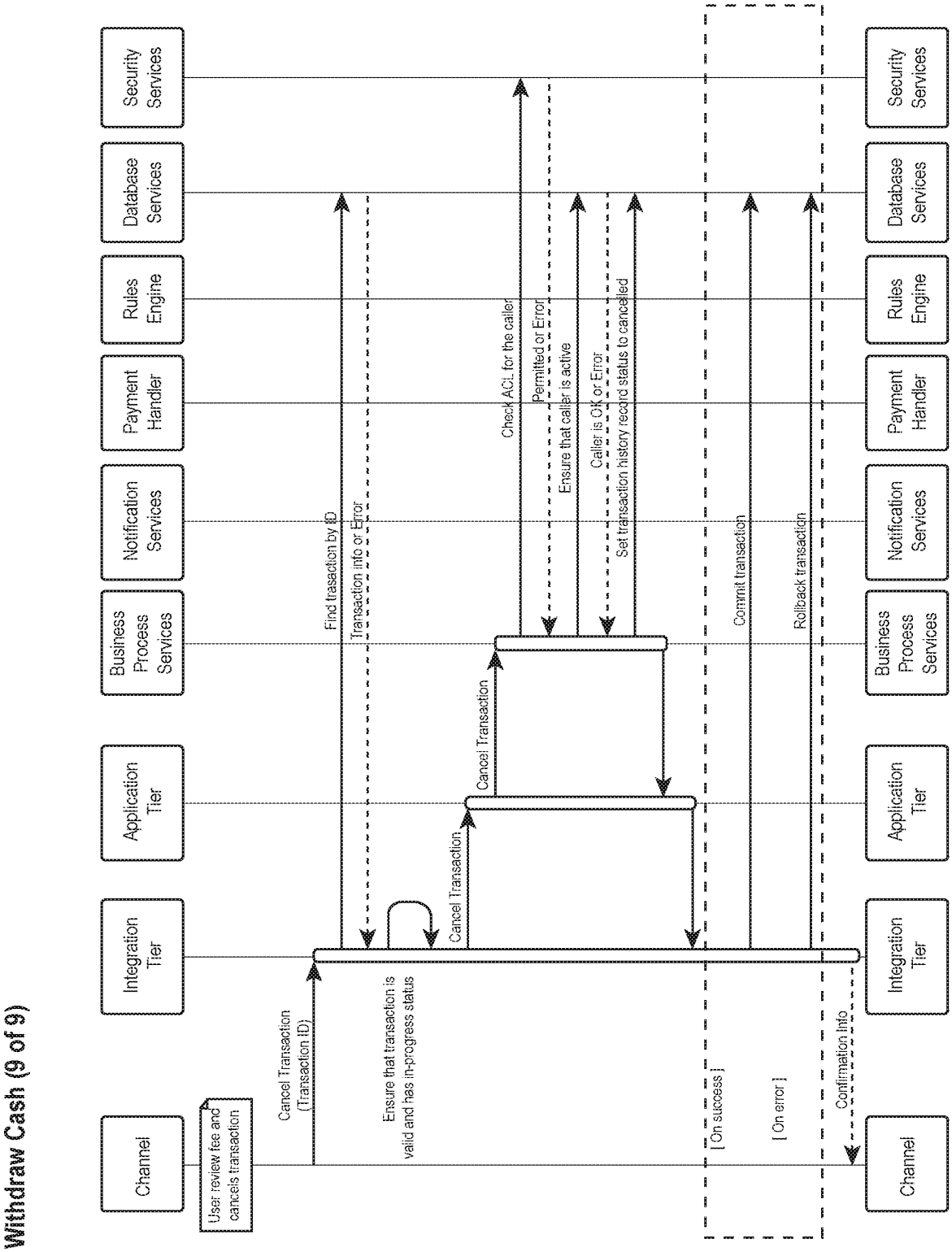

Withdraw Cash (9 of 9)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
User review fee and cancels transaction
Cancel Transaction (Transaction ID)
Ensure that transaction is valid and has in-progress status
Find trasaction by ID
Transaction info or Error
Cancel Transaction
Cancel Transaction
Check ACL for the caller
Permitted or Error
Ensure that caller is active
Caller is OK or Error
Set transaction history record status to cancelled
Commit transaction
Rollback transaction
[On success]
[On error]
Confirmation Info

Figure 21I

Money Transfer (1 of 10)

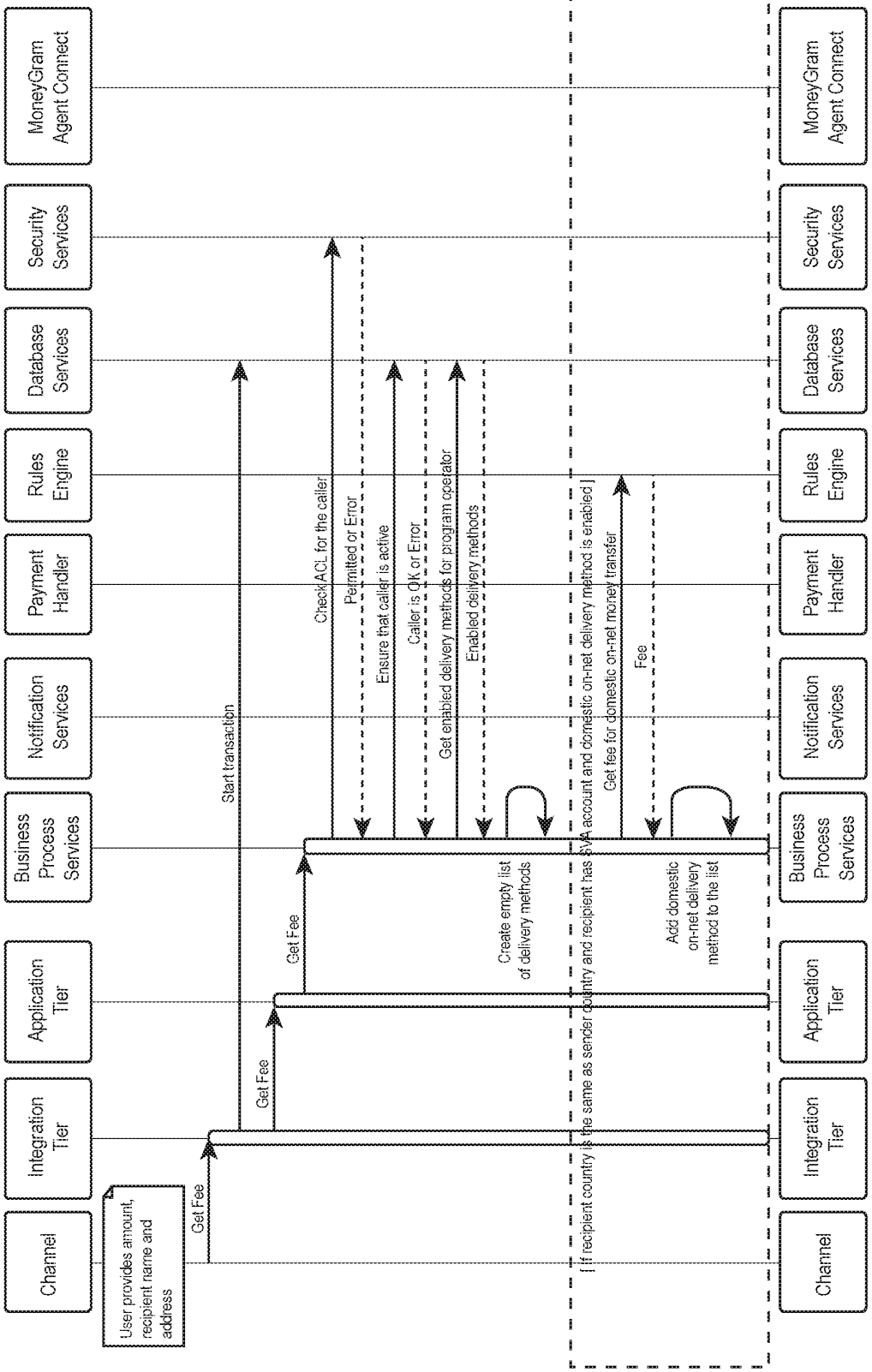


Figure 22A

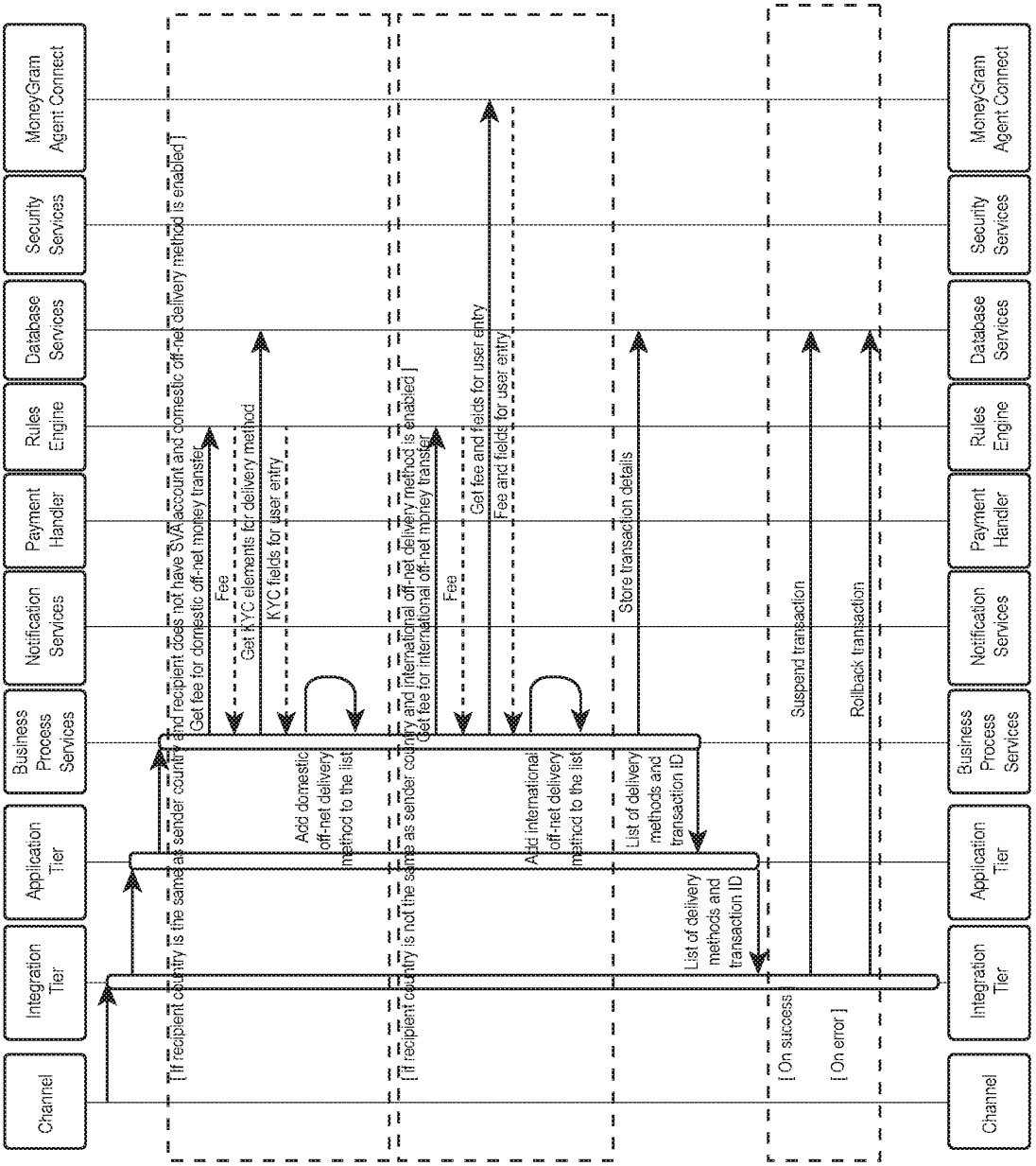

Money Transfer (2 of 10)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
MoneyGram Agent Connect
[If recipient country is the same as sender country and recipient does not have SVA account and domestic off-net delivery method is enabled]
Get fee for domestic off-net money transfer
Fee
Get KYC elements for delivery method
KYC fields for user entry
Add domestic off-net delivery method to the list
[If recipient country is not the same as sender country and international off-net delivery method is enabled]
Get fee for international off-net money transfer
Fee
Get fee and fields for user entry
Fee and fields for user entry
Add international off-net delivery method to the list
Store transaction details
List of delivery methods and transaction ID
List of delivery methods and transaction ID
[On success]
Suspend transaction
[On error]
Rollback transaction

Figure 22B

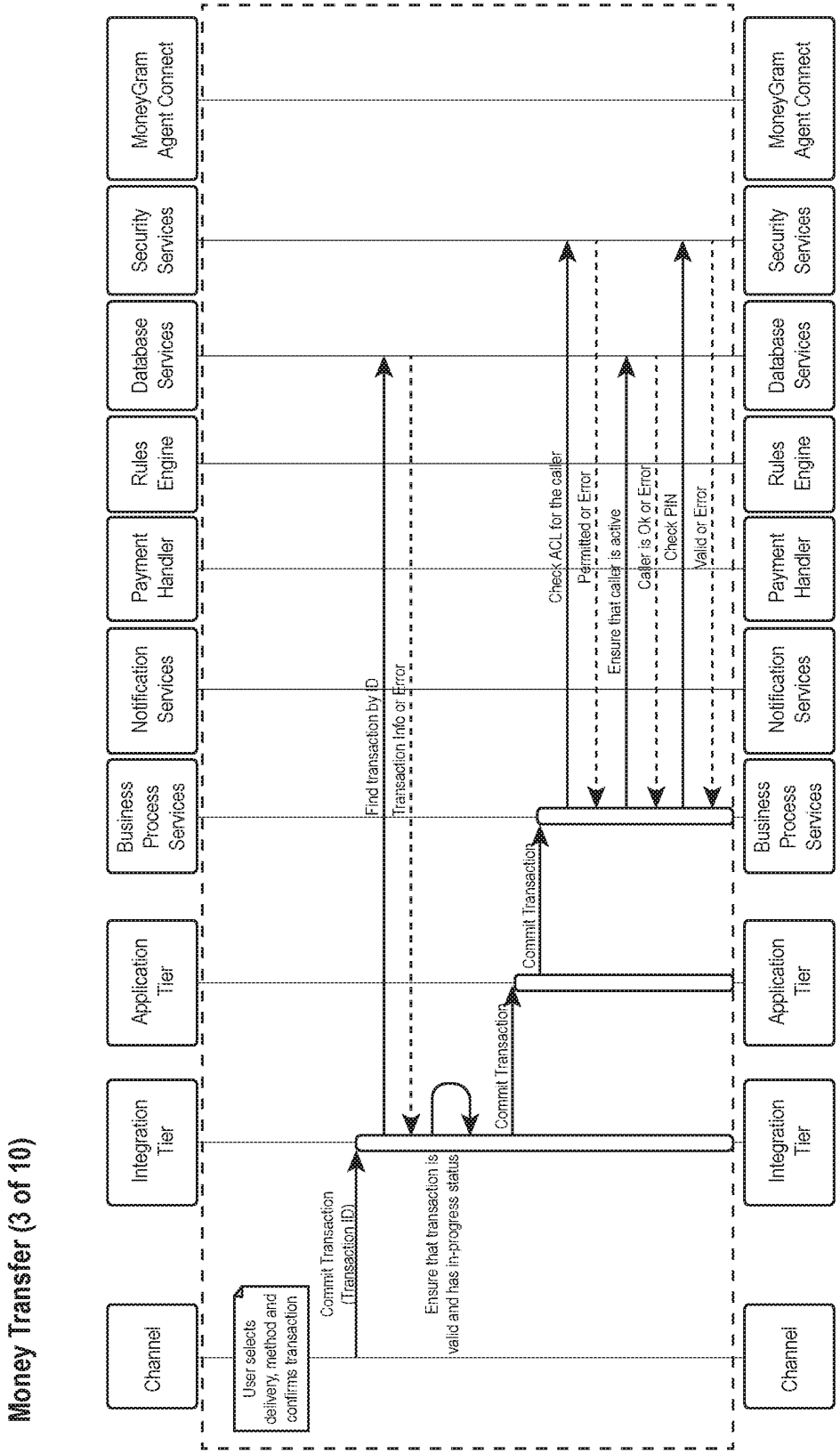

Money Transfer (3 of 10)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
MoneyGram Agent Connect
User selects delivery, method and confirms transaction
Commit Transaction (Transaction ID)
Find transaction by ID
Transaction Info or Error
Ensure that transaction is valid and has in-progress status
Commit Transaction
Commit Transaction
Check ACL for the caller
Permitted or Error
Ensure that caller is active
Caller is Ok or Error
Check PIN
Valid or Error

Figure 22C

Money Transfer (4 of 10)

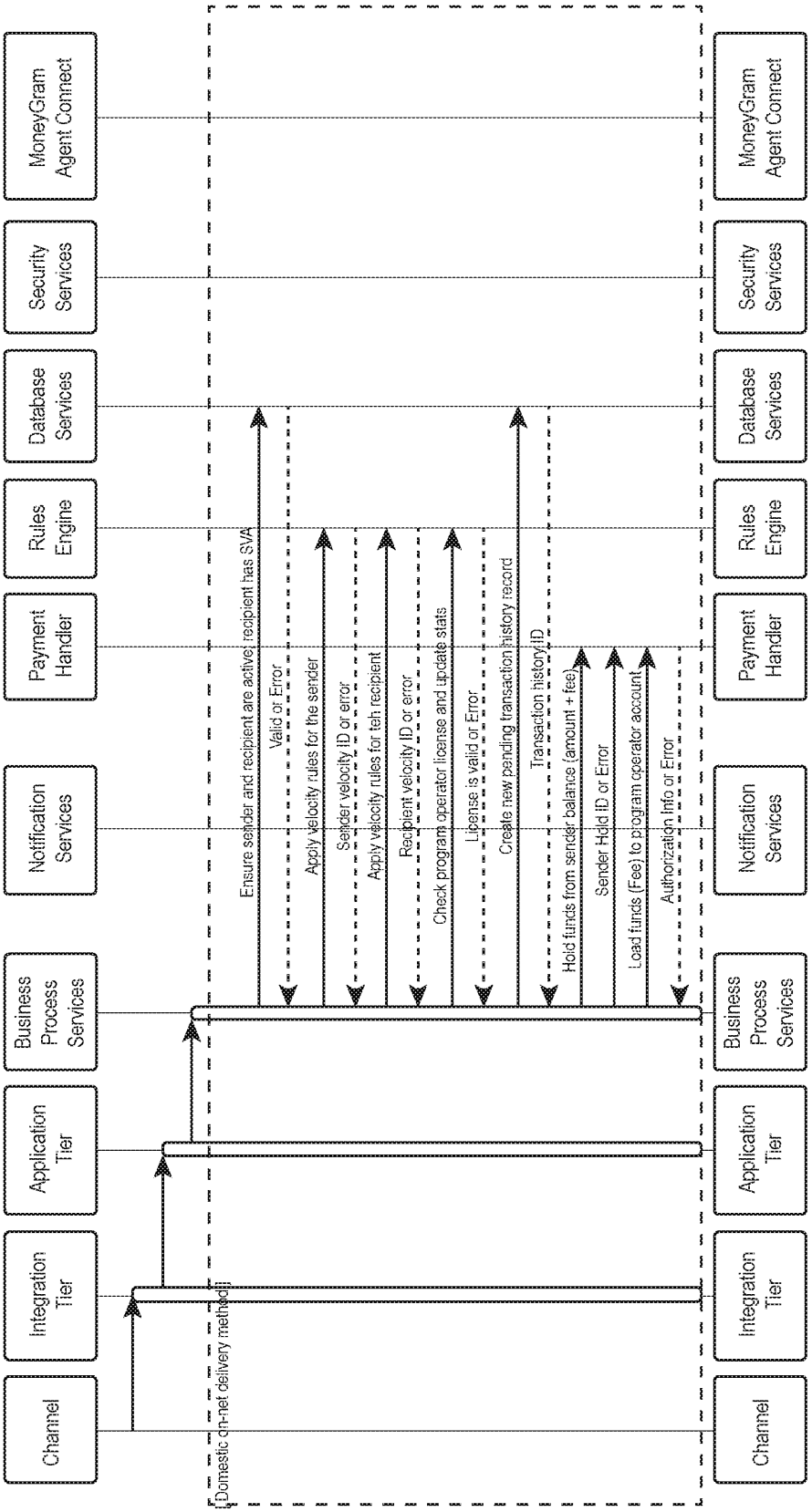


Figure 22D

Money Transfer (5 of 10)

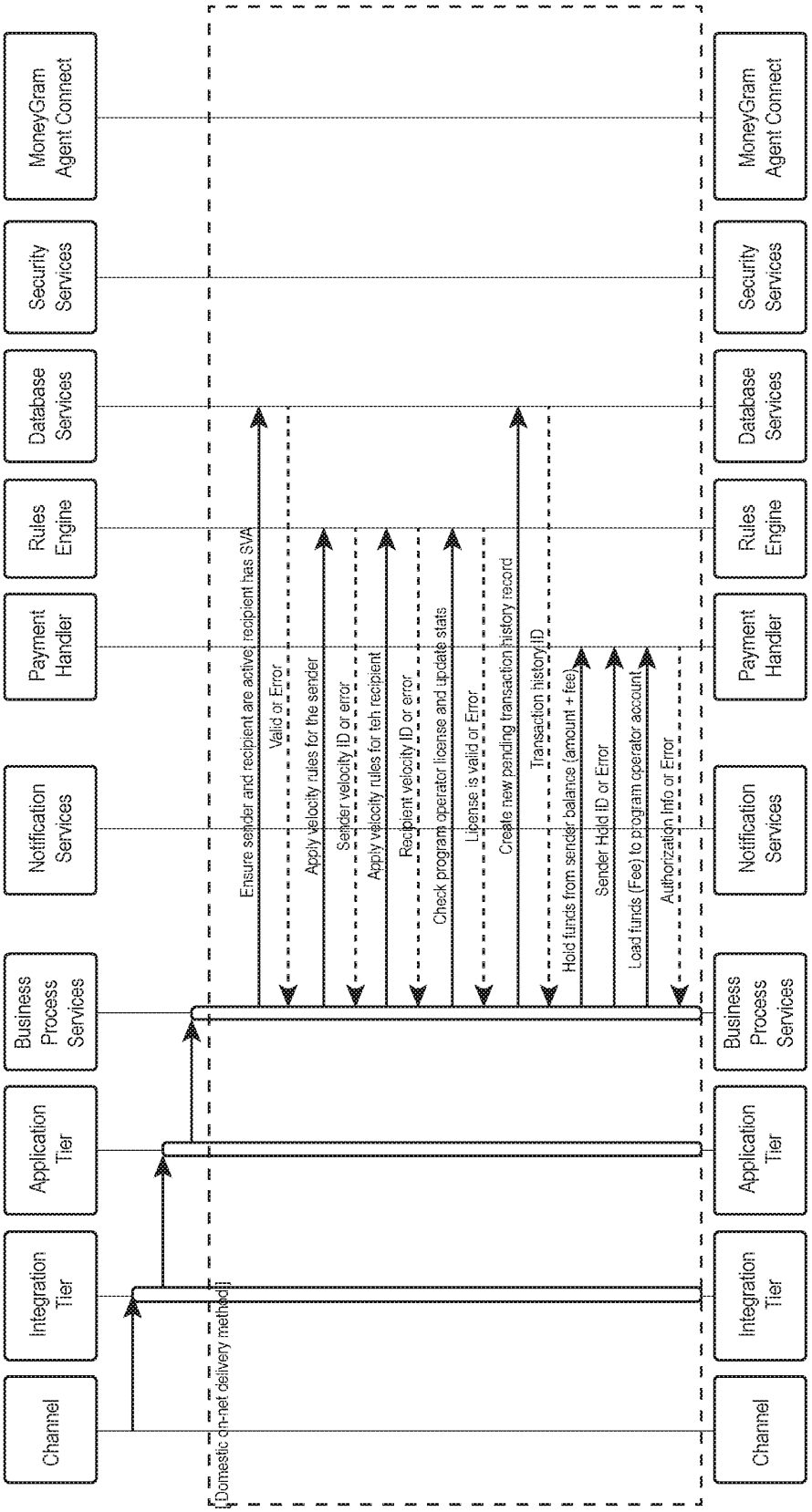


Figure 22E

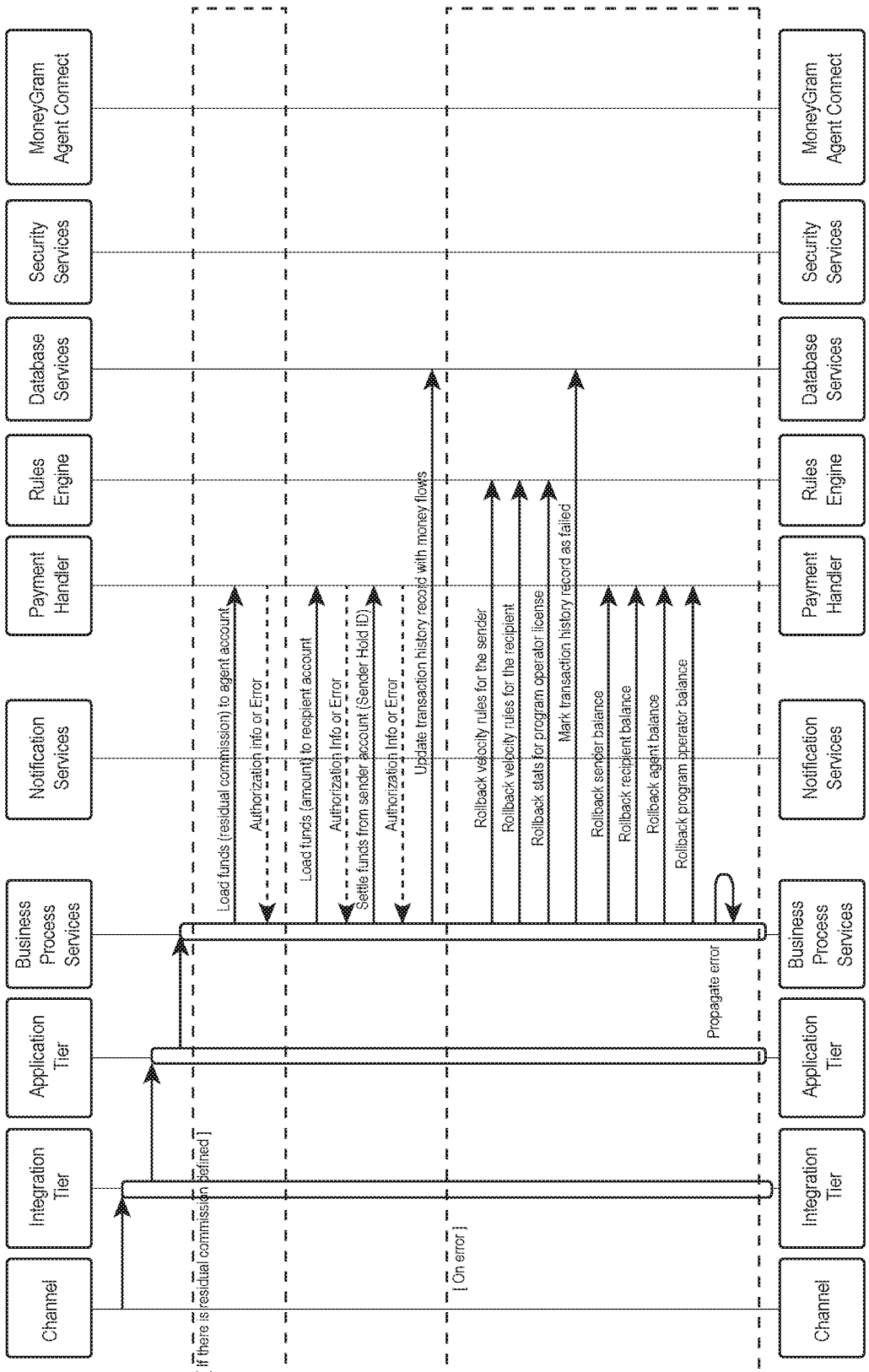

Money Transfer (6 of 10)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
MoneyGram Agent Connect
[If there is residual commission defined]
Load funds (residual commission) to agent account
Authorization info or Error
Load funds (amount) to recipient account
Authorization Info or Error
Settle funds from sender account (Sender Hold ID)
Authorization Info or Error
Update transaction history record with money flows
[On error]
Rollback velocity rules for the sender
Rollback velocity rules for the recipient
Rollback stats for program operator license
Mark transaction history record as failed
Rollback sender balance
Rollback recipient balance
Rollback agent balance
Rollback program operator balance
Propagate error

Figure 22F

Money Transfer (7 of 10)

