METHOD AND SYSTEM FOR CROSS-ISSUER REGISTRATION OF TRANSACTION CARDS

Reference to Related Applications

[0001] This application claims priority to U.S. provisional application number 60/825,733, filed September 15, 2006, and entitled "METHOD AND SYSTEM FOR CROSS-ISSUER REGISTRATION OF TRANSACTION CARDS."

Background

[0002] Transaction cards, such as credit cards, debit cards and the like, are commonly used by consumers to perform transactions. Transaction cards are so common because such cards have numerous advantages over alternative payment options. For example, such cards are often considered to be more convenient than carrying cash for a consumer because they are more compact and less likely to be lost. Moreover, if a transaction card is lost, the card can be cancelled with minimal loss to the cardholder

[0003] Because of the advantages of carrying transaction cards, cardholders often possess numerous cards. In fact, a typical cardholder may have between eight and ten transaction cards. As a result, a single cardholder could have multiple cards offered by the same association, such as Visa®, MasterCard®, or American Express®.

[0004] Transaction card issuers, such as banks, often provide services in

conjunction with a transaction card. For example, an issuer may offer a payment alert program to provide notice to a cardholder when a transaction card is used to perform a transaction. Other services may include cardholder controls (under which restrictions may be placed upon a secondary cardholder who is able to use the transaction card), fraud protection (protection against transactions performed by an unauthorized third party if a transaction card is lost or stolen by a cardholder), and the like.

[0005] Presently, a cardholder that desires to enroll in one or more of such services must inconveniently enroll in the services with the issuer for each transaction card. Because of such inconvenience, a cardholder could be enrolled in a service with an issuer for one transaction card but not for another transaction card offered by the same association, when the cardholder would prefer to have all transaction cards offered by the same association enrolled in the service. Moreover, a cardholder could be unaware or forget that a particular desired service has not been obtained for a particular transaction card. This can cause confusion among cardholders.

[0006] What are needed are methods and systems for enabling cardholders to enroll in one or more services for one or more transaction cards at a central location, where the transaction cards are issued by a plurality of issuers.

[0007] A need exists for methods and systems of aggregating cardholder information across all issuers.

[0008] A need exists for methods and systems for securely enabling a cardholder to register for one or more services without exposing sensitive cardholder

information and that substantially limit the possibility for erroneous association of a transaction card without an unauthorized account.

[0009] The present disclosure is directed to solving one or more of the above-listed problems.

Summary

[0010] Before the present methods are described, it is to be understood that this invention is not limited to the particular methodologies or protocols described, as these may vary. It is also to be understood that the terminology used herein is for the purpose of describing particular embodiments only, and is not intended to limit the scope of the present disclosure, which will be limited only by the appended claims.

[0011] It must be noted that as used herein and in the appended claims, the singular forms "a," "an," and "the" include plural reference unless the context clearly dictates otherwise. Thus, for example, reference to a "certificate" is a reference to one or more certificates and equivalents thereof known to those skilled in the art, and so forth. Unless defined otherwise, all technical and scientific terms used herein have the same meanings as commonly understood by one of ordinary skill in the art. Although any methods and materials similar or equivalent to those described herein can be used in the practice or testing of the present invention, the preferred methods, devices, and materials are now described. All publications mentioned herein are incorporated herein by reference. Nothing herein is to be construed as an admission that the invention is not entitled to antedate such disclosure by virtue of prior invention.

[0012] In an embodiment, a method of providing one or more services to a cardholder may include generating, by an issuer, a registration code, sending the registration code to a cardholder, receiving the registration code from the cardholder, determining the issuer based on at least a portion of the registration code, transmitting the registration code to the issuer, receiving an account identifier associated with the registration code from the issuer, displaying at least a portion of the account identifier to the cardholder, receiving a verification value from the cardholder corresponding to the account identifier, and permitting the cardholder to select one or more services, if the verification value is valid.

Brief Description of the Drawings

[0013] Aspects, features, benefits and advantages of the present invention will be apparent with regard to the following description and accompanying drawings, of which:

[0014] **Figure 1** depicts a flow diagram of an exemplary process of providing one or more services to a cardholder for a plurality of transaction cards according to an embodiment.

[0015] **Figure 2** depicts a flow diagram of an exemplary process for associating a registration code with a consumer according to an embodiment.

[0016] **Figure 3** depicts a flow diagram of an exemplary process for registering a consumer on a central website according to an embodiment.

[0017] **Figure 4** depicts a flow diagram for an exemplary process of verifying

a cardholder according to an embodiment.

Detailed Description

[0018] **Figure 1** depicts a flow diagram of an exemplary process of providing one or more services to a cardholder for a plurality of transaction cards according to an embodiment. As depicted in **Figure 1,** an issuer may provide **105** a registration code to a cardholder. The registration code may be provided as part of a monthly statement, via an issuer's online account management system and/or via other cardholder support channels, such as telephone, direct mailing programs, and the like. The registration code is a code that is uniquely assigned to a cardholder for a particular service and/or all services offered by the issuer. In an embodiment, the registration code may be an alphanumeric code. In an embodiment, the registration code is not correlated to the cardholder's primary account number (PAN) or any other cardholder identifying information. As such, sensitive cardholder information may not be determinable from the registration code. A particular cardholder may receive a registration code for one or more transaction cards and/or from one or more issuers. In an embodiment, each transaction code may include an issuer identification code that uniquely identifies the issuer of the registration code.

