

METHOD AND SYSTEM FOR IMPLEMENTING A SMART DISPLAY LOYALTY PROGRAM

Field of the Invention

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This invention relates to a loyalty program that awards eligible cardholders with rewards. More particularly, this invention relates to a loyalty program that has a smart display in which the smart display is able to detect and capture data from a card within the display's proximity. Still more particularly, this invention relates to a smart poster loyalty program that automatically allocates rewards based on the captured card's data and the smart display's parameters. The allocated rewards are then instantaneously awarded to the cardholder without the need for a pre-qualifying purchase and the cardholder is notified immediately about the awarding of the reward.

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Summary of the Prior Art

In today's competitive marketing climate, most marketing strategies revolve around developing and applying new techniques to entice new customers to purchase products and/or services from a particular retailer and to induce existing customers to purchase from or to employ the services of a particular retailer more regularly and/or in greater quantity. If a merchant were able to employ these marketing strategies successfully, the merchant would be able to realize substantial gains.

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Typically, most people tend to spend more when purchases are made on impulse. As such, retail outlets typically employ attractive displays or various forms of advertising to entice potential customers to enter, browse and subsequently purchase items. To reach out to customers further away from the retail stores, retailers may employ various advertising techniques such as billboards, radio advertisements, newspaper advertisements and so forth to advertise their wares. However, such approaches are commonly used and are not exciting and innovative enough to attract new customers. Furthermore, for such tactics to be effective, the

advertisement should be within the vicinity of the shop else, a potential customer may not be sufficiently encouraged by the advertisement to actually seek out the retail shop to purchase the advertised items.

5 Conventional marketing approaches to retain existing customers typically involve the use of loyalty programs. A commonly used loyalty program is the "cash back" loyalty scheme. At the end of a predetermined amount of time, a customer will receive a certain percentage of the total amount spent on qualifying purchases made over that year. As an example, a customer may receive 1% of the total
10 amount charged to a particular credit card during that year or 1% of the total amount spent at a particular retailer. As this loyalty program rewards customer spending with cash back at the end of the year, it is widely regarded by many customers as a deferred discount. Such a scheme will fail to attract new customers or entice existing customers to remain loyal to the merchant, as throughout the year,
15 other merchants will typically offer some form of discount thus such a loyalty scheme will not differentiate one merchant from other competitors.

 Another commonly used loyalty scheme is the offering of reward points in exchange for qualifying purchases. These reward points may then be exchanged
20 for a prize such as an item from a retailer or a gift certificate that may be redeemed at selected participating merchants. For instance, a customer may be able to exchange 10,000 points for an umbrella or 50,000 points for a pair of movie tickets. The appeal of such a loyalty scheme is typically limited to a small subset of customers who are attracted to the rewards that may be redeemed. The downside
25 of such a loyalty scheme is that customers may be discouraged from making a significant effort to accumulate points if it is difficult to ascertain the actual monetary value of a reward point.

 Another common implementation of a loyalty scheme is the offering of airline
30 miles in exchange for qualifying purchases. When a significant amount of airline miles has been accumulated, these miles may then be redeemed for rewards such as air tickets or seat upgrades. Such a loyalty scheme may seem tempting to frequent travelers unfortunately, the number of miles required to redeem a reward

is often set so high that it becomes discouraging instead of motivating. Hence, such a loyalty scheme would be of more interest to a limited pool of customers and not to the general public.

5 A measure of success of a loyalty program may be based on how efficiently the loyalty program is able to entice customers to participate in the program in order to receive the incentives described and provided as part of the loyalty program. The disadvantages associated with existing loyalty programs are that most loyalty programs are retailer specific. For instance, retailer A will have a loyalty program
10 that is separate from retailer B. As such, if a customer frequents both retailers, the customer will have to join and maintain two separate loyalty programs. Furthermore, as most loyalty programs typically include a loyalty card with a chip, magnetic strip, RFID, or means to communicate with a point of sale terminal, the customer may end up carrying multiple cards.

15 The above-mentioned loyalty programs only rewards participants once the participants have made an appropriate qualifying purchase. Existing loyalty programs typically list out all the available rewards either on a website and/ or in a booklet. The Uniform Resource Locator (URL) of the website and the booklet may
20 be mailed to the participants of the loyalty program. For such loyalty programs, new booklets will have to be sent each time the list of available rewards is updated resulting in the participant receiving a deluge of promotional booklets. It is also unlikely that a participant will access the list of rewards at the provided URL when the participant is out browsing through shopping malls. As such, even though a
25 retailer participates in this loyalty program, a potential customer will not be aware of the rewards offered by that retailer unless the potential customer is carrying the booklet of rewards or unless the potential customer has constant access to the loyalty program's URL and is able to navigate through the URL easily. Additionally, in existing loyalty programs, if a participant does not make a required qualifying
30 purchase, the participant will not be awarded the reward points, airline miles or the rebates. Such loyalty programs may be useful in retaining existing customers or in enticing customers who seek out specific rewards however; such loyalty programs will not be able to entice a large number of new customers. A loyalty program that

is able to award rewards to specific customers without the need for a pre-qualifying purchase would attract the most customers.