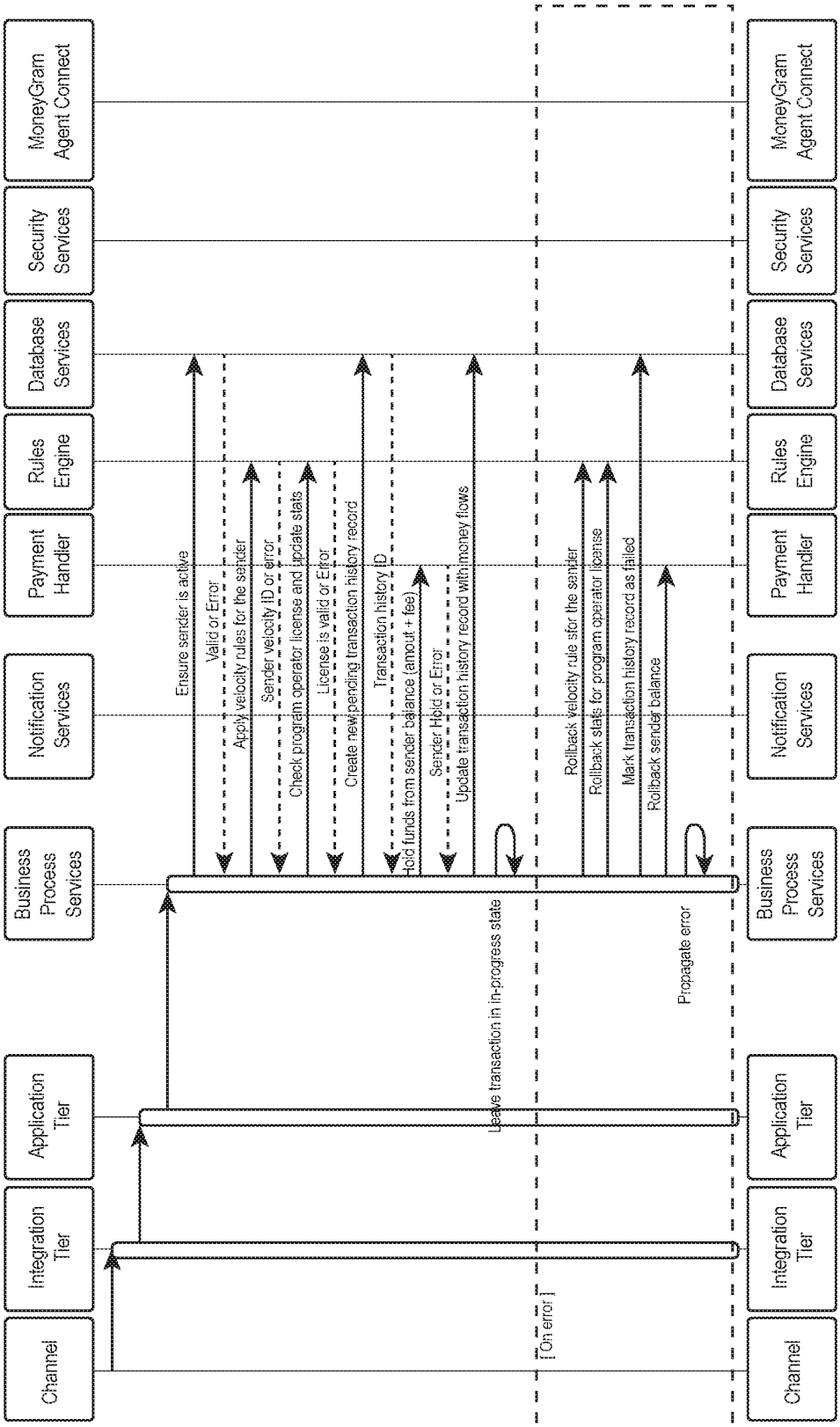


Figure 22G

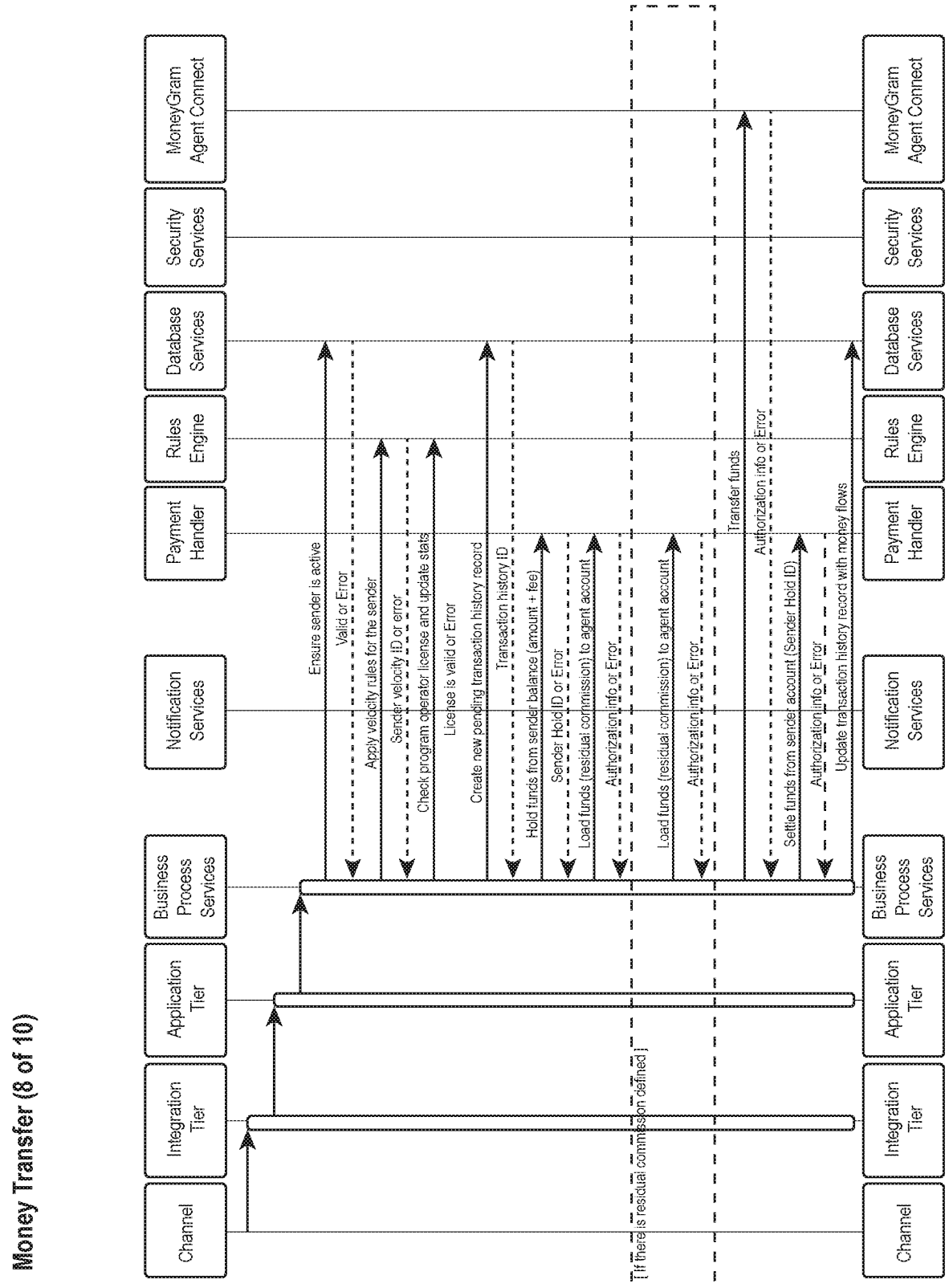

Money Transfer (8 of 10)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
MoneyGram Agent Connect
Ensure sender is active
Valid or Error
Apply velocity rules for the sender
Sender velocity ID or error
Check program operator license and update stats
License is valid or Error
Create new pending transaction history record
Transaction history ID
Hold funds from sender balance (amount + fee)
Sender Hold ID or Error
Load funds (residual commission) to agent account
Authorization info or Error
[If there is residual commission defined]
Load funds (residual commission) to agent account
Authorization info or Error
Transfer funds
Authorization info or Error
Settle funds from sender account (Sender Hold ID)
Authorization info or Error
Update transaction history record with money flows

Figure 22H

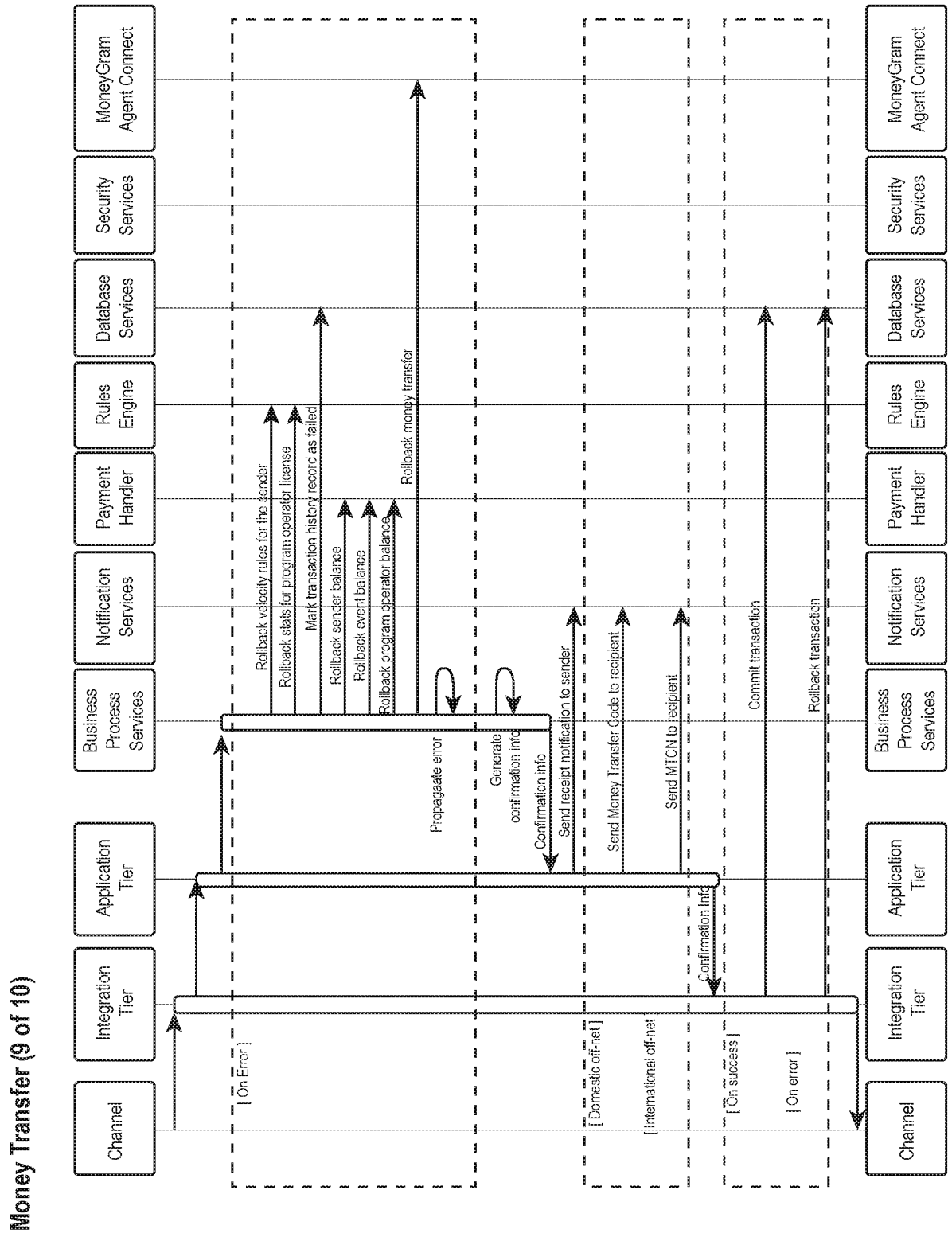

Money Transfer (9 of 10)
Channel
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
MoneyGram Agent Connect
[On Error]
Rollback velocity rules for the sender
Rollback stats for program operator license
Mark transaction history record as failed
Rollback sender balance
Rollback event balance
Rollback program operator balance
Rollback money transfer
Propagaate error
Generate confirmation info
Confirmation info
Send receipt notification to sender
[Domestic off-net]
Send Money Transfer Code to recipient
[International off-net
Send MTCN to recipient
Confirmation Info
[On success]
Commit transaction
[On error]
Rollback transaction

Figure 22I

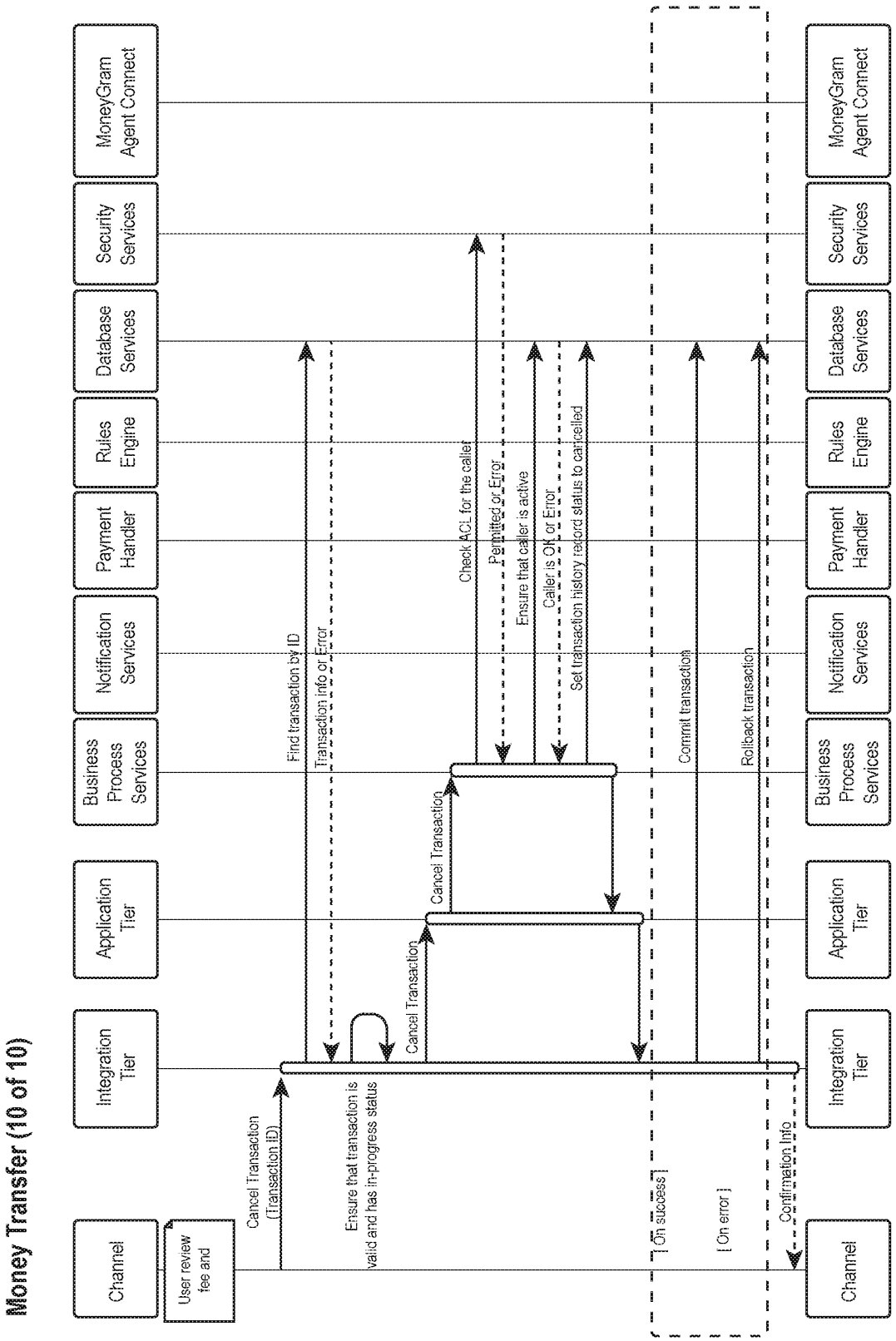

Money Transfer (10 of 10)
Channel
User review fee and
Integration Tier
Application Tier
Business Process Services
Notification Services
Payment Handler
Rules Engine
Database Services
Security Services
MoneyGram Agent Connect
Cancel Transaction (Transaction ID)
Ensure that transaction is valid and has in-progress status
Find transaction by ID
Transaction info or Error
Cancel Transaction
Cancel Transaction
Check ACL for the caller
Permitted or Error
Ensure that caller is active
Caller is OK or Error
Set transaction history record status to cancelled
Commit transaction
Rollback transaction
[On success]
[On error]
Confirmation Info

Figure 22J

VIA eFILE

PATENT APPLICATION
Docket No: 18756.8.1.1.1.1.1.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of		)
	Michael A. Liberty	)
		)
Serial No.:	15/201,152	) Art Unit
		) 3696
Filed:	July 1, 2016	)
		)
Conf. No.:	2611	)
		)
For:	MONETARY TRANSACTION SYSTEM	)
		)
Examiner:	Edward Chang	)
		)
Customer No.:	22913	)

PETITION FOR EXTENSION OF TIME

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

Sir:

Pursuant to 37 C.F.R. § 1.136(a), it is respectfully requested that the shortened statutory period which was set for responding to the Office Action dated October 25, 2016 (paper no. 20161016), be extended for Three Months until April 25, 2017.

Payment in the amount of $700.00 using the Credit Card payment option in E-Filer with RAM will be used to cover the payment of the fees with respect to this extension of time.

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination

processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to Deposit Account No. 23-3178.

DATED this 24th day of April, 2017.

Respectfully submitted,

/W. BRAD BARGER/

JOHN C. STRINGHAM
Registration No. 40,831
W. BRAD BARGER
Registration No. 69,566
WORKMAN | NYDEGGER
Attorneys for Applicant
Customer No. 22913

Electronic Patent Application Fee Transmittal

Application Number:	15201152
Filing Date:	01-Jul-2016
Title of Invention:	MONETARY TRANSACTION SYSTEM
First Named Inventor/Applicant Name:	Michael A. Liberty
Filer:	William Brad Barger/Lindsey Gifford
Attorney Docket Number:	18756.8.1.1.1.1.1.1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
INDEPENDENT CLAIMS IN EXCESS OF 3	2201	1	210	210
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Extension - 3 months with $0 paid	2253	1	700	700
Miscellaneous:				
		Total in USD ($)		**910**

Electronic Acknowledgement Receipt

EFS ID:	29012214
Application Number:	15201152
International Application Number:	
Confirmation Number:	2611
Title of Invention:	MONETARY TRANSACTION SYSTEM
First Named Inventor/Applicant Name:	Michael A. Liberty
Customer Number:	22913
Filer:	William Brad Barger/Lindsey Gifford
Filer Authorized By:	William Brad Barger
Attorney Docket Number:	18756.8.1.1.1.1.1.1
Receipt Date:	24-APR-2017
Filing Date:	01-JUL-2016
Time Stamp:	18:22:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$910
RAM confirmation Number	042517INTEFSW18234400
Deposit Account	233178
Authorized User	Willilam Barger
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	18756-8-1-1-1-1-1-1_2017-04-24_Transmittal-for-Amendment-A.pdf	109516 ec02a0832a64d8640e6c9daed5895327d8b3b942	no	2
Warnings:					
Information:					
2	Amendment/Req. Reconsideration-After Non-Final Reject	18756-8-1-1-1-1-1-1_2017-04-24_Amendment-A-and-Response.pdf	254193 de9400a4b762d0879cb8848aca130ae64c9f60ea	no	23
Warnings:					
Information:					
3	Specification	18756-8-1-1-1-1-1-1_2017-04-24_Application_mark-up.pdf	426940 f002e0c14bdaeecdfccd97cc5c8df81563b35171	no	73
Warnings:					
Information:					
4	Specification	18756-8-1-1-1-1-1-1_2017-04-24_Application_clean.pdf	419380 9b2efc4b3bbd8708dfca0b7927bf2e5f7135cdb1	no	73
Warnings:					
Information:					
5	Drawings-only black and white line drawings	18756-8-1-1-1-1-1-1_2017-04-24_Replacement-Figures.pdf	12584178 d2e031cf4dae8269157435a0ccbb4d7cc774b060	no	46
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
6	Extension of Time	18756-8-1-1-1-1-1-1_2017-04-24_Petition-for-EOT.pdf	65082 3d33f87497f6fbe8208a4c3e358aa4701d0e5976	no	2
Warnings:					

Information:					
7	Fee Worksheet (SB06)	fee-info.pdf	32651 8f877da410eea4a41256cc6850871903505 2a751	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	13891940	

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

New Applications Under 35 U.S.C. 111

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

National Stage of an International Application under 35 U.S.C. 371

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

New International Application Filed with the USPTO as a Receiving Office

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

VIA eFILE

PATENT APPLICATION
Docket No. 18756.8.1.1.1.1.1.1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of		)
	Michael A. Liberty	)
		)
Serial No.:	15/201,152	) Art Unit
		) 3696
Filed:	July 1, 2016	)
		)
Conf. No.:	2611	)
		)
For:	MONETARY TRANSACTION SYSTEM	)
		)
Examiner:	Edward Chang	)
		)
Customer No.:	22913	)

TRANSMITTAL FOR AMENDMENT "A"
AND RESPONSE AFTER NON-FINAL WITH 3 MONTH EXTENSION OF TIME

VIA eFILE AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Transmitted herewith is an Amendment "A" and Response for entry in the above-identified application.

_____

__X__ To render the transmitted Amendment "A" and Response timely filed enclosed are the following:

__X__ Petition for Three Month Extension of Time ($700.00).

The fee has been calculated as follows:

			SMALL ENTITY		LARGE ENTITY	
CLAIMS REMAINING AFTER	**HIGHEST NO. PREVIOUSLY PAID FOR**	**PRESENT EXTRA**	**RATE**	**ADDT'L FEE**	**RATE**	**ADDT'L FEE**
TOTAL 6	MINUS 8	= 0	X		X $40.00	00.00
INDEPENDENT 4	MINUS 3	= 1	X		X $210.00	210.00
1st PRESENTATION OF MULTIPLE DEPENDENT CLAIM			+_____=		+_____=	
			TOTAL		**TOTAL**	210.00

__X__ Payment in the amount of $910.00 using the Credit Card payment option in E-Filer with RAM will be used to cover the payment of the fees with respect to this Extension of Time and Excess Independent Claim.

__X__ The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to **Deposit Account No. 23-3178**: (1) any filing fees required under 37 CFR § 1.16; (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefore and charge any additional fees that may be required to **Deposit Account No. 23-3178**.

Dated this 24th day of April, 2017.

Respectfully submitted,

/W. BRAD BARGER/

JOHN C. STRINGHAM
Registration No. 40,831
W. BRAD BARGER
Registration No. 69,566
WORKMAN | NYDEGGER
Attorneys for Applicant
Customer No. 22913

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 15/201,152	Filing Date 07/01/2016	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 = *		X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	04/24/2017	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 6	Minus	** 20	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	***3	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
CAROL BARNES

UNITED STATES PATENT AND TRADEMARK OFFICE

USPTO Automated Interview Request (AIR)

Mar 20 2017

This paper requesting to schedule and/or conduct an interview is appropriate because:

This submission is requested to be accepted as an authorization for this interview to communicate via the internet. Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned concerning scheduling of the interview via video conference, instant messaging, or electronic mail, and to conduct the interview in accordance with office practice including video conferencing.

Name(s):
John C. Stringham

S-signature:
/John Stringham/

Registration Number:
40831

U.S. Application Number:
15201152

Confirmation Number:
2611

E-mail Address:
sheld@wnlaw.com

Phone Number:
8015339800

Proposed Time of Interview:
4-6-2017 4:00 PM ET

Prefered Interview Type:
Video Conference

I am the applicant or applicant's representative for this application.

uspto UNITED STATES PATENT AND TRADEMARK OFFICE
PALM-SILVER

UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
15/201,152	07/01/2016	Michael A. Liberty	18756.8.1.1.1.1.1.1

CONFIRMATION NO. 2611

22913
Workman Nydegger
60 East South Temple
Suite 1000
Salt Lake City, UT 84111

PUBLICATION NOTICE

Title:MONETARY TRANSACTION SYSTEM

Publication No.US-2016-0314443-A1
Publication Date:10/27/2016

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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United States Patent and Trademark Office
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Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/201,152	07/01/2016	Michael A. Liberty	18756.8.1.1.1.1.1.1	2611

22913 7590 10/25/2016

Workman Nydegger
60 East South Temple
Suite 1000
Salt Lake City, UT 84111

EXAMINER
CHANG, EDWARD

ART UNIT	PAPER NUMBER
3696	

NOTIFICATION DATE	DELIVERY MODE
10/25/2016	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing@wnlaw.com

Office Action Summary	Application No. 15/201,152	Applicant(s) LIBERTY, MICHAEL A.	
	Examiner EDWARD CHANG	Art Unit 3696	AIA (First Inventor to File) Status No

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

Period for Reply

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

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

Status

1)☒ Responsive to communication(s) filed on *July 1, 2016*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-8* is/are pending in the application.

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

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-8* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *July 1, 2016* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

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

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

4) ☐ Other: _____.

1. The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Status of Claims

1. This action is in reply to the application filed on 1st of July 2016.

2. Claims 1-8 are currently pending and have been examined.

Claim Rejections - 35 USC § 101

3. *35 U.S.C. 101 reads as follows:*

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is directed to non-statutory subject matter because the claim(s) as a whole, considering all claim elements both individually and in combination, do not amount to significantly more than an abstract idea. The claim(s) is/are directed to a method of organizing human activities and a fundamental economic practice. The additional element(s) or combination of elements in the claim(s) other than the abstract idea per se amount(s) to no more than: mere instructions to implement the idea on a computer and recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry. Viewed as a whole, these additional claim element(s) do not provide meaningful limitation(s) to transform the abstract idea into a patent eligible application of the abstract idea such that the claim(s) amounts to significantly more than the abstract idea itself. Therefore, the claim(s) are rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Analysis

5. The elements of each of the claims, when taken alone or in combination, each or together execute in a manner routinely and conventionally expected of these elements. That is, a module and a processor are used to calculate the data and process the data. All the steps in the claims are directed to a series of behavioral activities including e.g. receiving subscriber communication…, validating the status…, performing…limit check and a velocity check..., crediting the subscriber's account…, returning a secure, perishable code…, receiving a subsequent agent branch communication…., debiting the subscriber's account…, returning a notification…, transferring the specified amount…, and notifying the subscriber…, which, when viewed individually and in combination, constitute an abstract idea of certain methods of organizing human activity. These particular behaviors are "interpersonal activities" of "managing relationships or transactions between people, social activities, or behaviors," "satisfying or avoiding a legal obligation," and "advertising, marketing, and sales activities or behaviors," which are subcategories of activities that the precedential courts have found to be abstract idea under "certain methods of organizing human activity." As stated in the "*Ultramercial, LLC v. Hulu, LLC and WildTangent*" decision, **the current claims** viewed individually or order combination does "not transform the abstract idea (organizing human activities – series of steps of conducting transactions between subscribers and other entities) that they recite into patent-eligible subject matter because "**the claims simply instruct the practitioner to implement the abstract idea with routine, conventional activity**". Secondly, "conducting transactions between subscribers and other entities" is a "fundamental economic practice"; as stated by the precedential courts (*buySAFE, Bilski*) and in the July 2015 Update, "…*phrase "fundamental economic practices" is used to describe concepts relating to the economy and commerce such as agreements between people in the form of contracts, legal obligations, and business relations...*" Therefore it is clear that these claims are directed to an abstract idea. These are reasons why all claim elements both individually and in combination; do not amount to significantly more than an abstract idea. Regarding "significantly more", the claims do not include additional elements that are sufficient to amount to significantly more than the judicial exception, such as:

- Improvement to another technology or technical field.
- Improvements to the functioning of the computer itself.

- Applying the judicial exception with, or by use of, a particular machine.
- Effecting a transformation or reduction of a particular article to a different state or thing.
- Adding a specific limitation other than what is well-understood, routine and conventional in the field, or adding unconventional steps that confine the claim to a particular useful application.
- Other meaningful limitations beyond generally linking the use of an abstract idea to a particular technological environment.

6. Rather, all the claims require no more than adding insignificant extra-solution activity to the judicial exception, e.g., mere collecting data (e.g. "receiving subscriber communication...") and performing of generic computer functions (e.g. processing transaction (debiting, transferring, crediting funds), automating mental tasks (validating, performing a limit check and velocity check), and transmitting information/notification via network) that are well-understood, routine and conventional activities previously known to the industry. None of these foregoing functions are distinguishable from what the courts have recognized as well-understood, routine, and conventional generic computer functions; rather, each of these particular functions fall under at least one of the following computer functions that the courts already recognized as "merely generic": performing repetitive calculations, receiving, processing, and storing data, electronic recordkeeping, automating mental tasks, and receiving or transmitting data over a network, e.g., using the Internet to gather data.

7. *See July 2015 Update: Subject Matter Eligibility*, 4, http://www.uspto.gov/sites/default/files/documents/ieg-july-2015-update.pdf. Please see where it states *"the courts have recognized the following computer functions to be well understood, routine, and conventional functions when they are claimed in a merely generic manner;…"*

8. Regarding "*…mobile device configured to run a monetary transaction system application, including performing the following steps…*", and automating it. In the recent CAFC (Eon Corp vs. AT&T mobility) decision directed to 112(f), the CAFC ruled that Alapat has been superseded by Bilski and Alice. Simply put, the programming of a general purpose computer or a microprocessor

does nothing to limit the scope of the claim and such programming does not create a "significantly more" limitation.

9. The elements of the claims, when taken in combination, together do not offer substantially more than the sum of the functions of the elements when each is taken alone. That is, the elements involved in the recited process undertake their roles in performance of their activities according to their generic functionalities which are well-understood, routine and conventional. The elements together execute in routinely and conventionally accepted coordinated manners and interact with their partner elements to achieve an overall outcome which, similarly, is merely the combined and coordinated execution of generic computer functionalities which are well-understood, routine and conventional activities previously known to the industry.

