# ELECTRONIC PAYMENT SYSTEMS AND METHODS

## Field of the Invention

**[0001]** The present invention relates generally to electronic payment technology, and more particularly to technological solutions implementing electronic payment systems and methods involving, for example, settlement arrangements between banks and customers following an electronic payment.

## Background of the Invention

**[0002]** Currently, card reward or loyalty programs typically provide options on redemptions that require a cardholder to go online to access a particular rewards suite of merchandise and client privileges previously arranged by banks and retailers or service providers as part of these programs and request, for example, the cardholder's accrued rewards points to convert the rewards into merchandise or other benefit from the rewards offer. For example, a cardholder must log in to the rewards program platform, which may retrieve the cardholder's points balance and offer the cardholder the particular redemption options available under the rewards program. Such redemption options usually restrict cardholders to certain relatively limited pre-defined redemption options.

**[0003]** Further, virtually no cardholder goes online frequently to check and / or redeem his or her point balances in these legacy card reward programs, so such balances simply continue to accumulate over time. In addition, cardholders' access to their loyalty points balance is neither easy nor customer-friendly, as cardholders must typically verify their loyalty points balance prior to shopping on line or benefitting from certain customer privileges. As a consequence, many cardholders accrue substantial balances in loyalty points, and when they attempt to redeem their loyalty points in these legacy systems, they are unable to find a redemption option that meets their preference.

**[0004]** Additionally, cardholders who do not pay their card account balance in full by the end of a monthly billing period, have no option other than to have their remaining balance roll over or "revolve" into the next month. When such a partial payment occurs,

interest is charged on the revolving amount and added to the cardholder's account balance. Consequently, cardholders who wish to make partial payments currently have no option other than to revolve their accounts and pay interest on the revolved amount. Still further, in legacy approaches, customers must wait for merchants to settle their transactions with the card issuing companies through their acquirers, which may typically take several days. Once the transaction settlement is performed, such customers must login, for example, to an online banking system and look for an equal payment plan function to convert their transactions.

**[0005]** Thus, there is a present need for technological solutions that address the problems of these legacy mechanisms and provide digital channel solutions to the deficiencies of these legacy approaches which eliminate, for example, any requirement for a customer to go through a complicated login process of authenticating himself or herself as a separate step.

**[0006]** There is a further need for such technological solutions which, for example, allow cardholders an opportunity and flexibility to make equal card account payments over time without incurring revolving interest. Moreover, embodiments of the invention may provide such solutions via mobile communication channels.

**[0007]** The problem that is solved by embodiments of the invention is rooted in the technological limitations of such legacy approaches. Improved techniques and, in particular, improved application of technology is needed to address the problems of the above described currently employed mechanisms. More specifically, the technologies applied in the aforementioned legacy approaches fail to achieve the sought-after capabilities of the herein-disclosed techniques for improved electronic payment systems and methods.

## Summary of the Invention

### [0008] Electronic Payment System

**[0009]** Embodiments of the invention advance the technical fields for addressing problems associated with the above described currently employed card account platform

mechanisms, as well as advancing peripheral technical fields. Such embodiments are directed to technological solutions that may involve a system that may include, for example, a customer offers engine having at least one processor coupled to memory and programmed, responsive to receiving an authorization request for a customer card account transaction, to automatically generate a customer offers inquiry to a processor of at least one customer offers eligibility database. In addition, the processor of the customer offers engine may be further programmed, based on an authorization request approval and a response to the customer offers inquiry, to generate a message to a customer device with a link to a microsite of an online banking system displaying a prompt for entry of acceptance of an option of paying at least part of a transaction amount other than by a charge to the customer card account.

**[0010]** Further, the online banking system may have at least one processor coupled to memory and may be programmed, responsive to receiving from a processor of the customer device via the link to the microsite of the online banking system of a message of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account, to retrieve details for paying at least part of the transaction amount other than by a charge to the customer card account from the processor of the customer offers engine. Still further, the processor of the online banking system may be further programmed to generate a non-card account charge payment request with details for paying at least part of the transaction amount other than by a charge to the customer card account to the processor of the at least one customer offers eligibility database and, responsive to receiving a non-card account charge payment result, to display the non-card account charge payment result on the customer's device via the microsite of the online banking system.

**[0011]** In an aspect of embodiments of the invention, the at least one processor of the customer offers engine processor may be further programmed to automatically generate the customer offers inquiry to the processor of the at least one customer offers eligibility database responsive to receiving customer transaction data with the authorization request for the customer card account transaction. In an additional aspect, the at least one processor of the customer offers engine may be further programmed to automatically

generate the customer offers inquiry responsive to receiving customer transaction data with the authorization request for the customer card account transaction from a processor of a point of sale terminal via a transaction authorization system. In a further aspect, the at least one processor of the customer offers engine may be further programmed to automatically generate the customer offers inquiry responsive to receiving customer transaction data with the authorization request for a customer card account transaction from a processor of a merchant website server via the transaction authorization system.

**[0012]** In a still further aspect of embodiments of the invention, the at least one processor of the online banking system may be further programmed to generate a non-card account charge payment result message to the at least one processor of the customer offers engine responsive to receiving the non-card account charge payment result from the processor of the at least one customer offers eligibility database. In other aspects, the at least one processor of the online banking system may be further programmed to generate a statement credit to the customer's card account for an amount corresponding to a value of the non-card account charge payment responsive to receiving the non-card account charge payment result from the processor of the at least one customer offers eligibility database.

**[0013] Points Redemption Aspect of Electronic Payment System**

**[0014]** In a points redemption aspect of embodiments of the invention, the at least one processor of the customer offers engine may be programmed, responsive to receiving the authorization request for the customer card account transaction, to automatically generate the customer offers inquiry comprising a customer card account points redemption inquiry to the processor of the at least one customer offers eligibility database comprising a processor of at least one rewards points database.

**[0015]** In such aspect, the at least one processor of the customer offers engine may be further programmed, based on the authorization request approval and the response to the customer card account points redemption inquiry, to generate the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction

amount other than by the charge to the customer card account comprising an option of paying at least part of the transaction amount with redemption of customer card account points.

**[0016]** Also in such aspect, the at least one processor of the online banking system may be programmed, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system of a message of acceptance of the option of paying at least part of the transaction amount with redemption of customer card account points, to retrieve details for paying at least part of the transaction amount with redemption of customer card account points from the at least one processor of the customer offers engine.

**[0017]** Additionally in such aspect, the at least one processor of the online banking system may be further programmed to generate the non-card account charge payment request comprising a points redemption payment request with details for paying at least part of the transaction amount with redemption of customer card account points consisting at least in part of a number of points required for paying at least part of the transaction amount to the processor of the at least one rewards points database and, responsive to receiving a points redemption payment result, to display the points redemption payment result on the customer's device via the microsite of the online banking system.