Furthermore, if a participant of a loyalty program misplaces or has his loyalty
5 card stolen, the participant may potentially lose all the accumulated rewards
previously earned. Such a situation may occur in certain loyalty programs whereby
all the customer's rewards are stored in a loyalty card and if the loyalty card is
misplaced or stolen, the customer would be unable to recover the lost points.
Furthermore, if someone else finds or acquires the loyalty card, the stolen or lost
10 card may be misused, as these cards typically do not come with any security
features.

Hence, those skilled in the art recognize that the existing loyalty systems that
only reward a customer once the customer has made the necessary qualifying
15 purchase is only effective in retaining customers and not useful in enticing new
customers. Furthermore, existing loyalty systems do not effectively direct
customers to particular retailers. The retailers still have to employ their own
advertising or marketing strategies to attract customers. Thus, there is a need for a
loyalty system that can easily and effectively encourage or motivate targeted
20 customers to patronize a particular retailer associated with the purveyor of the
loyalty system.

Summary of the Invention

25 The above and other problems are solved and an advance in the art is
provided by a method and system for implementing a loyalty program that allocates
and awards rewards to a cardholder in accordance with this invention. A first
advantage of a method and system in accordance with this invention is that existing
print advertisement media such as billboards, posters, etc. may be utilized as the
30 display terminal for this invention. A second advantage of this invention is that the
rewards will automatically be allocated and awarded to an eligible cardholder based
on the card's information. This is advantageous because it allows the purveyor of
the loyalty program to tailor the types of rewards that are to be awarded to the

cardholder based on the cardholder's lifestyle and/ or spending patterns. A third advantage of this invention is that the rewards may be awarded without the need for a pre-qualifying purchase. Thus, if a customer is attracted to a particular item at a display terminal, e.g. an item advertised on a poster, the loyalty program will
5 award a reward to the customer provided the customer "taps" his/ her card to the display terminal and provided that the card was issued by a participant of the loyalty program. This is advantageous because when the customer is awarded with a reward, naturally, he/ she will be enticed to seek out a retailer in order to redeem the reward. A fourth advantage of this system is that the allocated reward will be
10 automatically awarded to the cardholder's account. Thus, the cardholder will not have to carry, keep and/or present any coupons, vouchers, discount codes, etc. in order to redeem the reward. The only notification the cardholder will receive is about the awarding of the allocated reward.

15 A system and method for implementing a loyalty program that allocates and awards rewards to a cardholder in accordance with an embodiment of this invention is provided in the following manner. The system captures data from a card proximate a terminal. The system then retrieves data associated with the terminal and compares a portion of the data captured from the card with data contained
20 within a first database to determine if a participating issuer issued the card. Once the system determines that the card is an eligible card, the system then transmits the data captured from the card and the data associated with the terminal to a receiver. The system then determines the type of reward that is to be allocated based on the data within a second database. The system then determines the
25 validity of the card based on the data within a third database. Once the system determines that the card is valid, the system then awards the allocated reward and proceeds to notify the cardholder about the award of the allocated reward.

In accordance with embodiments of this invention, the data captured from
30 the card comprises a primary account number and/or a bank name.

In accordance with embodiments of this invention, the data associated with the terminal comprises merchant identification parameters and/or terminal identification parameters.

5 In accordance with one of the embodiments of this invention, the system allocates rewards in the following manner. The system retrieves the transmitted data received at the receiver. The system then retrieves the data captured from the card from the data received. The system then compares a portion of the data captured from the card with information contained within a second database to
10 determine the type of reward that is to be allocated. In a further embodiment of this invention, the system also compares a portion of the data associated with the terminal with information contained within a second database to determine the type of reward that is to be allocated.

15 In accordance with one of the embodiments of this invention, the system validates card in the following manner. The system retrieves the transmitted data received at the receiver. The system then retrieves the data captured from the card from the data received. The system then compares a portion of the data captured from the card with information contained within a third database. If the system
20 determines that the data from the card matches the information within the third database, the system then notifies the cardholder about the invalid card.