Conclusion

The claims as a whole including dependent claims, does not amount to significantly more than the abstract idea itself. This is because the claim does not effect an improvement to another technology or technical field; the claim does not amount to an improvement to the functioning of a computer itself; and the claim does not move beyond a general link of the use of an abstract idea to a particular technological environment.

Accordingly, the Examiner concludes that there are no meaningful limitations in the claim that transform the judicial exception into a patent eligible application such that the claim amounts to significantly more than the judicial exception itself.

Conclusion

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Edward Chang** whose telephone number is **571.270.3092.** The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **KIMBERLY BERONA** can be reached at **571.272.6909**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://portal.uspto.gov/external/portal/pair <http://pair-direct.uspto.gov >. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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Commissioner of Patents and Trademarks

P.O. Box 1450
Alexandria, VA 22313-1450

or faxed to **571-273-8300**.

Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**:

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October 17, 2016
/Edward Chang/ Examiner, Art Unit 3696

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BIB DATA SHEET

CONFIRMATION NO. 2611

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
15/201,152	07/01/2016 RULE	705	3696	18756.8.1.1.1.1.1.1

APPLICANTS
Mozido, Inc., Austin, TX;

INVENTORS
Michael A. Liberty, Orlando, FL;

**** CONTINUING DATA **************************
This application is a CON of 14/213,543 03/14/2014 ABN
which is a CON of 13/964,707 08/12/2013 ABN
which is a CON of 13/484,199 05/30/2012 PAT 8538845
which claims benefit of 61/522,099 08/10/2011
and claims benefit of 61/493,064 06/03/2011

**** FOREIGN APPLICATIONS **************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
07/19/2016

Foreign Priority claimed	☐ Yes ☑ No	☐ Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	☐ Yes ☑ No					
Verified and Acknowledged	/EDWARD CHANG/ Examiner's Signature	Initials	FL	21	8	3

ADDRESS
Workman Nydegger
60 East South Temple
Suite 1000
Salt Lake City, UT 84111
UNITED STATES

TITLE
MONETARY TRANSACTION SYSTEM

FILING FEE RECEIVED		
730	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

BIB (Rev. 05/07).

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L2	12	"limit check" with "velocity check"	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/17 14:10
L3	9	"limit check" with "velocity check" with mobile	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/17 14:10
L4	0	"limit check" with "velocity check" with sufficient with fund	US-PGPUB; USPAT; USOCR	OR	OFF	2016/10/17 14:10
S1	100	("20120209762" "6142369" "6725303" "6976011" "20060265339" "20070063017" "20070106564" "20080270253" "20080314971" "20100030651" "7819307" "7822688" "20030004876" "20050187873" "20070095892" "20080162318" "20100088188" "20120197794" "20120259698" "20090055913" "20100274678" "20110137791" "20110145086" "20110145139" "20110145140" "20110145149" "20110313924" "20120226611" "20120290449" "6338140" "20100023417" "20040169073" "5315636" "5514862" "5848161" "5943624" "6038548" "6178335" "6185436" "6726092" "6913191" "7546944" "7784693" "20010007132" "20030078789" "20030121967" "20030177088" "20040243477" "20050164739" "20060173776" "20070123305" "20090106119" "20090233577" "20120036067" "20120108204" "20120172089" "20040039651" "20090097658" "5557518" "5621797" "5642419" "5815657" "5878139" "5963924" "6016484" "6019284" "6116506" "6230971" "4260055" "4992646" "5221838" "5671280" "5703949" "5745886" "5890052" "5940510" "5949880" "5949045" "6029151" "6068183" "6081790" "6088797" "6112984" "6175921" "6205436" "6315195" "6394343" "6425522" "6450407" "6502748" "6702181" "6905072" "6913193" "6970852" "7040533" "7140550" "7201313" "7207477" "7216800" "7344066").pn.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/12/14 13:15
S2	391	exceed with number with account	US-PGPUB; USPAT; USOCR	OR	OFF	2012/12/15 14:40

S3	4	exceed with number with account with allowable	US-PGPUB; USPAT; USOCR	OR	OFF	2012/12/15 14:40
S4	3699	(705/40).ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2012/12/16 00:43
S5	9891	(705/35).ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2013/06/01 01:40
S11	397	(705/78).ccls.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/02/15 07:04

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S6	10170	(705/35).ccls.	US-PGPUB; USPAT; * No UPAD	OR	OFF	2013/06/01 01:40
S7	4020	(705/40).ccls.	US-PGPUB; USPAT; * No UPAD	OR	OFF	2013/06/01 01:40
S8	28	Perform$3 with limit with check with velocity with check	US-PGPUB; USPAT; * No UPAD	OR	OFF	2013/06/01 01:41
S9	3	Perform$3 with limit with check with velocity with check with unbanked	US-PGPUB; USPAT; * No UPAD	OR	OFF	2013/06/01 01:41
S10	3	Perform$3 with limit with check with velocity with check with unbanked with subscriber	US-PGPUB; USPAT; * No UPAD	OR	OFF	2013/06/01 01:42
S12	397	(705/78).ccls.	US-PGPUB; USPAT; * No UPAD	OR	OFF	2014/02/15 07:04

10/17/2016 2:11:33 PM
C:\Users\echang1\Documents\EAST\Workspaces\Applicaiton -- 15201152 -- Monetary Transaction System -- CON 3.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	15201152	LIBERTY, MICHAEL A.
	Examiner	Art Unit
	EDWARD CHANG	3696

CPC- SEARCHED		
Symbol	Date	Examiner
G06Q 20/0855	10/17/2016	EC

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
705	40	10/17/2016	EC
705	78	10/17/2016	EC

SEARCH NOTES		
Search Notes	Date	Examiner
EAST - Keyword Search	10/17/2016	EC

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner
705	40	10/17/2016	EC
705	78	10/17/2016	EC

	/EDWARD CHANG/ Primary Examiner.Art Unit 3696

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
15/201,152	07/01/2016	3685	730	18756.8.1.1.1.1.1.1	8	3

CONFIRMATION NO. 2611

FILING RECEIPT

22913
Workman Nydegger
60 East South Temple
Suite 1000
Salt Lake City, UT 84111

OC000000084487190

Date Mailed: 07/20/2016

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Inventor(s)

Michael A. Liberty, Orlando, FL;

Applicant(s)

Mozido, Inc., Austin, TX;

Power of Attorney: The patent practitioners associated with Customer Number 22913

Domestic Priority data as claimed by applicant

This application is a CON of 14/213,543 03/14/2014
which is a CON of 13/964,707 08/12/2013 ABN
which is a CON of 13/484,199 05/30/2012 PAT 8538845
which claims benefit of 61/522,099 08/10/2011
and claims benefit of 61/493,064 06/03/2011

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 07/19/2016

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 15/201,152**

Projected Publication Date: 10/27/2016

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****
Title

MONETARY TRANSACTION SYSTEM

Preliminary Class

705

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 15/201,152

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	70		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	300		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	360		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	8 minus 20 =	*	x 40 =	0.00	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x 210 =	0.00			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	730		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)	OR	RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1
Stylesheet Version v1.2

EPAS ID: PAT3949017

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
MICHAEL A. LIBERTY	11/07/2013

RECEIVING PARTY DATA

Name:	MOZIDO, LLC
Street Address:	1601 SOUTH MOPAC EXPRESSWAY
Internal Address:	TWO BARTON SKYWAY, SUITE 200
City:	AUSTIN
State/Country:	TEXAS
Postal Code:	78746

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	15201152

CORRESPONDENCE DATA

Fax Number: (801)328-1707

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: 801-533-9800
Email: jstringham@wnlaw.com
Correspondent Name: JOHN C. STRINGHAM
Address Line 1: 60 EAST SOUTH TEMPLE
Address Line 2: SUITE 1000
Address Line 4: SALT LAKE CITY, UTAH 84111

ATTORNEY DOCKET NUMBER:	18756.8.1.1.1.1.1.1
NAME OF SUBMITTER:	JOHN C. STRINGHAM
SIGNATURE:	/John C. Stringham, 40831/
DATE SIGNED:	07/06/2016
	This document serves as an Oath/Declaration (37 CFR 1.63).

Total Attachments: 2
source=18756-8-1-1-1-1-1-1 - Assignment - Liberty#page1.tif
source=18756-8-1-1-1-1-1-1 - Assignment - Liberty#page2.tif

UNITED STATES PATENT

Docket No. 18756.8.1.1.1

COMBINED DECLARATION AND ASSIGNMENT

DECLARATION

TITLE OF APPLICATION: **MONETARY TRANSACTION SYSTEM**

As a below named inventor, I hereby declare that:

This declaration and assignment is directed to:

☐ The attached application;

☒ United States Application No. 13/964,707 filed on August 12, 2013; or

☐ The application which was filed on _____ as U.S. Application No. _____.

I hereby authorize the patent attorneys and/or patent agents of Workman Nydegger to insert the above Application No(s). and filing date(s) when known.

The above-identified application was made or authorized to be made by me.

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claim(s). I believe that I am the original inventor or an original joint inventor of one or more claimed inventions in the above-identified application.

I hereby state that I am aware of the duty to disclose all information which is material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I, as Assignor, am the original inventor or an original joint inventor of the subject matter disclosed and/or claims in the above-identified application and am desirous to sell, assign and transfer the entire right, title and interest in and to one or more inventions disclosed in the above-identified application, the above-identified application and any and all letters patent which may be granted for the one or more inventions in the United States of America and its territorial possessions and in any and all foreign countries.

Assignee, MOZIDO, LLC, a Delaware limited liability corporation, having a principal place of business at Two Barton Skyway, 1601 South Mopac Expressway, Suite 200, Austin, Texas 78746, is desirous of acquiring the entire right, title and interest in and to the one or more inventions, the above-identified

application, and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries.

In exchange for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell, assign and transfer and agree to assign unto the Assignee, the entire right, title and interest in and to the one or more inventions, the above-identified application, any earlier filed provisional applications to which the above-identified application claims priority including any inventions disclosed therein and the right to claim priority thereto, and any and all letters patent which may be granted for the one or more inventions in the United States of America and its territorial possessions and in any and all foreign countries, and any and all divisions, reissues, continuations, continuation-in-parts, and substitutes thereof, including the right to file foreign applications directly in the name of Assignee and to claim priority rights deriving from the above-identified application to which the foreign applications are entitled by virtue of international convention, treaty or otherwise, the one or more inventions, the above-identified application and all letters patent on the one or more inventions to be held and enjoyed by Assignee and its successors and assigns for their use and benefit as fully and entirely as the same would have been held and enjoyed by myself had this assignment, transfer and sale not been made.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue all letters patent on the inventions to Assignee.

I hereby covenant that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this Assignment.

All claims for damages and all of the remedies arising out of any infringement of the invention or the above-identified United States patent application which may have accrued prior to the date of this assignment or may accrue, including, but not limited to, the right to sue for and collect and retain damages for past infringements of the invention or the above-identified United States patent applications.

I agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on the one or more inventions, for litigation regarding the letters patent, or for the purpose of protecting title to the one or more inventions or letters patent therefor.

Dated this 7th day of November, 2013.

Michael A. Liberty

KINGDOM
~~STATE~~ OF ENGLAND)
CITY : ss.
~~COUNTY~~ OF LONDON)

On 7th November, 2013, before me personally appeared Michael A. Liberty known to me to be the person described and who signed the foregoing Assignment in my presence and acknowledged under oath before me that he has read the same and knows the contents thereof and that he executed the same as his free act and deed and for the purposes set forth therein.

NOTARY PUBLIC
Residing at LONDON, ENGLAND

My Commission Expires:
ON DEATH

Notary Public London, England (James L Varner)

4253379 1

UTILITY PATENT APPLICATION TRANSMITTAL
(Small Entity)

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

Docket No.
18756.8.1.1.1.1.1.1
Total Pages in this Submission
4

COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, VA 22313-1450

Transmitted herewith for filing under 35 U.S.C. 111 (a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

MONETARY TRANSACTION SYSTEM

and invented by:

Michael A. Liberty

If a CONTINUATION APPLICATION, *check appropriate box and supply the requisite information:*

☒ **Continuation** ☐ **Divisional** ☐ **Continuation-in-part (CIP)** of prior application No.: 14/213,543

Which is a:

☒ **Continuation** ☐ **Divisional** ☐ **Continuation-in-part (CIP)** of prior application No.: 13/964,707

Which is a:

☒ **Continuation** ☐ **Divisional** ☐ **Continuation-in-part (CIP)** of prior application No.: 13/484,199

Enclosed are:

Application Elements

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 73 pages and including the following:
   - a. ☒ Descriptive Title of the Invention
   - b. ☒ Cross References to Related Applications *(if applicable)*
   - c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*
   - d. ☐ Reference to Sequence Listing, a Table, or a Computer Program Listing Appendix
   - e. ☒ Background of the Invention
   - f. ☒ Brief Summary of the Invention
   - g. ☒ Brief Description of the Drawings *(if filed)*
   - h. ☒ Detailed Description
   - i. ☒ Claim(s) as Classified Below
   - j. ☒ Abstract of the Disclosure

UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity) *(Only for new nonprovisional applications under 37 CFR 1.53(b))*	**Docket No.** 18756.8.1.1.1.1.1.1
	Total Pages in this Submission 4

Application Elements (Continued)

3. ☒ Drawing(s) (when necessary as prescribed by 35 USC 113)
   a. ☒ Formal — Number of Sheets 21
   b. ☐ Informal — Number of Sheets _____
4. ☒ Oath or Declaration
   a. ☐ Newly executed *(original or copy)* ☐ Unexecuted
   b. ☒ Copy from a prior application
   c. ☐ With Power of Attorney ☐ Without Power of Attorney
   d. ☐ *DELETION OF INVENTOR(S)*
      Signed statement attached deleting inventor(s) named in the prior application, see 37 C.F.R. 1.63(d)(2) and 1.33(b).
5. ☐ Incorporation By Reference *(usable if Box 4b is checked)*
   The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.
6. ☐ CD ROM or CD-R in duplicate, large table or Computer Program (Appendix)
7. ☒ Application Data Sheet (See 37 CFR 1.76)
8. ☐ Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all must be included)*
   a. ☐ Computer Readable Form (CRF)
   b. ☐ Specification Sequence Listing on:
      i. ☐ CD-ROM or CD-R (2 copies); or
      ii. ☐ Paper
   c. ☐ Statement(s) Verifying Identical Paper and Computer Readable Copy

Accompanying Application Parts

9. ☐ Assignment Papers *(cover sheet & document(s))*
10. ☒ 37 CFR 3.73(C) Statement *(when there is an assignee)*
11. ☐ English Translation Document *(if applicable)*
12. ☐ Information Disclosure Statement/PTO-1449 ☐ Copies of IDS Citations
13. ☒ Power of Attorney
14. ☐ Return Receipt Postcard *(MPEP 503) (Should be specifically itemized)*
15. ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*
16. ☐ Certificate of Mailing
    ☒ Via E-File ☐ Express Mail *(Specify Label No.):* _____

P01ULRG/REV09

UTILITY PATENT APPLICATION TRANSMITTAL (Small Entity) *(Only for new nonprovisional applications under 37 CFR 1.53(b))*	**Docket No.** 18756.8.1.1.1.1.1.1
	Total Pages in this Submission 4

Accompanying Application Parts (Continued)

17. ☐ Additional Enclosures *(please identify below):*

Request That Application Not Be Published Pursuant To 35 U.S.C. 122(b)(2)

18. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

Warning

An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.

UTILITY PATENT APPLICATION TRANSMITTAL
(Small Entity)

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

Docket No.
18756.8.1.1.1.1.1.1
Total Pages in this Submission
4

CLAIMS AS FILED					
For	**#Filed**	**#Allowed**	**#Extra**	**Rate**	**Fee**
Total Claims	8	-20	0	$40.00	$0.00
Indep. Claims	3	-3	0	$210.00	$0.00
Multiple Dependent Claims (check if applicable)					$0.00
Total # of Pages in Specification	73	**Total # of Drawing Sheets**	21		
Total # of Sheets	94			**Application Size Fee**	$0.00
				Small Entity Basic Fee	$70.00
				Small Entity Search Fee	$300.00
				Small Entity Examination Fee	$360.00
OTHER FEE (specify purpose)					
				TOTAL FILING FEE	$730.00

☐ A check in the amount of $_____ to cover the filing fee is enclosed.

☒ The Director is hereby authorized to charge and credit Deposit Account No. 23-3178 as described below.

- ☐ Charge the amount of $_____ as filing fee.
- ☒ Credit any overpayment.
- ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
- ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

☒ Payment by credit card.

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

/John C. Stringham, 40831/

Signature

Dated: July 1, 2016

John C. Stringham
Reg. No. 40,831

Customer Number: 22913

WORKMAN | NYDEGGER
Attorneys for Applicant

P01ULRG/REV09

FILED VIA E-FILING

PATENT APPLICATION
Docket No.: 18756.8.1.1.1.1.1.1

UNITED STATES PATENT APPLICATION

Of

Michael A. Liberty

For

MONETARY TRANSACTION SYSTEM

MONETARY TRANSACTION SYSTEM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is a continuation of U.S. Patent Application Serial No. 14/213,543, entitled "Monetary Transaction System", filed March 14, 2014, which is a continuation of U.S. Patent Application Serial No. 13/964,707, entitled "Monetary Transaction system", filed August 12, 2013, which application is a continuation of U.S. Patent Application Serial No. 13/484,199, filed May 30, 2012, entitled "Monetary Transaction System", which application claims priority to and the benefit of U.S. Provisional Application Ser. No. 61/522,099, filed on August 10, 2011, entitled "Mobile Wallet Platform", and also claims priority to and the benefit of U.S. Provisional Application Ser. No. 61/493,064, filed on June 3, 2011, entitled "Mobile Wallet Platform". All of the aforementioned applications are incorporated by reference herein in their entirety.

BACKGROUND

[0002] Mobile phones and other digital devices have become increasingly popular in recent years. Many mobile device users use their devices to perform countless different daily tasks. For instance, mobile devices allow users to check email, send and receive instant messages, check calendar items, take notes, set up reminders, browse the internet, play games or perform any number of different things using specialized applications or "apps". These applications allow mobile devices to communicate with other computer systems and perform a wide variety of network-connected tasks previously not possible with a mobile device.

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A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
60 EAST SOUTH TEMPLE
SUITE 1000
SALT LAKE CITY, UTAH 84111

BRIEF SUMMARY

[0003] Embodiments described herein are directed to monetary transaction system for conducting monetary transactions between transaction system subscribers and other entities. In one embodiment, the monetary transaction system includes a mobile device configured to run a monetary transaction system application. The monetary transaction system also includes a monetary transaction system subscriber that has a profile with the system. The subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system. The system further includes a monetary transaction system processor that performs the transactions specified by the subscriber. Performing these transactions includes communicating with a monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile.

[0004] The monetary transaction system also includes at least one entity that is to be involved in the specified transaction, where the entity has a profile with the monetary transaction system. This entity may be a person, a retail store, an agent or other entity. The subscriber may have access to a bank account, or may be an "unbanked user" that does not have access to a bank account. Each of the terms included above will be described in greater detail below in conjunction with the drawings.

[0005] The monetary transaction system may be used for many different tasks including enrolling a customer for a mobile wallet, adding a stored value account (either hosted by a mobile wallet platform or a third party), adding a bank or credit union account to a mobile wallet, adding a debit or credit card account to a mobile wallet, depositing funds in a mobile wallet, withdrawing funds from a mobile wallet, paying bills

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SUITE 1000
SALT LAKE CITY, UTAH 84111

from a mobile wallet, topping up a prepaid mobile account through a mobile wallet, transferring funds through a mobile wallet (nationally or internationally), making in-store purchases using a mobile wallet, and various other tasks as described herein below.

[0006] This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

[0007] Additional features and advantages will be set forth in the description which follows, and in part will be apparent to one of ordinary skill in the art from the description, or may be learned by the practice of the teachings herein. Features and advantages of embodiments described herein may be realized and obtained by means of the instruments and combinations particularly pointed out in the appended claims. Features of the embodiments described herein will become more fully apparent from the following description and appended claims.

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BRIEF DESCRIPTION OF THE DRAWINGS

[0008] To further clarify the above and other features of the embodiments described herein, a more particular description will be rendered by reference to the appended drawings. It is appreciated that these drawings depict only examples of the embodiments described herein and are therefore not to be considered limiting of its scope. The embodiments will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0009] Figure 1 illustrates a monetary transaction system architecture in which embodiments described herein may operate.

[0010] Figure 2 illustrates an alternate example embodiment of a monetary transaction system.

[0011] Figure 3 illustrates an example data flow for performing a subscriber deposit via a mobile wallet.

[0012] Figure 4 illustrates an example data flow for performing a subscriber withdrawal via a mobile wallet.

[0013] Figures 5A and 5B illustrate example data flows for performing subscriber-to-subscriber and subscriber-to-non-subscriber eMoney transfers via a mobile wallet, respectively.

[0014] Figures 6A and 6B illustrate example data flows for performing subscriber-to-subscriber and subscriber-to-non-subscriber international eMoney transfers via a mobile wallet, respectively.

[0015] Figure 7 illustrates an example data flow for performing a subscriber airtime purchase via a mobile wallet.

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[0016] Figure 8 illustrates an example data flow for performing a subscriber-initiated bill pay via a mobile wallet.

[0017] Figure 9 illustrates an example data flow for performing a subscriber-initiated retail purchase via a mobile wallet.

[0018] Figures 10A and 10B illustrate example data flows for requesting and repaying micro-loans via a mobile wallet, respectively.

[0019] Figure 11A illustrates an example data flow of a subscriber receiving a direct deposit via a mobile wallet.

[0020] Figure 11B illustrates an example data flow of a subscriber receiving a governmental welfare payment via a mobile wallet.

[0021] Figure 12A illustrates an example data flow of an agent administrator distributing eMoney via a mobile wallet.

[0022] Figure 12B illustrates an example data flow of an agent company making a deposit using a mobile wallet.

[0023] Figure 13 illustrates an example data flow of an agent company making a withdrawal using a mobile wallet.

[0024] Figure 14 illustrates an example data flow of a subscriber making a deposit at an agent branch using a mobile wallet.

[0025] Figure 15 illustrates an example data flow of a subscriber making a deposit with a non-agent using a mobile wallet.

[0026] Figure 16 illustrates an example data flow of a subscriber making a withdrawal with an agent using a mobile wallet.

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[0027] Figure 17A illustrates an example data flow of a subscriber making a withdrawal from an ATM using a mobile wallet.

[0028] Figure 17B illustrates an example data flow of a subscriber-to-subscriber money transfer using a mobile wallet.

[0029] Figure 17C illustrates an example data flow of a subscriber-to-non-subscriber money transfer using a mobile wallet.

[0030] Figure 18A illustrates an example data flow of a subscriber-to-subscriber international money transfer using a mobile wallet.

[0031] Figure 18B illustrates an example data flow of a subscriber-to-non-subscriber international money transfer using a mobile wallet.

[0032] Figure 19A illustrates an example data flow of a subscriber-to-subscriber international money transfer using a mobile wallet.

[0033] Figure 19B illustrates an example data flow of a non-subscriber-to-subscriber international money transfer using a mobile wallet.

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SUITE 1000
SALT LAKE CITY, UTAH 84111

DETAILED DESCRIPTION

[0034] Embodiments described herein are directed to monetary transaction system for conducting monetary transactions between transaction system subscribers and other entities. In one embodiment, the monetary transaction system includes a mobile device configured to run a monetary transaction system application. The monetary transaction system also includes a monetary transaction system subscriber that has a profile with the system. The subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system. The system further includes a monetary transaction system processor that performs the transactions specified by the subscriber. Performing these transactions includes communicating with a monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile.

[0035] The monetary transaction system also includes at least one entity that is to be involved in the specified transaction, where the entity has a profile with the monetary transaction system. This entity may be a person, a retail store, an agent or other entity. The subscriber may have access to a bank account, or may be an "unbanked user" that does not have access to a bank account. Each of the terms included above will be described in greater detail below in conjunction with the drawings.

[0036] The monetary transaction system may be used for many different tasks including enrolling a customer for a mobile wallet, adding a stored value account (either hosted by a mobile wallet platform or a third party), adding a bank or credit union account to a mobile wallet, adding a debit or credit card account to a mobile wallet, depositing funds in a mobile wallet, withdrawing funds from a mobile wallet, paying bills

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A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
60 EAST SOUTH TEMPLE
SUITE 1000
SALT LAKE CITY, UTAH 84111

from a mobile wallet, topping up a prepaid mobile account through a mobile wallet, transferring funds through a mobile wallet (nationally or internationally), making in-store purchases using a mobile wallet, and various other tasks as described herein below.

[0037] The following discussion now refers to a number of methods and method steps or acts that may be performed. It should be noted, that although the method steps may be discussed in a certain order or illustrated in a flow chart as occurring in a particular order, no particular ordering is necessarily required unless specifically stated, or required because a step is dependent on another step being completed prior to the step being performed.

[0038] Embodiments of the mobile transaction system or "mobile wallet platform" described herein may comprise or utilize a special purpose or general-purpose computer including computer hardware, such as, for example, one or more processors and system memory, as discussed in greater detail below. Embodiments described herein also include physical and other computer-readable media for carrying or storing computer-executable instructions and/or data structures. Such computer-readable media can be any available media that can be accessed by a general purpose or special purpose computer system. Computer-readable media that store computer-executable instructions in the form of data are computer storage media. Computer-readable media that carry computer-executable instructions are transmission media. Thus, by way of example, and not limitation, embodiments described herein can comprise at least two distinctly different kinds of computer-readable media: computer storage media and transmission media.

[0039] Computer storage media includes RAM, ROM, EEPROM, CD-ROM, solid state drives (SSDs) that are based on RAM, Flash memory, phase-change memory

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60 EAST SOUTH TEMPLE
SUITE 1000
SALT LAKE CITY, UTAH 84111

(PCM), or other types of memory, or other optical disk storage, magnetic disk storage or other magnetic storage devices, or any other medium which can be used to store desired program code means in the form of computer-executable instructions, data or data structures and which can be accessed by a general purpose or special purpose computer.

[0040] A "network" is defined as one or more data links and/or data switches that enable the transport of electronic data between computer systems and/or modules and/or other electronic devices. When information is transferred or provided over a network (either hardwired, wireless, or a combination of hardwired or wireless) to a computer, the computer properly views the connection as a transmission medium. Transmission media can include a network which can be used to carry data or desired program code means in the form of computer-executable instructions or in the form of data structures and which can be accessed by a general purpose or special purpose computer. Combinations of the above should also be included within the scope of computer-readable media.

[0041] Further, upon reaching various computer system components, program code means in the form of computer-executable instructions or data structures can be transferred automatically from transmission media to computer storage media (or vice versa). For example, computer-executable instructions or data structures received over a network or data link can be buffered in RAM within a network interface module (e.g., a network interface card or "NIC"), and then eventually transferred to computer system RAM and/or to less volatile computer storage media at a computer system. Thus, it should be understood that computer storage media can be included in computer system components that also (or even primarily) utilize transmission media.

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[0042] Computer-executable (or computer-interpretable) instructions comprise, for example, instructions which cause a general purpose computer, special purpose computer, or special purpose processing device to perform a certain function or group of functions. The computer executable instructions may be, for example, binaries, intermediate format instructions such as assembly language, or even source code. Although the subject matter has been described in language specific to structural features and/or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the described features or acts described above. Rather, the described features and acts are disclosed as example forms of implementing the claims.

[0043] Those skilled in the art will appreciate that various embodiments may be practiced in network computing environments with many types of computer system configurations, including personal computers, desktop computers, laptop computers, message processors, hand-held devices, multi-processor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, mobile telephones, PDAs, tablets, pagers, routers, switches, and the like. Embodiments described herein may also be practiced in distributed system environments where local and remote computer systems that are linked (either by hardwired data links, wireless data links, or by a combination of hardwired and wireless data links) through a network, each perform tasks (e.g. cloud computing, cloud services and the like). In a distributed system environment, program modules may be located in both local and remote memory storage devices.

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[0044] In this description and the following claims, "cloud computing" is defined as a model for enabling on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services). The definition of "cloud computing" is not limited to any of the other numerous advantages that can be obtained from such a model when properly deployed.

[0045] For instance, cloud computing is currently employed in the marketplace so as to offer ubiquitous and convenient on-demand access to the shared pool of configurable computing resources. Furthermore, the shared pool of configurable computing resources can be rapidly provisioned via virtualization and released with low management effort or service provider interaction, and then scaled accordingly.

[0046] A cloud computing model can be composed of various characteristics such as on-demand self-service, broad network access, resource pooling, rapid elasticity, measured service, and so forth. A cloud computing model may also come in the form of various service models such as, for example, Software as a Service ("SaaS"), Platform as a Service ("PaaS"), and Infrastructure as a Service ("IaaS"). The cloud computing model may also be deployed using different deployment models such as private cloud, community cloud, public cloud, hybrid cloud, and so forth. In this description and in the claims, a "cloud computing environment" is an environment in which cloud computing is employed.

[0047] Additionally or alternatively, the functionally described herein can be performed, at least in part, by one or more hardware logic components. For example, and without limitation, illustrative types of hardware logic components that can be used include Field-programmable Gate Arrays (FPGAs), Program-specific Integrated Circuits

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(ASICs), Program-specific Standard Products (ASSPs), System-on-a-chip systems (SOCs), Complex Programmable Logic Devices (CPLDs), and other types of programmable hardware.