**[0018]** In the points redemption aspect of embodiments of the invention, the at least one processor of the customer offers engine may be further programmed to automatically generate the customer card account points redemption inquiry comprising a request for a customer rewards point balance to the processor of the at least one rewards points database responsive to receiving the authorization request for the customer card account transaction. In such aspect, the at least one processor of the customer offers engine may be further programmed to automatically generate the customer card account points redemption inquiry comprising a request for a points conversion rate and a number of points required for payment of at least part of the amount of the transaction amount to a

processor of a second rewards points database responsive to receiving the authorization request for the customer card account transaction.

**[0019]** In addition, in the points redemption aspect, the at least one processor of the customer offers engine may be further programmed to automatically generate the customer card account points redemption inquiry comprising a request for a customer rewards point balance, a points conversion rate, and a number of points required for at least part of the amount of the transaction to the processor of the at least one rewards points database responsive to receiving the authorization request for the customer card account transaction. Still further, the at least one processor of the customer offers engine may be further programmed to automatically generate the customer card account points redemption inquiry to the processor of the at least one rewards points database comprising at least one of a global rewards management system database and a points conversion rate system database responsive to receiving the authorization request for the customer card account transaction.

**[0020]** Also in the points redemption aspect of embodiments of the invention, the at least one processor of the customer offers engine may be further programmed to automatically generate the customer card account points redemption inquiry to the processor of the at least one rewards points database comprising a processor of a combined rewards points and points conversion rate system database responsive to receiving the authorization request for the customer card account transaction. In addition, the at least one processor of the customer offers engine may be further programmed to generate a message to the customer device with a link to the microsite of the online banking system displaying a prompt for entry of acceptance of the option of paying all of the transaction amount in a transaction of less than a predefined transaction amount threshold based on the authorization request approval and the response to the customer card account points redemption inquiry.

**[0021]** In the points redemption aspect of embodiments of the invention, the at least one processor of the customer offers engine may be further programmed to generate a message to the customer device with the link to the microsite of an online banking system

displaying a prompt for entry of acceptance of the option of paying all of the transaction amount in a transaction equal to or less than a predefined transaction amount threshold based on the authorization request approval and the response to the customer card account points redemption inquiry.

**[0022]** In addition, in the points redemption aspect, the at least one processor of the customer offers engine may be further programmed to generate a message to the customer device with a link to the microsite of the online banking system displaying a prompt for entry of acceptance of the option of paying part of the transaction amount in a transaction of greater than a predefined transaction amount threshold based on the authorization request approval and the response to the customer card account points redemption inquiry.

**[0023] Equal Payment Plan Aspect of Electronic Payment System**

**[0024]** In an equal payment plan aspect of embodiments of the invention, the at least one processor of the customer offers engine may be programmed, responsive to receiving the authorization request for the customer card account transaction, to automatically generate the customer offers inquiry comprising a card account and promotion inquiry to the at least one customer offers eligibility database processor comprising an equal payment plan plus financial institution cards and banking system processor.

**[0025]** In addition, in the equal payment plan aspect of embodiments of the invention, the at least one processor of the customer offers engine may be further programmed, based on the authorization request approval and the response to the card account and promotion inquiry, to generate the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account comprising an option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan.

**[0026]** Also in the equal payment plan aspect of embodiments of the invention, the at least one processor of the online banking system may be programmed, responsive to

receiving from the processor of the customer device via the link to the microsite of the online banking system of the message of acceptance of the option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan, to retrieve details for paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan from the at least one processor of the customer offers engine.

**[0027]** Likewise in the equal payment plan aspect of embodiments of the invention, the at least one processor of the online banking system may be further programmed to generate the non-card account charge payment request comprising an equal payment plan request with details for paying at least part of the transaction amount by converting the transaction amount into the equal payment plan consisting at least in part of equal payment program terms and corresponding pricing to said equal payment plan plus financial institution cards and banking system processor and, responsive to receiving a equal payment plan result, to display the equal payment plan result on the customer's device via the microsite of the online banking system.

**[0028]** In the equal payment plan aspect of embodiments of the invention, the at least one processor of the customer offers engine may be further programmed to automatically generate the card account and promotion inquiry comprising a request for a customer card account status and equal payment plan terms and corresponding pricing to the processor of the equal payment plan plus financial institution cards and banking system processor responsive to receiving the authorization request for the customer card account transaction.

**[0029] Electronic Payment Method**

**[0030]** Embodiments directed to the technological solutions described herein may also involve a method that includes, for example, automatically generating, by a customer offers engine having at least one processor coupled to memory, a customer offers inquiry to a processor of at least one customer offers eligibility database responsive to receiving an authorization request for a customer card account transaction. Such method may also involve, for example, generating, by the at least one processor of the customer offers

engine, based on an authorization request approval and a response to the customer offers inquiry, a message to a customer device with a link to a microsite of an online banking system displaying a prompt for entry of acceptance of an option of paying at least part of a transaction amount other than by a charge to the customer card account.

**[0031]** Such method may additionally involve, for example, retrieving, by at least one processor of the online banking system, responsive to receiving from a processor of the customer device via the link to the microsite of the online banking system of a message of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account, details for paying at least part of the transaction amount other than by a charge to the customer card account from the at least one processor of the customer offers engine.

**[0032]** In addition, such method may involve, for example, generating, by the at least one processor of the online banking system, a non-card account charge payment request with details for paying at least part of the transaction amount other than by a charge to the customer card account to the processor of the at least one customer offers eligibility database and, responsive to receiving a non-card account charge payment result, displaying the non-card account charge payment result on the customer's device via the microsite of the online banking system.

**[0033] Points Redemption Aspect of Electronic Payment Method**

**[0034]** In a points redemption aspect of such method for embodiments of the invention, automatically generating the customer offers inquiry may involve, for example, automatically generating the customer offers inquiry comprising a customer card account points redemption inquiry to the processor of the at least one customer offers eligibility database comprising a processor of at least one rewards points database responsive to receiving the authorization request for the customer card account transaction.

**[0035]** Also in the points redemption aspect of such method, generating the message to the customer device may also involve, for example, generating, based on the

authorization request approval and the response to the customer offers inquiry, the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount other than by the charge to the customer card account comprising an option of paying at least part of the transaction amount with redemption of customer card account points.

**[0036]** Additionally in the points redemption aspect of such method for embodiments of the invention, retrieving the details may additionally involve, for example, retrieving, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system the message of acceptance of the option of paying at least part of the transaction amount with redemption of customer card account points, details for paying at least part of the transaction amount with redemption of customer card account points from the at least one processor of the customer offers engine.

**[0037]** In the points redemption aspect of such method, generating the non-card account charge payment request may further involve, for example, generating the non-card account charge payment request comprising a points redemption payment request with details for paying at least part of the transaction amount with redemption of customer card account points consisting at least in part of a number of points required for paying at least part of the transaction amount to the processor of the at least one rewards points database and, responsive to receiving a points redemption payment result, displaying the points redemption payment result on the customer's device via the microsite of the online banking system.

**[0038] Equal Payment Plan Aspect of Electronic Payment Method**

**[0039]** In an equal payment plan aspect of such method for embodiments of the invention, automatically generating the customer offers inquiry may involve, for example, automatically generating the customer offers inquiry comprising a card account and promotion inquiry to the at least one customer offers eligibility database processor comprising an equal payment plan plus financial institution cards and banking system processor.

