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(54) METHOD AND APPARATUS FOR ISSUING AND MANAGING GIFT CERTIFICATES

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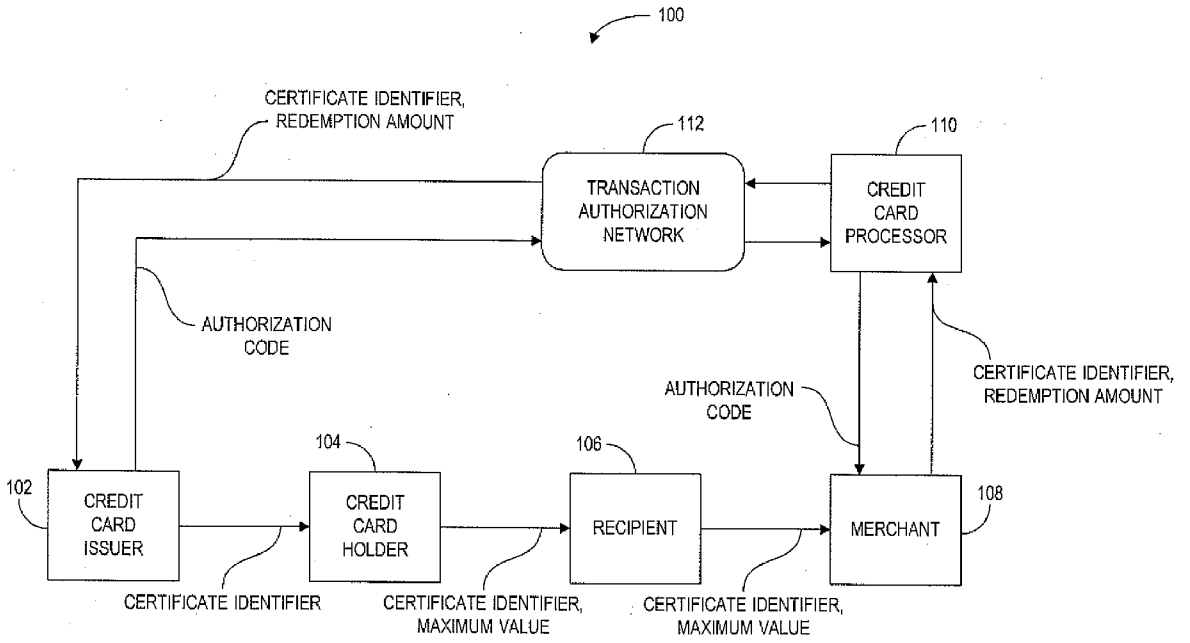
(57) **ABSTRACT**

The present invention relates to a method and apparatus for issuing and redeeming a gift certificate drawn on a credit card or other financial account. The present invention includes a first aspect directed to a merchant card authorization terminal and a second aspect directed to a credit card issuer central controller. According to the first aspect, a method for redeeming a gift certificate drawn on a financial account is disclosed including the steps of receiving a gift certificate for payment of an identified value, transmitting a request for authorization to a central server, receiving an authorization signal, representing an indication that redemption of the gift certificate is authorized, from said central server and receiving a payment from the account issuer based on said identified value. A system is also disclosed for implementing the methods in all aspects of the present invention.



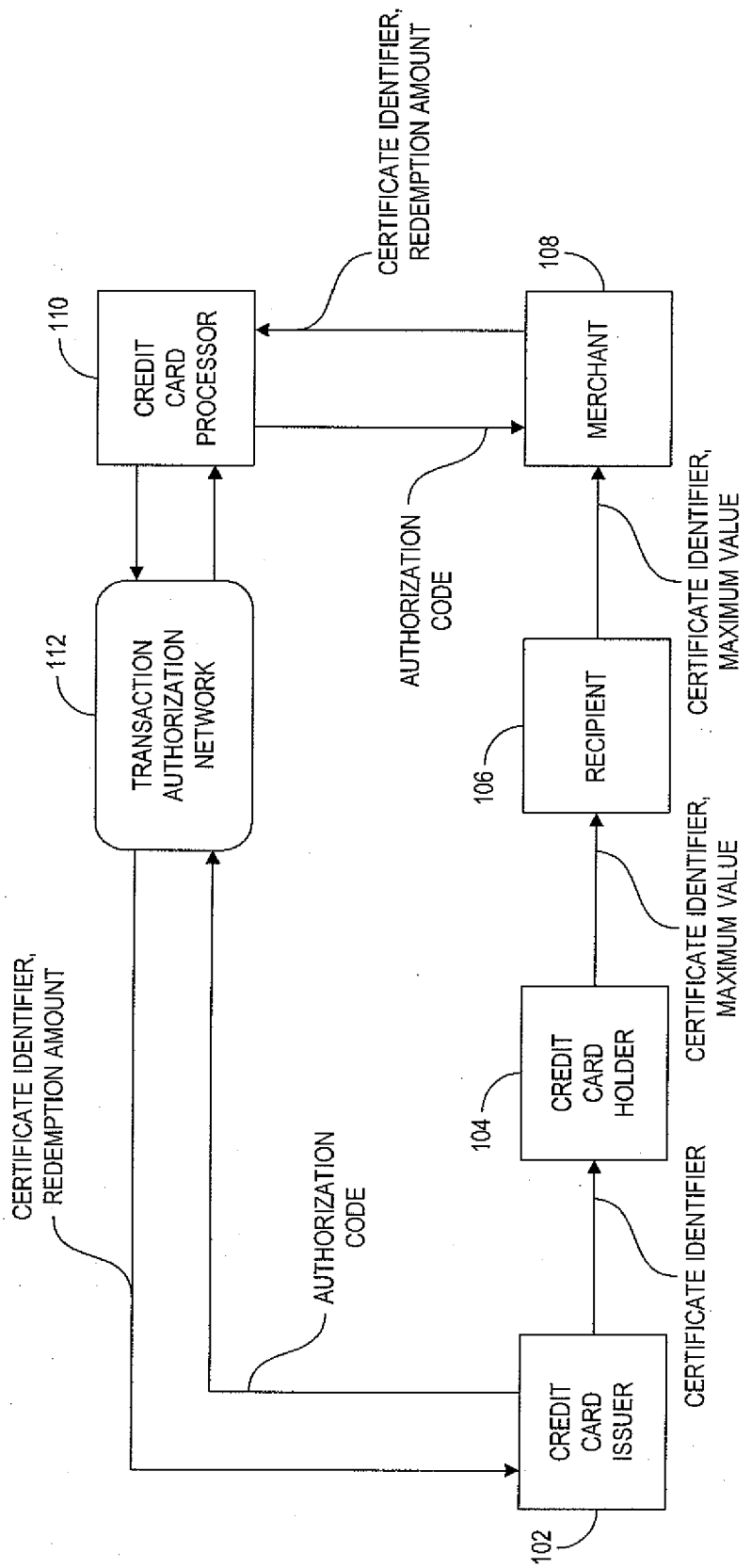

100
CREDIT CARD ISSUER
102
CREDIT CARD HOLDER
104
RECIPIENT
106
MERCHANT
108
CREDIT CARD PROCESSOR
110
TRANSACTION AUTHORIZATION NETWORK
112
CERTIFICATE IDENTIFIER, REDEMPTION AMOUNT
AUTHORIZATION CODE
CERTIFICATE IDENTIFIER
CERTIFICATE IDENTIFIER, MAXIMUM VALUE
CERTIFICATE IDENTIFIER, MAXIMUM VALUE
CERTIFICATE IDENTIFIER, REDEMPTION AMOUNT
AUTHORIZATION CODE
CERTIFICATE IDENTIFIER, MAXIMUM VALUE