[0048] Still further, system architectures described herein can include a plurality of independent components that each contribute to the functionality of the system as a whole. This modularity allows for increased flexibility when approaching issues of platform scalability and, to this end, provides a variety of advantages. System complexity and growth can be managed more easily through the use of smaller-scale parts with limited functional scope. Platform fault tolerance is enhanced through the use of these loosely coupled modules. Individual components can be grown incrementally as business needs dictate. Modular development also translates to decreased time to market for new functionality. New functionality can be added or subtracted without impacting the core system.

[0049] Various terminology will be used herein to describe the monetary transaction system (also referred to as a "mobile wallet platform", "mobile wallet program" or “mobile wallet transaction system”). The term “agent” is used to refer to an individual with mobile financial services (mFS) transaction system tools and training to support specific mFS functions. These mFS functions include subscriber registration and activation, and the deposit and withdrawal of funds from the mFS transaction system. Agents are representatives of the mFS transaction system or "program". Agents can be employees or contractors of the program provider, or other companies and organizations that partner with the program provider to provide these services themselves. Agents may be found in every facet of a typical economy, and may include large retailers, mobile

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network operators (MNO) airtime sales agents, gas stations, kiosks, or other places of business.

[0050] The mobile wallet platform includes a mobile wallet application, web interface or some other type of functionality that allows the user to interact with the mFS platform using their mobile device. The mobile wallet application may include a subscriber identity module (SIM) application, an Unstructured Supplementary Service Data (USSD) application, a smartphone application, a web application, a mobile web application, a Wireless Application Protocol (WAP) application, a Java 2 Platform, Micro Edition (J2ME) application, a tablet application or any other type of application or interface that provides tools for the agent to register, activate, and offer other services to the mFS subscriber.

[0051] As used herein, a mobile wallet application is a mobile wallet application installed on a SIM card. A USSD application is an application that implements USSD for various functionality including prepaid callback service, location-based content services, menu-based information services and other mobile wallet platform services. A web application is one that implements or uses the internet to provide mobile wallet platform functionality. A mobile web application is similar to a web application, but is tailored for mobile devices. A WAP application is one that uses the wireless application protocol to communicate with the mobile wallet platform to provide the platform's functionality. A J2ME application is an application developed in Java and is designed to provide mobile wallet functionality on a variety of different hardware. A tablet application is an application specifically designed for a touchscreen-based tablet that provides mobile wallet platform functionality for tablet devices. , and as part of configuring the phone on

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the network. Any of these applications (or any combination thereof) may be provided on the user's mobile device. This functionality can also be made available on a retail point of sale (POS) system or web site.

[0052] The term "agent administrator" refers to an individual with mFS program tools and training to administrate the allocation of funds to agent branches (e.g. retail locations). As agents perform mFS transactions with subscribers, such as depositing and withdrawing money, the agents are adding and removing money from their own accounts. If there are insufficient funds in the agent's account to complete a transaction, additional money will need to be transferred from the agent company's master account to that agent branch account to cover that transaction. An agent administrator is responsible for these funds transfers. Any of the applications referred to above may be configured to provide tools used by the agent administrator to view the agent company balance, view the agent branch balances, and transfer funds into and out of agent branch mobile wallets. This functionality can also be made available on a website for easier access.

[0053] The term "agent administrator mobile wallet application" refers to a software program or application installed on the agent administrator's terminal in the agent administrator's mobile device (such as a mobile phone or tablet). This software application provides the agent administrator the ability to securely perform agent administrator functions such as querying the agent company account balance or transferring funds into and out of agent branch accounts. The agent administrator's mobile wallet application may be installed on a global system for mobile communications (GSM) SIM card (or on any other type of SIM card), and may be accessed using a GSM mobile phone. The agent administrator's application may also be installed on a code

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division multiple access (CDMA) mobile phone, a 3G, 4G, 4G LTE (Long Term Evolution) or other wireless carrier standard. The application may, additionally or alternatively, be installed directly on the agent administrator's mobile device. The application communicates with the mFS transaction system using binary and/or text short message service (SMS) messages. A wireless service provider or MNO provides the GSM SMS network infrastructure on which the mFS platform operates.

[0054] In some embodiments, the mFS platform application may utilize triple data encryption standard (3DES) encryption (or some other type of encryption), encrypted message signing, and password security on some or all of its communications with the mFS transaction system in order to ensure that the transactions are properly secured and authenticated.

[0055] The term "agent branch" refers to any location where an agent provides support for subscriber services of the mFS platform. Funds are allocated by the agent administrator from the agent company's main account to each agent branch to fund the subscriber mFS functions such as depositing or withdrawing cash, in-store purchases, bill payments, prepaid airtime top-ups and money transfers. In some cases, multiple agents may work in a single branch. However, at least in some cases, monetary funds are allocated to from the agent company's main account on a per branch basis.

[0056] The term "agent branch account balance" refers to the amount of money residing in a particular agent branch account at a given time. Funds can be deposited into the branch account by the agent administrator, or the funds can come from participating in subscriber mFS transactions such as depositing or withdrawing cash from the subscriber's mobile wallet accounts, or making retail purchases with the mobile wallet.

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[0057] Each agent branch is to maintain a balance in their branch account. This applies more strongly in countries where mFS program and financial services infrastructure is still developing. In cases where real-time processing of financial transactions including card processing is not practical, subscribers leverage the applications on their mobile phones to submit transactions and conduct business with retailers, businesses, and other subscribers. The mFS platform manages the balance of mobile wallet accounts for each subscriber as value is transferred from one mobile wallet to another (e.g. from a subscriber's mobile wallet to an agent's mobile wallet in payment for goods or services). This value is referred to herein as "eMoney".

[0058] As subscribers conduct business with mFS agents, they deposit or withdraw cash from their mobile wallet accounts. Virtual or eMoney credits are transferred between the subscriber's mobile wallet account and the agent branch's account as a form of currency to support the transaction. As agents accept cash into their cash register by mFS subscribers, they transfer the equivalent amount of eMoney credits into the mFS subscriber's mobile wallet account. For instance, if an mFS subscriber gives an mFS agent $10 to deposit into the subscriber's mobile wallet account, the agent would place the cash into his register and transfer $10 from the agent branch's eMoney account into the subscriber's mobile wallet account. While the agent acquired $10 in his register, he transferred out $10 of eMoney credits from his branch eMoney account.

[0059] In some embodiments, in countries with more developed economies, it may be beneficial to use program-issued pre-paid debit cards, pre-paid access accounts, stored value accounts or gift cards to conduct business along with the added convenience of card processing networks such as Cirrus, STAR, or Visa for POS and automated teller

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machine (ATM) functionality. Agents, particularly those in retail outlets and kiosks, can still support subscribers with deposits, withdrawals, and other transfers, but in this case bank external card processors manage the mobile wallet and branch account balances and provide the real-time transfer of funds.

[0060] The term "agent branch ledger" refers to a written (or electronic) ledger maintained by the mFS platform. Agent branch transactions are performed on the agent's and subscriber's mobile phones where an electronic record of the transaction is generated and stored on the mFS platform. These electronic transactions are then reconciled with agent branch ledgers to ensure the security and integrity of the transaction. Agent branch ledgers are printed or electronic transaction logs that are distributed to the agent branch locations in hard copy form to serve as a backup record to the electronic transactions.

[0061] The term "agent company" refers to a business that registers to participate in the mFS program as a partner of the mFS program provider or owner. The agent company has one or more agent branches which conduct mFS business with mFS program subscribers. In some cases, the agent company may be referred to as a distributor or retailer.

[0062] The term "agent company account balance" refers to the sum of the funds deposited at a "partner bank" (defined below) by the agent company to fund the agent company's daily transactions. The funds in the agent company account are then distributed to agent branches by the agent company's agent administrator to conduct everyday business such as accepting cash deposits and cash withdrawals from mFS subscribers. This balance is sometimes referred to as the "agent company float".

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[0063] An "agent manager" is a supervisor of company agents for a given company. The agent manager has the training and tools to create, delete or modify agent accounts for a company, as well as monitor the transactions performed by agents. The agent manager may have a special application or an increased level of rights to access applications features not available to other users. The special application is a program installed on the agent manager's terminal. This application provides the agent manager the ability to securely perform agent manager functions such as registering and activating new agent accounts.

[0064] The mFS agent manager application may be installed on any terminal or device. It communicates with the mFS platform using binary and/or text SMS messages. A wireless service provider or MNO provides the GSM SMS network infrastructure on which the mFS platform operates. The mFS platform mobile wallet applications may utilize 3DES encryption (or any other type of encryption), encrypted message signing, and password security on some or all of its communications with the mFS platform in order to ensure that the transactions are properly secured and authenticated.

[0065] The term "agent application" refers to an application that provides all the tools necessary for an agent to register, activate, and offer other services to the mFS subscriber. The agent application is a program installed on the agent's SIM card or otherwise installed in the agent's mobile device's memory. This application provides the agent the ability to securely perform agent functions such as registering and activating new subscribers and depositing and withdrawing funds from mobile wallet accounts. The mFS agent application may be installed on a GSM SIM card or mobile phone and may be

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accessed using a GSM or CDMA mobile phone. A wireless service provider or MNO provides the data and SMS network infrastructure on which the mFS platform operates.

[0066] The terms "mFS platform", "mobile wallet platform" and "monetary transaction system" refer to an overall platform or ecosystem of different components that work together to provide the various functions described herein on a global scale. At least some of the various logic components include the following: the application. The "mobile wallet application" or "mFS application" manages the processing of incoming transactions regardless of their source. The application handles end-user authentication, transaction processing, subscriber profile management, and further manages interactions between the various platform components.

[0067] The mFS platform further includes a transaction processor. This component is used when the mFS application is implemented in a country where real-time processing of financial transactions is not practical (or not possible). The transaction processor manages the balance of mobile wallet accounts, agent accounts, and the accounts of any other program participant. The transaction processor handles balance inquiries, credits, debits, and transaction roll-backs.

[0068] The mFS platform further includes a rules engine that manages and applies the rules and policy that are defined for transactions as they are processed on the mFS platform. Rules impact transaction fees, limits, velocity limits, and commissions as well as program actor roles and permissions. Rules can be customized for each implementation. The mFS platform also includes an integration interface that manages the integration and interaction between external systems (i.e. external to the mFS platform) and the mFS platform. Connectivity to the wireless service provider's pre-paid

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airtime billing platform and the program partner bank, for example, are managed by the integration interface.

[0069] The mFS platform further includes a transaction database that stores the data that supports the mFS platform. This includes subscriber profiles and subscription data, transaction data and logs, and application configuration and run-time data, among other types of data. Another component of the mFS platform is a handset support service that interfaces with the wireless service provider's SMS network to allow communication between the mobile wallet applications and the back-office systems via SMS messaging or some other form of data transfer. Still further, another component of the mFS platform is a web component that provides a web interface to the mFS program participants that allows the subscriber to perform the same functions in the web interface that they would have available through their applications.

[0070] The term "bill pay company" refers to a business that signs-up to participate in the mFS transaction system. As a participant in the mFS transaction system, the company accepts payment from mFS mobile wallet accounts, either in the form of eMoney or through periodic settlements.

[0071] At least in some embodiments, financial transactions that take place in the mFS mobile wallet platform are funded through pre-paid mobile wallet accounts. Mobile wallet platform subscribers can deposit cash into their mobile wallet account through a process referred to herein as 'cash-in'. The cash-in process is supported by mFS agents at agent branch locations. The agent accepts the cash from the subscriber and transfers the equivalent amount of eMoney to the subscriber's mobile wallet account. This process is similar to withdrawing cash from a bank account.

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[0072] As mentioned above, in some embodiments, financial transactions that take place in the mobile wallet platform are funded through pre-paid mobile wallet accounts. Mobile wallet platform subscribers can withdraw cash from their mobile wallet account through a process known as "cash-out". The cash-out process is supported by mFS agents at agent branch locations. The subscriber transfers eMoney from their mobile wallet account to the agent's eMoney account. Upon receiving the eMoney, the agent gives the subscriber cash from their branch cash register.

[0073] Accounts managed on the mFS platform by the mFS eMoney transaction processor maintain the mobile wallet balance of mFS program participants including subscribers, agent branches, agent companies, and non-agent companies. eMoney is moved between Mobile Wallet accounts by the transaction processor based on mFS transaction processing. Only when transactions involving cash (i.e. depositing or withdrawing funds from the mFS program) or the movement of money from mFS participants to non-mFS program participants are funds moved from the master bank accounts.

[0074] As subscribers, agents, and other mFS program participants conduct business in the mFS program, value is transferred from one account to the next as payment for services rendered or goods purchased. This value can be in the form of real currency or the electronic representation referred to herein as eMoney.

[0075] Among other situations, eMoney is used in mFS implementations where the real-time processing of financial transactions including card processing is not practical. The mFS platform utilizes an internal transaction processor for managing the real-time

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balance of mobile wallet and agent accounts as value (eMoney) is transferred from one mobile wallet to another in payment for services.

[0076] As subscribers conduct business with mFS agents, they deposit or withdraw cash from their mobile wallet accounts. Virtual or eMoney credits are transferred between the subscriber mobile wallet accounts and the agent branch accounts as a form of currency to support the transaction. As agents accept cash into their cash register by mFS subscribers, they transfer the equivalent amount of eMoney credits into the mFS subscriber's mobile wallet account. For example, if an mFS subscriber gives an mFS agent $10 to deposit into the subscriber's mobile wallet account, the agent would place the cash into his or her register, and transfer $10 from the agent branch eMoney account into the subscriber's mobile wallet account. While the agent acquired $10 in his or her register, the agent transferred-out $10 of eMoney credits from his or her branch eMoney account. This will be explained in greater detail below.

[0077] In some embodiments, employers may wish to participate in the mFS program by allowing the direct deposit of paychecks into subscribers' mobile wallet accounts. Accordingly, each payday, the user's pay is directly transferred to the subscribers' mobile wallet.

[0078] The term "know your customer" or "KYC" refers to information collected about an individual that identifies that individual. Such information is used to establish a mobile wallet account with the mobile wallet platform. Regulatory requirements in some countries require that new bank account creation must be preceded by a display of a valid government ID. These KYC regulations may vary from country to country. Accordingly,

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different KYC information may be requested from subscribers in different countries in order to establish a mobile wallet account.

[0079] The term micro-finance institution (MFI) refers to a lender that issues small loans. MFIs participating in the mFS program lend to mFS program subscribers and accept loan repayment either in the form of eMoney or settlements with the mFS platform provider.

[0080] The term "mFS program", like the term "mFS platform" refers to the ecosystem of companies, service providers, and subscribers that participate in providing mobile financial services to their customers. In some embodiments, there may be one mFS program implementation per country. Each program includes a program owner and operator, a program platform, a partner wireless services provider or MNO, and a partner bank.

[0081] The term "mFS program master account" refers to a bank account maintained by the mFS program partner bank to provide funds and float for the operation of the mFS platform. Depending on the type of mFS implementation, the master account can include sub-accounts for each of the agent branches and subscriber mobile wallets, giving the bank visibility into all transactions on a per-user basis. The mFS platform can also manage the balance of sub-accounts and interact with the bank's master account when funds need to be deposited or withdrawn from the account.

[0082] The term mobile network operator (MNO) refers to a provider of mobile phone service including basic voice, SMS, unstructured supplementary service data (USSD) and data service, and may also be referred to as a "wireless service provider".

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[0083] The term "mobile wallet" or "mobile wallet account" refers to a stored value account or prepaid access account (PPA) that allows the owner (or "subscriber") to pay for goods and services on the mFS platform from his or her mobile wallet account. When the mFS eMoney transaction processor is used, the mobile wallet balance is maintained by the mFS platform and value is exchanged within the mFS program as eMoney. When the mFS platform is integrated to an external card processor, the mobile wallet utilizes funds from the subscriber's prepaid debit card and bank account to exchange value on the mFS platform.

[0084] The term "non-agent company" refers to a mFS program participant who accepts payments from mFS subscribers but does not provide the same services as mFS agent companies. Payment is accepted either in the form of eMoney or through periodic settlements with the mFS platform provider. Examples of non-agent companies include bill pay providers and micro-finance lenders.

[0085] The term "non-mFS subscribers" refers to unregistered users that participates in various use cases in the mFS program. Non-mFS subscribers can send money to or receive money from mFS subscribers through interaction with the mFS program agents or with international remittance providers.

[0086] The term "partner bank" refers to the primary bank participating in the mFS program. The partner bank is responsible for holding the mFS program master accounts that hold the funds for all mFS services and transactions. A "PIN" refers to a numeric password that may be required to perform a transaction via the mobile wallet application. A "transaction processor" refers to an application or service that manages the mFS program account balances. The transaction processor determines the amount of funds or

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eMoney is in a particular account at any given time, and manages account balances. Mobile transaction system requests to credit, debit, or view the balance of a particular mobile wallet or program account are handled by the transaction processor (in conjunction with other components of the mobile wallet platform).

[0087] The term "sub-accounts" refers to accounts that are maintained within the mFS platform or by an external card processor. A partner bank may elect to maintain a separate bank account for each subscriber and/or agent branch, or a single master account may be established that contains the funds for all of the subscriber mobile wallet and agent branch accounts (at least within a country or other geographical region). The balance of each individual user may be managed by the mFS transaction processor.

[0088] When using a master account, the bank is involved only in transactions that require the movement of funds external to the mFS program. For example, subscriber cash-in and cash-out transactions involve the addition and removal of cash from the mFS program and would consequently include a deposit or withdrawal from the master account. Retail purchases from participating mFS program retailers or the exchange of funds between mFS subscribers results in no net change in the mFS program balance and thus do not require involvement by the partner bank.

[0089] The term "subscriber" refers to a participant of the mFS mobile wallet platform. The subscriber maintains a mobile wallet balance and performs transactions using the mFS application. An "unbanked subscriber" is a subscriber that does not have (or does not have access to) a bank account or credit union account. The application or "mobile wallet application" provides mobile wallet functionality to the (unbanked) subscriber. The mobile wallet application is installed on a mobile device in the device's

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memory, on a SIM card (such as a GSM SIM card) or is otherwise accessible to the mobile device. The mobile wallet application provides the subscriber the ability to securely perform subscriber functions such as making retail purchases, paying bills, or transferring money to other mFS subscribers and non-subscribers. The mobile wallet application communicates with the mFS platform using binary and text SMS messages, among other forms of wireless communication. A wireless service provider or MNO provides the GSM network infrastructure on which the mFS platform operates.

[0090] Figure 1 illustrates an example system architecture for a mobile wallet platform. Integration tier 101 is configured to manage mobile wallet sessions and maintain integrity of financial transactions. Integration tier 101 can also include a communication (e.g., Web services) API and/or other communication mechanisms to accept messages from channels 111. Other mechanisms include, but are not limited to: International Standards Organization ("ISO") 8583 for Point of Sale ("POS") and Automated Teller Machines ("ATM") devices and Advanced Message Queuing Protocol ("AMQP") for queue based interfaces. Each of channels 111 can be integrated to one or more mechanisms for sending messages to integration tier 101. Notification services 102 is configured to send various notifications through different notification channels 112, such as, for example, Short Message Peer-to-Peer ("SSMP") for Short Messaging Service ("SMS") and Simple Mail Transfer Protocol ("SMTP") for emails. Notification services 102 can be configured through a web services API.

[0091] Service connectors 103 are a set of connectors configure to connect to 3rd party systems 113. Each connector can be a separate module intended to integrate an external service to the system architecture. Business process services 104 are configured

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to implement business workflows, including executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects. Payment handler 105 is configured to wrap APIs of different payment processors, such as, for example, banking accounts, credit/debit cards or processor 121. Payment handler 105 exposes a common API to facilitate interactions with many different kinds of payment processors.

[0092] Security services 106 are configured to perform subscriber authentication. Authorization services 107 are configured to perform client authorization, such as, for example, using a database-based Access Control List ("ACL") table.

[0093] Database 108 is configured to manage customer accounts (e.g., storing customer accounts and properties), manage company accounts (e.g., storing company accounts and properties), manage transaction histories (e.g., storing financial transaction details), store customer profiles, storing dictionaries used by the mobile wallet platform, such as, for example, countries, currencies, etc., and managing money containers. Rules engine 109 is configured to gather financial transaction statistics and uses the statistics to provide transaction properties, such as, for example, fees and bonuses. Rules engine 109 is also configured to enforce business constraints, such as, for example, transactions and platform license constraints.

[0094] Name matching engine 110 is configured to match different objects according to specified configuration rules. Matching engine 110 can be use to find similarities between names, addresses, etc. Transaction processor 121 is configured to manage financial accounts and transactions. The transaction processor 121 can be used to hold, load, withdraw and deposit funds to mobile wallet accounts. Transaction processor 121

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can also be used as a common interface to a third party processor system. When used as a common interface, financial operations may be delegated to the external processor. A Clearing House subsystem of transaction processor 121 can be used to exchange the financial information with a bank.

[0095] Components of a mobile wallet platform can be connected to one another over (or be part of) a system bus and/or a network. Networks can include a Local Area Network ("LAN"), a Wide Area Network ("WAN"), and even the Internet. Accorindlgy, components of the mobile wallet platform can be "in the cloud". As such, mobile wallet platform components as well as any other connected computer systems and their components, can create message related data and exchange message related data (e.g., Internet Protocol ("IP") datagrams and other higher layer protocols that utilize IP datagrams, such as, Transmission Control Protocol ("TCP"), Hypertext Transfer Protocol ("HTTP"), Simple Mail Transfer Protocol ("SMTP"), etc.) over the system bus and/or network.

[0096] The components depicted in Figure 1 can interoperate to provide a number of financial and other services including but not limited to enrolling a customer for a mobile wallet, adding a stored value account (either hosted by a mobile wallet platform or a third party), adding a bank or credit union account to a mobile wallet, adding a debit or credit card account to a mobile wallet, depositing funds in a mobile wallet, withdrawing funds from a mobile wallet, paying bills from a mobile wallet, topping up a prepaid mobile account through a mobile wallet, transferring funds through a mobile wallet (nationally or internationally), making in-store purchases using a mobile wallet, and various other tasks

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as described herein below. These services will be described in greater detail below with regard to system Figures 1 and 2, as well as Figures 3-19B.

[0097] Figure 2 depicts a monetary transaction system 200 similar to that described in Figure 1. The monetary transaction system 200 may provide a more simplified system structure in which each of the above services may be provided. The system includes a subscriber 205. The subscriber may have access to a bank account, or may be an unbanked subscriber. The subscriber has a profile 211 with the monetary transaction system 210. The profile includes the subscriber's KYC information, as well as any associated bank accounts, credit union accounts, bill pay accounts or other accounts. The subscriber has (or has access to) a mobile device 206 such as a phone or tablet. The mobile device runs the mobile wallet application (or mobile wallet application) 207.

[0098] The subscriber can indicate, using the mobile application 207 which transaction or other action he or she would like to perform. The indicated transaction 208 is sent to the mobile wallet platform 210 to be carried out by the platform. The transaction processor 216 (which may be similar to or the same as transaction processor 121 of Figure 1) performs the transaction(s) specified by the (unbanked) subscriber 205. The transaction processor may implement various other components to perform the transaction including memory 217, (wireless) communication module 215, rules engine 210 and/or transaction database 225.

[0099] Performing the specified transactions may include communicating with the monetary transaction database 225 to determine whether the transaction is permissible based on data indicated in the unbanked subscriber's profile (for instance, whether the subscriber has enough eMoney in his or her stored value account, or has enough money

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in his or her bank account). Rules engine 220 may also be consulted to determine whether the subscriber has exceeded a specified number of allowed transactions. Then, if funds are available, and the transaction is otherwise permissible, the monetary transaction system can transfer money or eMoney 221 to or from an entity such as a user or agent (e.g. entity 222) to or from an establishment such as a retail store or agent company (e.g. entity 223).

[00100] In some cases, the monetary transaction system 210 application provides a web interface that allows subscribers to perform the same functions provided by the monetary transaction system application. For instance, mobile wallet application 207 may provide a web interface that allows a user to enroll for a mobile wallet. The web interface (or the mobile wallet application itself) receives a subscriber-initiated transaction over one of a plurality of channels (111 from Figure 1) connected to the monetary transaction system 210. The web interface or mobile wallet application may prompt for and receive enrollment information (e.g. KYC information) for the (unbanked) subscriber 205 over at least one of the plurality of channels (e.g. web, point-of-sale (POS), interactive voice response (IVR, etc.). The web interface or mobile wallet application may then send activation instructions over the same or a different channel to activate the (unbanked) subscriber 205 and create a subscriber account for the (unbanked) subscriber.

[00101] Once the subscriber has an account, the monetary transaction system generates a corresponding mobile wallet for the unbanked subscriber (available via the web interface and/or the mobile wallet application. The system then presents the (unbanked) subscriber's account data associated with the mobile wallet and/or a notification indicating that enrollment was successful to the subscriber. Accordingly, the

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mobile wallet application or the web interface may be used to provide user enrollment functionality. It should also be understood that either the mobile wallet application or the web interface may be used to provide substantially all of the mobile wallet functionality described herein.

[00102] It should also be noted that the mobile device 206 may be any type of plan-based phone or tablet, or prepaid phone or tablet. Many subscribers, such as unbanked subscribers, may primarily use prepaid phones. The mobile wallet application 207 may be installed on both plan-based phones and prepaid phones. The mobile wallet application may be installed on the device's SIM card, or on the device's main memory. Accordingly, the monetary transaction system 200 may be accessed and used via substantially any type of plan-based or prepaid mobile device.

[00103] Figure 3 shows three different graphics (301-303) and corresponding method steps (310-370) that illustrate an unbanked subscriber making a deposit using a mobile wallet (and, by extension, using the mobile wallet transaction system 210). In at least some of the embodiments described below, the actions of each participant are shown and described. This will also, at least in some embodiments, include an illustration of money flow throughout the mobile wallet transaction system. In the graphics, various terms are used as follows: $C = Cash Balance and $E = Electronic Money (eMoney) Balance.

[00104] At graphic 301, it is assumed that the unbanked subscriber (e.g. 205) has already registered and activated an eMoney account at an agent branch location (e.g. a retail store, gas station, or other location that has registered to be an agent branch). To deposit cash in order to get eMoney credit, the subscriber informs the agent manager or agent that they want to deposit a certain amount of cash (in 301). The agent

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manager/agent takes the cash and notifies the mobile wallet transaction system of the deposit using their agent manager or agent application (302). The transaction system 210 then credits the subscriber's eMoney account (303). Accordingly, any location that has registered to accept eMoney payments from subscribers' mobile wallets can also accept cash deposits. The agent branch's eMoney balance is reduced because their actual money balance was increased by the amount of the deposit. The subscriber's mobile wallet account is credited with eMoney in the amount of the deposit. In this manner, a subscriber can deposit cash into their mobile wallet account (in the form of eMoney) at any retail location or other agent branch location.

[00105] Thus, the agent manager receives the physical cash deposit into the subscriber's eMoney account via the agent manager or agent's application. The subscriber gives cash to agent manager or agent, and the mFS platform processes the request, updates the agent branch and subscriber's eMoney balances, logs the transaction, and sends details (such as eMoney account balances, transaction logs, etc.) to bank specified by the mobile wallet platform. These details may be sent instantaneously as transactions occur, or in batches at pre-determined intervals.

[00106] In one embodiment, the monetary transaction system 210 of Figure 2 is implemented to deposit funds at an agent branch using a mobile wallet. The monetary transaction system 210 receives communication from an agent branch over one of a plurality of channels (e.g. 111) connected to the monetary transaction system (step 310). The agent communication indicates that the unbanked subscriber 205 desires to deposit a specified amount of funds into the unbanked subscriber's mobile wallet account. The transaction processor 216 then validates the status of the unbanked subscriber's mobile

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wallet account (step 320) and determines if the agent branch is authorized to receive deposited money (i.e. determine if it has pre-registered as an official agent branch) (step 330).

[00107] The monetary transaction system may then use rules engine 220 to perform a limit check (to determine whether sufficient funds are available) and/or a velocity check (to determine whether the user has exceeded a specified number of (hourly, daily, or weekly) transactions) on the unbanked subscriber's mobile wallet account (step 340). The transaction system then credits the unbanked subscriber's mobile wallet account with the specified amount of funds (step 350) and returns a notification to the agent branch confirming the deposit (step 360) and returns another notification to the subscriber notifying the subscriber that the specified amount of funds was deposited in the their mobile wallet account (step 370). Any of channels 111 may be used to perform these communications.

[00108] Figure 4 shows three different graphics (401-403) and corresponding method steps (410-490) that illustrate an unbanked subscriber making a withdrawal using a mobile wallet (and, by extension, using the mobile wallet transaction system 210). As above, the terms in the graphics include "$C" representing cash balance and "$E" representing eMoney balance.

[00109] To withdraw cash at an agent branch, a subscriber submits a withdrawal request using their application (401). The subscriber may also enter information about the agent branch (e.g. name of establishment, name of agent, location or other information) that allows the monetary transaction system 210 to identify the agent branch. The transaction processor 216 may then determine whether the unbanked subscriber has

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enough eMoney to withdraw the requested amount. If he or she does have enough eMoney, then the subscriber's eMoney is deducted and that amount is transferred to the agent branch's eMoney account (402). Then, the agent branch gives the subscriber the requested amount of cash (403). In this manner, any entity that has established itself as an agent branch (including retail stores, gas stations, service providers, etc.) can provide cash withdrawal to a mobile wallet subscriber (whether banked or unbanked). The agent's or agent manager's role is to verify the withdrawal request (e.g. via SMS on the agent's or agent manager's phone) and gives the cash to subscriber. The subscriber requests cash withdrawal from agent branch's eMoney account via the application, and receives physical cash from agent manager/agent. The mobile wallet platform processes the request, updates the agent branch's and subscriber's eMoney balances, logs the transaction, and sends transaction details to a specified bank at pre-determined intervals.