In accordance with one of the embodiments of this invention, the system awards the allocated reward in the following manner. The system performs a
25 search within the second database to determine the availability of an existing entry associated with the cardholder within the second database. If the system determines that an existing entry associated with the cardholder exists, the system adds the allocated reward to the existing entry. Alternatively, if an existing entry associated with the cardholder does not exist, the system creates a new entry that
30 is associated with the cardholder. The system then adds the allocated reward to the newly created entry.

In accordance with one of the embodiments of this invention, the system notifies the cardholder of the awarding of the allocated reward in the following manner. The system generates a notification template about the awarded reward. The system then obtains details about the cardholder from the second database.

- 5 The system then forwards the notification template to the cardholder. In accordance with further embodiments of this invention, the system forwards the notification template to the cardholder by telephonic means.

In accordance with other embodiments of this invention, the system redeems
10 the allocated reward at a participating merchant. In accordance with further embodiments of this invention, the system captures data from a card proximate a merchant's terminal. The system then compares the data from the card with information contained within the second database to determine if the cardholder has been awarded with a reward. If the cardholder has been awarded a reward,
15 the system will then inform the cardholder about the availability of the reward. The system then allows the cardholder to determine if the reward is to be redeemed. If the cardholder decides to redeem the reward, upon redeeming the reward, the system then removes the redeemed reward from the records in the second database.

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Brief Description of the Drawings

The above and other features and advantages of a method and system in accordance with this invention are described in the following detailed description
25 and are shown in the following drawings:

Figure 1 illustrating a network incorporating a method and system in accordance with an embodiment of this invention;

Figure 2 illustrating a processing system representative of processing
30 systems in devices that perform processes for providing a method and system in accordance with an embodiment of this invention;

Figure 3 illustrating a flow diagram of a process for allocating rewards, awarding rewards and notifying cardholders about the allocated rewards in accordance with an embodiment of this invention;

Figure 4 illustrating a flow diagram of a process for determining the type of reward that is to be allocated in accordance with an embodiment of this invention;

Figure 5 illustrating a flow diagram of a process for validating the award of an allocated reward in accordance with an embodiment of this invention;

Figure 6 illustrating a flow diagram of a process for awarding an allocated reward to a cardholder;

Figure 7 illustrating a flow diagram of a process for notifying a cardholder about the awarding of an allocated reward; and

Figure 8 illustrating a flow diagram of a process for redeeming an allocated reward at a participating merchant's terminal.

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Detailed Description

This invention relates to a loyalty program that awards eligible cardholders with rewards. More particularly, this invention relates to a loyalty program that has a display terminal in which the display terminal is able to detect and capture data from a card within the terminal's proximity. Still more particularly, this invention relates to a smart poster loyalty program that automatically allocates rewards based on the captured card's data and the display terminal's parameters. The allocated rewards are then instantaneously awarded to the cardholder without the need for a pre-qualifying purchase and the cardholder is notified immediately about the awarding of the reward.

Figure 1 illustrates a loyalty system in accordance with an embodiment of this invention. Loyalty system 100 comprises of cardholders 120, display terminal 105, hosts 110 and 115, and merchant terminal 125. Card 121 are cards that are associated with cardholders 120. Each one of cardholder 120 would have card 121. Card 121 may comprise of any type of card that is able to contain data and provide data such as loyalty cards or bank issued credit/ debit cards that have chips, magnetic stripes, RFID, Near Field Communication (NFC) chip modules, or any

other means to communicate with wireless readers and/or conventional wired readers. Card 121 may also comprise of RFID tags or NFC tags that may be attached to mobile devices. In such embodiments, mobile devices with RFID and/or NFC tags may be used to replace conventional loyalty cards or bank issued credit/ debit cards. One skilled in the art will recognize that other types of cards may be used without departing from this invention.

Display terminal 105 is an advertising medium with a reader (not shown). Display terminal 105 may comprise a printed poster, a billboard or a digital poster. The reader at display terminal 105 may comprise wireless receivers and/or wireless readers such as RFID readers, NFC receivers, or conventional readers. Each type of wireless reader has its own fixed interrogation zone. When an associated transmitter enters the predetermined interrogation zone of the wireless reader, data from the transmitter will be automatically transmitted to the wireless reader. As an example, a wireless reader that operates within the 120-150 kHz (Low Frequency) band has an interrogation zone around 10 cm while a wireless reader operating in the Ultra High Frequency band (433 MHz) has an interrogation zone between 1 and 100 m. As a general rule of thumb, as the frequency of the band increases, the wavelength of the transmitted signal becomes shorter. This results in larger interrogation zones. In an embodiment of this invention, a NFC wireless receiver is used. NFC wireless receiver were chosen as these receivers have a working distance of less than 20 cm, reducing the likelihood of unwanted interception thus making NFC receivers appropriate for use in busy areas which may be crowded with various other types of transmitters. In alternative embodiments, conventional readers such as EMV chip readers, magnetic strip readers, point of sale terminal readers, or any type of reader that may be used to authenticate card 121 may be utilized as the reader at display terminal 105. One skilled in the art will recognize that other types of readers may be used without departing from this invention.