FIG. 1

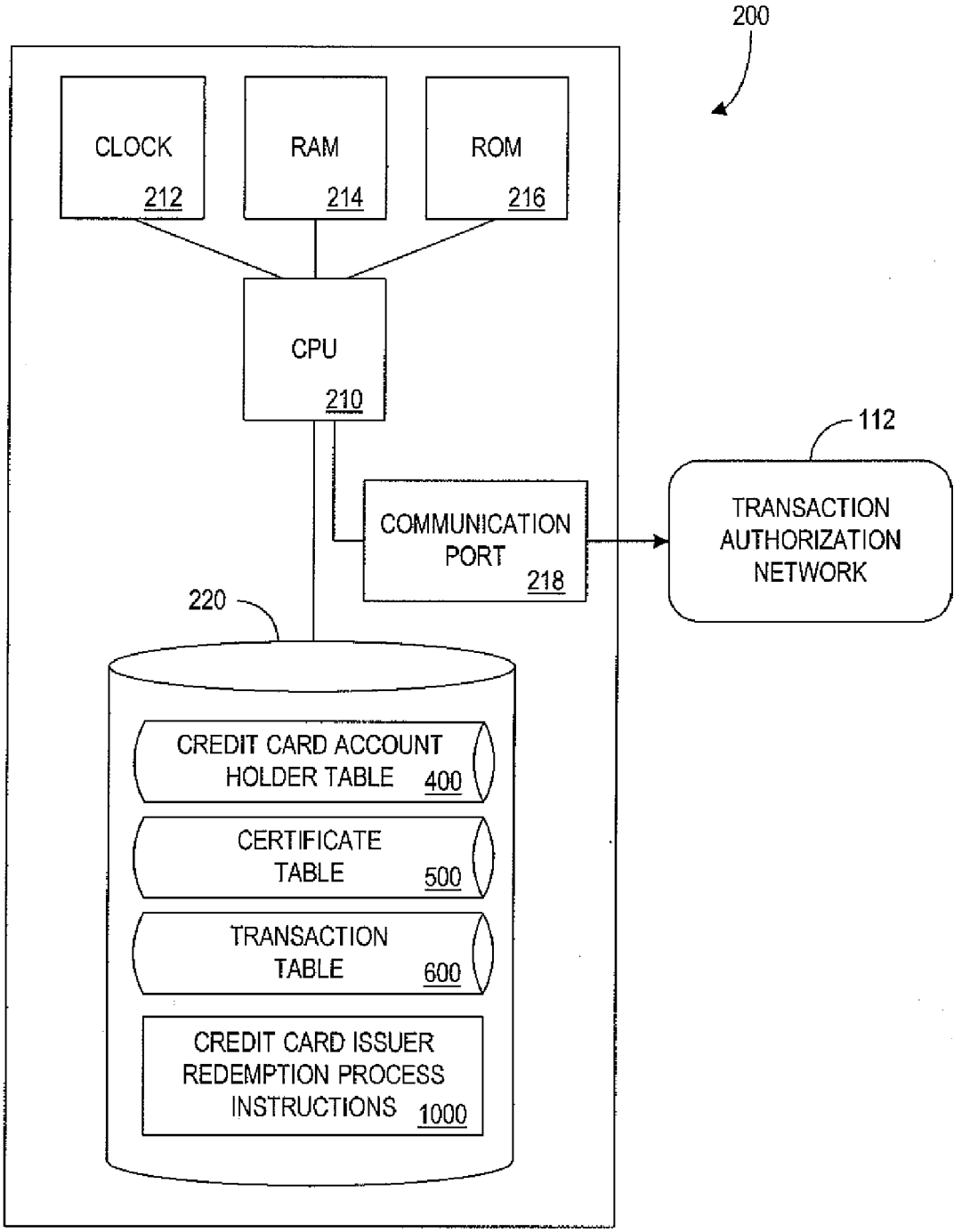

200
CLOCK
212
RAM
214
ROM
216
CPU
210
112
COMMUNICATION
PORT
218
TRANSACTION
AUTHORIZATION
NETWORK
220
CREDIT CARD ACCOUNT
HOLDER TABLE
400
CERTIFICATE
TABLE
500
TRANSACTION
TABLE
600
CREDIT CARD ISSUER
REDEMPTION PROCESS
INSTRUCTIONS
1000