**[0040]** In the equal payment plan aspect, of the method generating the message to a customer device may also involve, for example, generating, based on an authorization request approval and a response to the customer offers inquiry, the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account comprising an option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan;

**[0041]** Also in the equal payment plan aspect of the method, retrieving the details may further involve, for example, retrieving, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system of the message of acceptance of the option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan, details for paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan from the at least one processor of the customer offers engine.

**[0042]** Additionally in the equal payment plan aspect of such method, generating the non-card account charge payment request may also involve, for example, generating the non-card account charge payment request comprising an equal payment plan request with details for paying at least part of the transaction amount by converting the transaction amount into the equal payment plan consisting at least in part of equal payment program terms and corresponding pricing to said equal payment plan plus financial institution cards and banking system processor and, responsive to receiving a equal payment plan result, displaying the equal payment plan result on the customer's device via the microsite of the online banking system.

**[0043]** Embodiments of the invention may employ computer hardware and software, including, without limitation, one or more processors coupled to memory and non-transitory computer-readable storage media with one or more executable programs stored thereon which instruct the processors to perform the methods described herein.

**[0044]** These and other aspects of the invention will be set forth in part in the description which follows and in part will become more apparent to those skilled in the art upon examination of the following or may be learned from practice of the invention. It is intended that all such aspects are to be included within this description, are to be within the scope of the present invention, and are to be protected by the accompanying claims.

**Brief Description of the Drawings**

**[0045]** Fig. 1 is a schematic diagram that illustrates an overview example of deployment and integration of components and flow of information between components of a system in the points redemption aspect for embodiments of the invention;

**[0046]** Fig. 2 is a schematic diagram that illustrates another overview example of deployment and integration of components and flow of information between components of a system in the points redemption aspect for embodiments of the invention;

**[0047]** Fig. 3 is a schematic diagram that illustrates an overview example of deployment and integration of components and flow of information between components for a system for the equal payment plan aspect of embodiments of the invention; and

**[0048]** Fig. 4 is a flow chart that illustrates an overview example of the process of electronic payment without separate login or authentication in the system for embodiments of the invention.

**Detailed Description**

**[0049]** Reference will now be made in detail to embodiments of the invention, one or more examples of which are illustrated in the accompanying drawings. Each example is provided by way of explanation of the invention, not as a limitation of the invention. It will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. For example, features illustrated or described as part of one embodiment can be used in another embodiment to yield a still further embodiment. Thus, it is intended that the

present invention cover such modifications and variations that come within the scope of the invention.

**[0050] Points Redemption Aspect of Electronic Payment Systems and Methods**

**[0051]** Embodiments of the invention provide digital channel solutions to the deficiencies of the above-described legacy approaches. Such solutions eliminate, for example, any requirement for a customer to go through a complicated login process of authenticating himself or herself as a separate step in order redeem loyalty points in a points redemption aspect of embodiments of the invention.

**[0052]** Further, a push notification generated for embodiments of the invention assures that customers are continually reminded of their points balance with a particular card account and continually offered a simple method to redeem their accumulated point balances in the points redemption aspect. As an added benefit, the points redemption aspect for embodiments of the invention may reduce the costs to customers for their purchases via a process that is extremely easy for customers, while eliminating any need for customers to track or remember their point balances.

**[0053]** The points redemption aspect for embodiments of the invention replaces multiple legacy options for customers to redeem their loyalty points with a single, flexible process to pay for a wide variety of purchases with such points. For example, embodiments of the invention may enable a customer shopping on a travel services website to receive and click on a text message and pay some or all of the purchase price by redeeming loyalty points. For another example, a customer dining out at a restaurant or buying gasoline at a filling station may likewise receive and click on the text message and pay some or all of the cost of dining or refueling by redeeming loyalty points.

**[0054]** As noted, the points redemption aspect of embodiments of the invention eliminates any requirement for the customer to enter customer login credentials, such user name and password in performing such redemption or conversion. Further, within a predetermined period, such as a couple of days, the customer may see a statement credit on the customer's card account after the value of the redeemed points are applied in the

points redemption aspect or after a statement adjustment is made for the amount of the converted transaction.

**[0055]** Embodiments of the invention provide push messages, such as short message service (SMS) text messages or emails, to customers based on a real-time event, such as a transaction in a particular merchant or a category of merchants, and allow a seamless customer experience by clicking on a link sent to the customer in a communication message to pay for the transaction with points or miles in the points redemption. This process saves customers time by providing an immediate capability of performing such transactions without proceeding, for example, through a login to a bank's system once customers receive the event-based, real-time customer communication

**[0056]** Embodiments of the invention provide mechanisms for universal payment with points in the points redemption aspect in any type of customer transaction performed, for example, at a face-to-face merchant point of sale (POS) terminal or in online electronic commerce on a partner site, which may be domestic or overseas. Assume, for example, that a customer uses a card account to perform such a transaction. At checkout, the transaction data may be sent with a message requesting authorization to a system of the card issuing entity, which may return an approval message.

**[0057]** In embodiments of the invention, an offer engine of the card issuing entity may use the received transaction data to perform a database search based on predefined search criteria to determine whether or not an offer message in the form, for example, of a text message will be generated and sent via a message server to a device of the customer. When it is determined that a text message should be generated to the device of the customer, in the points redemption aspect, such text message may express a question, such as "Dear Customer, Would you like to pay for this transaction with your points?"

**[0058]** Also included in such text message may be a link to a microsite of the card issuing entity, and the text message may include a prompt for the customer to click on the link if the customer is interested in the offer. In the points redemption aspect, when the customer clicks on the link in the text message, the customer may be routed to a screen displayed on the customer's device on which the customer may be prompted to choose a

number of the customer's accumulated points to redeem in payment for the transaction. When the customer chooses the number of customer's accumulated points to pay for the transaction and clicks, for example, on a button confirming the redemption displayed on the screen of the customer' device, the offer engine of the card issuing entity may display a confirmation screen on the same microsite for the customer.

**[0059]** In the points redemption aspect, a customer experience with the pay-with-points mechanism for embodiments of the invention may involve, for example, receiving a text message on the customer's mobile device as soon as the customer's transaction is authorized. Thus, in a customer transaction with a retailer, the text message may inform the customer that he or she has just finished the particular transaction and ask the customer if he or she would like to pay for the particular transaction with the customer's accumulated points. It may be reasonable to expect that many of such customers may be delighted to be able to recoup some or all of what they have just spent by redeeming their points.

**[0060]** Thus, in the points redemption aspect, the customer may click the link in the text message displayed on the customer's device, whereupon a window may open on the device display screen prompting the customer to choose a number of points to redeem via a screen mechanism such as a slider or entry field. After entering that information, the customer may simply click, for example, on a "Submit" or "Redeem Now" button to complete the operation. In embodiments of the invention, the points that are redeemed may be, for example, loyalty points of the card issuing entity.