[00110] In one embodiment, the monetary transaction system 210 is implemented to withdraw funds at an agent branch using a mobile wallet. The communication module 215 receives a communication from an unbanked subscriber over one of a plurality of channels 111 connected to the monetary transaction system 210 (step 410). The communication indicates that the unbanked subscriber 205 desires to withdraw a specified amount of funds from the unbanked subscriber's mobile wallet account at the agent branch. The monetary transaction system 210 validates the status of the unbanked subscriber's mobile wallet account (step 420) and determines if the balance of the unbanked subscriber's mobile wallet account is sufficient to accommodate the requested withdrawal for the specified amount of funds (step 430).

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[00111] The transaction processor 216 performs one or more of a limit check (to verify sufficient funds) and a velocity check (to verify the subscriber hasn't exceeded specified transfer limits) on the unbanked subscriber's mobile wallet account (step 440). The monetary transaction system 210 then returns a secure, perishable withdrawal code to the subscriber 205 over at least one of the plurality of channels 111 connected to the monetary transaction system (step 450). The monetary transaction system 210 receives subsequent agent branch communication over at least one of the plurality of channels connected to the monetary transaction system indicating that the withdrawal code has been presented to the agent branch (step 460). The monetary transaction system 210 then debits the unbanked subscriber's mobile wallet account by the specified amount of funds (step 470), returns a notification to the agent branch confirming the withdrawal (step 480) and notifies the subscriber that the specified amount of funds was withdrawn from the unbanked subscriber's mobile wallet account over at least one of the channels 111 connected to the monetary transaction system (step 490). Accordingly, the monetary transaction system 210 may be used to allow subscribers to withdraw cash using their mobile wallet applications at any store or other entity registered as an agent branch.

[00112] Figure 5A depicts a subscriber-to-subscriber eMoney transfer. To perform such a transfer, subscriber A (501) enters some type of identification information identifying subscriber B (e.g. subscriber B's phone number) and an amount of money he or she wishes to transfer. The transaction processor 216 of the monetary transaction system 210 determines if there are sufficient funds to complete the transfer. If sufficient funds are available, the monetary transaction system 210 decrements subscriber A's account and credits subscriber B's account (502). The system then sends some kind of

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notification (e.g. SMS) to subscriber B indicating that a certain amount of money was transferred to their account. Subscriber A may also receive a notification that the transfer was successful. Accordingly, eMoney may be transferred between two mFS platform subscribers, one or both of which may be unbanked. The monetary transaction system 210 processes the subscribers' requests, updates the subscribers' eMoney balances, logs the transactions, and sends transaction information to a specified bank when needed.

[00113] Figure 5B illustrates a subscriber-to-non-subscriber eMoney transfer. In graphic 505, subscriber A wishes to send eMoney to another individual that is not a subscriber to the mFS platform. The transaction is initiated in the same fashion as the subscriber-to-subscriber transfer scenario. However, since non-subscriber B does not have a mobile wallet account, the monetary transaction system 210 cannot credit them with eMoney. Instead, the monetary transaction system 210 sends a notification (e.g. via SMS) to non-subscriber B with instructions for how to pick-up the transferred money, along with an authorization code (506). The monetary transaction system 210 puts a hold on subscriber A's account for the amount transferred. Subscriber B then has a specified number of days to pick up the cash before the hold expires and the amount is credited back to subscriber A's eMoney account by the monetary transaction system 210.

[00114] When non-subscriber B goes to pick up the money at an agent branch, the agent branch's manager or agent verifies the authorization code via an agent manager or agent mobile wallet application (that, in turn, accesses the mFS platform). Once the transfer has been validated, the agent gives the cash to non-subscriber B. The agent branch's mFS account is credited with the transfer amount (507) and the user leaves with the cash in hand (508). The mFS platform processes the transfer request, updates

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subscriber A's eMoney balance, logs the transaction, and sends transaction details to a platform-specified bank.

[00115] Figure 6A illustrates a subscriber-to-subscriber international eMoney transfer. This embodiment is, at least in some respects, similar to sending eMoney to an mFS subscriber domestically. In this case the monetary transaction system 210 leverages one or more existing international money transfer organizations or "remittance companies" such as MoneyGram®. In some embodiments, MoneyGram® is pre-integrated to the monetary transaction system 210, but other international money transfer organizations may also be used. Still further, at least in some embodiments, subscriber B may need to have an eMoney account with a foreign mFS program that is also affiliated with MoneyGram® or another international money transfer organization.

[00116] In Figure 6A, subscriber A initiates the international eMoney transfer at 601, the international money transfer organization (e.g. MoneyGram®) transfers the eMoney to subscriber B at 602 and subscriber B's eMoney balance is increased by the transferred amount. Thus, subscriber A requests to send eMoney from his or her eMoney account via the mobile wallet application. The eMoney is transferred using an international money transfer organization, and subscriber B receives a notification (that may, for example, include a reference number, among other information) that their eMoney balance has increased by the transfer amount. The monetary transfer system 210 processes subscriber A's request, updates subscriber A's and subscriber B's eMoney balances, logs the transaction, and send transaction details to a mFS platform-specified bank.

[00117] Figure 6B illustrates a subscriber-to-non-subscriber international eMoney transfer. In this illustration, subscriber A wishes to send cash to subscriber B who is not

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an mFS program subscriber. Similar to the scenario described in Figure 6A, the monetary transaction system 210 leverages various international money transfer organizations or remittance companies such as MoneyGram® to transfer the eMoney. Subscriber A initiates a typical eMoney transfer at 605 by providing non-subscriber B's identification information, as well as the amount to be transferred. The Monetary transaction system 210 recognizes the eMoney transfer is not destined for a domestic phone number and routes the request to the international money transfer organization (e.g. MoneyGram®) (606).

[00118] The international money transfer organization sends non-subscriber B a notification (e.g. via SMS) with instructions for how and where to pick up the money (in embodiments where MoneyGram® transfers the eMoney, the notification may include a MoneyGram® reference number (MGRN)) (607). Non-subscriber B can then show the MGRN to an agent at an agent branch (608) and then receive the cash (609). The monetary transaction system 210 then decrements subscriber A's eMoney account for the transferred amount. The monetary transfer system 210 thus processes subscriber A's transfer request, updates subscriber A's eMoney balance, logs the transaction, and sends transaction detail to a platform-specified bank. It should also be noted that an mFS subscriber may also receive money in a foreign country from either a subscriber or a non-subscriber in a similar manner.

[00119] Figure 7 illustrates a subscriber purchasing airtime using a mobile wallet. Mobile wallet platform subscribers may buy airtime by using their mobile wallet application 207. The monetary transaction system 210 will reload their airtime account within the mobile network operator's (MNO's) systems. The subscriber requests to

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purchase airtime by entering the request via the mobile wallet application or via a mobile wallet web interface. The monetary transaction system 210 then decrements the subscriber's eMoney account (701), while crediting the mFS platform's eMoney account (702). The purchased airtime is then added to the subscriber's airtime balance (703). The monetary transaction system 210 processes the subscriber's request, updates the subscriber's eMoney balances as well as its own eMoney balance, logs the transaction, and sends transaction detail to a mFS platform-specified bank.

[00120] In one embodiment, the monetary transaction system 210 is implemented to top up a prepaid mobile account from a mobile wallet. The communication module 215 of the monetary transaction system 210 receives a subscriber communication over one of a plurality of channels 111 connected to the monetary transaction system (step 710). The subscriber communication indicates that an unbanked subscriber 205 desires to top up a prepaid mobile account by a specified amount using a specified payment method from the unbanked subscriber's mobile wallet. The transaction processor 216 validates the status of the selected payment method (step 720) and performs a limit check and/or a velocity check on the selected payment method (step 730). The monetary transaction system 210 then debits the specified payment method by the specified amount of funds (step 740) and processes the mobile top-up via a billing system integrator and/or an aggregator (step 750), and notifies the subscriber that the prepaid mobile account was topped up over at least one of the channels connected to the monetary transaction system (step 760).

[00121] Figure 8 illustrates an embodiment where a mFS subscriber pays a bill using a mobile wallet. At least in some embodiments, the company that the subscriber wishes to

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pay needs to have signed-up to be part of the mFS platform. The mFS platform may publish a list of company names that have registered to be part of the mFS platform. This list of companies may include company IDs so that subscribers can know which company ID to enter in their mobile wallet application. Once the company ID is known, the subscriber can pay a bill by entering the company ID and the amount to be paid. The monetary transaction system 210 then decrements the subscriber's eMoney account (801) and credits the identified company's eMoney account (802). Accordingly, in response to the subscriber's request to pay bill via their mobile wallet application, the monetary transaction system 210 processes the request, updates the bill pay company's and the subscriber's eMoney balances, logs the transaction, and sends transaction details to the mFS platform-specified bank.

[00122] In one embodiment, the monetary transaction system 210 is implemented to pay a bill from a mobile wallet. The communications module 215 of the monetary transaction system 215 receives a subscriber communication over a communication channel 111 connected to the monetary transaction system (step 810). The subscriber communication indicates that unbanked subscriber 205 desires to pay a bill for a specified amount using a specified payment method from the unbanked subscriber's mobile wallet (e.g. eMoney). The monetary transaction system 210 validates the status of the selected payment method (step 820) and performs a limit check and/or a velocity check on the selected payment method to ensure the eMoney transfer is permissible (step 830). The monetary transaction system then debits the specified payment method by the specified amount of funds (step 840), processes the bill payment via a direct biller connection or a bill pay aggregator (step 850), and notifies the unbanked subscriber that

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the bill was paid using a communication channel (e.g. SMS) connected to the monetary transaction system (step 860). Thus, in this manner, a subscriber may use a mobile wallet to pay various bills including rent, utility, mortgage, phone, cable, medical and other bills.

[00123] Figure 9 illustrates a mobile wallet subscriber making a retail purchase. Mobile wallet subscribers can make retail purchases at agent branches directly from their mobile device. Agent branches, as explained above, are retail stores or other entities that have registered with the mFS system and are able to accept mobile wallet payments. Accordingly, a subscriber can select the items they wish to purchase, and indicate (via the mobile wallet application) to the agent branch that they wish to pay for the items. The mobile wallet application then communicates with the agent branch and the monetary transaction system to indicate the price of the transaction. The monetary transaction system 210 then debits the subscriber's eMoney account (901) and credits the agent branch's eMoney account (902). The agent branch (and/or the agent manager or agent) receives confirmation that subscriber paid for the purchase. The subscriber may also receive a summary of the retail purchase and may be asked to confirm the purchase by entering a PIN. The monetary transaction system processes the purchase request, updates the agent branch and subscriber's eMoney balances, logs the transaction, and sends transaction details to a mFS platform-specified bank.

[00124] In one embodiment, the monetary transaction system 210 is implemented to make a purchase from a mobile wallet. The communications module 215 of the monetary transaction system 210 receives a communication from a subscriber over a communication channels 111 (step 910). The subscriber communication indicates that an

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unbanked subscriber 205 desires to purchase an item for a specified amount of funds using a specified payment method from the unbanked subscriber's mobile wallet.

[00125] The monetary transaction system 210 then returns a secure, perishable purchase code to the unbanked subscriber over at least one of the channels connected to the monetary transaction system (step 920) and receives a subsequent agent branch communication over a channel indicating that the purchase code has been presented to an agent (branch) (step 930). The monetary transaction system 210 validates the status of the specified payment method (step 940), determines if the specified payment method can accommodate a purchase for the specified amount (step 950), performs a limit check and/or a velocity check on the selected payment method (960), debits the specified payment method by the specified amount of funds (970), returns a notification to the agent branch authorizing the purchase (980) and sends a receipt to the unbanked subscriber over a communication channel. The monetary transaction system 210 may thus be used to make a retail purchase using a mobile wallet.

[00126] Figure 10A illustrates a subscriber requesting a micro-loan. Financial institutions and potentially other mFS program participants may sign up to become money or eMoney lenders. Mobile wallet subscribers may be able to use their mobile wallets to request micro-loans from these approved lenders. The micro-loans are tracked by the monetary transaction system 210, and repayment reminders, interest and commissions are managed by the monetary transaction system. The subscriber requests a micro-loan from a lender, indicating the amount in the request, as well as other information such as the repayment date and the commission (i.e. interest rate). Potential lenders then have a chance to counter the loan request with their own terms. Once the

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lender approves the subscriber's request, the lender's eMoney account balance is debited for the specified amount (1001) and the subscriber's eMoney account is credited with the requested amount (1002). The monetary transaction system 210 processes the micro-loan requests, update the lender and subscriber's eMoney balances, sets up repayment schedules and reminders, logs the transaction, and sends transaction detail to a mFS bank. It should also be noted that while the term "micro-loan" is used herein, the loan may be for substantially any amount of money.

[00127] Following on the embodiment described in Figure 10A, Figure 10B illustrates a subscriber repaying a micro-loan. The subscriber may repay the loan using functionality provided in the mobile wallet application or in a similar web interface. Repayments can be made in installments or in full depending on the rules of the micro-loan. The subscriber enters the amount they wish to repay and the loan ID. The subscriber's eMoney account is then debited for the specified amount (1005), while the lender's eMoney account is credited the specified amount (1006). Both the lender and the subscriber may receive confirmation that the loan has been repaid via SMS or some other communication channel. The mFS platform thus processes the subscriber's micro-loan repayment request, updates lender and subscriber's eMoney balances, updates repayment schedule and reminders, logs the transaction, and sends transaction details to a specified mFS platform bank.

[00128] Figure 11A illustrates a subscriber receiving a direct deposit from an employer or other entity. Subscribers to the mFS platform have the ability to receive any direct deposit into their eMoney account. Subscribers may be asked by their employers to provide account information in order to set up direct deposit. The employer then submits

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a direct deposit request using their existing processes (i.e the processes they use for a normal checking or savings bank account). Once the direct deposit is set up and a payday arrives, the employer's bank account is debited for the proper amount (1101) and the employer's mFS account is credited with that amount (1102). Then, once the funds have been received at the mFS platform bank, the mFS platform bank sweeps the employers direct deposit balance (1103) into a mFS platform master account (1104) and notifies the mFS platform of each account to be incremented (including the subscriber's mobile wallet (eMoney) account). The subscriber's eMoney account is then credited with the paycheck amount (1105) upon which the eMoney may be used to pay for goods, pay bills, top up airtime, transfer to other entities or for cash withdrawal.

[00129] The subscriber does not need to have a bank account to participate in direct deposit. The employer's bank can communicate with the mFS platform's bank to perform the necessary steps in directly depositing the subscriber's paycheck in his or her eMoney mobile wallet account. The bank facilitates monetary deposit into the employer's bank account for direct deposit and performs an automated sweep of recent deposits from the employer's bank account into the mFS platform's master bank account. The bank also sends transaction details to the monetary transaction system 210 including transaction logs. The monetary transaction system receives a list of eMoney accounts that are to be credited directly from the employer (or bank), processes the list and requests to establish a direct deposit, updates subscriber's eMoney balance, log the transaction, and sends transaction details to the mFS platform bank.

[00130] In a similar manner, a subscriber may receive a government welfare payment directly on their mobile device. Figure 11B illustrates a subscriber receiving a

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government social welfare payment directly into their eMoney account. In some embodiments, subscribers may need to opt-in and register with the government program for which they choose to receive the payment via their mobile wallet. Once the funds have been received, the subscriber can use that eMoney for any goods or services, as described above. Once the direct deposit has been established and a payout has been initiated, the government's welfare account deposits the money (1110) into the government's bank account for welfare payments (1111) and performs an automated sweep of recent deposits from the government's bank account (1112) into the mFS program's master bank account (1113). The bank then sends transaction details to the monetary transaction system 210 regarding the deposit. The subscriber receives a notification that the welfare payment has been credited to their eMoney account (1114). The mFS platform receives an indication of eMoney accounts that are to be credited from the government, processes the welfare payments, updates the subscriber's eMoney balance, logs the transactions, and sends transaction details to the mFS platform bank.

[00131] Figure 12A illustrates an agent administrator distributing eMoney to various recipients. An agent administrator, as explained above, is a person who acts as an agent company's representative. The agent administrator deposits, withdraws, and distributes funds into and out of the agent company's bank account. When an agent administrator deposits cash into an agent company's bank account, it is credited as eMoney to the agent company's account. In order to provide the agent branches with eMoney, the agent administrator first moves the eMoney from the agent company's account (1201) to the branch accounts (1202). This is performed using the agent administrator's mobile wallet application or portal. In an agent administrator money transfer, the monetary transaction

system 210 processes the administrator's eMoney transfer request, updates the agent company and agent branch eMoney balances, logs the transaction, and sends transaction details to the mFS platform bank.

[00132] Figure 12B illustrates an agent company deposit. The agent company has an eMoney account in the monetary transaction system 210 that may also include a corresponding bank account (that may be created automatically upon creation of the agent company's eMoney account). After the agent company's bank account has been set up, the agent administrator can make deposits into that account. As Figure 12B shows, once cash (1205) has been deposited into the bank account (1206), it is transferred to a mFS platform master account (1208) that includes all or a part of the mFS platform's funds. The agent company's bank account is decreased by the deposit amount (1207), while the agent company's eMoney account balance is correspondingly increased (1210). At this time, the agent company account is credited with eMoney. The agent company's bank facilitates a physical cash deposit into the agent company's bank account and performs an automated sweep (1209) of recent deposits from the agent company's bank account into the mFS platform's master bank account. The agent company's bank then sends transaction details to the monetary transaction system 210. The agent administrator physically delivers the cash (or form of money such as a check or money order) to a bank branch for deposit. The monetary transfer system receives transaction details from the agent company's bank about recent transactions (including deposits, as shown in Figure 12B.

[00133] Figure 13 illustrates an agent company withdrawal. To make a cash withdrawal for an agent company, the agent administrator requests a withdrawal using

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the agent administrator mobile wallet application. The monetary transaction system 210 then notifies the bank that a certain amount of eMoney is to be transferred from the master mFS account (1302) to the agent company bank account (1303). When the money is in the agent company bank account, the agent administrator can withdraw the cash by traditional withdrawal means. The mFS master bank receives transaction details from the monetary transaction system 210 about recent transactions (recent withdrawals in this case). The mFS master bank performs an automated sweep (1304) of the mFS platform's master bank account to reflect the recent withdrawal request from agent the agent company (1301). The agent company's eMoney account is reduced by the amount of the withdrawal. The agent company also sends transaction details to the monetary transaction system 210. The agent administrator can request withdrawal via the agent administrator mobile wallet application and physically withdrawal cash (1305) from the agent company's bank branch (1306). The mFS platform processes the agent company's withdrawal request, updates agent company and agent branch eMoney balances, logs the transaction, and sends transaction details to an mFS platform-specified bank.

[00134] Attention will now be turned to embodiments in which subscribers have bank accounts associated with their mobile wallets. The monetary transaction system 210 provides similar functionality to consumers that have bank or credit union accounts. Although many different transactions are presented herein, many more and varied types of transactions may be processed by the monetary transaction system. In the following figures, "$C" refers to cash balance, "$DC" refers to a debit card (prepaid) balance and "$PIN" refers to a recharge PIN value.

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[00135] Figure 14 describes a subscriber deposit at an agent branch. The subscriber has a registered and activated (prepaid) debit card at an agent branch location. The prepaid debit card is associated with the mobile wallet application in the subscriber's mobile device. As such, the debit card is linked to the subscriber's account in the monetary transaction system 210. To deposit cash onto the mobile wallet, the subscriber informs the agent that they want to deposit a specified amount of cash (1401). The agent takes the cash and notifies the monetary transaction system 210 of the deposit using their point of sale (POS) system or the agent mobile wallet application (1402), and the monetary transaction system 210 credits the subscriber's mobile wallet account (1403). The funds collected at the cash register typically do not reach a bank account until the reconciliation and settlement of funds occurs between the agent and the mFS owner's bank.

[00136] The subscriber's bank then receives a settlement report from the card processor and receives funds from the agent's bank. The agent or agent manager physically deposits the cash into the subscriber's mobile wallet account via their POS system or agent manager/agent mobile wallet application. The monetary transaction system processes the deposit request, increments the subscriber's mobile wallet balance within the card processor and logs the transaction. An external card processor increments the subscriber's mobile wallet balance and sends reports to the bank for settlement on a regular (e.g. nightly) basis.

[00137] In one embodiment, the monetary transaction system 210 is implemented to deposit funds into a bank or credit union account using a mobile wallet. The communications module 215 of the monetary transaction system 210 receives

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communication from an agent branch over a communication channel (step 1410). The agent communication indicates that a subscriber 205 desires to deposit a specified amount of funds into a bank or credit union account. The transaction processor 216 validates the status of the bank or credit union account (step 1420), determines if the agent branch is authorized to deposit money (step 1430), and performs a limit check and/or a velocity check on the bank or credit union account (step 1440). The monetary transaction system then credits the bank or credit union account with the specified amount of funds (step 1450), returns a notification to the agent branch confirming the deposit (step 1460) and notifies the subscriber that the specified amount of funds was deposited in the bank or credit union account using at least one of the communication channels connected to the monetary transaction system (step 1470). Accordingly, cash may be deposited into a bank or credit union account associated with a subscriber's mobile wallet.

[00138] Figure 15 illustrates a subscriber deposit that is performed with a non-agent. In some economies, subscribers may have the ability to leverage other channels outside of agents to deposit funds onto their card. One deposit method is a PIN-based recharge that allows a subscriber to purchase a PIN worth the deposit value. The PIN can then be redeemed via an interactive voice response (IVR) system or via the subscriber's mobile wallet application. The mobile wallet application will allow the monetary transaction system 210 to deposit the funds onto the subscriber's card. The retailer's bank settles with the PIN card provider's bank and the PIN card provider's bank settles with the mFS platform's bank for the deposit. The subscriber gives cash to the agent (1501) which increases the agent company's physical cash (1502). The subscriber uses IVR or their SIM Application to recharge mobile wallet account using a PIN card (1503). In some

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cases, an agent may provide the PIN card (i.e. the prepaid debit card) to the subscriber. The monetary transaction system 210 processes the subscriber deposit request, increments the subscriber's mobile wallet balance within the card processor and logs the transaction. An external card processor decreases the subscriber's PIN card balance (1504), increments the subscriber's mobile wallet balance (1505) and send reports to the mFS platform bank for settlement.

[00139] Figure 16 illustrates a subscriber withdrawal at an agent branch. To withdraw cash at an agent branch from a (prepaid) debit card, a subscriber submits a withdrawal request using the mobile wallet application on their mobile device. The subscriber may also need to enter details about the agent branch that allows the monetary transaction system 210 to determine if the subscriber has sufficient funds on their debit card. The mFS platform then notifies the agent branch that it can give cash to the subscriber. If the subscriber has sufficient funds, the monetary transaction system 210 will decrement the subscriber's funds from their card (1601) and transfer it to the mobile wallet owner's account within the same card processor or bank. The agent branch (1602) then provides the withdrawn cash to the subscriber (1603).

[00140] Accordingly, the subscriber requests a cash withdrawal from their own mobile wallet account via the mobile wallet application. The agent or agent manager verifies the withdrawal request via POS authorization or SMS received on agent's phone and, once verified, gives cash to the subscriber. The monetary transaction system 210 processes the subscriber's withdrawal request, decrements the subscriber's mobile wallet balance within the card processor and logs the transaction. An external card processor decrements

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the subscriber's mobile wallet balance and sends reports to the bank for settlement on a periodic basis.

[00141] In one embodiment, the monetary transaction system 210 is implemented to withdraw funds from a bank or credit union account using a mobile wallet. The communication module 215 of the monetary transaction system 210 receives a communication from a subscriber 205 over a communication channel 111 (step 1610). The subscriber communication indicates that subscriber 205 desires to withdraw a specified amount of funds from a bank or credit union account. The transaction processor validates the status of the bank or credit union account (step 1620), determines if the balance of the bank or credit union account is sufficient to accommodate the requested withdrawal for the specified amount of funds (step 1630) and performs a limit check and/or a velocity check on the bank or credit union account (step 1640).

[00142] The monetary transaction system 210 then returns a secure, perishable withdrawal code to the subscriber 205 over at least one of the communication channels (step 1650) and receives a subsequent agent branch communication indicating that the withdrawal code has been presented to an agent (step 1660). The monetary transaction system 210 then debits the bank or credit union account by the specified amount of funds (step 1670), returns a notification to the agent branch confirming the withdrawal (1680) and notifies the subscriber that the specified amount of funds were withdrawn from the bank or credit union account using at least one of the communication channels connected to the monetary transaction system (step 1690). Accordingly, a subscriber can withdraw cash stored on their mobile wallet from an agent branch or a non-agent branch.

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[00143] Figure 17A illustrates a subscriber withdrawal using an automated teller machine (ATM). Subscribers in many countries have access to ATM machines and can use their mobile wallets to perform withdrawals using their (prepaid) debit card at most ATMs. Banks provide ATMs to their customers (typically at no charge) and to non-customers (typically for a small charge). The subscriber requests a cash withdrawal from the subscriber's mobile wallet via the subscriber's debit card that is associated with the mobile wallet. The bank providing the debit card may receive settlement reports from the card processor and may transfer and/or settle funds from subscriber's account to the ATM network bank. An extern card processor decrements the subscriber's mobile wallet balance (1701) and sends transaction reports to the bank for settlement. Accordingly, once the withdrawal request has been received and the external card processor (e.g. Visa® or MasterCard®) (1702) has debited the debit card account, the ATM (1703) dispenses the withdrawn cash to the subscriber (1704).

[00144] Figure 17B illustrates a subscriber-to-subscriber money transfer. An mFS subscriber (1705) may send money to another mFS subscriber (1706). To do so, subscriber A enters information identifying subscriber B (e.g. a phone number, email address or other identifier). The monetary transaction system 210 determines if there are enough funds to complete the transaction, and if so, the monetary transaction system 210 decrements subscriber A's debit card and credits subscriber B's debit card. The subscriber, accordingly, may request to send money from their own mobile wallet (i.e. money stored on a (prepaid) debit card) account via the subscriber mobile wallet application. The other subscriber receives a notification that the balance of the debit card associated with their mobile wallet has increased. The bank receives a settlement report

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from the debit card processor and transfers or settles funds from subscriber A's account to subscriber B's account (if necessary). The monetary transaction system 210 processes the transfer request, updates subscriber A's and subscriber B's debit cards that are associated with their mobile wallets and logs the transaction. The external card processor decrements subscriber A's debit card balance, increments subscriber B's debit card balance and sends transaction reports to the mFS platform bank for settlement.

[00145] Figure 17C illustrates subscriber-to-non-subscriber money transfers. In this embodiment, subscriber A (an mFS subscriber) wishes to send money to another subscriber (a non-mFS subscriber). The transaction is initiated in the same fashion as described above in Figure 17B. However, since subscriber B does not have an mFS account, the monetary transaction system 210 cannot credit them with money. Instead, the monetary transaction system 210 sends a communication (e.g. a SMS) to subscriber B (1708) with an authorization code and instructions for how to pick up the cash. The monetary transaction system 210 puts a hold on subscriber A's debit card for the amount transferred (1707). Subscriber B has a specified time period in which to pick up the cash before the hold expires and the amount is credited back to the debit card associated with subscriber A's mobile wallet account. The agent branch verifies the authorization code via POS or their agent mobile wallet application (1709) and gives the cash to the non-subscriber (1710). (In some countries, an agent network needs to be capable of giving cash to a subscriber based on the money transfer reference number).

[00146] The mFS bank receives a settlement report from the card processor and transfer and settle funds from subscriber A's debit card to the agent's bank (if necessary). The monetary transaction system 210 processes the money transfer request, decrements

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subscriber A's mobile wallet balance within the card processor, generates a money transfer reference number, authorizes the reference number to be paid out by the agent and logs the transaction. An external card processor decrements subscriber A's mobile wallet balance and sends periodic transaction reports to the bank for settlement. Thus, as seen in Figures 17B and 17C, money may be transferred from subscriber to subscriber and from subscriber to non-subscriber.

[00147] Subscribers may similarly send money internationally to both subscribers and non-subscribers. Figure 18A illustrates a subscriber-to-subscriber international money transfer. In this embodiment, subscriber A wishes to send cash to subscriber B who resides in another country. As in the embodiments described above where money was transferred internationally, the monetary transaction system 210 may use one or more international money transfer organizations or remittance companies such as MoneyGram® to transfer the money. Subscriber A initiates the international money transfer using his or her phone. Subscriber A's debit card account is decremented by the transfer amount (1801). The money is transferred between countries using an international money transfer organization (1802). In this case, subscriber B has an mFS eMoney account with a foreign mFS platform that is also affiliated with the selected international money transfer organization. That organization can then credit subscriber B's eMoney account directly (1803).

[00148] Thus, subscriber A requests to send money from their debit card account via the subscriber mobile wallet application. Subscriber B receives a notification (including a MoneyGram® Reference Number (MGRN) (or other reference number when other international money transfer organizations are used) and instructions on how to access the

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eMoney) that their eMoney balance has increased. The mFS bank receives settlement reports from the debit card processor and transfers and/or settles funds from subscriber's account to the international organization's bank. The monetary transfer system 210 processes the transfer request, update subscriber A's and subscriber B's eMoney balances and logs the transaction. An external card processor decrements subscriber A's mobile wallet balance and sends periodic transaction reports to the bank for settlement.