FIG. 2

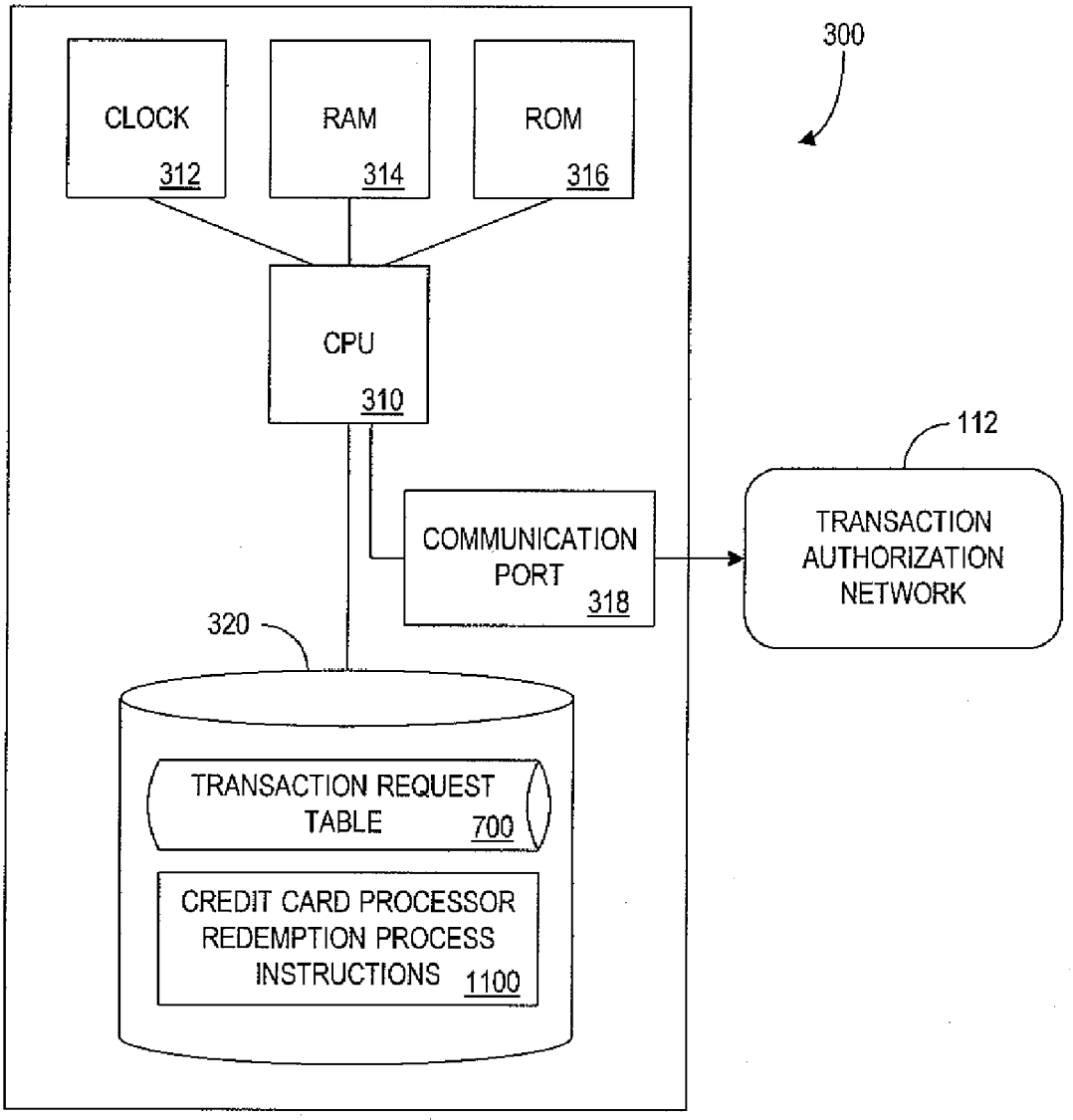

300
CLOCK
312
RAM
314
ROM
316
CPU
310
112
COMMUNICATION
PORT
318
TRANSACTION
AUTHORIZATION
NETWORK
320
TRANSACTION REQUEST
TABLE
700
CREDIT CARD PROCESSOR
REDEMPTION PROCESS
INSTRUCTIONS
1100

FIG. 3

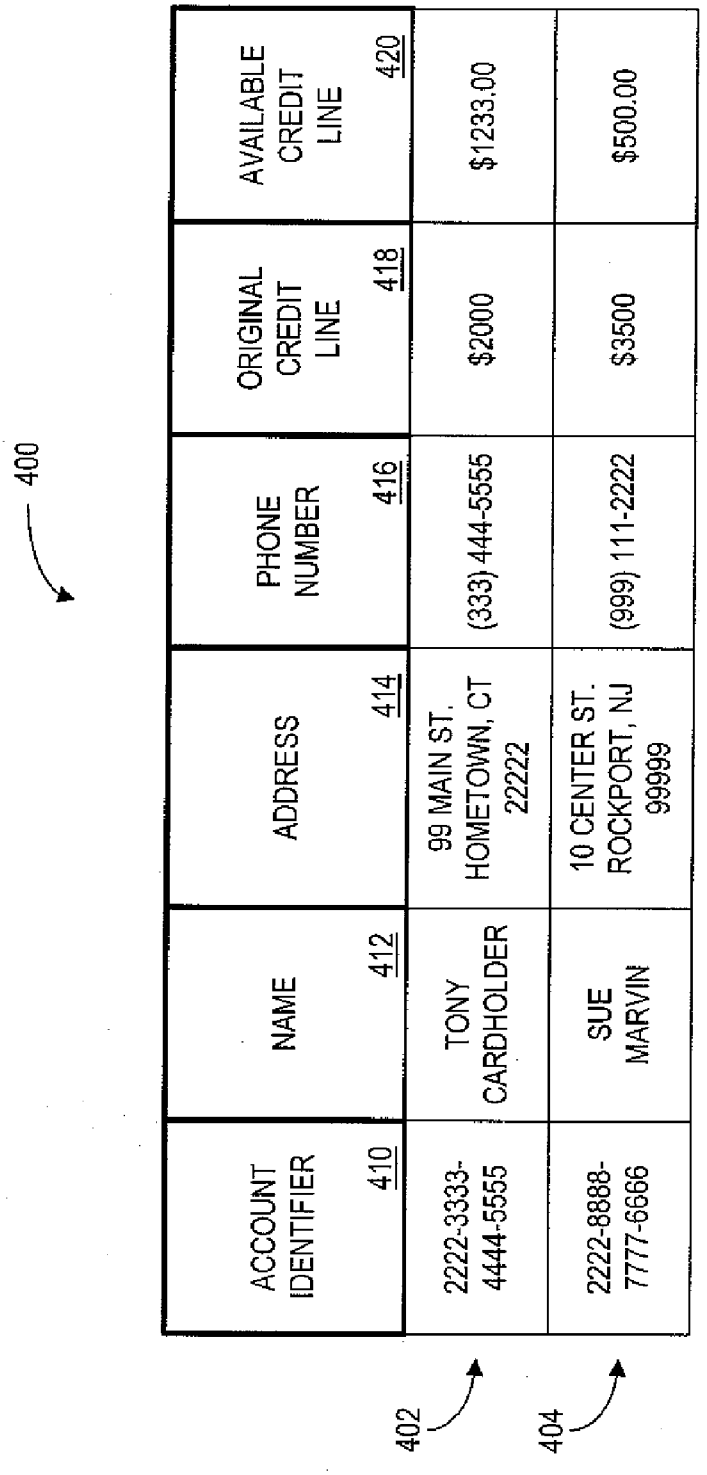

400
ACCOUNT IDENTIFIER 410
NAME 412
ADDRESS 414
PHONE NUMBER 416
ORIGINAL CREDIT LINE 418
AVAILABLE CREDIT LINE 420
2222-3333-4444-5555
TONY CARDHOLDER
99 MAIN ST. HOMETOWN, CT 22222
(333) 444-5555
$2000
$1233.00
2222-8888-7777-6666
SUE MARVIN
10 CENTER ST. ROCKPORT, NJ 99999
(999) 111-2222
$3500
$500.00
402
404