**[0061]** It is noted that the process in either the points redemption aspect for embodiments of the invention may occur at the authorization request stage. Thus, in the points redemption aspect, when the authorization request for a particular card account of the customer is received by the card issuing entity, for example, from a merchant and approved by the card issuer's system, the card issuing entity's offer engine may search a points database for a match to the customer's credentials based on predefined rules.

**[0062]** In the points redemption aspect for embodiments of the invention, when the transaction is authorized and a match for the customer's credentials is found in the points

database, the entity's offer engine may generate and send the text message via the message server with the points redemption offer to the customer's device. Otherwise, when authorization of the transaction is declined and / or no match is found in the points database, no text message is generated by the entity's offer engine.

**[0063]** As noted, in the points redemption aspect of embodiments of the invention, the search of the points database for a match to the customer's credentials is based on predefined rules. It is to be understood that such rules may establish parameters with regard to specific types of transactions and / or authorizations that may trigger generation of the text message and that such parameters may be changed from time-to-time.

**[0064]** It is to be further understood that while examples for either the points redemption aspect for embodiments of the invention described herein may involve push notification of a text message via SMS to a customer's mobile phone, other types of communication may include, for example, email push notification, and other types of customer devices may include, for example, a customer's laptop, notebook, IPad, or desktop computer.

**[0065]** Fig. 1 is a schematic diagram that illustrates an overview example of deployment and integration of components and flow of information between components of a system in the points redemption aspect for embodiments of the invention. Such system may include, for example, a processor of a point of sale terminal 102 communicably coupled to one or more processors of a customer offers engine 104 via one or more processors of a transaction authorization system 106.

**[0066]** Referring further to Fig. 1, in the points redemption aspect, the one or more processors of a customer offers engine 104 may in turn be communicably coupled to a global rewards management system database 108, a points conversion system rate database 110, and one or more processors of an online banking server 112, which may also be communicably coupled to the global rewards management system database 108, as well as a processor of a customer's communication device 114.

**[0067]** Referring again to Fig. 1, in the points redemption aspect for embodiments of the invention, at 1001, a customer's transaction data may be sent with an authorization request, for example, by the processor of a point of sale terminal 102 to the one or more processors of the transaction authorization system 106, and at 1002, the one or more processors of the transaction authorization system 106 may download an authorization log to the one or more processors of a customer offers engine 104, for example, via an advance fraud early warning system (not more particularly shown). Criteria for eligible transactions for triggering a message, such as a short message server (SMS) message, to the customer's communication device 114 with a link to microsite of the online banking system 112 may be predefined and maintained in the customer offers engine 104.

**[0068]** Referring once more to Fig. 1, at 1003, the one or more processors of the customer offers engine 104 may send a points balance inquiry with the customer card account number to global rewards management system database 108, which may return a points inquiry response with the customer's latest point balance to the one or more processors of a customer offers engine 104. Thereafter, at 1004, the one or more processors of the customer offers engine 104 may send information, such as data regarding organization, logo, merchant identifier, the customer's card account number, and the transaction amount with a request for the merchant's cost per point conversion rate, for example, to points conversion rate system database 110, which may return the requested conversion rate and number of points required for the transaction to the one or more processors of the customer offers engine 104 at 1005.

**[0069]** Referring still further to Fig. 1, at 1006, the one or more processors of a customer offers engine 104 may trigger, for example, an SMS message to the customer's device 114 with a link to the online banking system microsite displaying a prompt of the customer for entry of a selection of options of paying all or part of the transaction amount with the customer's points. At 1007, when the customer clicks, for example, on the displayed option to pay all or part of the transaction amount with his or her points, the processor of the customer's device 114 may send a points redemption acceptance message via the link to the one or more processors of the online banking server 112.

**[0070]** Referring once again to Fig. 1, at 1008, upon receipt of the points redemption acceptance message, the online banking system server 112 may call the customer offers engine 104 for necessary details for the redemption, and upon receipt of the redemption details, the online banking system server 112 may send a redemption request with the customer's card account number and required points to the global rewards management system database 108 at 1009. At 1010, responsive to receiving the redemption request, the global rewards management system database 108 may perform the redemption and send the redemption result to the online banking system server 112, which may in turn display the redemption result on the customer's device 114 via the online banking system microsite and send the redemption result to the customer offers engine 104 at 1011.

**[0071]** Fig. 2 is a schematic diagram that illustrates another overview example of deployment and integration of components and flow of information between components of a system in the points redemption aspect for embodiments of the invention. The system for such other example may include, for example, the processor of the point of sale terminal 102 communicably coupled to the one or more processors of the customer offers engine 104 via one or more processors of the transaction authorization system 106. Referring further to Fig. 2, the one or more processors of the customer offers engine 104 may in turn be communicably coupled to a rewards points and points conversion rate system database 202 and one or more processors of the online banking system server 112, which may also be communicably coupled to the rewards points and points conversion rate system database 202, as well as the processor of the customer's communication device 114.

**[0072]** Referring again to Fig. 2, in the points redemption aspect of embodiments of the invention, at 2001, a customer's transaction data may be sent with an authorization request, for example, by the processor of the point of sale terminal 102 to the one or more processors of the transaction authorization system 106, and at 2002, the one or more processors of the transaction authorization system 106 may download an authorization log to the one or more processors of a customer offers engine 104, for example, via an advance fraud early warning system (not more particularly shown). As noted, criteria for eligible transactions for triggering a message, such as a short message server (SMS)

message, to the customer's communication device 114 with a link to a microsite of the online banking system 112 may be predefined and maintained in the customer offers engine 104.

**[0073]** Referring further to Fig. 2, at 2003, in the points redemption aspect of embodiments of the invention, the one or more processors of the customer offers engine 104 may send an inquiry for the customer's point balance and merchant cost per point at the merchant level with information, such as data regarding organization, logo, the customer's card account number, merchant identifier, the transaction amount, and a point indicator to the rewards points and points conversion rate system database 202, which may return a points inquiry response with the conversion rate, the number of points required, and the customer's point balance to the customer offers engine 104 at 2004. At 2005, the one or more processors of a customer offers engine 104 may trigger, for example, an SMS message to the customer's device 114 with a link to the microsite of the online banking system 112 displaying a prompt to the customer for entry of a selection of options of paying all or part of the transaction amount with his or her points.

**[0074]** Referring still further to Fig. 2, in the points redemption aspect of embodiments of the invention, at 2006, when the customer clicks, for example, on the displayed option to pay all or part of the transaction amount with his or her points, the processor of the customer's device 114 may send a points redemption acceptance message via the link to the online banking system server 112. At 2007, upon receipt of the points redemption acceptance message, the online banking system server 104 may call the customer offers engine 104 for necessary details for the redemption.

**[0075]** Referring once again to Fig. 2, upon receipt of the redemption details, at 2008, the online banking system server 112 may send a redemption request with the customer's card account number and required points to the rewards points and points conversion rate system database 202. At 2009, responsive to receiving the redemption request, the rewards points and points conversion rate system database 202 may perform the redemption and send the redemption result to the online banking system server 112,

which may in turn display the redemption result on the customer's device 114 via the microsite and send the redemption result to the customer offers engine 104.