[0019] The cardholder may then access **110** a website, such as a transaction card association website. If the cardholder has not previously accessed the website, the cardholder may perform **115** a one-time account setup by selecting a username, password (or other authentication token), and/or the like. If the cardholder has already created an

account at the website or once the cardholder completes the one-time account setup, the cardholder may log into **120** the account.

[0020] The cardholder may then register **125** one or more cards by entering the registration code provided by each issuer for each transaction card. When a registration code is entered for a particular transaction card, the website may determine **130** an issuer based on the registration code and transmit **135** the registration code to the issuer. In response, the website may receive **140** account information for the cardholder's account with the issuer. In an embodiment, one or more fields of the cardholder's account information may be masked to prevent the display of sensitive information. In an embodiment, the account information may be received **140** in an encrypted format and decrypted by the website. Additionally, a list of services offered by the issuer may also be received and used to determine which services to offer the cardholder. The cardholder may then select 145 one or more services to be applied to the account. Once the cardholder completes selection of the one or more services, the website may transmit **150** the selected services to the issuer for processing and enrollment.

[0021] **Figure 2** depicts a flow diagram of an exemplary process for associating a registration code with a consumer according to an embodiment. As shown in **Figure 2,** the issuer may select one or more account numbers for which to offer one or more services. For each account, the issuer may remove **205** the bank identification number (BIN) from the PAN for the account. A digest may be created **210** using the remaining digits. In a preferred embodiment, the SHA-1 hashing algorithm is used to create this digest. The digest may then be encrypted **215.** A registration code

may be generated **220** using the digest and stored **225** in memory with the associated account number or the digest. The registration code may then be provided **230** to the transaction cardholder.

[0021] Figure 3 depicts a flow diagram of an exemplary process for registering a consumer on a central website according to an embodiment. As shown in **Figure 3,** a cardholder may log into **305** a registration website by, for example, providing a username, a password, and/or any other authentication token. The cardholder may then enter **310** a registration code provided by an issuer. A computer system associated with the registration website may determine **315** an issuer associated with the registration code and transmit **320** the registration code to the issuer. The issuer may determine **325** whether the registration code is valid and determine the account associated with the registration code. The issuer may then transmit **330** account information for the associated account to the registration website.

[0022] Figure 4 depicts a flow diagram for an exemplary process of verifying a cardholder according to an embodiment. As shown in **Figure 4,** the registration website may receive **405** the truncated account number from the issuer. The issuer and the truncated account number may then be displayed **410** to the cardholder. If the displayed account number is improper, the transaction may be cancelled **415**. If the cardholder verifies that the account number is proper, the registration website may display **420** a request for the associated transaction card's card verification value (CVV). The cardholder may then enter **425** a CVV for the transaction card. If the cardholder enters an improper CVV, the transaction may be cancelled **430**. Otherwise, the cardholder may be registered **435** with the registration website.

[0023] It will be appreciated that various of the above-disclosed and other features and functions, or alternatives thereof, may be desirably combined into many other different systems or applications. It will also be appreciated that various presently unforeseen or unanticipated alternatives, modifications, variations or improvements therein may be subsequently made by those skilled in the art which are also intended to be encompassed by the disclosed embodiments.

CLAIMS

1. A computer implemented method of providing cross-issuer registration of transaction cards issued by the same association, comprising:

receiving, via a website facilitated by an Internet server system, a registration code sent from a client representing a transaction card holder, wherein the registration code is associated with the transaction card and an issuer thereof;

determining, via the website facilitated by the Internet server system, the issuer of the transaction card based on at least a portion of the registration code;

transmitting, via the website facilitated by the Internet server system, the registration code to the issuer of the transaction card;

receiving, via the website facilitated by the Internet server system, account information sent from the issuer, wherein the account information is associated with the registration code and with the transaction card;

transmitting, via the website facilitated by the Internet server system, for delivery to and display by the client representing the transaction card holder:

at least a portion of the account information; and

a description of one or more services in which to enroll the transaction card holder;

receiving, via the website facilitated by the Internet server system, a verification value corresponding to the account information and being sent from the client representing the transaction card holder;

determining, via the website facilitated by the Internet server system, if the verification value is valid; and

if the verification value is valid, receiving, via the website facilitated by the Internet server system, a selection of the one or more services in which to enroll sent from the client representing the transaction card holder, wherein the selected one or more services applies to multiple said transaction cards offered by the issuer that were each issued to the transaction card holder.

2. The computer implemented method as defined in Claim 1, wherein the registration code is generated by the issuer of each said transaction card.

3. The computer implemented method as defined in Claim 1, wherein:

the account information sent from the issuer cannot be determined from the registration code;

the registration code associated with the transaction card includes a digest created by a hashing algorithm performed upon a Primary Account Number (PAN) for the transaction card less the bank identification number (BIN); and

each said transaction card is either a credit card or a debit card.