Hosts 110 and 115, and merchant terminal 125 may comprise of conventional servers that perform the functions of receiving data, transferring data and processing data in accordance with the invention. Hosts 110 and 115, display terminal 105 and merchant terminal 125 may be connected by conventional wired

connections or by wireless connections such as infrared and/or Radio Frequency (RF). Host 110 may also be connected to cardholders 120 by electronic and/or telephonic means. Electronic and/or telephonic means comprises of conventional wired communication networks, telecommunication networks, the Internet, etc.

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Figure 2 illustrates a block diagram of processing system 200 that may be contained within hosts 110 and 115, and merchant terminal 125. One skilled in the art will recognize that the exact configuration of each processing system may be different and the exact configuration for executing processes in accordance with this invention may vary and processing system 200 shown in Figure 2 is provided by way of example only.

Processing system 200 includes Central Processing Unit (CPU) 205. CPU 205 is a processor, microprocessor, or any combination of processors and microprocessors that execute instructions to perform the processes in accordance with the present invention. CPU 205 connects to memory bus 280 and Input/Output (I/O) bus 270. Memory bus 280 connects CPU 205 to memories 210 and 215 to transmit data and instructions between the memories and CPU 205. I/O bus 270 connects CPU 205 to peripheral devices to transmit data between CPU 205 and the peripheral devices. One skilled in the art will recognize that I/O bus 270 and memory bus 280 may be combined into one bus or subdivided into many other busses and the exact configuration is left to those skilled in the art.

A non-volatile memory 210, such as a Read Only Memory (ROM), is connected to memory bus 280. Non-volatile memory 210 stores instructions and data needed to operate various sub-systems of processing system 200 and to boot the system at start-up. One skilled in the art will recognize that any number of types of memory may be used to perform this function.

A volatile memory 215, such as Random Access Memory (RAM), is also connected to memory bus 280. Volatile memory 215 stores the instructions and data needed by CPU 205 to perform software instructions for processes such as the processes for providing a system in accordance with this invention. One skilled

in the art will recognize that any number of types of memory may be used to provide volatile memory and the exact type used is left as a design choice to those skilled in the art.

5 I/O device 220, keyboard 230, display 240, memory 250, network interface 260 and any number of other peripheral devices connect to I/O bus 270 to exchange data with CPU 205 for use in applications being executed by CPU 205. I/O device 220 may be any device that transmits and/or receives data from CPU 205. Keyboard 230 is a specific type of I/O device that receives user input and
10 transmits the input to CPU 205. Display 240 receives display data from CPU 205 and displays images on a screen for a user to see. Memory 250 is a device that transmits and receives data to and from CPU 205 for storing data to a media. Network interface 260 connects CPU 205 to a network for transmission of data to and from other processing systems.

15 Figure 3 illustrates a flowchart of a process performed in accordance with an embodiment of this invention to allocate rewards and award rewards to cardholders. Process 300 begins in step 305 by receiving data or information from a card. Step 305 initiates when card 121 is read by the reader at display terminal 105. When a
20 wireless reader is used at display terminal 105, information contained within card 121 will be captured by the wireless reader when card 121 is within the radio frequency range of the wireless reader. Alternatively, if a conventional point of sale reader is used, the reader will capture the data from card 121 when card 121 is swiped or in contact with the reader. The data that may be captured by the reader
25 at display terminal 105 may include the Primary Account Number (PAN) and/or Bank Name of card 121. Additionally, display terminal 105 may contain certain unique identifiers. The unique identifiers associated with display terminal 105 may be parameters such as the Merchant Identification and the Terminal Identification parameters. The reader at display terminal 105 is also capable of retrieving the
30 unique identifiers of display terminal 105.

Process 300 then compares a portion of the data captured from card 121 with information contained within a database at step 310. A module operatively

coupled to the reader may perform the comparison function. The module may comprise processing system 200 as well. In one embodiment of this invention, the database may contain a list of participating banks or a list of Bank Identification Numbers (BIN). By comparing the captured data from card 121 with the list in the database, the processing system in display terminal 105 will determine whether card 121 has been issued by a participating bank and as such, whether card 121 is considered as an eligible card. If card 121 is determined ineligible by virtue that card 121 has not been issued by a participating bank, process 300 will then end and nothing will occur. If card 121 is determined to be an eligible card, that is the issuing bank of card 121 matches an entry in the database, process 300 proceeds to step 315.