FIG. 4

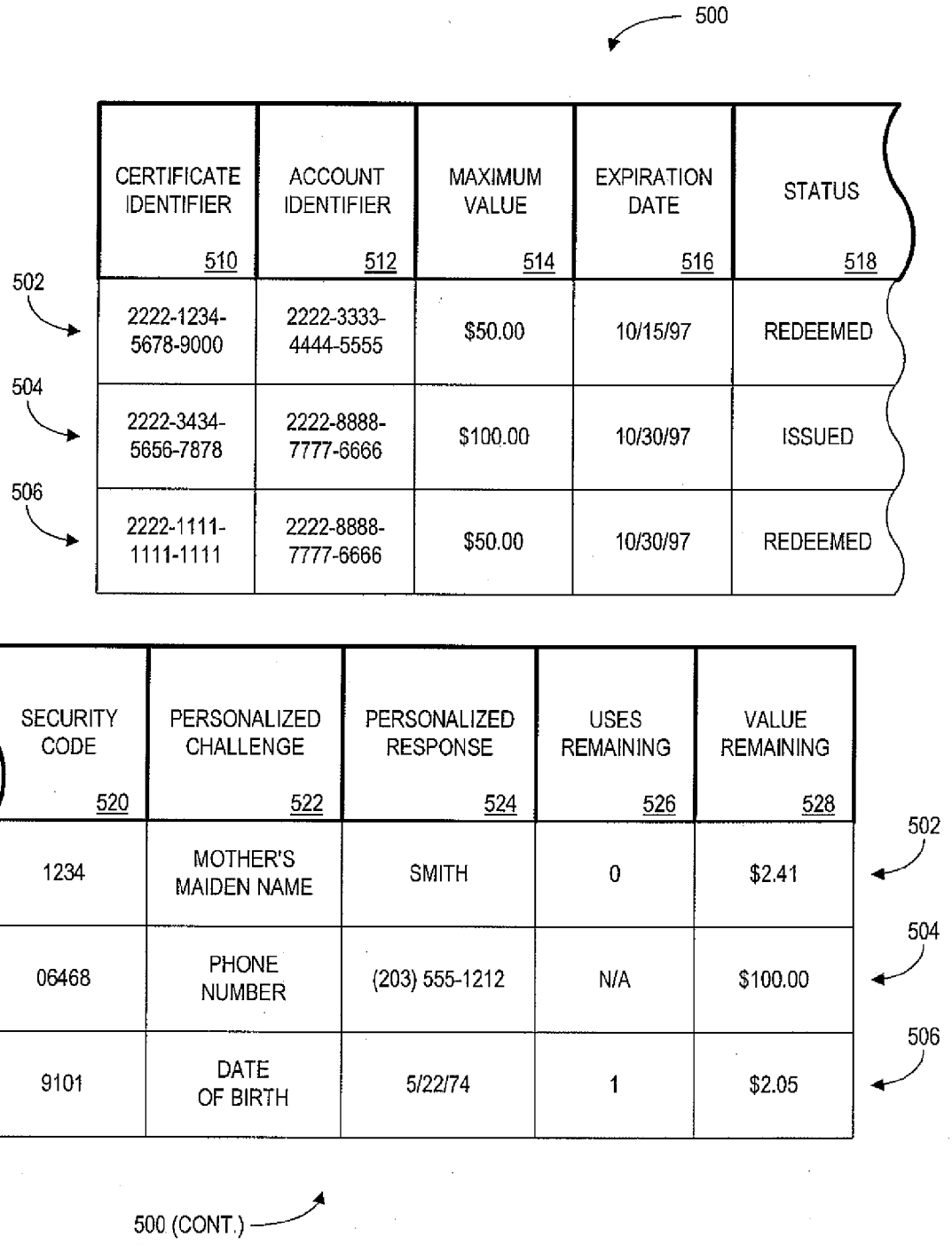

500
CERTIFICATE IDENTIFIER 510
ACCOUNT IDENTIFIER 512
MAXIMUM VALUE 514
EXPIRATION DATE 516
STATUS 518
502
2222-1234-5678-9000
2222-3333-4444-5555
$50.00
10/15/97
REDEEMED
504
2222-3434-5656-7878
2222-8888-7777-6666
$100.00
10/30/97
ISSUED
506
2222-1111-1111-1111
2222-8888-7777-6666
$50.00
10/30/97
REDEEMED
SECURITY CODE 520
PERSONALIZED CHALLENGE 522
PERSONALIZED RESPONSE 524
USES REMAINING 526
VALUE REMAINING 528
1234
MOTHER'S MAIDEN NAME
SMITH
0
$2.41
502
06468
PHONE NUMBER
(203) 555-1212
N/A
$100.00
504
9101
DATE OF BIRTH
5/22/74
1
$2.05
506
500 (CONT.)

FIG. 5

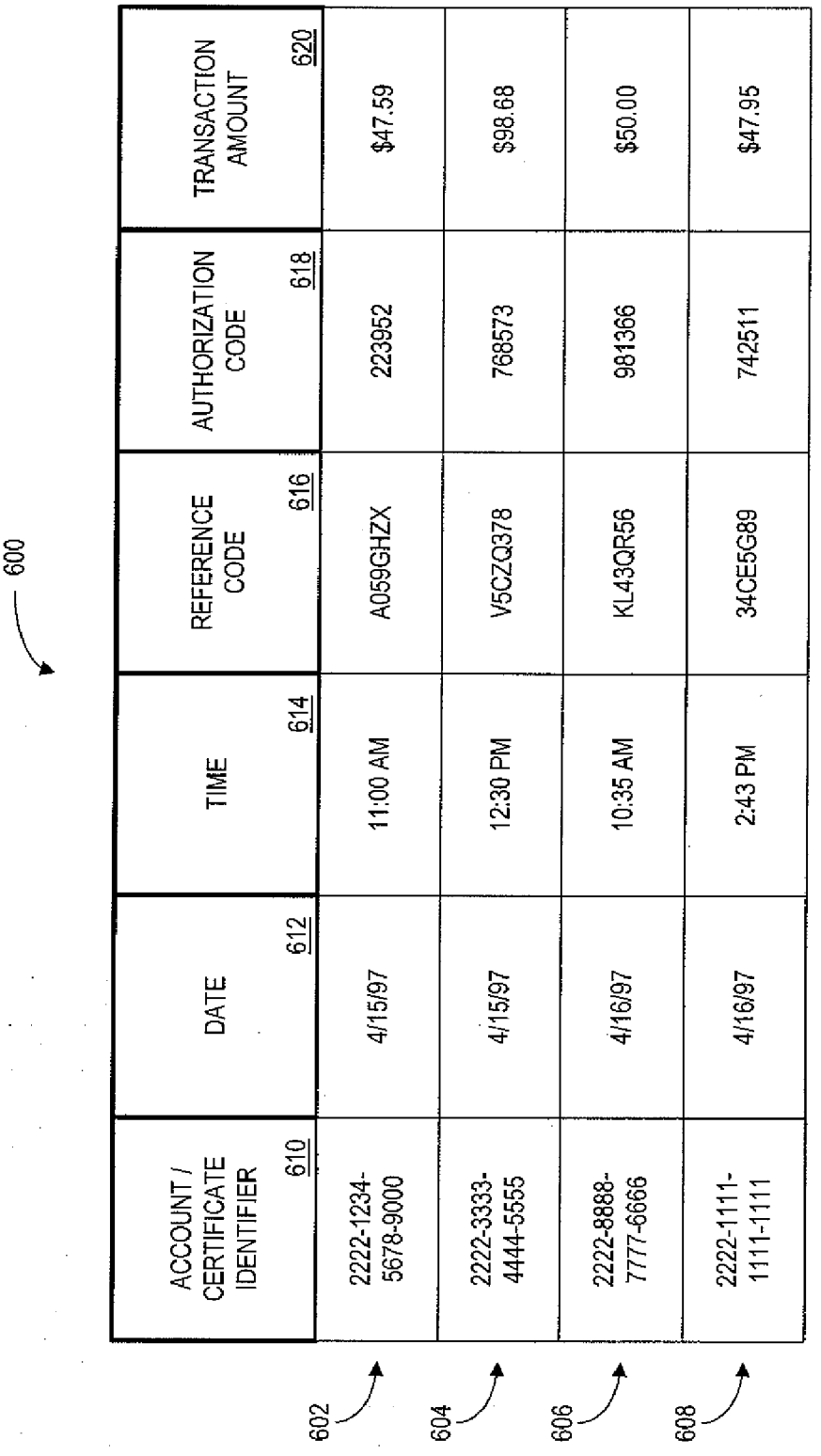

600
ACCOUNT / CERTIFICATE IDENTIFIER 610
DATE 612
TIME 614
REFERENCE CODE 616
AUTHORIZATION CODE 618
TRANSACTION AMOUNT 620
602
2222-1234-5678-9000
4/15/97
11:00 AM
A059GHZX
223952
$47.59
604
2222-3333-4444-5555
4/15/97
12:30 PM
V5CZQ378
768573
$98.68
606
2222-8888-7777-6666
4/16/97
10:35 AM
KL43QR56
981366
$50.00
608
2222-1111-1111-1111
4/16/97
2:43 PM
34CE5G89
742511
$47.95