4. The computer implemented method as defined in Claim 1, wherein the registration code includes an issuer code corresponding to the issuer of the transaction card.

5. The computer implemented method as defined in Claim 1, further comprising, before the, receiving of the registration code sent from the client representing the transaction card holder:

receiving, via the website facilitated by the Internet server system, account setup information sent from the client representing the transaction card holder.

6. The computer implemented method as defined in Claim 1, wherein the account information comprises an account identifier.

7. The computer implemented method as defined in Claim 1, wherein the account information received by the website facilitated by the Internet server system is in encrypted form.

8. The computer implemented method as defined in Claim 1, wherein the at least a portion of the account information for delivery to and display by the client representing the transaction card holder is masked to prevent the display thereof.

9. The computer implemented method as defined in Claim 1, wherein the verification value is the transaction Card Verification Value (CVV).

10. A computer readable medium comprising instructions which, when executed by the Internet server system, performs the computer implemented method of Claim 1.

11. A computer implemented method of providing cross-issuer registration of transaction cards issued by the same association, comprising:

receiving, via a website facilitated by an Internet server system, account setup information sent from a client representing a transaction card holder;

receiving, via the website facilitated by the Internet server system, a registration code sent from a client representing a transaction card holder, wherein the registration code:

is associated with the transaction card and an issuer thereof;

includes a digest created by a hashing algorithm performed upon a Primary Account Number (PAN) for the transaction card less the bank identification number (BIN); and

includes an issuer code corresponding to the issuer of the transaction card;

determining, via the website facilitated by the Internet server system, the issuer of the transaction card based on at least a portion of the registration code;

transmitting, via the website facilitated by the Internet server system, the registration code to the issuer of the transaction card;

receiving, via the website facilitated by the Internet server system, account information sent from the issuer, wherein the account information:

is associated with the registration code and with the transaction card; and

cannot be determined from the registration code;

includes an account identifier; and

is in encrypted form;

transmitting, via the website facilitated by the Internet server system, for delivery to and display by the client representing the transaction card holder:

at least a portion of the account information; and

a description of one or more services in which to enroll the transaction card holder;

receiving, via the website facilitated by the Internet server system, a transaction Card Verification Value (CVV) for the transaction card that corresponds to the account information and is sent from the client representing the transaction card holder;

determining, via the website facilitated by the Internet server system, if the verification value is valid; and

if the verification value is valid, receiving, via the website facilitated by the Internet server system, a selection of the one or more services in which to enroll sent from the client representing the transaction card holder, wherein the selected one or more services applies to multiple said transaction cards offered by the issuer that were each issued to the transaction card holder and to each which the registration code is also associated.

12. A system of providing cross-issuer registration of transaction cards issued by an issuer, the system comprising:

Internet server means for receiving a registration code sent from a client representing a transaction card holder, wherein the registration code is associated with the transaction card and an issuer thereof;

Internet server means for determining the issuer of the transaction card based on at least a portion of the registration code;

Internet server means for transmitting the registration code to the issuer of the transaction card;

Internet server means for receiving account information sent from the issuer, wherein the account information is associated with the registration code and with the transaction card;

Internet server means for transmitting for delivery to and display by the client representing the transaction card holder:

at least a portion of the account information; and

a description of one or more services in which to enroll the transaction card holder;

Internet server means for receiving a verification value corresponding to the account information and being sent from the client representing the transaction card holder;

Internet server means for determining if the verification value is valid; and

Internet server means, if the verification value is valid, for receiving a selection of the one or more services in which to enroll sent from the client representing the transaction card holder, wherein the selected one or more services applies to multiple said transaction cards issued by the issuer that were each issued to the transaction card holder.

13. The system as defined in Claim 12, wherein the registration code is generated by the issuer of each said transaction card.

14. The system as defined in Claim 12, wherein the account information sent from the issuer cannot be determined from the registration code.

15. The system as defined in Claim 12, wherein the registration code includes an issuer code corresponding to the issuer of the transaction card.

16. The system as defined in Claim 12, further comprising means, before the receiving of the registration code sent from the client representing the transaction card holder, for receiving, via the website facilitated by the Internet server system, account setup information sent from the client representing the transaction card holder.

17. The system as defined in Claim 12, wherein the account information received by the website facilitated by the Internet server system is in encrypted form.

18. The system as defined in Claim 12, wherein the at least a portion of the account information for delivery to and display by the client representing the transaction card holder is masked to prevent the display thereof.

19. The system as defined in Claim 12, wherein the verification value is the transaction Card Verification Value (CVV).

20. The system of claim 12, wherein the registration code is generated based upon the account information.

21. The system of claim 12, wherein:

each said transaction card is either a credit card or a debit card;

the account information comprises an account identifier; and

the registration code is generated by:

extracting a portion of the account identifier;

creating a digest using the portion of the account identifier;

encrypting the digest; and

generating the registration code using the digest.

22. The system of claim 12, wherein the registration code associated with the transaction card is included in a digest created by a hashing algorithm performed upon a Primary Account Number (PAN) for the transaction card without its bank identification number (BIN).