**[0076]** It is to be understood that in the points redemption aspect of embodiments of the invention, the text message may include, for example, one or both of an offer of a redemption of points equal to a total cost of the transaction or an offer of a redemption of points equal to a partial cost of the transaction. For example, the text message may include an offer of a redemption of points equal to a total transaction amount in a transaction that is less than the predetermined threshold amount or an offer of a redemption of points equal to a partial transaction amount in a transaction that is greater than the predetermined threshold amount.

**[0077]** In the points redemption aspect of embodiments of the invention, such threshold amount may be predetermined, for example, as $30 or any other suitable threshold amount. Factors that may be considered in predetermining such threshold amount may include, for example, whether or not customers may be likely to prefer to limit redemption of their point balance in payment of relatively large transaction amounts. It is to be understood, however, that embodiments of the invention may exclude such threshold amounts entirely and allow redemption of points equal to a total transaction amount regardless of the transaction amount.

**[0078]** In embodiments of the invention every transaction may be fully authorized for the total transaction amount as usual through the card issuer's authorization system following all usual authorization logic and controls, and the text message is triggered and sent to customers only after the transaction is received by the card issuer's authorization system. In the foregoing threshold amount feature of the points redemption aspect of embodiments of the invention, when a customer makes a purchase transaction at a partner's website, different processing flows may be triggered based, for example, on the partner and / or the transaction amount.

**[0079]** For example, in the threshold amount feature of the points redemption aspect of embodiments of the invention, a transaction amount greater than a predetermined threshold sum may trigger a partial redemption flow. Assume, for example, that a

customer performs a transaction for a purchase of goods or services on a merchant-partner's website or point of sale terminal with a transaction amount that is greater than the predetermined threshold sum. At checkout, as usual, the customer's transaction data may be sent with an authorization request, for example, by the point of sale terminal 102 or website server to the transaction authorization system 106, which may download an authorization log to the customer offers engine 104, for example, via the advance fraud early warning system.

**[0080]** Based on confirmation by the customer offers engine 104 of the customer's points balance, point conversion rate and number of points required for the customer's transaction, the customer offers engine 104 may trigger, for example, an SMS message with a link to the microsite of the online banking system 112 to the customer's device 114 prompting the customer for selection of an option for payment of any part of the transaction amount up to the predetermined threshold amount with his or her available points. When the customer clicks, for example, on the link, the customer's device 114 may be routed, for example, to display screens on which the customer may enter a request for redemption of points for a particular payment amount that is less than the threshold amount. Based on the customer's entry, the customer's points balance may be reduced, and a statement credit posted to customer's card account

**[0081]** On the other hand, a transaction amount that is less than a predetermined threshold sum, such as thirty dollars, may trigger a full redemption flow. Thus, the customer offers engine 104 may trigger the SMS message with the link to the microsite of the online banking system 112 to the customer's device 114 prompting the customer for selection of an option of paying all of the transaction amount with his or her points. When the customer clicks, for example, on the link, the customer's device 114 may be routed, for example, to a display screen informing the customer of a number of points equivalent to the total transaction amount that will be deducted from the customer's point balance. Thereafter, the customer's points balance may reduced and a statement credit posted to customer's card account

**[0082] Equal Payment Plan Aspect of Electronic Payment Systems and Methods**

**[0083]** As noted, embodiments of the invention provide digital channel solutions to the deficiencies of legacy approaches, which eliminate any requirement for a customer to go through a complicated login process of authenticating himself or herself as a separate step, for example, in order to convert a transaction amount to an equal payment plan in an equal payment plan aspect of embodiments of the invention. Further, within a predetermined period, such as a couple of days, the customer may see a statement credit on the customer's card account after a statement adjustment is made for the amount of the converted transaction in the equal payment plan aspect.

**[0084]** Embodiments of the invention provide push messages, such as short message service (SMS) text messages or emails, to customers based on a real-time event, such as a transaction in a particular merchant or a category of merchants, and allow a seamless customer experience by clicking on a link sent to the customer in a communication message to pay for the transaction by converting the transaction into an equal payment plan in the equal payment plan aspect. This process saves customers time by providing an immediate capability of performing such transactions without proceeding, for example, through a login to a bank's system once customers receive the event-based, real-time customer communication.

**[0085]** Embodiments of the invention provide push messages, such as short message service (SMS) text messages or emails, to customers based on a real-time event, such as a transaction in a particular merchant or a category of merchants, and allow a seamless customer experience by clicking on a link sent to the customer in a communication message to pay for the transaction by converting the transaction into an equal payment plan in the equal payment plan aspect. This process saves customers time by providing an immediate capability of performing such transactions without proceeding, for example, through a login to a bank's system once customers receive the event-based, real-time customer communication.

**[0086]** In embodiments of the invention, an offer engine of the card issuing entity may use the received transaction data to perform a database search based on predefined search criteria to determine whether or not an offer message in the form, for example, of a text

message will be generated and sent via a message server to a device of the customer. When it is determined that a text message should be generated to the device of the customer, in the points redemption aspect, such text message may express a question, such as "Dear Customer, Would you like to pay for this transaction in equal payments?"

**[0087]** In the equal payment plan aspect for embodiments of the invention, a customer's transaction, for example, on a merchant's point of sale terminal 102 or website proceeds as usual between the merchant and the card issuing entity. However, at the same time the authorization request is being processed and approved by the card issuer's authorization system 106, the card issuer's offers engine 104 may generate and send the text message to the customer's mobile device 114 with the equal payment plan offer in parallel with such usual authorization process.

**[0088]** Embodiments of the invention may involve, for example, the equal payment. In such aspect, the customer offers engine 104 may generate and send the text message to the customer's mobile device 114 with an equal payment plan offer in parallel with the usual authorization process and at the same time the authorization request is being processed and approved by the card issuer's authorization system 106. Thus, a customer may be offered an option in the text message to defer payment of the transaction amount over a predetermined number of installments.

**[0089]** In the equal payment plan aspect for embodiments of the invention, a customer may use a card account to perform such a transaction, and at checkout, the transaction data may be sent with a message requesting authorization to the authorization system 106 of the card issuing entity, which may return an authorization approval message and download an authorization log to the customer offers engine 104. The customer offers engine 104 may use the received transaction data to perform a database search based on predefined search criteria to determine whether or not an offer message in the form, for example, of a text message will be generated and sent via a message server to the customer's device 114.

**[0090]** In the equal payment plan aspect, when it is determined that the text message should be generated to the customer's device 114, the text message may include a

question, such as "Dear Customer, Would you like to pay for this transaction in equal payments?" Also included in the text message may be a link to the microsite of the online baking system 112, and the text message may include a prompt for the customer to click on the link if the customer is interested in the offer.

**[0091]** Assume, for example, a purchase amount of $1,200. In the equal payment aspect of embodiments of the invention, the text message may express the question, for example, "Dear Customer, Thank you for making this purchase. Would you like to convert the $1,200 purchase price into 12 equal monthly installments of $100 each, for which you may pay a one-time fee of $24 dollars." The one-time fee may reflect, for example, a percentage fee, such as two percent of $1,200 for the one-time fee of $24 to convert and pay the transaction amount in multiple installments.