FIG. 6

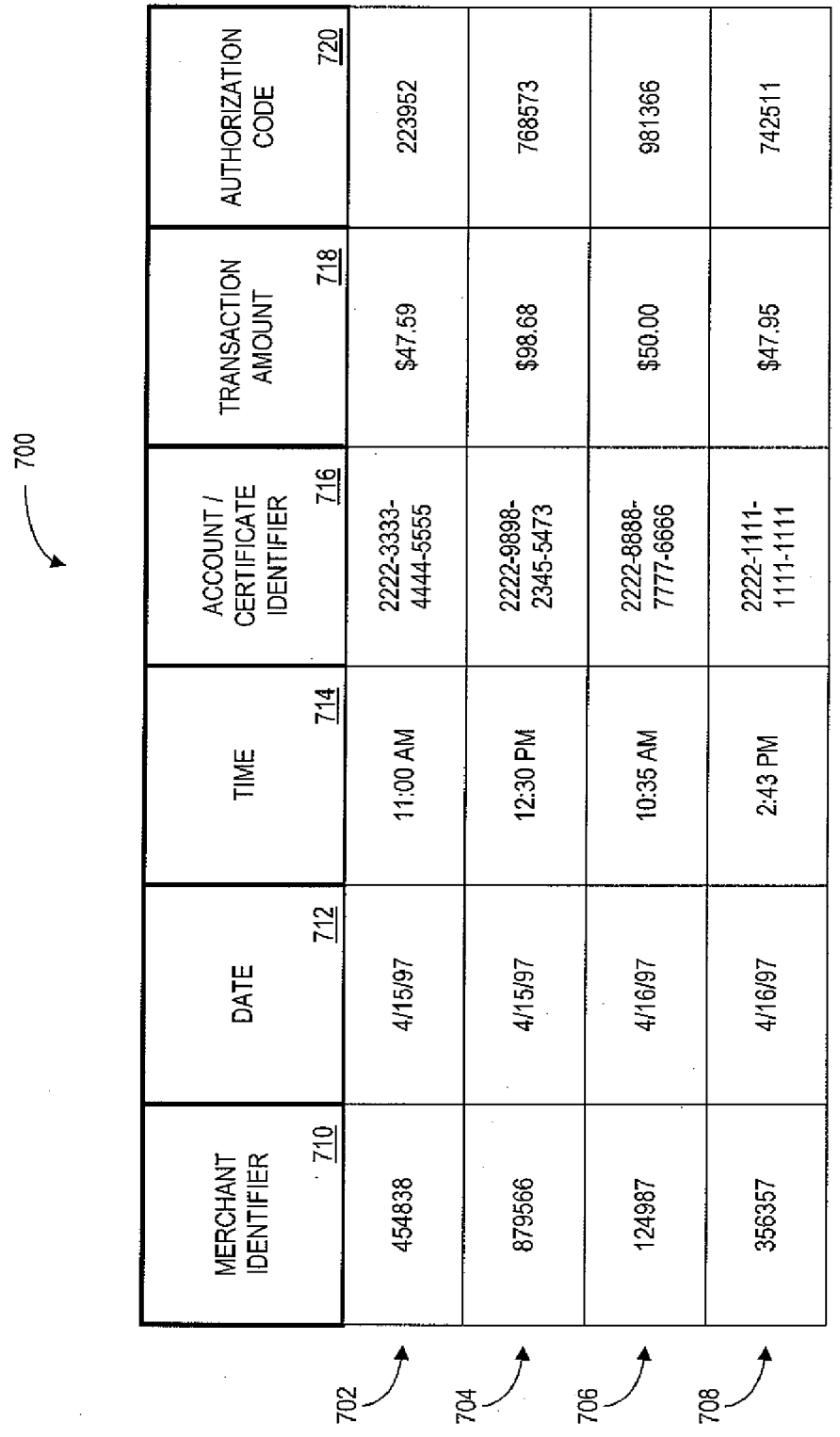

700
MERCHANT IDENTIFIER 710
DATE 712
TIME 714
ACCOUNT / CERTIFICATE IDENTIFIER 716
TRANSACTION AMOUNT 718
AUTHORIZATION CODE 720
454838
4/15/97
11:00 AM
2222-3333-4444-5555
$47.59
223952
879566
4/15/97
12:30 PM
2222-9898-2345-5473
$98.68
768573
124987
4/16/97
10:35 AM
2222-8888-7777-6666
$50.00
981366
356357
4/16/97
2:43 PM
2222-1111-1111-1111
$47.95
742511
702
704
706
708