Process 300 then transmits the data captured from the card and data retrieved from display terminal 105 to a receiver. Specifically, the data transmitted may comprise the Personal Account Number of card 121, the Processing Code, the System Trace Audit Number, the Point of Sale (POS) entry Mode, the Network International Identity, the POS condition code, the Card Acceptor Terminal ID (TID), the Merchant Acceptor ID (MID), the Loyalty Data, Issuer Script Templates, Application Interchange Profile, Dedicated File Names, Issuer Authentication Data, Terminal Verification Results (TVR), Terminal Verification Date, Transaction Type, Transaction Currency Code, Transaction Amount, Cashback Amount, Terminal Application Version Number, Issuer Application Data, Terminal Country Code, Terminal Serial Number, Application Cryptogram, Cryptogram Information Data, Terminal Capability Profile, Cardholder Verification Method Results (CVM), Terminal Type, Application Transaction Counter (ATC), Unpredictable Number, Transaction Sequence Counter, Transaction Category Code, and Issuer Script Results. One skilled in the art will recognize that the type of data that is transmitted may comprise other types of data without departing from this invention. The transmitting of the data may be carried out by a transmitter (not shown) that is operatively coupled to display terminal 105. The data may be transmitted by wireless means or by conventional wired means or by electronic/ telephonic means.

A receiver operatively coupled to host 110 then receives the transmitted data and transfers the received data to host 110. Process 300 then allocates a reward based on the received data at step 320. The determination and allocation of a reward may be done by a processing system contained within host 110. The reward may comprise of a coupon, a rebate, or a discount. One skilled in the art will recognize that other types of rewards may be awarded without departing from this invention. Process 300 then proceeds to determine the validity of card 121 at step 325, which is whether card 121 is a blacklisted card, stolen card or unauthorized card. If card 121 is determined to be an unauthorized card, process 300 then proceeds to step 345. At step 345, host 110 then proceeds to inform cardholder 120 regarding the unauthorized use of card 121 by telephonic and/or electronics means. Alternatively, if card 121 is determined to be an authorized card, process 300 then proceeds to step 330.

In another embodiment of this invention, after the step of determining and allocating a reward, which is step 320, host 110 then transmits data captured from card 121 to host 115. Host 115 then proceeds to carry out step 325, which is to determine whether card 121 is a blacklisted card, stolen card or unauthorized card. If card 121 is determined to be an unauthorized card, host 115 may then transmit to host 110 data informing host 110 that card 121 is an unauthorized card or invalid card. Host 110 then proceeds to carry out step 345, which is to inform cardholder 120 about the unauthorized use of card 121 and this is done by electronic and/or telephonic means. Alternatively, if host 115 at step 325 determines that card 121 is an authorized card, host 115 may then transmit data to host 110 informing host 110 that card 121 is an authorized or valid card and that process 300 may proceed onwards to step 330.

Process 300 then proceeds to award the allocated reward to cardholder 120 at step 330. After the reward has been allocated, cardholder 120 is notified about the awarding of the allocated reward at step 335. Cardholder 120 may be notified about the awarding of the reward either by electronic and/or telephonic means. In an embodiment of this invention, cardholder 120 may be notified by Short Messaging Service (SMS), by Multimedia Messaging Service (MMS), or by a cross

platform mobile messaging application. Once cardholder 120 has been notified about the reward, cardholder 120 may proceed to redeem the reward at a participating merchant and this is done at step 340.

5 Figure 4 illustrates a flow diagram of process 400 that is an embodiment of process 320 performed by host 110 in process 300. One skilled in the art will recognize that other methods of allocating rewards may be implemented without departing from this invention. Process 400 begins in step 403 by receiving the data transmitted from display terminal 105. The data may be received by a receiver that
10 is operatively coupled to host 110. Process 400 then retrieves the parameters of display terminal 105 from the received data at steps 405 and 410. In an embodiment of the invention, the Merchant Identification and Terminal Identification parameters were retrieved. Process 400 then determines the card type of card 121 based on the data captured from card 121 at step 415. The card type may be
15 determined by host 110 based on the Personal Account Number of the card. Process 400 then proceeds to compare the parameters of display terminal 105 and the card type with the information contained with a database to determine the type of reward that is to be allocated to cardholder 120. This is done at step 425.