[00149] Figure 18B illustrates a subscriber-to-non-subscriber international money transfer. In this embodiment, subscriber A wishes to send cash to subscriber B who resides in another country. As above, the monetary transaction system 210 uses an international money transfer organization (1806) to transfer the money between countries. Once the transfer has been initiated by subscriber A, the international money transfer organization debits subscriber A's debit card account (1805) and transfers that money to subscriber B. Subscriber B (1807) receives a notification (e.g. via SMS) with pick up instructions and a transfer ID number. Subscriber B can then go to an agent company (1808), show them the notification (including, perhaps an authorization code), and receive the transferred money (1809).

[00150] Similar to the transaction described in Figure 18A, the embodiment of 19A illustrates a transaction where a subscriber receives an international money transfer. Subscriber B (1901) initiates a money transfer using their mobile wallet application. The international money transfer organization (1902) debits subscriber B's eMoney account balance. This money is then transferred by the international money transfer organization to subscriber A. Subscriber A receives a notification along with a transfer ID number

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indicating that their debit card account has been credited with the transferred money (1903).

[00151] Figure 19B illustrates a non-subscriber-to-subscriber international money transfer. This scenario is very similar to that described in Figure 19A from the mFS subscriber's perspective, except that their eMoney account is credited here, and their debit card account was credited in 19A. The initiator, subscriber B (1905), does not have an mFS account and, as a result, takes their cash to an international money transfer organization (e.g. MoneyGram®) or other remittance company's agent (1906) to send it to subscriber A's mobile wallet eMoney account. The international money transfer organization (1907) then transfers the specified amount to subscriber A (1908) and subscriber A's mobile wallet eMoney account is credited with the amount of the transfer. Subscriber A may receive a transaction ID number, along with an indication that the transfer has occurred. The mFS bank may receive settlement reports from the card processor and settle funds from the international money transfer organization's bank to subscriber A's mobile wallet account. The monetary transaction system processes the money transfer request, updates subscriber A's mobile wallet balance within the card processor and logs the transaction. An external card processor increments subscriber A's mobile wallet balance and sends periodic transaction reports to the mFS bank for settlement.

[00152] Other functionality described above in relation to using an eMoney mobile wallet account may also apply to banked subscribers using a debit card associated with their mobile wallet. Such subscribers may buy airtime for their mobile device, pay bills, make retail purchases, receive direct deposits, and perform other functionality.

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[00153] In one embodiment, the monetary transaction system 210 is implemented to add a mobile wallet platform stored value account to a mobile wallet. The stored value account may include eMoney or other monetary credits. In the embodiment, communication module 215 of monetary transaction system 210 may receive subscriber data for an unbanked subscriber 205 over a communication channel. The transaction processor may perform validation checks on the unbanked subscriber to validate that the unbanked subscriber is not exceeding a specified allowable number of accounts per subscriber. The monetary transaction system 210 may then send subscriber data to another entity (such as a third party verification system) for identification of the unbanked subscriber. The monetary transaction system 210 receives results from the third party verification system indicating that the subscriber data appropriately identifies the unbanked subscriber, creates a stored value account for the unbanked subscriber that maintains a recorded balance for the created stored value account, adds the stored value account to the unbanked subscriber's mobile wallet and notifies the unbanked subscriber of the addition of the stored value account over at least one communication channel connected to the mobile wallet platform.

[00154] In another embodiment, the monetary transaction system 210 is implemented to add a third party stored value account to a mobile wallet. The monetary transaction system 210 receives unbanked subscriber data, including account details, over a communication channel. The transaction processor 216 performs a validation check on the unbanked subscriber to validate that the unbanked subscriber is not exceeding a specified allowable number of accounts per subscriber. If the validation check is ok, the monetary transaction system 210 sends subscriber data to a third party verification system

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for identification of the unbanked subscriber. In some cases, validating the status of the sender or the recipient includes performing a check on the specified sender or recipient to comply with the office of foreign assets control. The monetary transaction system 210 then receives results from the third party verification system indicating that the subscriber data appropriately identifies the unbanked subscriber, and submits the unbanked subscriber's account details to a third party account processor. The monetary transaction system 210 receives an indication from the third party account processor that third party account processor created a third party stored value account for the subscriber. The transaction processor maintains a link between the subscriber data and the third party stored value account and adds the third party stored value account to the unbanked subscriber's mobile wallet. The monetary transaction system 210 then notifies the unbanked subscriber of the addition of the third party stored value account over a communication channels connected to the monetary transaction system.

[00155] In another embodiment, the monetary transaction system 210 is implemented to add a bank or credit union account to a mobile wallet. The communication module 215 receives subscriber data, including bank or credit union account details, over a communication channel 111. The transaction processor 216 performs validation checks on the subscriber to validate that the subscriber is not exceeding a specified allowable number of accounts per subscriber and sends subscriber data to a third party verification system for identification of the subscriber. The communication module then receives results from the third party verification system indicating that the subscriber data appropriately identifies the subscriber. Upon receiving these results, the monetary transaction system 210 submits bank or credit union account details for validation by the

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transaction processor, receives an indication that the bank or credit union account details correspond to a valid bank or credit union account, maintains a link between the subscriber data and the bank or credit union account and notifies the subscriber of the bank or credit union account validation over a communication channel.

[00156] In still another embodiment, the monetary transaction system is implemented to add a debit or credit card account to a mobile wallet. The communication module 215 receives subscriber data, including a debit or credit card account number, over a communication channel 111 connected to the monetary transaction system. The transaction processor performs validation checks on the subscriber to validate that the subscriber is not exceeding a specified allowable number of accounts per subscriber. The communication module sends subscriber data to a third party verification system for identification of the subscriber and receives results from the third party system indicating that the subscriber data appropriately identifies the subscriber. The monetary transaction system 210 securely stores the debit or credit card account number for access by the mobile wallet (e.g. in memory 217 or transaction database 225), adds the debit or credit card account number to the subscriber's mobile wallet, and notifies the subscriber of the addition of the debit or credit card account number. It should be noted that many other transactions can take place over the monetary transaction system, and that the embodiments described herein should not be read as limiting.

[00157] Embodiments of the invention can adhere to Know Your Customer (KYC) rules in the US by performing Customer Identification Program (CIP) checks as required by the Bank Secrecy Act and US PATRIOT Act. A minimum amount of information can be gathered about a customer, such as, for example, first name, last name, date of birth,

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government ID Type, government ID number and address. The CIP processes are designed to validate customer identity against government blacklists and assists in the prevention of money laundering and terrorist financing. A combination of non-documentary and documentary verification can be used to ensure beyond a reasonable doubt the identity of the customer.

[00158] Non-documentary verification can occur through the presentment of the information that was collected from the user to an external third party, such as, for example, Lexis Nexis®. Documentary verification can occur if non-documentary verification fails, then the user is asked to present an unexpired government ID. Various differ forms of identification including driver's license, passport, alien identification (e.g., green card or work visa), and Mexican Consular identification card, can be accepted.

[00159] Embodiments of the invention can perform Anti-Money Laundering (AML) and Combating the Financing of Terrorism (CFT) checks. AML and CFT checks can be performed using transaction monitoring methods to flag names and suspicious transactions for further investigation. The mobile wallet platform can perform AML and CFT checks on all electronic financial transactions to ensure that electronic funds are not being used for money laundering or terrorism. Transaction limits can be placed on user accounts. The transaction limits are fully configurable for each particular use case, channel and payment method that allows maximum flexibility to restrict higher risk use cases. Velocity checks can also be performed. Velocity Checks ensure that subscribers are not abusing the mobile wallet platform within the allowable limits.

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[00160] The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes which come within the meaning and range of equivalency of the claims are to be embraced within their scope.

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CLAIMS

I claim:

1. A monetary transaction system for conducting monetary transactions between subscribers and other entities, the system comprising one or more of:

an integration tier operable to manage mobile wallet sessions and maintain the integrity of financial transactions, the integration tier also including a communication application programming interface (API) and other communication mechanisms to accept messages from channels;

notification services operable to send notifications through different notification channels including one or more of short message peer-to-peer, short-message services and simple mail transfer protocol emails;

a service connector layer comprised of a plurality of service connector modules operable to connect to third party systems, wherein each service connector module is deployed as a separate module intended to integrate an external service to at least a portion of system architecture;

business process services operable to implement business workflows, including at least one of executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects;

a payment handler service operable to use the APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors; the payment handler service using a common

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API wrapper to facilitate interactions with many different kinds of payment processors;

a security service operable to perform subscriber authentication;

an authorization service operable to perform client authorization using a database-based access control list table;

a database operable to store financial transaction details, store customer profiles, and manage money containers; and

a rules engine operable to gather financial transaction statistics and use the gathered statistics to enforce business constraints including transaction constraints;

a mobile device configured to run a monetary transaction system application;

a monetary transaction system subscriber that has a profile with the monetary transaction system the subscriber profile stored in the database of the monetary transaction system, wherein the subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system;

a monetary transaction system processor that performs the one or more transactions specified by the subscriber, wherein performing the specified transactions includes communicating with the monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile determination made by the rules engine of the monetary transaction system;

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at least one entity that is to be involved in the specified transaction, the at least one entity having a profile with the monetary transaction system; and

wherein the monetary transaction system is implemented to deposit funds at an agent branch, funds deposited by subscriber at the agent branch using the mobile device configured to run a monetary transaction system application, including performing the following steps:

receiving communication from an agent branch over one of a plurality of channels connected to the monetary transaction system message received by an integration tier of the monetary transaction system, the agent communication indicating that the subscriber desires to deposit a specified amount of funds into the subscriber's account;

validating the status of the subscriber's account; determining if the agent branch is authorized to receive deposited money; performing one or more of a limit check and a velocity check on the subscriber's account, the limit check determining whether sufficient funds are available to make the deposit amount, the velocity check determining whether the subscriber has exceeded a specified number of transactions within a specified time period;

crediting the subscriber's account with the specified amount of funds from the agent branch that is authorized to receive the deposited money;

returning a notification to the agent branch confirming the deposit; and notifying the subscriber that the specified amount of funds was deposited in the subscriber's account over at least one of the plurality of channels connected to the monetary transaction system.

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2. The monetary transaction system of claim 1, wherein the monetary transaction system application provides a web interface that allows subscribers to perform the same functions provided by the monetary transaction system application.

3. The monetary transaction system of claim 1, wherein the monetary transaction system application is provided on a prepaid or postpaid phone.

4. A monetary transaction system for conducting monetary transactions between subscribers and other entities, the system comprising one or more of:

an integration tier operable to manage mobile wallet sessions and maintain the integrity of financial transactions, the integration tier also including a communication application programming interface (API) and other communication mechanisms to accept messages from channels;

notification services operable to send notifications through different notification channels including one or more of short message peer-to-peer, short-message services and simple mail transfer protocol emails;

a service connector layer comprised of a plurality of service connector modules operable to connect to third party systems, wherein each service connector module is deployed as a separate module intended to integrate an external service to at least a portion of system architecture;

business process services operable to implement business workflows, including at least one of executing financial transactions, auditing financial

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transactions, invoking third-party services, handling errors, and logging platform objects;

a payment handler service operable to use the APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors; the payment handler service using a common API wrapper to facilitate interactions with many different kinds of payment processors;

a security service operable to perform subscriber authentication;

an authorization service operable to perform client authorization using a database-based access control list table;

a database operable to store financial transaction details, store customer profiles, and manage money containers; and

a rules engine operable to gather financial transaction statistics and use the gathered statistics to enforce business constraints including transaction constraints;

a mobile device configured to run a monetary transaction system application;

a monetary transaction system subscriber that has a profile with the monetary transaction system the subscriber profile stored in the database of the monetary transaction system, wherein the subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system;

a monetary transaction system processor that performs the one or more transactions specified by the subscriber, wherein performing the specified

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transactions includes communicating with the monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile determination made by the rules engine of the monetary transaction system;

at least one entity that is to be involved in the specified transaction, the at least one entity having a profile with the monetary transaction system; and

wherein the monetary transaction system is implemented to withdraw funds at an agent branch using the mobile device configured to run a monetary transaction system application, including performing the following steps:

receiving a communication from the subscriber from the mobile device configured to run the monetary transaction system, the communication indicating that the subscriber desires to withdraw a specified amount of funds from the subscriber's account at the agent branch;

validating the status of the subscriber's account;

determining if the balance of the subscriber's account is sufficient to accommodate the requested withdrawal for the specified amount of funds;

performing one or more of a limit check and a velocity check on the subscriber's account, the limit check determining whether sufficient funds are available to make the deposit amount, the velocity check determining whether the subscriber has exceeded a specified number of transactions within a specified time period;

returning a secure, perishable code to the subscriber over at least one of the plurality of channels connected to the monetary transaction system;

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receiving subsequent agent branch communication over at least one of the plurality of channels connected to the monetary transaction system, the agent branch communication indicating that the withdrawal code has been presented to the agent branch;

debiting the subscriber's account by the specified amount of funds;

returning a notification to the agent branch confirming the withdrawal; and

notifying the subscriber that the specified amount of funds was withdrawn from the subscriber's account over at least one of the channels connected to the monetary transaction system.

5. A monetary transaction system for conducting monetary transactions between subscribers and other entities, the system comprising one or more of:

an integration tier operable to manage mobile wallet sessions and maintain the integrity of financial transactions, the integration tier also including a communication application programming interface (API) and other communication mechanisms to accept messages from channels;

notification services operable to send notifications through different notification channels including one or more of short message peer-to-peer, short-message services and simple mail transfer protocol emails;

a service connector layer comprised of a plurality of service connector modules operable to connect to third party systems, wherein each service connector module is deployed as a separate module intended to integrate an external service to at least a portion of system architecture;

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business process services operable to implement business workflows, including at least one of executing financial transactions, auditing financial transactions, invoking third-party services, handling errors, and logging platform objects;

a payment handler service operable to use the APIs of different payment processors including one or more APIs of banks, credit and debit cards processors, bill payment processors; the payment handler service using a common API wrapper to facilitate interactions with many different kinds of payment processors;

a security service operable to perform subscriber authentication;

an authorization service operable to perform client authorization using a database-based access control list table;

a database operable to store financial transaction details, store customer profiles, and manage money containers; and

a rules engine operable to gather financial transaction statistics and use the gathered statistics to enforce business constraints including transaction constraints;

a mobile device configured to run a monetary transaction system application;

a monetary transaction system subscriber that has a profile with the monetary transaction system the subscriber profile stored in the database of the monetary transaction system, wherein the subscriber indicates, via the monetary transaction system application, one or more specified transactions that are to be performed using the monetary transaction system;

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a monetary transaction system processor that performs the one or more transactions specified by the subscriber, wherein performing the specified transactions includes communicating with the monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile determination made by the rules engine of the monetary transaction system;

at least one entity that is to be involved in the specified transaction, the at least one entity having a profile with the monetary transaction system; and

wherein the monetary transaction system is implemented to transfer funds using the mobile device configured to run a monetary transaction system application, including performing the following steps:

receiving subscriber communication from the mobile device configured to run the monetary transaction system, the subscriber communication indicating that the subscriber desires to transfer a specified amount of funds to specified recipient using a specified payment method from the subscriber's account;

validating the status of the subscriber's account;

performing at least one of a limit check and a velocity check on the selected payment method, the limit check determining whether sufficient funds are available to make the deposit amount, the velocity check determining whether the subscriber has exceeded a specified number of transactions within a specified time period;

validating the status of the specified recipient to ensure the specified recipient has a valid account;

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debiting the subscriber's account by the specified amount of funds;

transferring the specified amount of funds to the specified recipient over at least one of the plurality of channels connected to the monetary transaction system;

notifying the subscriber that the specified amount of funds was transferred to the specified recipient over at least one of the plurality of channels connected to the monetary transaction system.

6. The monetary transaction system of claim 5, wherein validating the status of the specified recipient comprises performing a check on the specified recipient to comply with the office of foreign assets control.

7. The monetary transaction system of claim 5, wherein the money is transferred internationally between the mobile wallets.

8. The monetary transaction system of claim 1, wherein a secure, perishable code is sent to the subscriber over at least one of the plurality of channels connected to the monetary transaction system.

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ABSTRACT

Embodiments are directed to monetary transaction system for conducting monetary transactions between transaction system subscribers and other entities. In one scenario, the monetary transaction system includes a mobile device that runs a monetary transaction system application. The monetary transaction system also includes a subscriber that has a profile with the system. The subscriber indicates a transaction that is to be performed with the monetary transaction system. The system further includes a monetary transaction system processor that performs the transactions specified by the subscriber including communicating with a monetary transaction database to determine whether the transaction is permissible based on data indicated in the subscriber's profile. The monetary transaction system also includes at least one entity that is to be involved in the specified transaction, where the entity has a profile with the monetary transaction system. This entity may be a person, a retail store, an agent or other entity.

WORKMAN NYDEGGER
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
60 EAST SOUTH TEMPLE
SUITE 1000
SALT LAKE CITY, UTAH 84111

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	MONETARY TRANSACTION SYSTEM
First Named Inventor/Applicant Name:	Michael A. Liberty
Filer:	John C. Stringham/Rachelle Turner
Attorney Docket Number:	18756.8.1.1.1.1.1.1

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Utility filing Fee (Electronic filing)	4011	1	70	70
Utility Search Fee	2111	1	300	300
Utility Examination Fee	2311	1	360	360
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**730**

Electronic Acknowledgement Receipt

EFS ID:	26245835
Application Number:	15201152
International Application Number:	
Confirmation Number:	2611
Title of Invention:	MONETARY TRANSACTION SYSTEM
First Named Inventor/Applicant Name:	Michael A. Liberty
Customer Number:	22913
Filer:	John C. Stringham/Rachelle Turner
Filer Authorized By:	John C. Stringham
Attorney Docket Number:	18756.8.1.1.1.1.1.1
Receipt Date:	01-JUL-2016
Filing Date:	
Time Stamp:	18:34:13
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$730
RAM confirmation Number	070516INTEFSW18364000
Deposit Account	1004
Authorized User	Rachelle Turner
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows: 37 CFR 1.16 (National application filing, search, and examination fees) 37 CFR 1.17 (Patent application and reexamination processing fees)	

37 CFR 1.19 (Document supply fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	18756_8_1_1_1_1_1_1_ADS.pdf	1836009 57181096d42f8049873645e0c71fac763d71bdd5	no	9
Warnings:					
Information:					
2	Drawings-only black and white line drawings	18756_8_1_1_1_1_1_1_dwgs.pdf	1210181 169a62a44af2d41e4f3437c483ff72e5df72ab57	no	21
Warnings:					
Information:					
3	Oath or Declaration filed	18756_8_1_1_1_1_1_1_dec.pdf	333709 c723a145ac7b646283e2000ca24643b015e45c50	no	2
Warnings:					
Information:					
4	Transmittal of New Application	18756_8_1_1_1_1_1_1_transmittal.pdf	188961 341468425eca5eaa1ac01bcb42d184d6e0106f80	no	4
Warnings:					
Information:					
5		18756_8_1_1_1_1_1_1_cont_applic.pdf	364054 862889a9d24c7c6df230f81d038e5b9bf70348d6	yes	73

Multipart Description/PDF files in .zip description

Document Description	Start	End
Specification	1	62
Claims	63	72
Abstract	73	73

Warnings:					
Information:					
6	Fee Worksheet (SB06)	fee-info.pdf	34828 40364bba38419fb1a4de90aa589f66b5c53d66da	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	3967742	

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

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

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

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

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1 — Remove

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Michael	A.	Liberty	

Residence Information (Select One) ● US Residency ○ Non US Residency ○ Active US Military Service

City	Orlando	State/Province	FL	Country of Residence	US

Mailing Address of Inventor:

Address 1	5036 Dr. Phillips Blvd. #314
Address 2	

City	Orlando	State/Province	FL
Postal Code	32819	Country i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	22913		
Email Address	docketing@wnlaw.com	Add Email	Remove Email

Application Information:

Title of the Invention	MONETARY TRANSACTION SYSTEM		
Attorney Docket Number	18756.8.1.1.1.1.1.1	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	21	Suggested Figure for Publication (if any)	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	● Customer Number	US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	22913		

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Continuation of	14213543	2014-03-14

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
14213543	Continuation of	13964707	2013-08-12
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
13964707	Continuation of	13484199	2012-05-30
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
13484199	Claims benefit of provisional	61522099	2011-08-10
Prior Application Status			Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
13484199	Claims benefit of provisional	61493064	2011-06-03
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.			Add

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX)[i] the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

			Remove
Application Number	Country[i]	Filing Date (YYYY-MM-DD)	Access Code[i] (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.			Add

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1 Remove

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

● Assignee	Legal Representative under 35 U.S.C. 117	Joint Inventor
Person to whom the inventor is obligated to assign.	Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	Mozido, Inc.

Mailing Address Information For Applicant:

Address 1	Two Barton Skyway, 1601 South Mopac Expressway,		
Address 2	Suite 200		
City	Austin	**State/Province**	TX
Country	US	Postal Code	78746
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button. Add

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

Remove

If the Assignee or Non-Applicant Assignee is an Organization check here. ☐

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1			
Address 2			
City		**State/Province**	
Country i		Postal Code	
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button. Add

Signature:

Remove

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e.g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/John C. Stringham, 40831/			Date (YYYY-MM-DD)	2016-07-01
First Name	John C.	Last Name	Stringham	Registration Number	40831

Additional Signature may be generated within this form by selecting the Add button. Add

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	18756.8.1.1.1.1.1.1
	Application Number	
Title of Invention	MONETARY TRANSACTION SYSTEM	

This collection of information is required by 37 CFR 1.76. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1 The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3 A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent CooperationTreaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

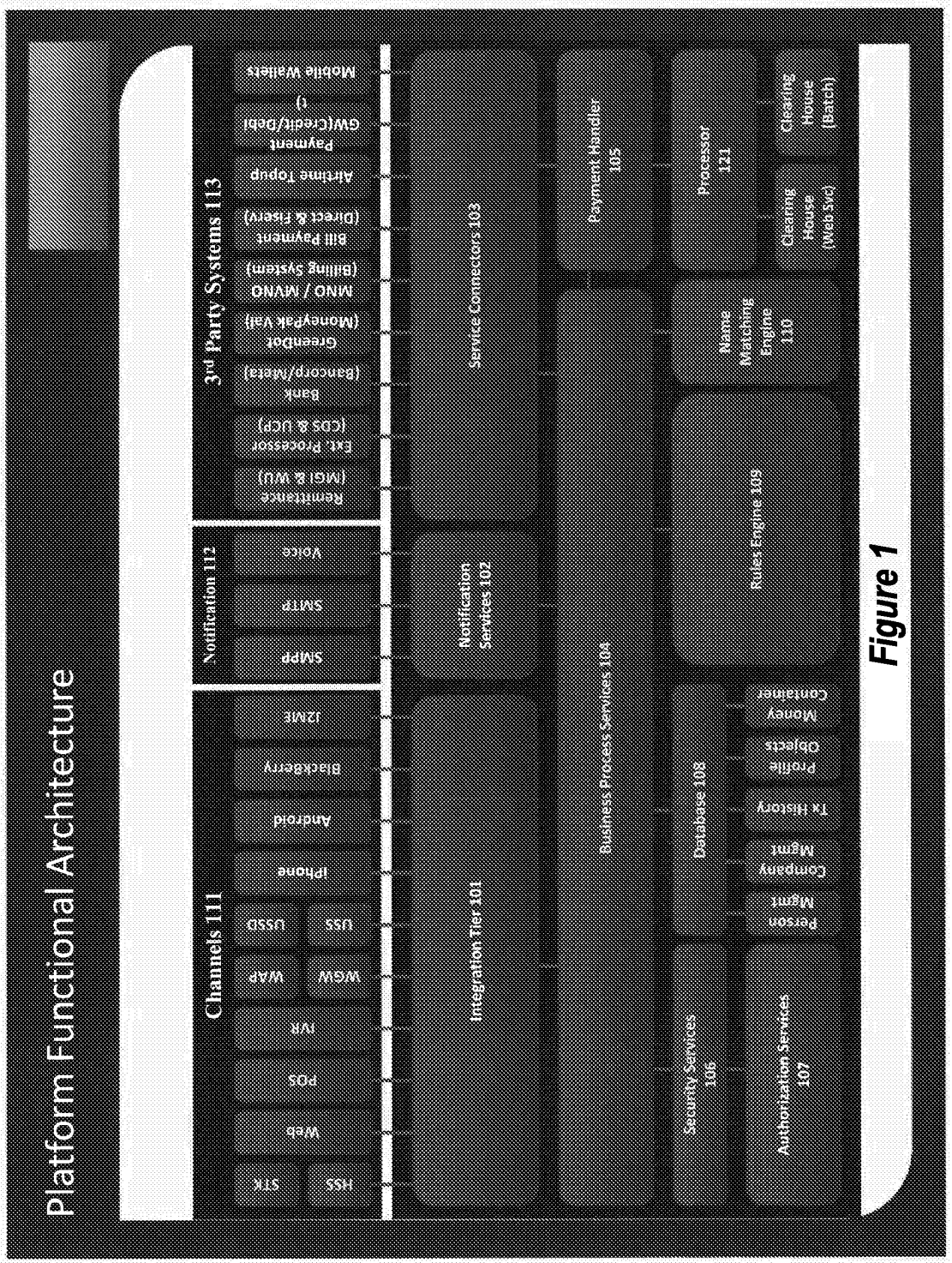

Platform Functional Architecture
Channels 111
HSS
STK
Web
POS
IVR
WGW
WAP
USS
USSD
iPhone
Android
BlackBerry
J2ME
Notification 112
SMPP
SMTP
Voice
3rd Party Systems 113
Remittance (MGI & WU)
Ext. Processor (CDS & UCP)
Bank (Bancorp/Meta)
GreenDot (MoneyPak Vall
MNO / MVNO (Billing System)
Bill Payment (Direct & Fiserv)
Airtime Topup
Payment GW(Credit/Debit)
Mobile Wallets
Integration Tier 101
Notification Services 102
Service Connectors 103
Business Process Services 104
Payment Handler 105
Rules Engine 109
Name Matching Engine 110
Processor 121
Clearing House (Web Svc)
Clearing House (Batch)
Database 108
Money Container
Profile Objects
Tx History
Company Mgmt
Person Mgmt
Security Services 106
Authorization Services 107
Figure 1

FIG. 1

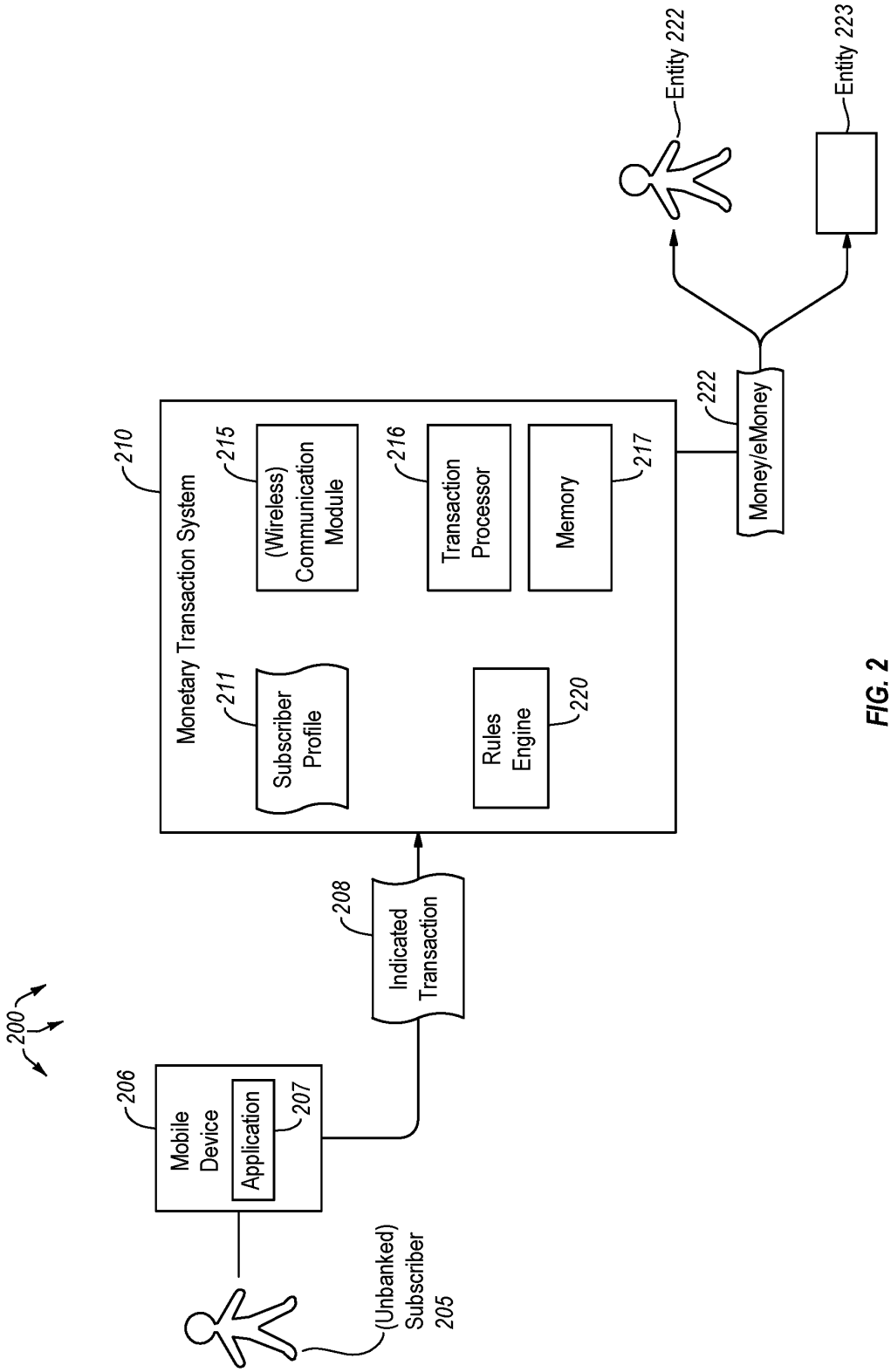
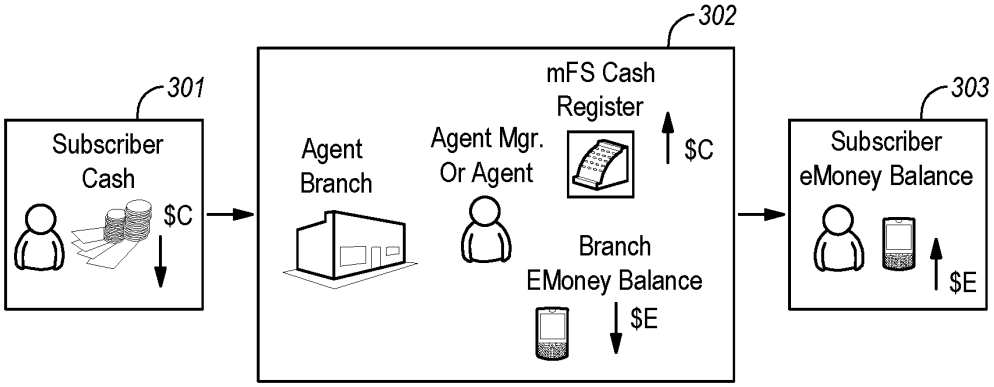