FIG. 7

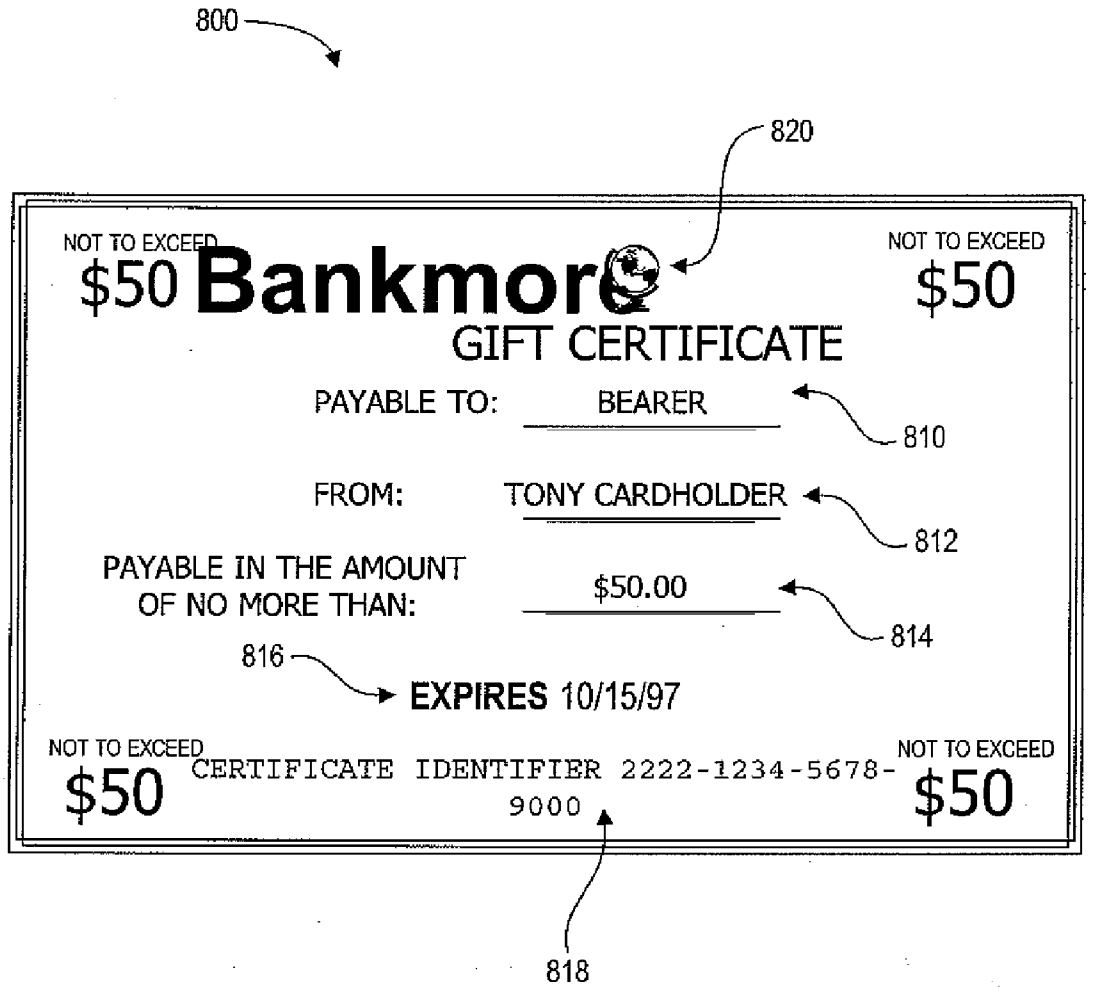

800
820
NOT TO EXCEED
$50
Bankmore
NOT TO EXCEED
$50
GIFT CERTIFICATE
PAYABLE TO:
BEARER
810
FROM:
TONY CARDHOLDER
812
PAYABLE IN THE AMOUNT
OF NO MORE THAN:
$50.00
814
816
EXPIRES 10/15/97
NOT TO EXCEED
$50
CERTIFICATE IDENTIFIER 2222-1234-5678-9000
NOT TO EXCEED
$50
818

FIG. 8

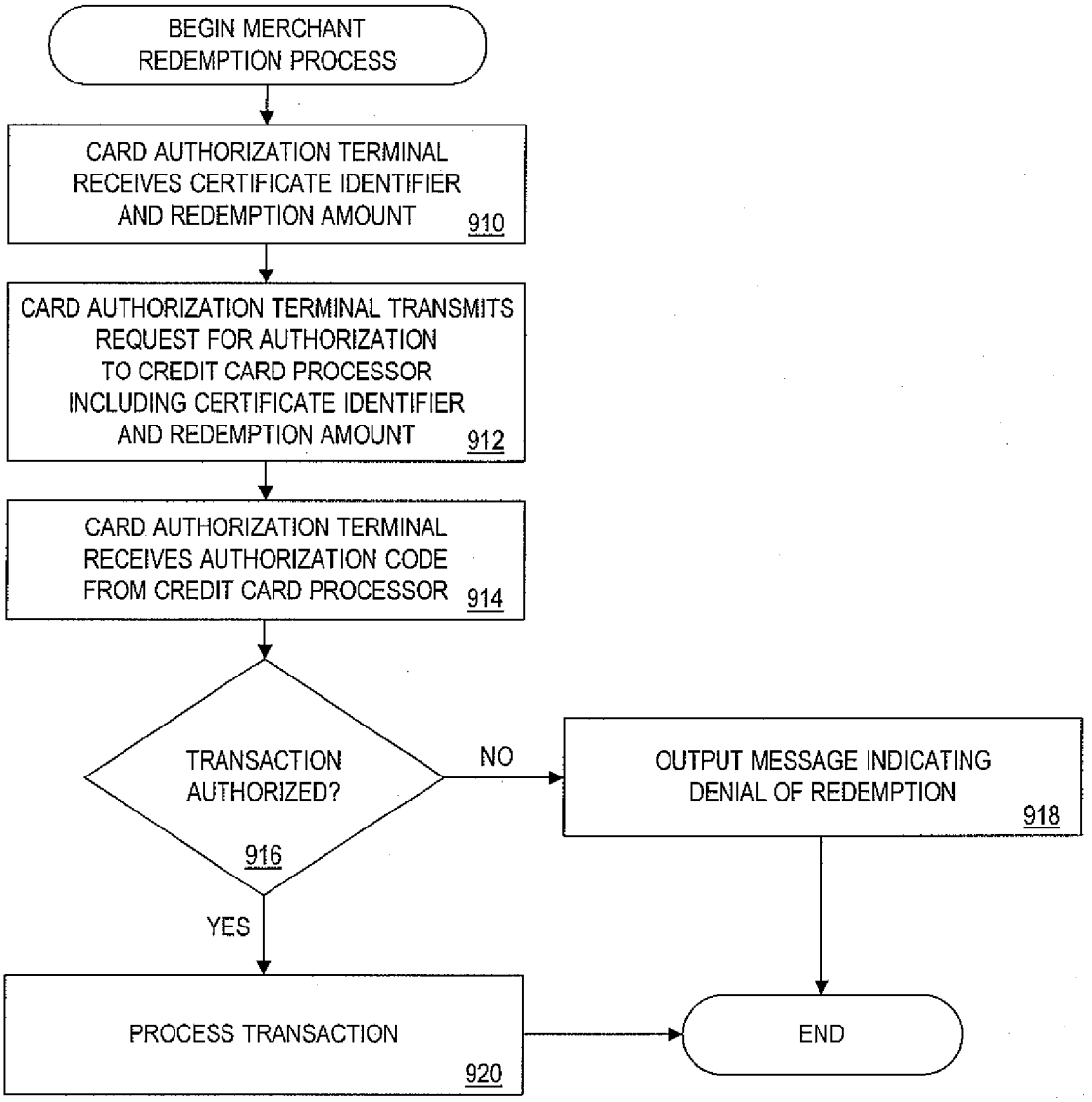

BEGIN MERCHANT REDEMPTION PROCESS
CARD AUTHORIZATION TERMINAL RECEIVES CERTIFICATE IDENTIFIER AND REDEMPTION AMOUNT 910
CARD AUTHORIZATION TERMINAL TRANSMITS REQUEST FOR AUTHORIZATION TO CREDIT CARD PROCESSOR INCLUDING CERTIFICATE IDENTIFIER AND REDEMPTION AMOUNT 912
CARD AUTHORIZATION TERMINAL RECEIVES AUTHORIZATION CODE FROM CREDIT CARD PROCESSOR 914
TRANSACTION AUTHORIZED? 916
NO
OUTPUT MESSAGE INDICATING DENIAL OF REDEMPTION 918
YES
PROCESS TRANSACTION 920
END