20 In other embodiments of the invention, steps 405, 410, and 415 need not be carried out in the sequence as shown in Figure 4 and instead, may be carried out independently from each other. For example, after host 110 has received the transmitted data at step 403, process 400 may proceed directly to step 415 instead. This means that the determination of the type of reward that is to be allocated to
25 cardholder 120 will only depend of the card type of card 121. One skilled in the art will recognize that various parameters and various combinations of parameters may be used to determine the type of reward that is to be allocated without departing from this invention.

30 Figure 5 illustrates a flow diagram of process 500 that is an embodiment of process 325 performed by host 110 in process 300. One skilled in the art will recognize that other methods of validating and authorizing a card may be implemented without departing from this invention. Process 500 begins in step 505

by receiving the transmitted data captured from card 121. At step 510, host 110 then compares a portion of the received card's data with information contained within a database. In one embodiment of the invention, the database may contain a list of cards that have been blacklisted. At step 515, host 110 determines whether
5 card 121 is a valid card. If card 121 is determined to be a valid card, process 500 then proceeds to step 520 and authorizes the awarding of the reward. The authorization may be done by issuing a \$0 transaction amount. Alternatively, if the information of card 121 matches the information contained within a database of blacklisted cards, process 500 will proceed to step 525 instead. At step 525, the
10 awarding of the reward will be rejected by host 110. Subsequently, process 500 will proceed to step 345 whereby the user is notified regarding the rejection.

In an alternative embodiment, process 500 may be carried out by host 115 instead. In this embodiment, instead of receiving the transmitted data at a receiver
15 operatively coupled to host 110, the transmitted data is received by a receiver operatively coupled to host 115. It should be noted that in any embodiment of this invention, the transmitted data may comprise the Personal Account Number, a \$0 transaction amount, the Processing Code, the System Trace Audit Number, the POS entry mode, the Network International ID, the POS condition code, the Card
20 Acceptor Terminal ID, and the Merchant Acceptor ID. One skilled in the art will recognize that other parameters may be transmitted without departing from this invention. Process 500 then begins at step 505, by receiving the transmitted data captured from card 121. At step 510, host 115 then compares a portion of the received card's data with information contained within a database. In one
25 embodiment of the invention, the database may contain a list of cards that have been blacklisted. At step 515, host 115 determines whether card 121 is a valid card. If card 121 is determined to be a valid card, process 500 then proceeds to step 520 and authorizes the awarding of the reward. In this embodiment, the authorization is then transmitted to host 110. The authorization may comprise a \$0 transaction
30 amount. Process 300 then proceeds on as previously discussed. Alternatively, if the card information of card 121 matches the information contained within a database of blacklisted cards, process 500 will proceed to step 525 instead. At step 525, the awarding of the reward will be rejected by host 115. Subsequently,

process 500 will proceed to step 345 whereby the user is notified regarding the rejection.

Figure 6 illustrates a flow diagram of process 600 that is an embodiment of process 330 performed by host 110 in process 300. One skilled in the art will recognize that other methods of awarding an allocated reward may be implemented without departing from this invention. Process 600 begins in step 605 by performing a search for an existing entry associated to cardholder 120 within a database. The search may be conducted by host 110 based on the information captured from card 121. At step 610, if an entry is found, process 600 will proceed to step 620. At step 620, the awarded allocated reward will be entered into the entry associated with cardholder 120. The database will then be updated accordingly. Alternatively, if an entry associated with cardholder 120 may not be found in the database, process 600 will proceed to step 615. At step 615, a new entry within the database will be allocated and associated with cardholder 120. The awarded reward will then be entered into this new entry at step 620.

Figure 7 illustrates a flow diagram of process 700 that is an embodiment of process 335 performed by host 110 in process 300. One skilled in the art will recognize that other methods of informing a cardholder regarding the awarding of a reward may be implemented without departing from this invention. Process 700 begins in step 705 by copying the type of reward awarded onto a standard template termed as a notification template. The notification template will simply state the type of reward that has been awarded by host 110. The notification template will not contain any technical information about the reward, such as the coupon number, account number, card number, etc. The intention behind the notification template is to ensure that when cardholder 120 receives the notification template setting out the reward, cardholder 120 will not be confused about the reward that has been awarded. At step 710, based on the data captured from card 121, host 110 obtains cardholder 120's contact details from a database. Process 700 then proceeds to notify cardholder 120 about the awarded reward at step 715. Typically, the notification template setting out the reward will be forwarded to cardholder 120 at step 715.