**[0092]** Alternatively, the text message may prompt the customer for a selection of an option to convert the $1,200 purchase price into periodic installments, such as 12 or more installments. Based on the customer's entry of the selection, the customer's credit adjustment may be generated and posted to the customer's card account to reduce a revolving balance of the card account.

**[0093]** Fig. 3 is a schematic diagram that illustrates an overview example of deployment and integration of components and flow of information between components for a system for the equal payment plan aspect of embodiments of the invention. Referring to Fig. 3, the system may include, for example, the processor of the point of sale terminal 102 communicably coupled to the one or more processors of the customer offers engine 104 via one or more processors of the transaction authorization system 106. Referring further to Fig. 3, the one or more processors of the customer offers engine 104 may in turn be communicably coupled to one or more processors of an equal payment plan plus financial institution cards and banking system 302 and one or more processors of the online banking system server 112, which may also be communicably coupled to the equal payment plan plus financial institution cards and banking system 302, as well as the processor of the customer's communication device 114.

**[0094]** Referring again to Fig. 3, in embodiments of the invention, at 3001, a customer's transaction data may be sent with an authorization request, for example, by the processor of the point of sale terminal 102 to the one or more processors of the transaction authorization system 106. At 3002, the one or more processors of the transaction authorization system 106 may download an authorization log to the one or more processors of the customer offers engine 104, for example, via an advance fraud early warning system (not more particularly shown). In the equal payment plan aspect, criteria for eligible transactions for triggering a message, such as a short message service (SMS) message, to the customer's communication device 114 with a link to microsite of the online banking system 112 may likewise be predefined and maintained in the customer offers engine 104.

**[0095]** Referring further to Fig. 3, at 3003, the one or more processors of the customer offers engine 104 may send a card account inquiry for the customer's card status and account information and a promotion inquiry for available equal payment program terms and corresponding pricing to the equal payment plan plus financial institution cards and banking system 302. At 3004, the equal payment plan plus financial institution cards and banking system 302 may return a card account inquiry response with the customer's card status and account information and a promotion inquiry response with available equal payment program terms and corresponding pricing to the customer offers engine 104.

**[0096]** Referring again to Fig. 3, at 3005, the one or more processors of the customer offers engine 104 may trigger, for example, an SMS message to the customer's device 114 with a link to the microsite of the online banking system 112 displaying offer details and prompting the customer for entry of a selection of converting the transaction amount into an equal installment payment plan. At 3006, when the customer clicks, for example, on the displayed option to convert the transaction amount into an equal installment payment plan, the processor of the customer's device 114 may send an equal payment plan acceptance message via the link to the online banking system server 112.

**[0097]** Referring still further to Fig. 3, at 3007, upon receipt of the equal payment plan acceptance message, the online banking system server 112 may call the customer offers

engine 104 for necessary details for the equal payment plan, and upon receipt of the equal payment plan details, at 3008, the online banking system server 112 may send an equal payment plan request to the equal payment plan plus financial institution cards and banking system 302. At 3009, responsive to receiving the request, the equal payment plan plus financial institution cards and banking system 302 may fulfill the equal payment plan request and generate an order confirmation message to the online banking system server 112, which may, in turn, display the confirmation message on the customer's device 114 via the microsite and send the confirmation message to the customer offers engine 104.

**[0098]** Following receipt of a customer's request, the equal payment plan aspect for embodiments of the invention may involve a separate batch process in which the customer's equal payment plan may be booked after a merchant settles the customer's transaction. For example, the transaction settlement may be posted and matched with order information, followed by invoking of loan creation, order fulfillment, and loan booking service functions. Thereafter, a credit adjustment for an amount converted may be generated and a credit adjustment to reduce a revolving balance of the customer's account. In addition, a loan booking or rejection SMS or email alert function may be invoked to send an alert for success or failure to the customer, and an order status update may be triggered. Further, the equal payment plan aspect for embodiments of the invention may include a contextual reminder capability that is sent to the customer as the customer's payment due date for the customer's statement approaches. Such reminder capability may provide the customer an alert, such as an SMS or email message, sent to the customer's device a few days prior to the customer's payment due date to remind the customer about the customer's payment and to provide an equal payment plan offer to the customer.

**[0099]** Instead of generating a message to the customer's device with an offer to convert a transaction amount to an equal payment plan, the equal payment plan aspect of embodiments of the invention may involve an alternative feature which may allow the customer to revolve the customer's statement balance into equal monthly installments. In such alternative, when it is determined that a text message should be generated to the customer's device 114, the text message may include a question, such as "Dear Customer, Would you like to convert all or part of you current statement balance equal

installments?" Also included in the text message may be a link to the microsite of the online baking system 112, and the text message may include a prompt for the customer to click on the link if the customer is interested in the offer. As noted, the equal payment plan aspect for embodiments of the invention may include a contextual reminder capability that is sent to the customer as the customer's payment due date for the customer's statement approaches. Such reminder capability may provide the customer an alert, such as an SMS or email message, sent to the customer's device a few days prior to the customer's payment due date to remind the customer about the customer's payment and to provide an equal payment plan offer to the customer.

**[00100]** Assume, for example, a customer's current statement balance amount of $4,530.30. In the statement equal payment feature of embodiments of the invention, the text message may express the question, for example, "Dear Customer, Your current statement balance is $5,530.30 and the maximum amount you can convert into installments is $4303.70. Your recommended repayment plan is $89.66 per month for 48 months." Based on the customer's entry of a selection of the offer, a message confirming and providing details of the customer's statement equal installment plan may be generated to the customer's device, and a corresponding adjustment may be generated and posted to the customer's card account. As noted, the equal payment plan aspect for embodiments of the invention may include a contextual reminder capability that is sent to the customer as the customer's payment due date for the customer's statement approaches. Such reminder capability may provide the customer an alert, such as an SMS or email message, sent to the customer's device a few days prior to the customer's payment due date to remind the customer about the customer's payment and to provide an equal payment plan offer to the customer.

**[00101]** It is to be understood that the equal payment plan aspect for embodiments of the invention is device agnostic, such that the customer's device 114 may be, for example, a mobile phone, a laptop computer, a tablet computer, a notebook computer or any other suitable computing device. As noted, in the equal payment plan aspect for embodiments, the text message or email message is triggered at the authorization request message and authorization approval message stage. As also noted, the equal payment plan

aspect for embodiments of the invention may include a contextual reminder capability that is sent to the customer as the customer's payment due date for the customer's statement approaches. Such reminder capability may provide the customer an alert, such as an SMS or email message, sent to the customer's device a few days prior to the customer's payment due date to remind the customer about the customer's payment and to provide an equal payment plan offer to the customer.

**[00102] Electronic Payment Systems and Methods**

**[00103]** Fig 4 is a flow chart that illustrates an overview example of the electronic payment process without separate login or authentication in the system for embodiments of the invention. Referring to Fig. 4, at 4001, responsive to receiving an authorization request for a customer card account transaction, a customer offers engine automatically generates a customer offers inquiry to at least one customer offers eligibility database. At 4002, based on an authorization request approval and a response to the customer offers inquiry, the customer offers engine generates a message to a customer device with a link to a microsite of an online banking system displaying a prompt for entry of acceptance of an option of paying at least part of a transaction amount other than by a charge to the customer card account.