FIG. 9

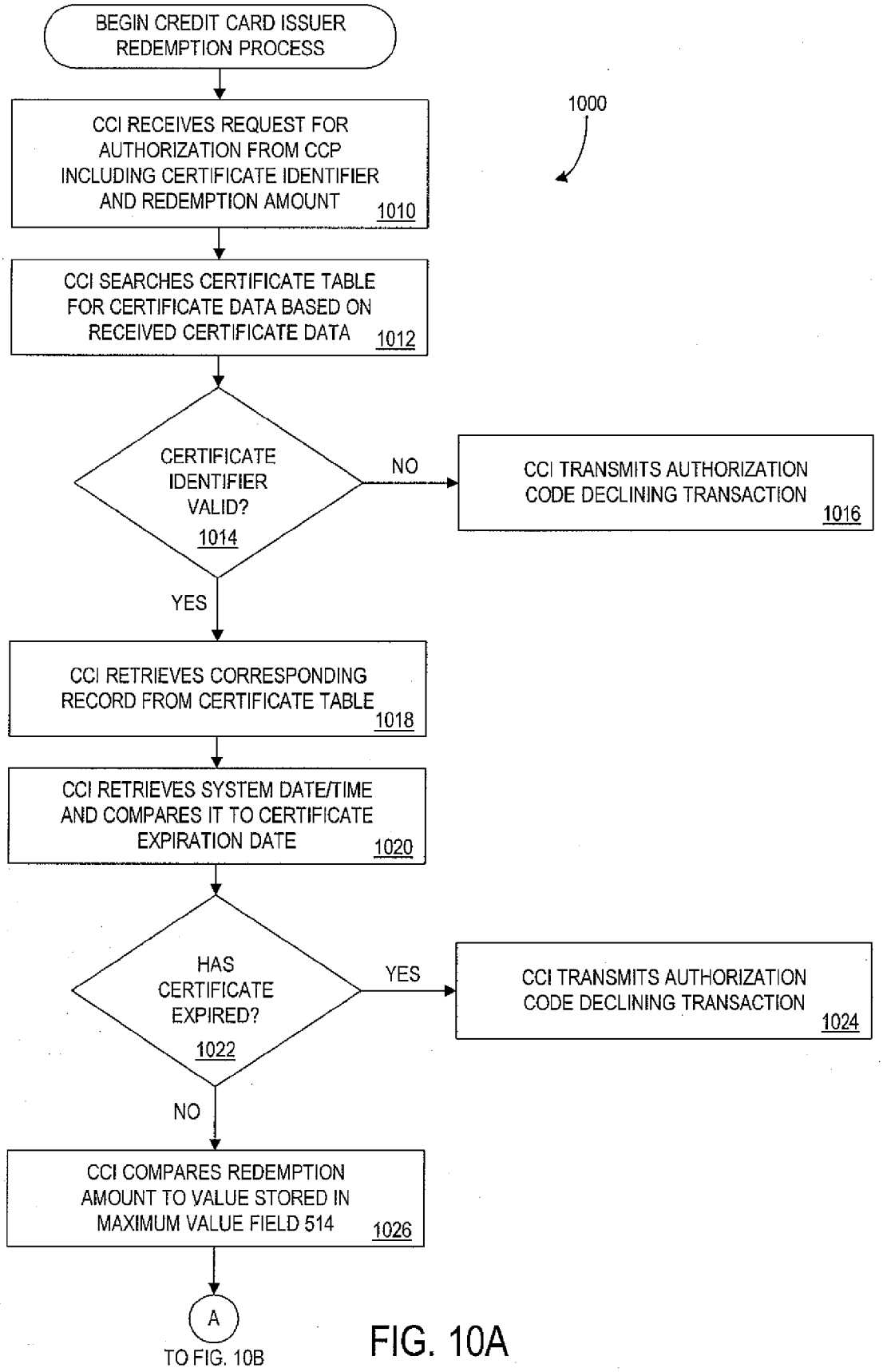

BEGIN CREDIT CARD ISSUER REDEMPTION PROCESS
1000
CCI RECEIVES REQUEST FOR AUTHORIZATION FROM CCP INCLUDING CERTIFICATE IDENTIFIER AND REDEMPTION AMOUNT 1010
CCI SEARCHES CERTIFICATE TABLE FOR CERTIFICATE DATA BASED ON RECEIVED CERTIFICATE DATA 1012
CERTIFICATE IDENTIFIER VALID? 1014
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1016
YES
CCI RETRIEVES CORRESPONDING RECORD FROM CERTIFICATE TABLE 1018
CCI RETRIEVES SYSTEM DATE/TIME AND COMPARES IT TO CERTIFICATE EXPIRATION DATE 1020
HAS CERTIFICATE EXPIRED? 1022
YES
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1024
NO
CCI COMPARES REDEMPTION AMOUNT TO VALUE STORED IN MAXIMUM VALUE FIELD 514 1026
A
TO FIG. 10B