Figure 8 illustrates a flow diagram of process 800 that is an embodiment of process 340 performed by merchant terminal 125 in process 800. One skilled in the art will recognize that other methods of redeeming an allocated reward at a participating merchant may be implemented without departing from this invention. In this embodiment, it is assumed that card 121 has been awarded a reward in accordance with process 300. Process 800 begins in step 805 when merchant terminal 125 captures data from card 121. Data may be captured from card 121 in a variety of ways, either through a wireless reader or a conventional wired connection. The ways of capturing data have been omitted for brevity. Process 800 then compares a portion of the captured data with information contained within the database of host 110. It should be noted that merchant terminal 125 and host 110 may be communicatively connected. At step 815, merchant terminal 125 then informs cardholder 120 about the type of rewards that are available to be redeemed. At step 820, cardholder 120 is given the option of redeeming the reward. If cardholder 120 decides to redeem the reward, process 800 proceeds to remove the redeemed reward from the database in host 110 and process 800 ends. If cardholder 120 decides not to redeem the reward, process 800 will then end.

The following example illustrates an embodiment of this invention. One skilled in the art will realize that the example set out below is not exhaustive of the embodiments of this invention.

Example 1

In an embodiment of this invention, display terminal 105 which comprises of a printed poster is positioned at a Mass Rapid Transit (MRT) station. In this embodiment, display terminal 105 is operatively connected to a NFC reader. The printed poster in this example is an advertisement for ladies handbags. If a cardholder is interested in the handbag being advertised, the cardholder would either wave or tap his card on the printed poster. The NFC reader operatively coupled to the printer poster would then capture the card's details such as the PAN and/or BIN from the card. The loyalty system will then determine from the data

captured if the card was issued by a purveyor of a loyalty system in accordance with an embodiment of this invention. This may be done by comparing the first six digits of the PAN or Bank Name against the data contained within a database in the loyalty system. Upon determining the eligibility of the card, the loyalty system will
5 then determine the reward that is to be allocated and the loyalty system will then also verify the validity of the card. Upon validation of the card's details, the cardholder would then receive a SMS from the loyalty system informing him/her of a reward that has been automatically allocated to him/her. In this example, the reward may be in the form of a discount or free gift that may be redeemed at a
10 participating merchant. The cardholder may then redeem the reward at a participating merchant by swiping or tapping the card at a participating merchant's point of sale terminal.

The above is a description of a manner for implementing a loyalty program
15 that allocates and awards rewards to cardholders. It is envisioned that those skilled in the art can and will design alternative systems that infringe upon this invention as set forth in the following claims.

CLAIMS:

1. A method for implementing a loyalty program that allocates and awards
5 rewards to a cardholder comprising the steps of:
 - providing a display terminal that advertises a good or service and is
locatable in an area that is accessible by a potential purchaser of the good or
service;
 - capturing data from a card proximate the display terminal;
 - 10 retrieving data associated with the display terminal;
 - comparing a portion of the data to information contained within a first
database to determine the eligibility of the card;
 - transmitting the data from the card and data associated with the
display terminal to a receiver in response to the determination of the
15 eligibility of the card;
 - allocating a reward based on data received at a receiver and data
within a second database;
 - validating the card based on data received at a receiver and on data
within a third database;
 - 20 awarding the allocated reward in response to the determination of the
validity of the card; and
 - notifying the cardholder of the allocated reward.
2. The method according to claim 1 wherein the display terminal comprises a
25 printed poster.
3. The method according to claim 1 wherein the display terminal comprises a
digital poster.
- 30 4. The method according to claim 1 wherein the data from the card comprises a
primary account number.

5. The method according to claim 4 wherein the data from the card further comprises a bank name.

6. The method according to claim 1 wherein the data associated with the display terminal comprises merchant identification parameters.

7. The method according to claim 1 wherein the data associated with the display terminal comprises terminal identification parameters.

8. The method according to claim 1 wherein the step of allocating the reward comprises:

retrieving the transmitted data received at the receiver; and
matching a portion of the data captured from the card with information contained within the second database.

9. The method according to claim 8 further comprising the steps of:

matching a portion of the data associated with the display terminal with information contained within the third database.

10. The method according to claim 1 wherein the step of validating the card comprises:

retrieving the transmitted data received at the receiver; and
matching a portion of the data from the card with information contained within the third database.

11. The method according to claim 10 further comprising the step of:

notifying the cardholder about the invalidity of the card in response to the matching of a portion of the data from the card with information contained within the third database.

12. The method according to claim 1 wherein the step of awarding the allocated reward comprises:

performing a search within a second database to determine the availability of an existing entry associated with the cardholder.

13. The method according to claim 12 further comprising the steps of:

5 adding the allocated reward to the existing entry in response to the determination of the availability of the existing entry within the second database.