**[00104]** Referring further to Fig. 4, at 4003, responsive to receiving a message of acceptance of the option of paying at least part of transaction amount other than by a charge to the customer card account from the customer device via the link to the microsite of the online banking system, a processor of the online banking system retrieves details from the customer offers engine for paying at least part of the transaction amount other than by a charge to the customer card account.

**[00105]** Referring again to Fig. 4, at 4004, the online banking system processor generates a non-card account charge payment request to the customer offers eligibility database processor with details for paying at least part of transaction amount other than by a charge to the customer card account and, responsive to receiving a non-card account charge payment result from the customer offers eligibility database processor, the online

banking system processor displays the non-card account charge payment result on the customer's device via the microsite of the online banking system.

**[00106]** It is to be understood that embodiments of the invention may be implemented as processes of a computer program product, each process of which is operable on one or more processors either alone on a single physical platform, such as a personal computer, or across a plurality of platforms, such as a system or network, including networks such as the Internet, an intranet, a WAN, a LAN, a cellular network, or any other suitable network. Embodiments of the invention may employ client devices that may each comprise a computer-readable medium, including but not limited to, random access memory (RAM) coupled to a processor. The processor may execute computer-executable program instructions stored in memory. Such processors may include, but are not limited to, a microprocessor, an application specific integrated circuit (ASIC), and or state machines. Such processors may comprise, or may be in communication with, media, such as computer-readable media, which stores instructions that, when executed by the processor, cause the processor to perform one or more of the steps described herein.

**[00107]** It is also to be understood that such computer-readable media may include, but are not limited to, electronic, optical, magnetic, RFID, or other storage or transmission device capable of providing a processor with computer-readable instructions. Other examples of suitable media include, but are not limited to, CD-ROM, DVD, magnetic disk, memory chip, ROM, RAM, ASIC, a configured processor, optical media, magnetic media, or any other suitable medium from which a computer processor can read instructions. Embodiments of the invention may employ other forms of such computer-readable media to transmit or carry instructions to a computer, including a router, private or public network, or other transmission device or channel, both wired or wireless. Such instructions may comprise code from any suitable computer programming language including, without limitation, C, C++, C#, Visual Basic, Java, Python, Perl, and JavaScript.

**[00108]** It is to be further understood that client devices that may be employed by embodiments of the invention may also comprise a number of external or internal devices, such as a mouse, a CD-ROM, DVD, keyboard, display, or other input or output devices. In general such client devices may be any suitable type of processor-based platform that is connected to a network and that interacts with one or more application programs and may operate on any suitable operating system. Server devices may also be coupled to the network and, similarly to client devices, such server devices may comprise a processor coupled to a computer-readable medium, such as a random access memory (RAM). Such server devices, which may be a single computer system, may also be implemented as a network of computer processors. Examples of such server devices are servers, mainframe computers, networked computers, a processor-based device, and similar types of systems and devices.

What is claimed is:

1. An electronic payment system, comprising:

a customer offers engine having at least one processor coupled to memory and being programmed, responsive to receiving, from a processor of a merchant point of sale (POS) terminal or a merchant website server, an authorization request for a customer card account transaction, to automatically generate a customer offers inquiry to a processor of at least one customer offers eligibility database;

the processor of the customer offers engine being further programmed, based on an authorization request approval and a response to the customer offers inquiry, to generate a message to a customer device with a link to a microsite of an online banking system displaying a prompt for entry of acceptance of an option of paying at least part of a transaction amount of the customer card account transaction other than by a charge to the customer card account;

the online banking system having at least one processor coupled to memory and being programmed, responsive to receiving from a processor of the customer device via the link to the microsite of the online banking system of a message of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account, to retrieve details for paying at least part of the transaction amount other than by a charge to the customer card account from the processor of the customer offers engine; and

the processor of the online banking system being further programmed to generate a non-card account charge payment request with details for paying at least part of the transaction amount other than by a charge to the customer card account to the processor of the at least one customer offers eligibility database and, responsive to receiving a non-card account charge payment result, to display the non-card account charge payment result on the customer's device via the microsite of the online banking system.

2. The electronic payment system of claim 1, the at least one processor of the customer offers engine processor being further programmed to automatically generate the customer offers inquiry to the

processor of the at least one customer offers eligibility database, responsive to receiving customer transaction data with the authorization request for the customer card account transaction.

3. The electronic payment system of claim 2, the at least one processor of the customer offers engine being further programmed to automatically generate the customer offers inquiry responsive to receiving the customer transaction data with the authorization request for the customer card account transaction from the processor of the merchant POS terminal or the merchant website server via a transaction authorization system.

4. The electronic payment system of claim 1, the at least one processor of the online banking system being further programmed to generate a non-card account charge payment result message to the at least one processor of the customer offers engine responsive to receiving the non-card account charge payment result from the processor of the at least one customer offers eligibility database.

5. The electronic payment system of claim 1, the at least one processor of the online banking system being further programmed to generate a statement credit to the customer card account for an amount corresponding to a value of the non-card account charge payment responsive to receiving the non-card account charge payment result from the processor of the at least one customer offers eligibility database.

6. The electronic payment system of claim 1, the at least one processor of the customer offers engine being programmed, responsive to receiving, from the processor of the merchant point of sale (POS) terminal or the merchant website server, the authorization request for the customer card account transaction, to automatically generate the customer offers inquiry comprising a customer card account points redemption inquiry to the processor of the at least one

customer offers eligibility database comprising a processor of at least one rewards points database;

the at least one processor of the customer offers engine being further programmed, based on the authorization request approval and the response to the customer card account points redemption inquiry, to generate the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount of the customer card account transaction other than by the charge to the customer card account comprising an option of paying at least part of the transaction amount with redemption of customer card account points;

the at least one processor of the online banking system being programmed, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system of the message of acceptance of the option of paying at least part of the transaction amount with redemption of customer card account points, to retrieve details for paying at least part of the transaction amount with redemption of customer card account points from the at least one processor of the customer offers engine; and

the at least one processor of the online banking system being further programmed to generate the non-card account charge payment request comprising a points redemption payment request with details for paying at least part of the transaction amount with redemption of customer card account points consisting at least in part of a number of points required for paying at least part of the transaction amount to the processor of the at least one rewards points database and, responsive to receiving a points redemption payment result, to display the points redemption payment result on the customer’s device via the microsite of the online banking system.

7. The electronic payment system of claim 6, the at least one processor of the customer offers engine being further programmed to automatically generate the customer card account points redemption inquiry comprising a request for a customer rewards point balance to the processor of the

at least one rewards points database responsive to receiving the authorization request for the customer card account transaction.

8. The electronic payment system of claim 7, the at least one processor of the customer offers engine being further programmed to automatically generate the customer card account points redemption inquiry comprising a request for a points conversion rate and a number of points required for payment of at least part of the transaction amount to a processor of a second rewards points database responsive to receiving the authorization request for the customer card account transaction.