200
(Unbanked) Subscriber 205
206
Mobile Device
Application
207
208
Indicated Transaction
210
Monetary Transaction System
211
Subscriber Profile
215
(Wireless) Communication Module
216
Transaction Processor
217
Memory
220
Rules Engine
222
Money/eMoney
Entity 222
Entity 223

FIG. 2


301
Subscriber Cash
$C
302
Agent Branch
Agent Mgr. Or Agent
mFS Cash Register
$C
Branch EMoney Balance
$E
303
Subscriber eMoney Balance
$E

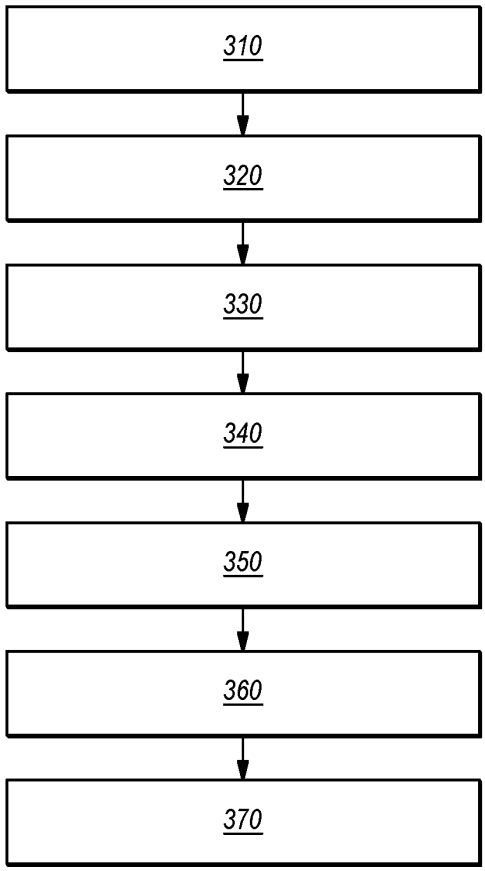
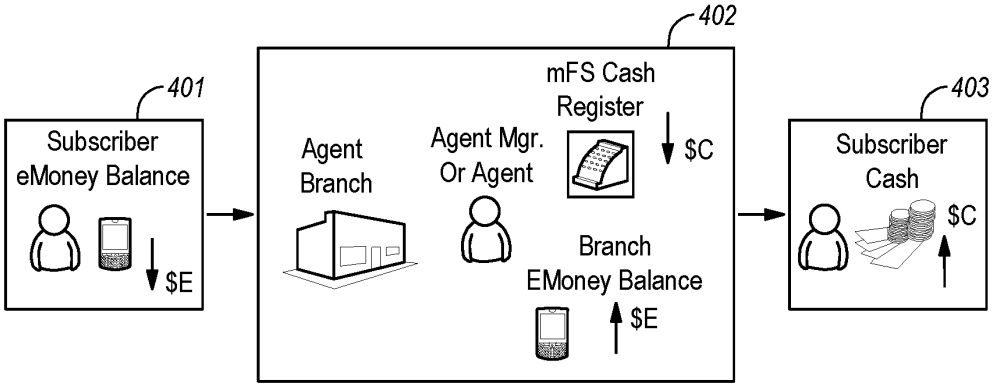

Subscriber Deposit
310
320
330
340
350
360
370

FIG. 3



Subscriber Withdrawal

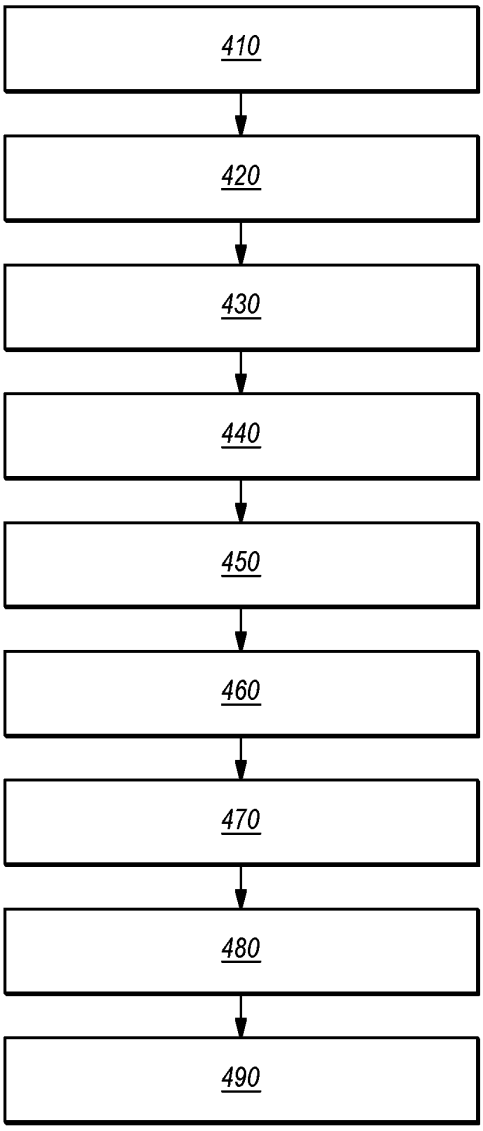


FIG. 4

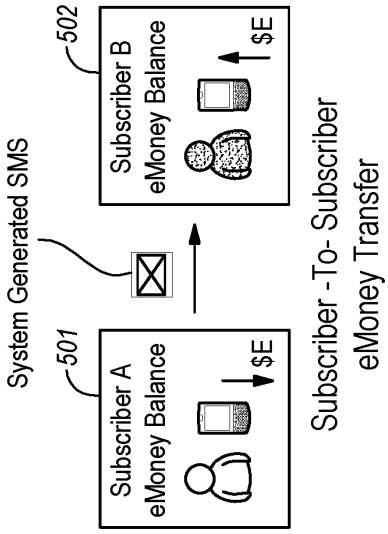

System Generated SMS
501
Subscriber A
eMoney Balance
$E
502
Subscriber B
eMoney Balance
$E
Subscriber -To- Subscriber
eMoney Transfer

FIG. 5A

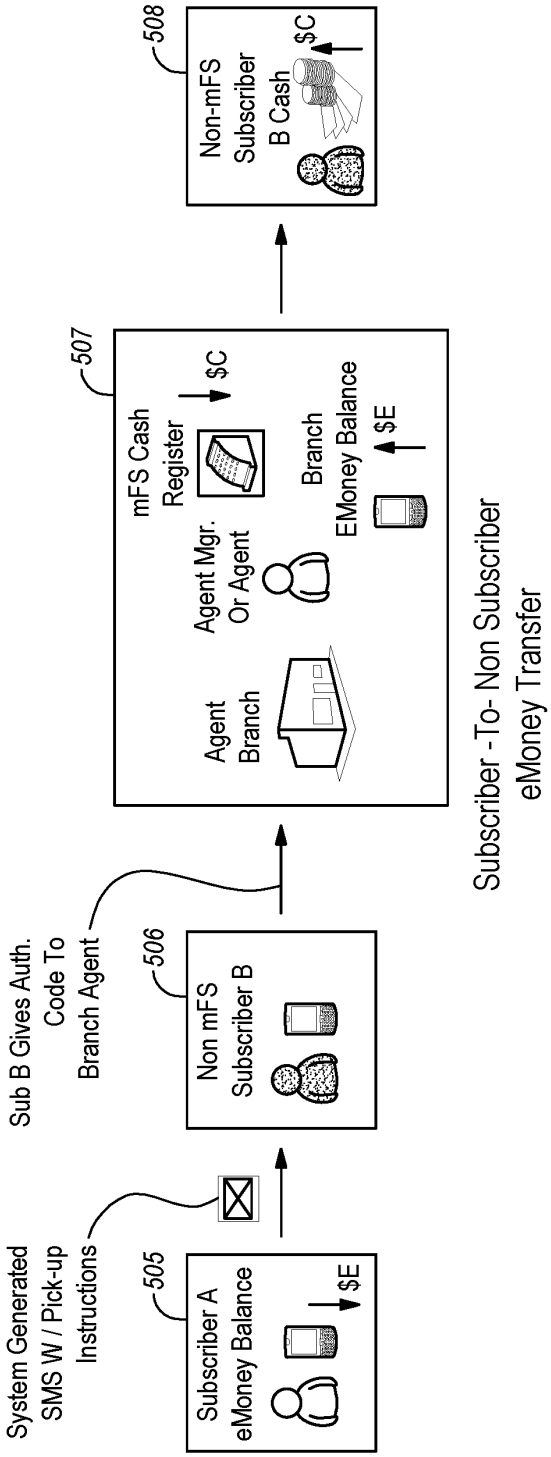
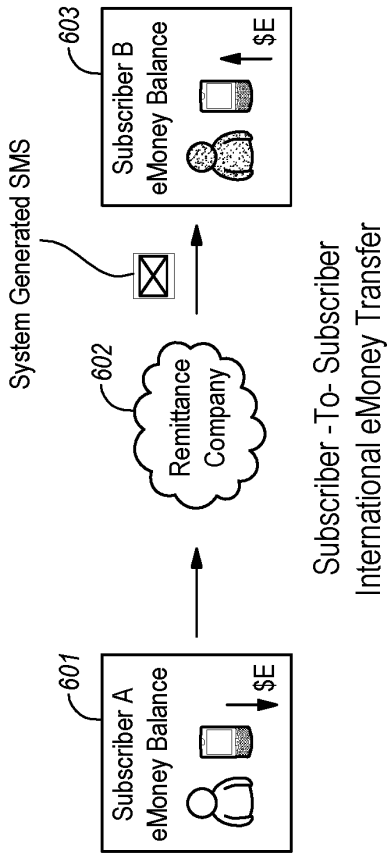
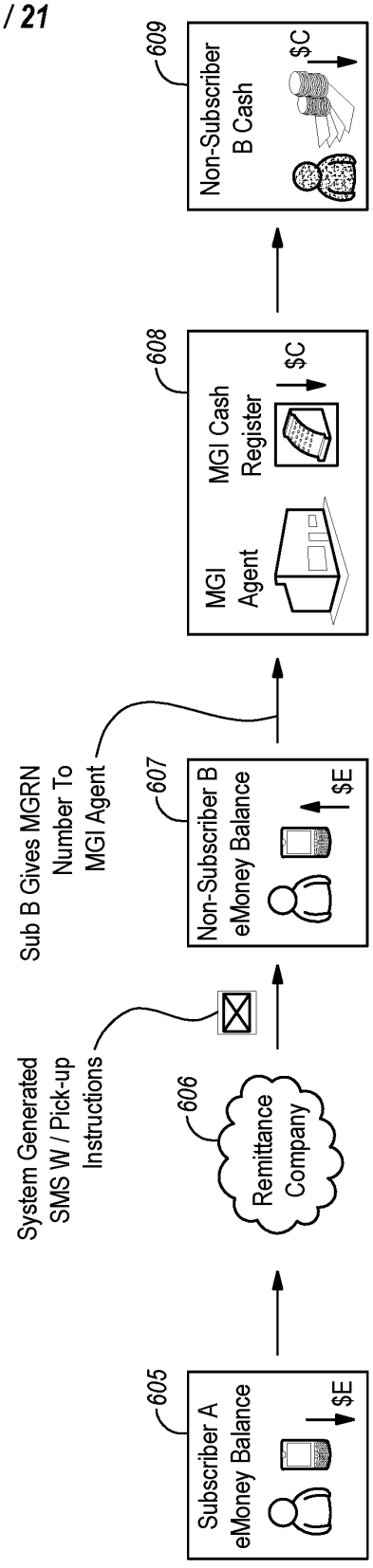

System Generated
SMS W / Pick-up
Instructions
505
Subscriber A
eMoney Balance
$E
Sub B Gives Auth.
Code To
Branch Agent
506
Non mFS
Subscriber B
507
Agent
Branch
Agent Mgr.
Or Agent
mFS Cash
Register
$C
Branch
EMoney Balance
$E
508
Non-mFS
Subscriber
B Cash
$C
Subscriber -To- Non Subscriber
eMoney Transfer

FIG. 5B



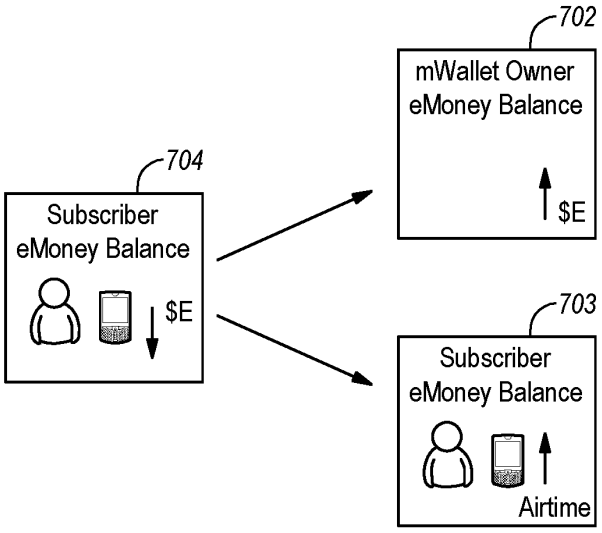
Subscriber -To- Subscriber
International eMoney Transfer

FIG. 6A



Subscriber -To- Non Subscriber
International eMoney Transfer

FIG. 6B



Subscriber Buys Airtime

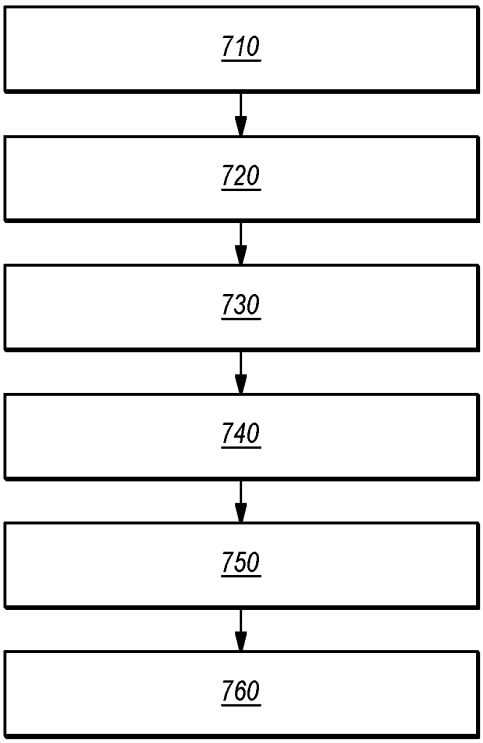
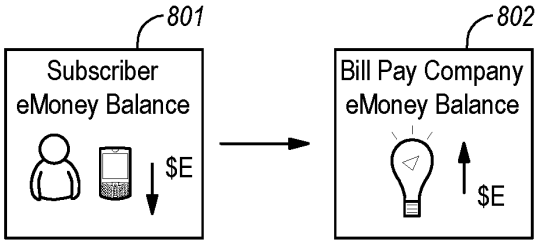


FIG. 7



Subscriber Pays Bill

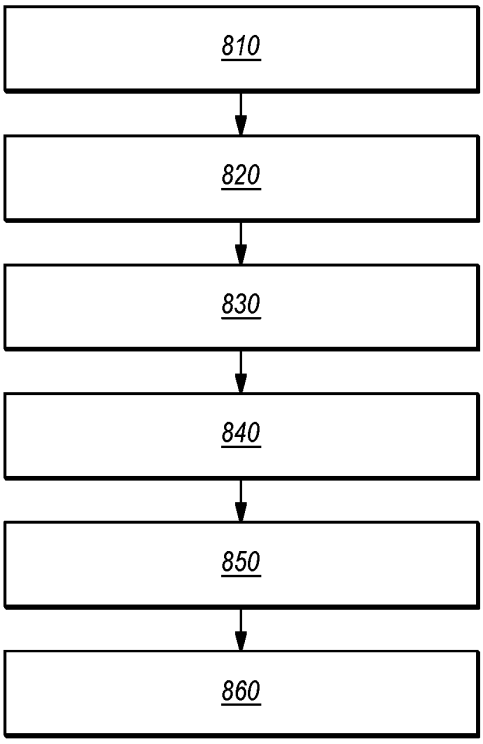
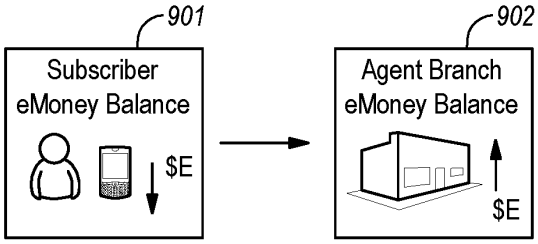


FIG. 8



Subscriber Makes Retail Purchase

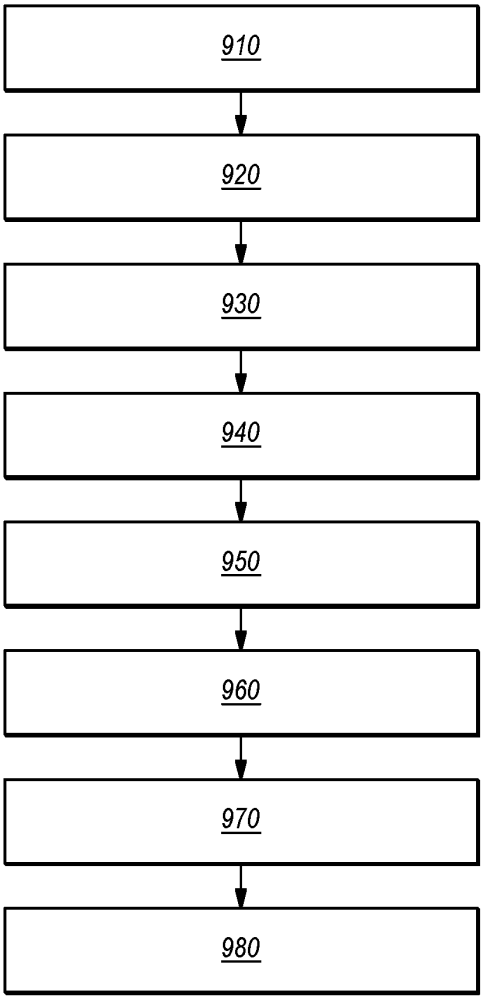
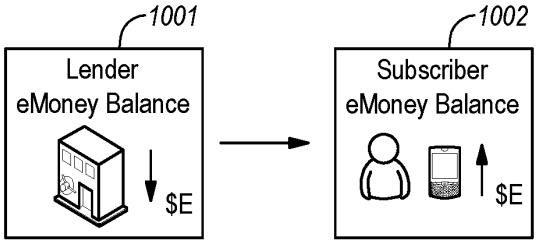
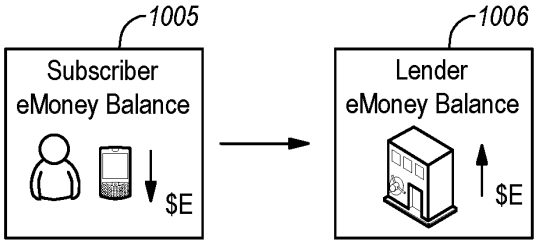


FIG. 9



Subscriber Requests Micro-Loan

FIG. 10A



Subscriber Repays Micro-Loan

FIG. 10B

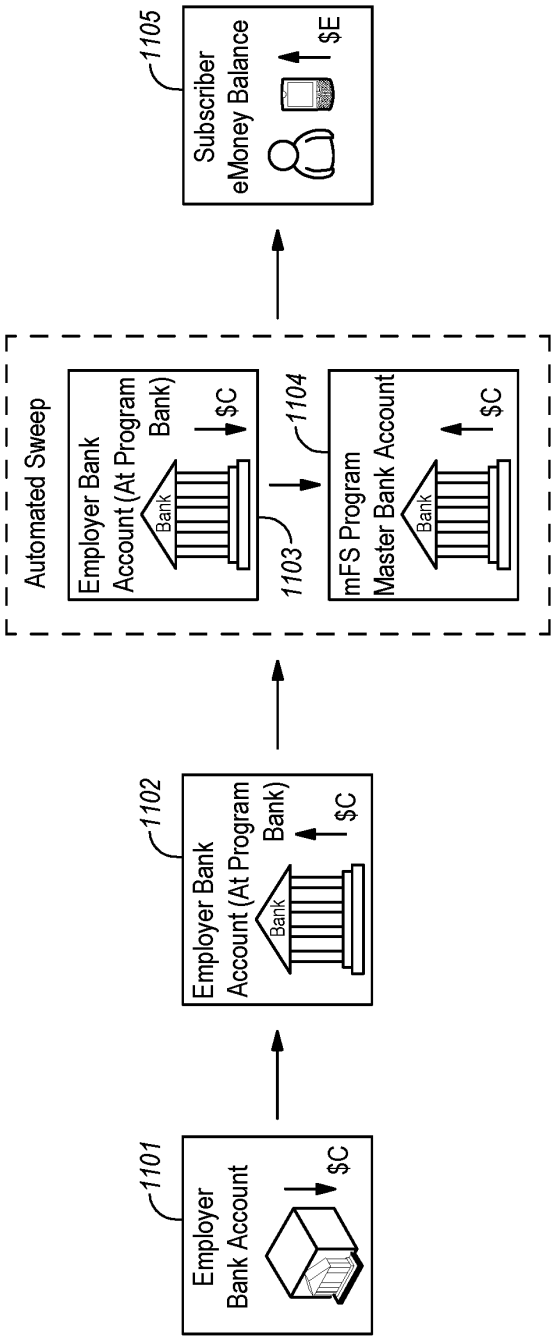

1105
Subscriber eMoney Balance
$E
Automated Sweep
Employer Bank Account (At Program Bank)
$C
Bank
1103
1104
mFS Program Master Bank Account
$C
Bank
1102
Employer Bank Account (At Program Bank)
$C
Bank
1101
Employer Bank Account
$C
Subscriber Receives Direct Deposit

FIG. 11A

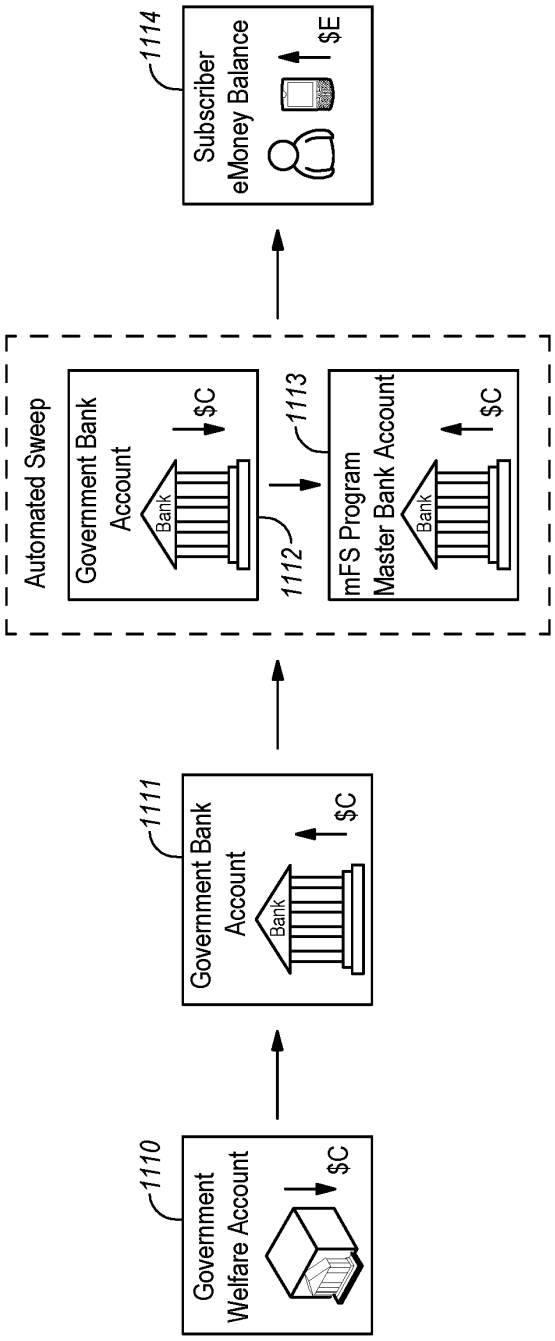

1110
Government Welfare Account
$C
1111
Government Bank Account
Bank
$C
Automated Sweep
Government Bank Account
Bank
$C
1112
1113
mFS Program Master Bank Account
Bank
$C
1114
Subscriber eMoney Balance
$E
Subscriber Receives Government Welfare Payment

FIG. 11B

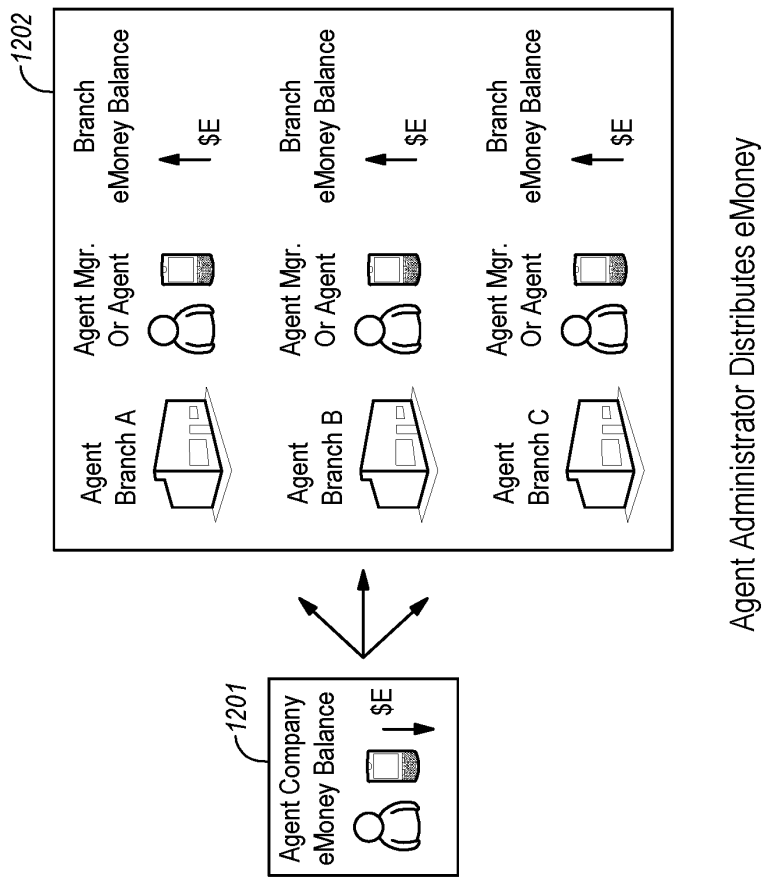

1202
Agent Branch A
Agent Mgr. Or Agent
Branch eMoney Balance
$E
Agent Branch B
Agent Mgr. Or Agent
Branch eMoney Balance
$E
Agent Branch C
Agent Mgr. Or Agent
Branch eMoney Balance
$E
1201
Agent Company eMoney Balance
$E
Agent Administrator Distributes eMoney