14. The method according to claim 12 further comprising the steps of:

10 creating a new entry associated with the cardholder within the second database in response to the determination of the lack of an existing entry associated with the cardholder; and
 adding the allocated reward to the new entry.

15 15. The method according to claim 1 wherein the step of notifying the cardholder comprises:

 generating a notification template about the reward;
 obtaining details of the cardholder from the second database; and
 forwarding the notification template to the cardholder.

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16. The method according to claim 15 wherein the step of forwarding the notification template to the cardholder comprises telephonic means.

17. The method according to claim 1 further comprising the step of redeeming
25 the allocated reward at a participating merchant.

18. The method according to claim 17 wherein the step of redeeming the allocated reward comprises:

30 capturing data from a card proximate a terminal associated with the participating merchant;

 comparing the data with information contained within the second database to determine availability of the allocated reward;

informing the cardholder about the availability of the allocated reward in response to the determination of the reward being available;

allowing the cardholder to determine the redemption of the allocated reward; and

5 removing the redeemed reward from the second database in response to the cardholder redeeming the allocated reward.

19.A system for implementing a loyalty program that allocates and awards rewards to a cardholder comprising:

10 a display terminal locatable in an area that is accessible by a potential purchaser of a good or service, the display terminal configured to advertise the good or service;

a reader configured to capture data from a card proximate the display terminal and to retrieve data associated with the display terminal;

15 a module operatively coupled to the reader, the module configured to compare a portion of the data from the card with information contained within a first database to determine the eligibility of the card;

a transmitter operatively coupled to the display terminal, the transmitter configured to transmit the data from the card and the data associated with the display terminal to a receiver in response to the determination of the eligibility of the card;

20 a receiver operatively coupled to a first host, the first host configured to allocate a reward;

25 a receiver operatively coupled to a second host, the second host configured to determine the validity of the card;

the first host further configured to award the allocated reward in response to the determination of the validity of the card; and

30 a communications module operatively coupled to the first host, the communications module configured to instantaneously notify the cardholder of the allocated reward by telephonic means.

20. The system according to claim 19 wherein the display terminal is a printed poster.

21. The system according to claim 19 wherein the display terminal is a digital poster.

5 22. The system according to claim 21 wherein the reader comprises a radio frequency receiver for capturing data within a predetermined interrogation zone around the display terminal.

10 23. The system according to claim 19 wherein the data from the card comprises a primary account number.

24. The system according to claim 23 wherein the data from the card further comprises a bank name.

15 25. The system according to claim 19 wherein the data associated with the display terminal comprises merchant identification parameters.

20 26. The system according to claim 19 wherein the data associated with the display terminal comprises terminal identification parameters.

27. The system according to claim 19 wherein the first host is configured to match a portion of data captured from the card with information contained within a second database.

25 28. The system according to claim 27 wherein the first host is further configured to match a portion of the data associated with the display terminal with information contained within the second database.

30 29. The system according to claim 19 wherein the second host is configured to match a portion of the data from the card with information contained within a third database.

30. The system according to claim 29 wherein the second host is further configured to notify a user about the invalidity of the card in response to the matching of a portion of the data from the card with information contained within the third database.

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31. The system according to claim 19 wherein the first host is configured to perform a search within a second database to determine the availability of an existing entry associated with the cardholder.

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32. The system according to claim 31 wherein the first host is further configured to add the allocated reward to the existing entry in response to the determination of the availability of the existing entry associated with the cardholder within the second database.

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33. The system according to claim 31 wherein the first host is further configured to create a new entry associated with the cardholder within the second database in response to the determination of the lack of an existing entry associated with the cardholder.

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34. The system according to claim 33 wherein the first host is further configured to add the allocated reward to the new entry.

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35. The system according to claim 19 wherein the communications module is configured to generate a notification template about the allocated reward, to obtain details of the cardholder from the second database, and to forward the notification template to the cardholder.

30

36. The system according to claim 19 further comprising a merchant terminal, the merchant terminal configured to redeem the allocated reward at a participating merchant.

37. The system according to claim 36 wherein the merchant terminal is configured to:

capture data from a card proximate the merchant terminal;

compare the data with information contained within a second database operatively coupled to the first host to determine the availability of the allocated reward; and

5 to inform the cardholder about the availability of the allocated reward in response to the determination of the allocated reward being available.

10 38. The system according to claim 37 wherein the merchant terminal is further configured to allow the cardholder to determine the redemption of the allocated reward.

15 39. The system according to claim 38 wherein the merchant terminal is further configured to remove the allocated reward from the second database in response to the cardholder redeeming the allocated reward.

40. The system according to claim 19 wherein the first host and the second host comprises a single server.