9. The electronic payment system of claim 6, the at least one processor of the customer offers engine being further programmed to automatically generate the customer card account points redemption inquiry comprising a request for a customer rewards point balance, a points conversion rate, and a number of points required for at least part of the transaction amount to the processor of the at least one rewards points database responsive to receiving the authorization request for the customer card account transaction.

10. The electronic payment system of claim 6, the at least one processor of the customer offers engine being further programmed to automatically generate the customer card account points redemption inquiry to the processor of the at least one rewards points database comprising at least one of a global rewards management system database and a points conversion rate system database responsive to receiving the authorization request for the customer card account transaction.

11. The electronic payment system of claim 6, the at least one processor of the customer offers engine being further programmed to automatically generate the customer card account points redemption inquiry to the processor of the at least one rewards points database comprising a processor

of a combined rewards points and points conversion rate system database responsive to receiving the authorization request for the customer card account transaction.

12. The electronic payment system of claim 6, the at least one processor of the customer offers engine being further programmed to generate a message to the customer device with a link to the microsite of the online banking system displaying a prompt for entry of acceptance of the option of paying all of the transaction amount in a transaction of equal to or less than a predefined transaction amount threshold based on the authorization request approval and the response to the customer card account points redemption inquiry.

13. The electronic payment system of claim 12, wherein the at least one processor of the customer offers engine being further programmed to generate the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying all of the transaction amount in a transaction less than a predefined transaction amount threshold based on the authorization request approval and the response to the customer card account points redemption inquiry.

14. The electronic payment system of claim 6, the at least one processor of the customer offers engine being further programmed to generate a message to the customer device with a link to the microsite of the online banking system displaying a prompt for entry of acceptance of the option of paying part of the transaction amount in a transaction of greater than a predefined transaction amount threshold based on the authorization request approval and the response to the customer card account points redemption inquiry.

15. The electronic payment system of claim 1, the at least one processor of the customer offers engine being programmed, responsive to receiving, from the processor of the merchant point of sale

(POS) terminal or the merchant website server, the authorization request for the customer card account transaction, to automatically generate the customer offers inquiry comprising a card account and promotion inquiry to the at least one customer offers eligibility database processor comprising an equal payment plan plus financial institution cards and banking system processor;

the at least one processor of the customer offers engine being further programmed, based on the authorization request approval and the response to the card account and promotion inquiry, to generate the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount of the customer card account transaction other than by a charge to the customer card account comprising an option of paying at least part of the transaction amount by converting the transaction amount into an equal installment equal payment plan;

the at least one processor of the online banking system being programmed, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system of the message of acceptance of the option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan, to retrieve details for paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan from the at least one processor of the customer offers engine; and

the at least one processor of the online banking system being further programmed to generate the non-card account charge payment request comprising an equal payment plan request with details for paying at least part of the transaction amount by converting the transaction amount into the equal payment plan consisting at least in part of equal payment program terms and corresponding pricing to said equal payment plan plus financial institution cards and banking system processor and, responsive to receiving an equal payment plan result, to display the equal payment plan result on the customer's device via the microsite of the online banking system.

16. The electronic payment system of claim 15, the at least one processor of the customer offers engine being further programmed to automatically generate the card account and promotion inquiry

comprising a request for a customer card account status and equal payment plan terms and corresponding pricing to the processor of the equal payment plan plus financial institution cards and banking system processor responsive to receiving the authorization request for the customer card account transaction.

17. A method for electronic payment, comprising:

automatically generating, by a customer offers engine having at least one processor coupled to memory, a customer offers inquiry to a processor of at least one customer offers eligibility database responsive to receiving, from a processor of a merchant point of sale (POS) terminal or a merchant website server, an authorization request for a customer card account transaction;

generating, by the at least one processor of the customer offers engine, based on an authorization request approval and a response to the customer offers inquiry, a message to a customer device with a link to a microsite of an online banking system displaying a prompt for entry of acceptance of an option of paying at least part of a transaction amount of the customer card account transaction other than by a charge to the customer card account;

retrieving, by at least one processor of the online banking system, responsive to receiving from a processor of the customer device via the link to the microsite of the online banking system of a message of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account, details for paying at least part of the transaction amount other than by a charge to the customer card account from the at least one processor of the customer offers engine; and

generating, by the at least one processor of the online banking system, a non-card account charge payment request with details for paying at least part of the transaction amount other than by a charge to the customer card account to the processor of the at least one customer offers eligibility database and, responsive to receiving a non-card account charge payment result, displaying the non-card account charge payment result on the customer’s device via the microsite of the online banking system.

18. The method of claim 17, wherein automatically generating the customer offers inquiry further comprises automatically generating the customer offers inquiry comprising a customer card account points redemption inquiry to the processor of the at least one customer offers eligibility database comprising a processor of at least one rewards points database responsive to receiving, from the processor of the merchant point of sale (POS) terminal or the merchant website server, the authorization request for the customer card account transaction;

wherein generating the message to the customer device further comprises generating, based on the authorization request approval and the response to the customer offers inquiry, the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount of the customer card account transaction other than by the charge to the customer card account comprising an option of paying at least part of the transaction amount with redemption of customer card account points;

wherein retrieving the details further comprises retrieving, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system the message of acceptance of the option of paying at least part of the transaction amount with redemption of customer card account points, details for paying at least part of the transaction amount with redemption of customer card account points from the at least one processor of the customer offers engine; and

wherein generating the non-card account charge payment request further comprises generating the non-card account charge payment request comprising a points redemption payment request with details for paying at least part of the transaction amount with redemption of customer card account points consisting at least in part of a number of points required for paying at least part of the transaction amount to the processor of the at least one rewards points database and, responsive to receiving a points redemption payment result, to display the points redemption payment result on the customer's device via the microsite of the online banking system.

19. The method of claim 17, wherein automatically generating the customer offers inquiry further comprises automatically generating the customer offers inquiry comprising a card account and

promotion inquiry to the at least one customer offers eligibility database processor comprising an equal payment plan plus financial institution cards and banking system processor;

wherein generating the message to a customer device further comprises generating, based on an authorization request approval and a response to the customer offers inquiry, the message to the customer device with the link to the microsite of the online banking system displaying the prompt for entry of acceptance of the option of paying at least part of the transaction amount other than by a charge to the customer card account comprising an option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan;

wherein retrieving the details further comprises retrieving, responsive to receiving from the processor of the customer device via the link to the microsite of the online banking system of the message of acceptance of the option of paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan, details for paying at least part of the transaction amount by converting the transaction amount into an equal installment payment plan from the at least one processor of the customer offers engine; and

wherein generating the generating the non-card account charge payment request further comprises generating the non-card account charge payment request comprising an equal payment plan request with details for paying at least part of the transaction amount by converting the transaction amount into the equal payment plan consisting at least in part of equal payment program terms and corresponding pricing to said equal payment plan plus financial institution cards and banking system processor and, responsive to receiving an equal payment plan result, displaying the equal payment plan result on the customer’s device via the microsite of the online banking system.