FIG. 12A

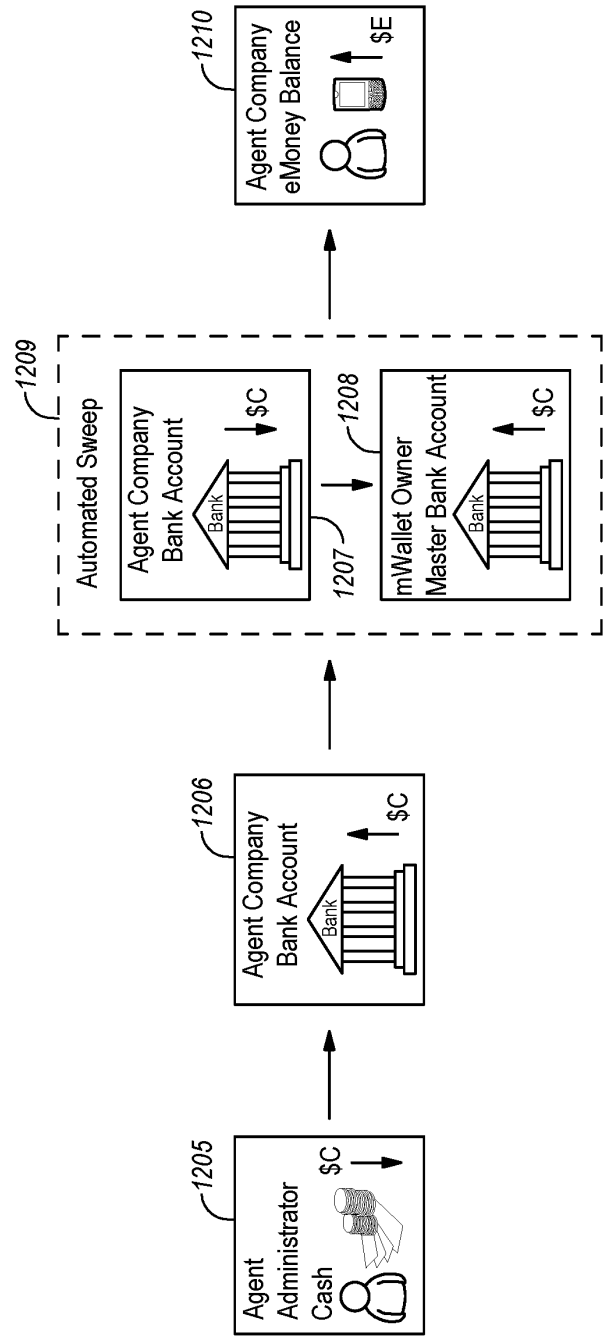

1205
Agent Administrator Cash
$C
1206
Agent Company Bank Account
Bank
$C
1209
Automated Sweep
Agent Company Bank Account
Bank
$C
1207
1208
mWallet Owner Master Bank Account
Bank
$C
1210
Agent Company eMoney Balance
$E
Agent Company Deposit

FIG. 12B

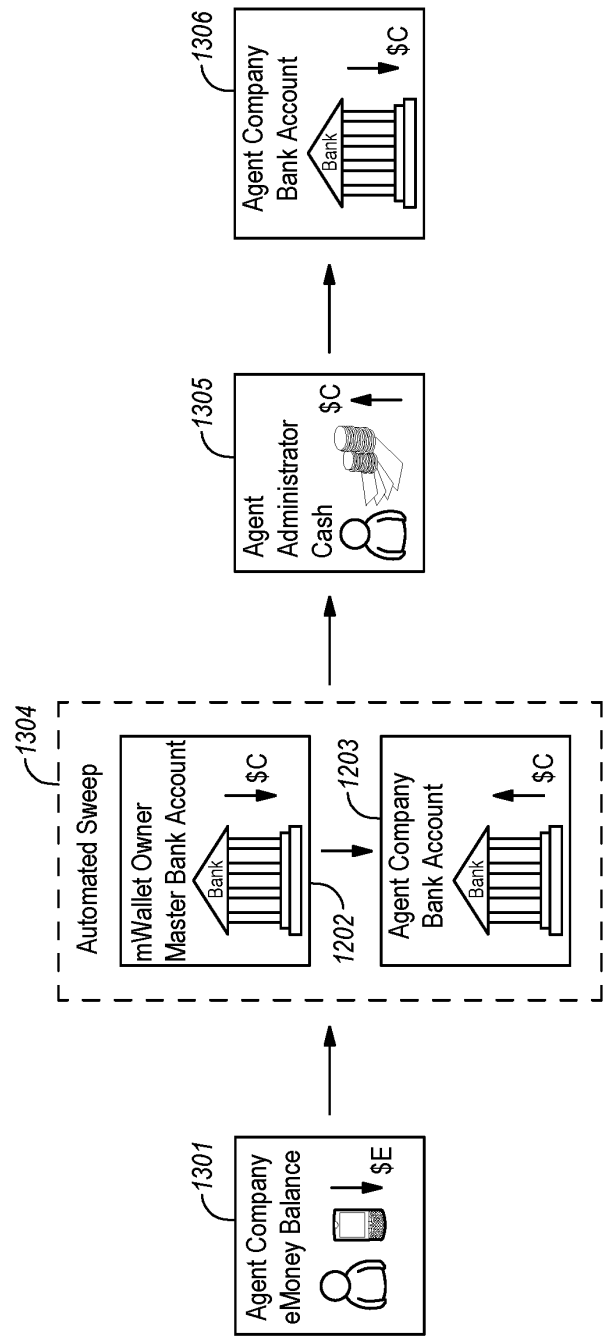
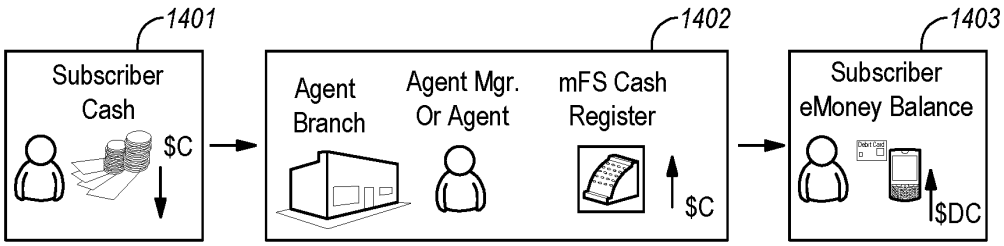

1306
Agent Company
Bank Account
$C
Bank
1305
Agent
Administrator
Cash
$C
1304
Automated Sweep
mWallet Owner
Master Bank Account
$C
Bank
1202
1203
Agent Company
Bank Account
$C
Bank
1301
Agent Company
eMoney Balance
$E
Agent Company Withdrawal

FIG. 13



Subscriber Deposit At Agent Branch

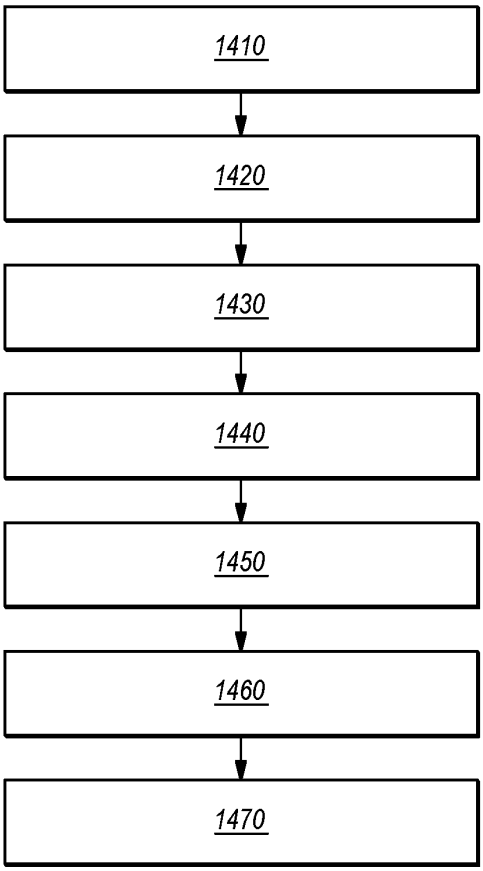


FIG. 14

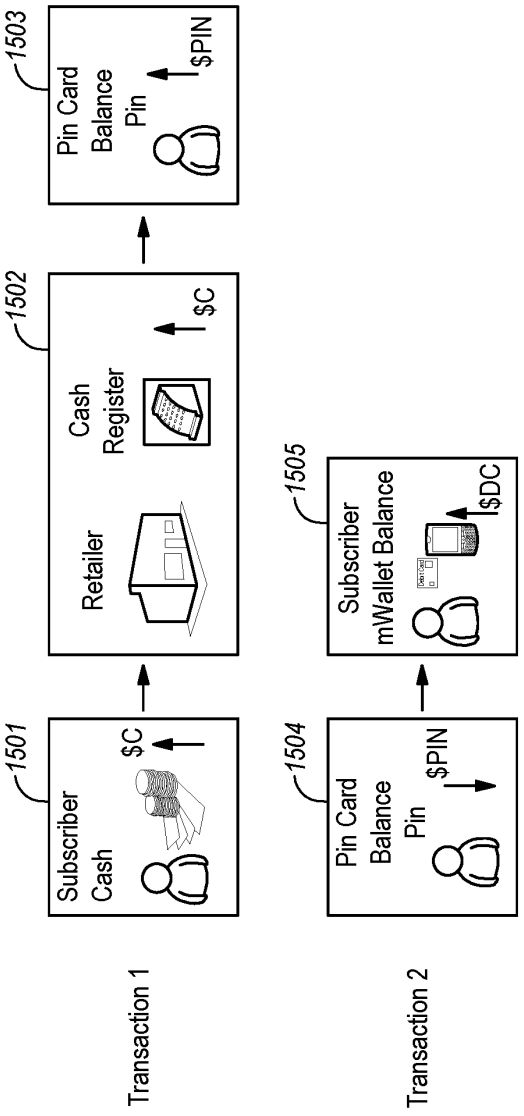
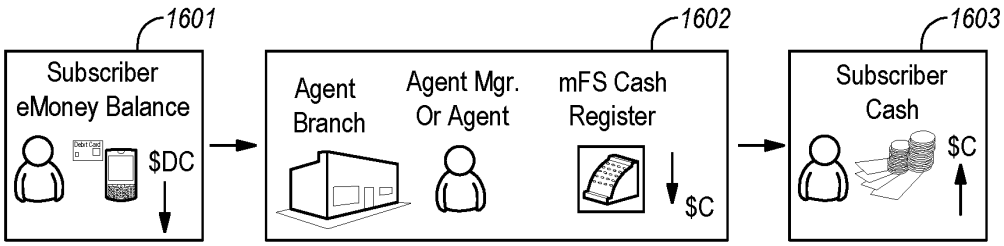

1501
Subscriber
Cash
$C
1502
Retailer
Cash
Register
$C
1503
Pin Card
Balance
Pin
$PIN
1504
Pin Card
Balance
Pin
$PIN
1505
Subscriber
mWallet Balance
$DC
Transaction 1
Transaction 2
Subscriber Deposit (Non-Agent)

FIG. 15



Subscriber Withdrawal (Agent)

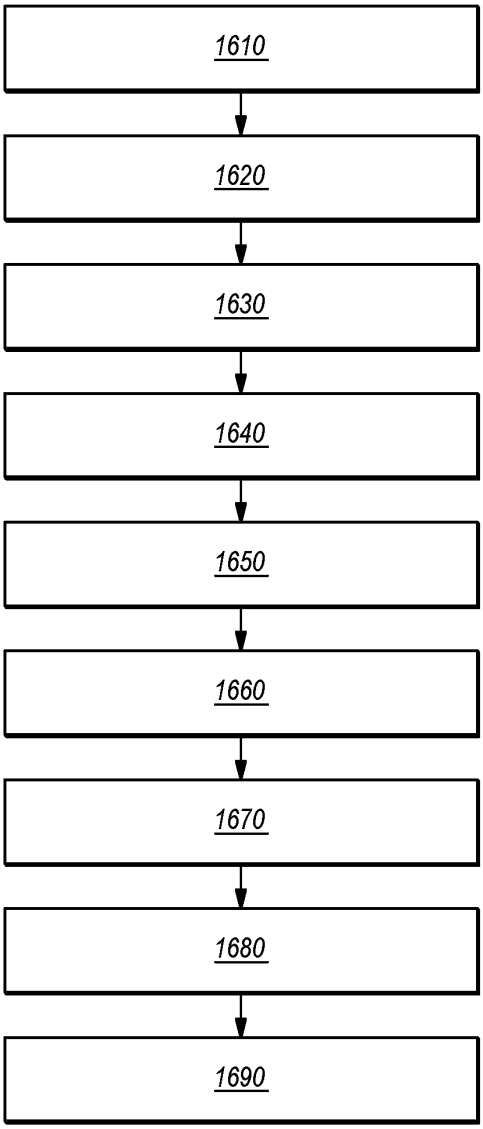
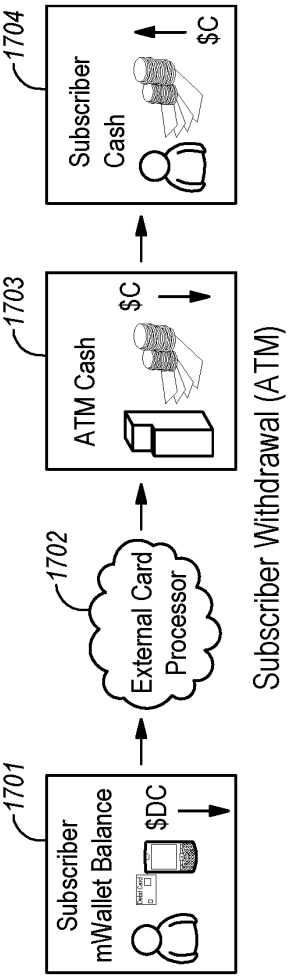
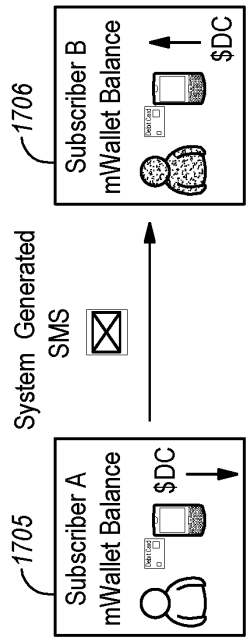


FIG. 16



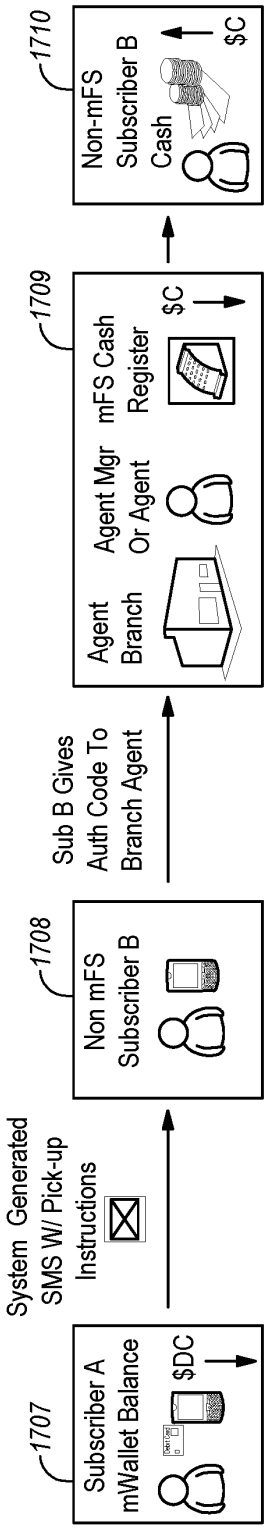
Subscriber Withdrawal (ATM)

FIG. 17A



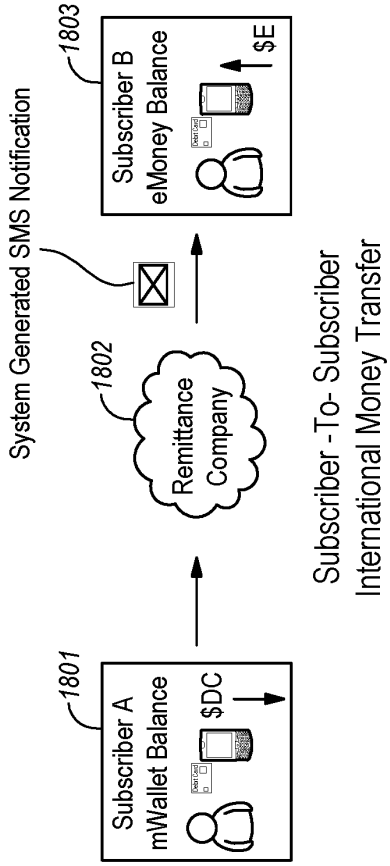
Subscriber To Subscriber Money Transfer

FIG. 17B



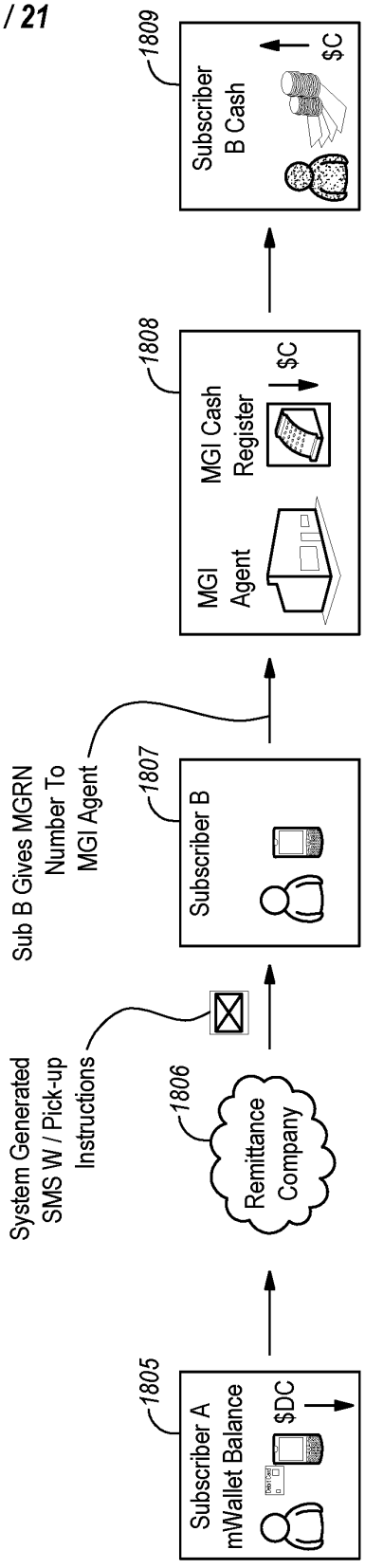
Subscriber To Non-Subscriber Money Transfer

FIG. 17C



Subscriber -To- Subscriber
International Money Transfer

FIG. 18A



Subscriber -To- Non Subscriber
International Money Transfer

FIG. 18B

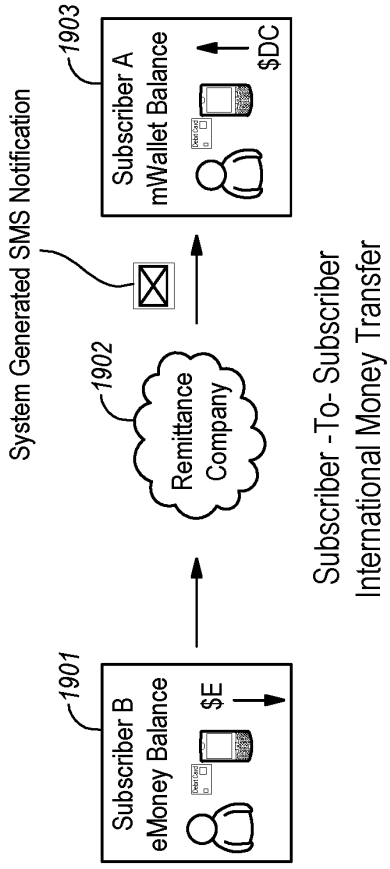


FIG. 19A

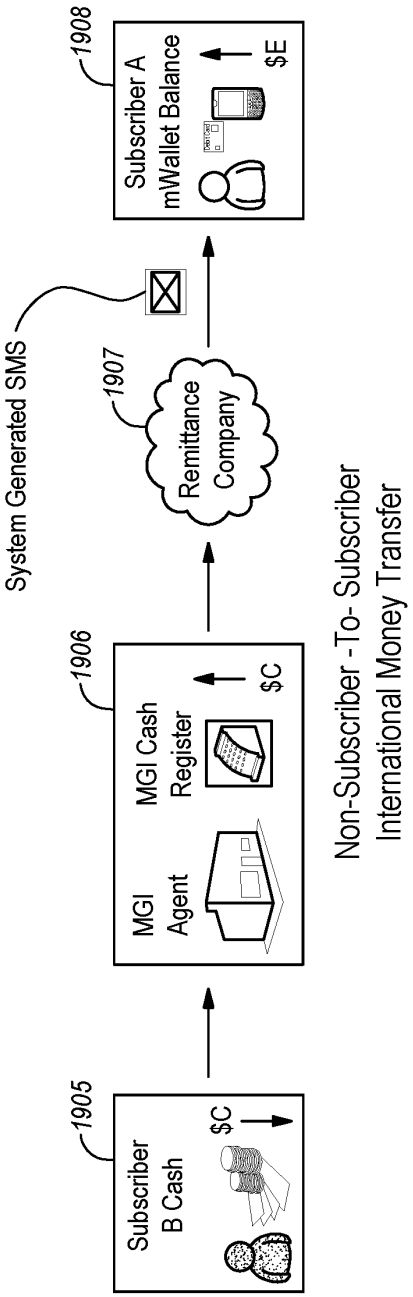


FIG. 19B

COMBINED DECLARATION AND ASSIGNMENT

DECLARATION

TITLE OF APPLICATION: **MONETARY TRANSACTION SYSTEM**

As a below named inventor, I hereby declare that:

This declaration and assignment is directed to:

☐ The attached application;

☒ United States Application No. 13/964,707 filed on August 12, 2013; or

☐ The application which was filed on _____ as U.S. Application No. _____.

I hereby authorize the patent attorneys and/or patent agents of Workman Nydegger to insert the above Application No(s). and filing date(s) when known.

The above-identified application was made or authorized to be made by me.

I hereby state that I have reviewed and understand the contents of the above-identified application, including the claim(s). I believe that I am the original inventor or an original joint inventor of one or more claimed inventions in the above-identified application.

I hereby state that I am aware of the duty to disclose all information which is material to patentability as defined in 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the national or PCT international filing date of the continuation-in-part application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. § 1001 by fine or imprisonment of not more than five (5) years, or both.

ASSIGNMENT

I, as Assignor, am the original inventor or an original joint inventor of the subject matter disclosed and/or claims in the above-identified application and am desirous to sell, assign and transfer the entire right, title and interest in and to one or more inventions disclosed in the above-identified application, the above-identified application and any and all letters patent which may be granted for the one or more inventions in the United States of America and its territorial possessions and in any and all foreign countries.

Assignee, MOZIDO, LLC, a Delaware limited liability corporation, having a principal place of business at Two Barton Skyway, 1601 South Mopac Expressway, Suite 200, Austin, Texas 78746, is desirous of acquiring the entire right, title and interest in and to the one or more inventions, the above-identified

application, and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries.

In exchange for good and valuable consideration, the receipt of which is hereby acknowledged, I hereby sell, assign and transfer and agree to assign unto the Assignee, the entire right, title and interest in and to the one or more inventions, the above-identified application, any earlier filed provisional applications to which the above-identified application claims priority including any inventions disclosed therein and the right to claim priority thereto, and any and all letters patent which may be granted for the one or more inventions in the United States of America and its territorial possessions and in any and all foreign countries, and any and all divisions, reissues, continuations, continuation-in-parts, and substitutes thereof, including the right to file foreign applications directly in the name of Assignee and to claim priority rights deriving from the above-identified application to which the foreign applications are entitled by virtue of international convention, treaty or otherwise, the one or more inventions, the above-identified application and all letters patent on the one or more inventions to be held and enjoyed by Assignee and its successors and assigns for their use and benefit as fully and entirely as the same would have been held and enjoyed by myself had this assignment, transfer and sale not been made.

I hereby authorize and request the Director of the United States Patent and Trademark Office to issue all letters patent on the inventions to Assignee.

I hereby covenant that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this Assignment.

All claims for damages and all of the remedies arising out of any infringement of the invention or the above-identified United States patent application which may have accrued prior to the date of this assignment or may accrue, including, but not limited to, the right to sue for and collect and retain damages for past infringements of the invention or the above-identified United States patent applications.

I agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on the one or more inventions, for litigation regarding the letters patent, or for the purpose of protecting title to the one or more inventions or letters patent therefor.

Dated this 7th day of November, 2013.

Michael A. Liberty

KINGDOM
~~STATE~~ OF ENGLAND)
CITY) ss.
~~COUNTY~~ OF LONDON)

On 7th November, 2013, before me personally appeared Michael A. Liberty known to me to be the person described and who signed the foregoing Assignment in my presence and acknowledged under oath before me that he has read the same and knows the contents thereof and that he executed the same as his free act and deed and for the purposes set forth therein.

NOTARY PUBLIC
Residing at LONDON, ENGLAND

My Commission Expires:
ON DEATH

Notary Public London, England (James I. Vanner)

4253379_1

Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
Approved for use through 11/30/2014. OMB 0651-0051
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number

POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date
15/201,152	July 1, 2016

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 22913

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

MOZIDO, INC.

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature	[signature]	Date (Optional)	
Name	Julie Love		
Title	CEO		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☐ Total of forms are submitted.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

STATEMENT UNDER 37 CFR 3.73(c)

Applicant/Patent Owner: Mozido, Inc.

Application No./Patent No.: 15/201,152 Filed/Issue Date: July 1, 2016

Titled: MONETARY TRANSACTION SYSTEM

Mozido, Inc., a corporation

(Name of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)

states that, for the patent application/patent identified above, it is (choose **one** of options 1, 2, 3 or 4 below):

1. ☑ The assignee of the entire right, title, and interest.

2. ☐ An assignee of less than the entire right, title, and interest (check applicable box):

   ☐ The extent (by percentage) of its ownership interest is _____%. Additional Statement(s) by the owners holding the balance of the interest must be submitted to account for 100% of the ownership interest.

   ☐ There are unspecified percentages of ownership. The other parties, including inventors, who together own the entire right, title and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

3. ☐ The assignee of an undivided interest in the entirety (a complete assignment from one of the joint inventors was made). The other parties, including inventors, who together own the entire right, title, and interest are:

   Additional Statement(s) by the owner(s) holding the balance of the interest must be submitted to account for the entire right, title, and interest.

4. ☐ The recipient, via a court proceeding or the like (*e.g.*, bankruptcy, probate), of an undivided interest in the entirety (a complete transfer of ownership interest was made). The certified document(s) showing the transfer is attached.

The interest identified in option 1, 2 or 3 above (not option 4) is evidenced by either (choose **one** of options A or B below):

A. ☐ An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United States Patent and Trademark Office at Reel _____, Frame _____, or for which a copy thereof is attached.

B. ☑ A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as follows:

1. From: Michael A. Liberty To: Mozido, LLC

   The document was recorded in the United States Patent and Trademark Office at
   Reel 034145, Frame 0267, or for which a copy thereof is attached.

2. From: Mozido, LLC To: Mozido, Inc.

   The document was recorded in the United States Patent and Trademark Office at
   Reel 031769, Frame 0677, or for which a copy thereof is attached.

PTO/AIA/96 (08-12)
Approved for use through 01/31/2013. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

STATEMENT UNDER 37 CFR 3.73(c)

3. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

4. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

5. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

6. From: _____ To: _____

The document was recorded in the United States Patent and Trademark Office at

Reel _____, Frame _____, or for which a copy thereof is attached.

☐ Additional documents in the chain of title are listed on a supplemental sheet(s).

☑ As required by 37 CFR 3.73(c)(1)(i), the documentary evidence of the chain of title from the original owner to the assignee was, or concurrently is being, submitted for recordation pursuant to 37 CFR 3.11.

[NOTE: A separate copy (i.e., a true copy of the original assignment document(s)) must be submitted to Assignment Division in accordance with 37 CFR Part 3, to record the assignment in the records of the USPTO. See MPEP 302.08]

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

/John C. Stringham, 40831/	July 1, 2016
Signature	Date
John C. Stringham	40831
Printed or Typed Name	Title or Registration Number

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	26245956
Application Number:	15201152
International Application Number:	
Confirmation Number:	2611
Title of Invention:	MONETARY TRANSACTION SYSTEM
First Named Inventor/Applicant Name:	Michael A. Liberty
Customer Number:	22913
Filer:	John C. Stringham/Rachelle Turner
Filer Authorized By:	John C. Stringham
Attorney Docket Number:	18756.8.1.1.1.1.1.1
Receipt Date:	01-JUL-2016
Filing Date:	
Time Stamp:	18:46:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	18756_POA.pdf	1463580 48d646bf65d08641bfe00b762a9c22c6e8d27f65	no	1

Warnings:

Information:					
2	Assignee showing of ownership per 37 CFR 3.73	18756_8_1_1_1_1_1_1_373c_form.pdf	120590 20f2379c06fa10e4d1d23d4f45c010504aeebe0b	no	3
Warnings:					
Information:					
			Total Files Size (in bytes):	1584170	

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

New Applications Under 35 U.S.C. 111

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

National Stage of an International Application under 35 U.S.C. 371

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

New International Application Filed with the USPTO as a Receiving Office

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

SCORE Placeholder Sheet for IFW Content

Application Number: 15201152 Document Date: 07/01/2016

The presence of this form in the IFW record indicates that the following document type was received in electronic format on the date identified above. This content is stored in the SCORE database.

- Drawings – Other than Black and White Line Drawings

Since this was an electronic submission, there is no physical artifact folder, no artifact folder is recorded in PALM, and no paper documents or physical media exist. The TIFF images in the IFW record were created from the original documents that are stored in SCORE.

To access the documents in the SCORE database, refer to instructions below.

At the time of document entry (noted above):

- Examiners may access SCORE content via the eDAN interface.
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Form Revision Date: September 30, 2013