FIG. 10A

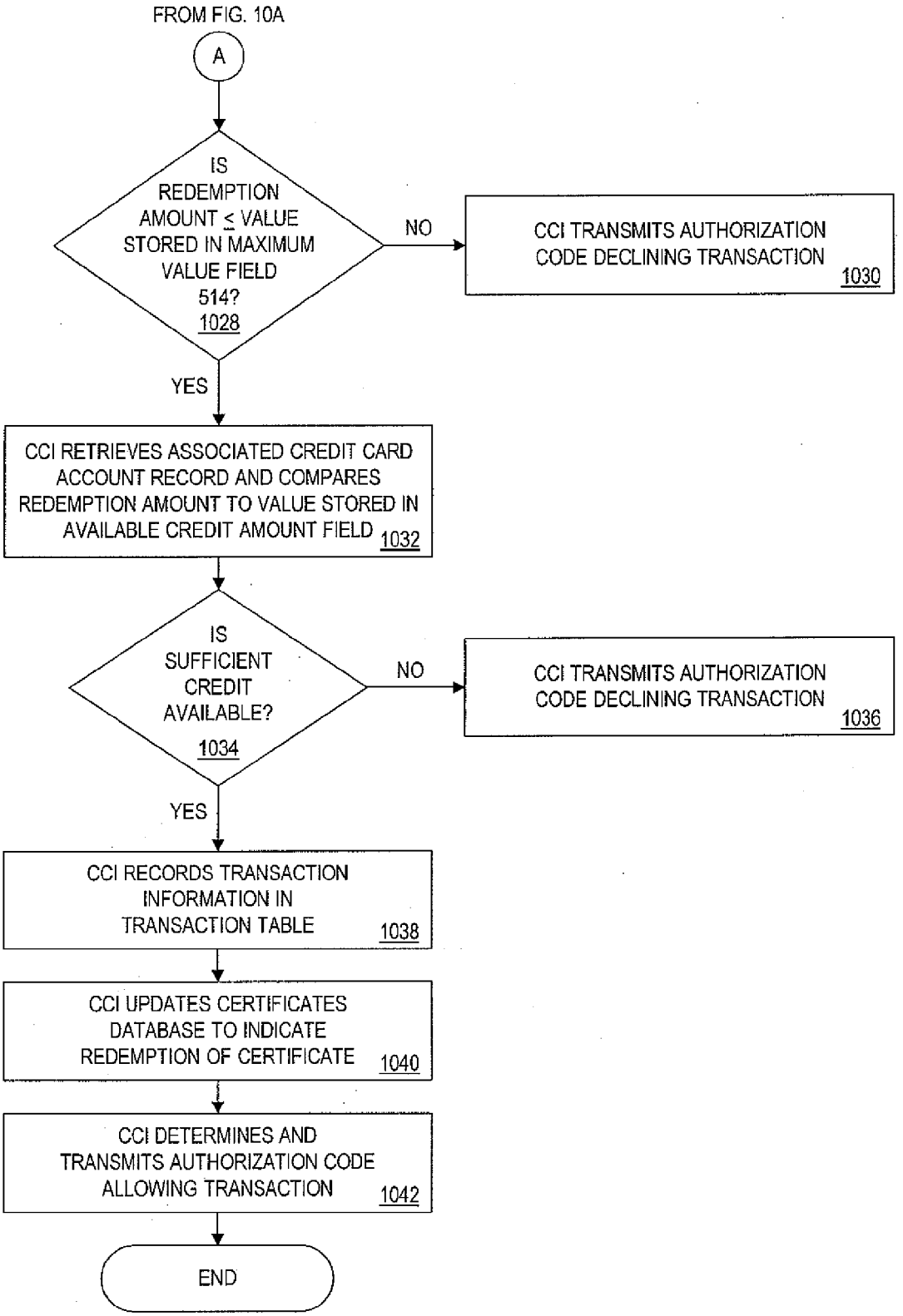

FROM FIG. 10A
A
IS REDEMPTION AMOUNT ≤ VALUE STORED IN MAXIMUM VALUE FIELD 514? 1028
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1030
YES
CCI RETRIEVES ASSOCIATED CREDIT CARD ACCOUNT RECORD AND COMPARES REDEMPTION AMOUNT TO VALUE STORED IN AVAILABLE CREDIT AMOUNT FIELD 1032
IS SUFFICIENT CREDIT AVAILABLE? 1034
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1036
YES
CCI RECORDS TRANSACTION INFORMATION IN TRANSACTION TABLE 1038
CCI UPDATES CERTIFICATES DATABASE TO INDICATE REDEMPTION OF CERTIFICATE 1040
CCI DETERMINES AND TRANSMITS AUTHORIZATION CODE ALLOWING TRANSACTION 1042
END

FIG. 10B

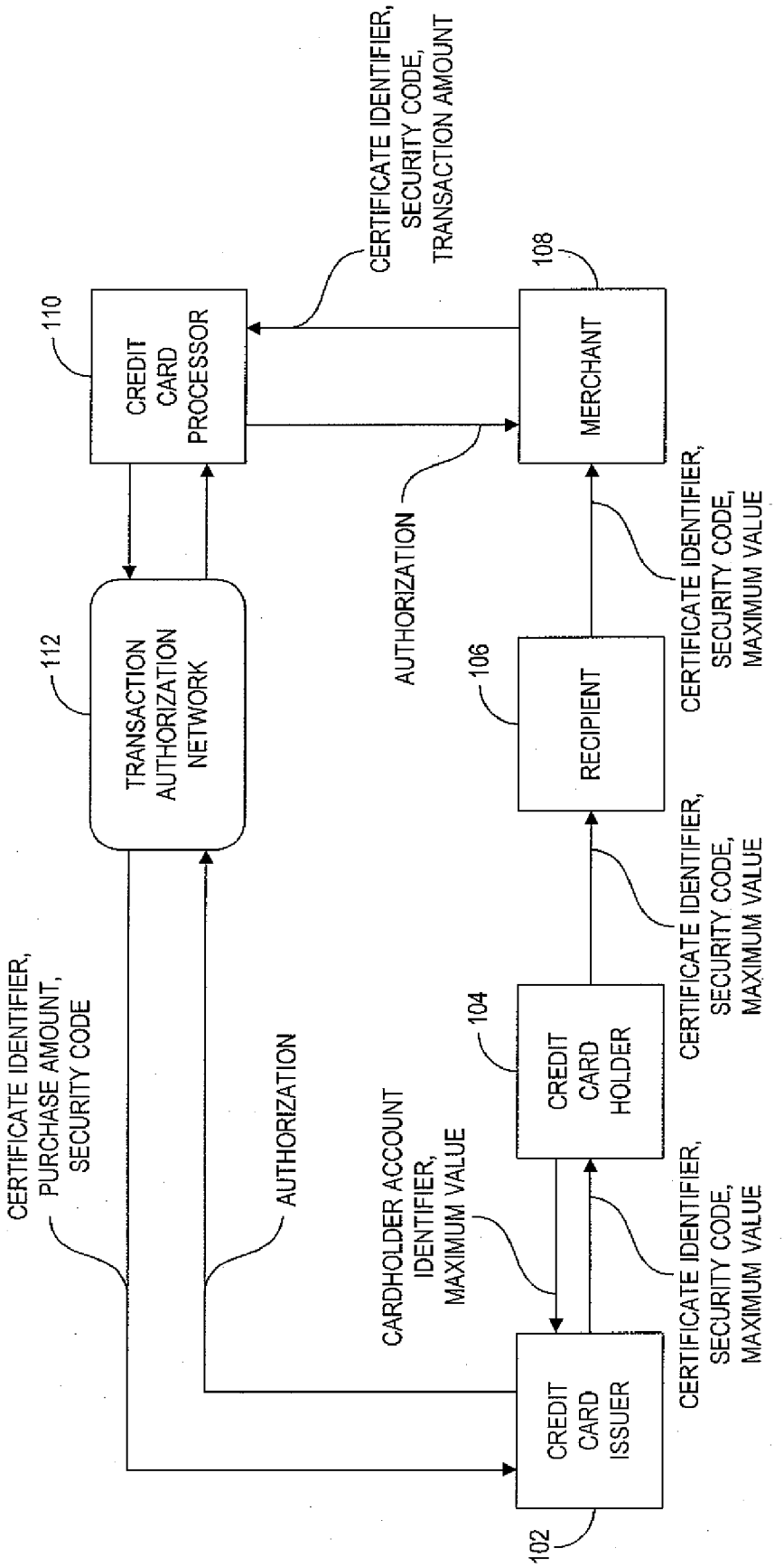

CREDIT CARD ISSUER
102
CREDIT CARD HOLDER
104
RECIPIENT
106
MERCHANT
108
CREDIT CARD PROCESSOR
110
TRANSACTION AUTHORIZATION NETWORK
112
CERTIFICATE IDENTIFIER, PURCHASE AMOUNT, SECURITY CODE
AUTHORIZATION
CARDHOLDER ACCOUNT IDENTIFIER, MAXIMUM VALUE
CERTIFICATE IDENTIFIER, SECURITY CODE, MAXIMUM VALUE
CERTIFICATE IDENTIFIER, SECURITY CODE, MAXIMUM VALUE
CERTIFICATE IDENTIFIER, SECURITY CODE, MAXIMUM VALUE
AUTHORIZATION
CERTIFICATE IDENTIFIER, SECURITY CODE, TRANSACTION AMOUNT

FIG. 11

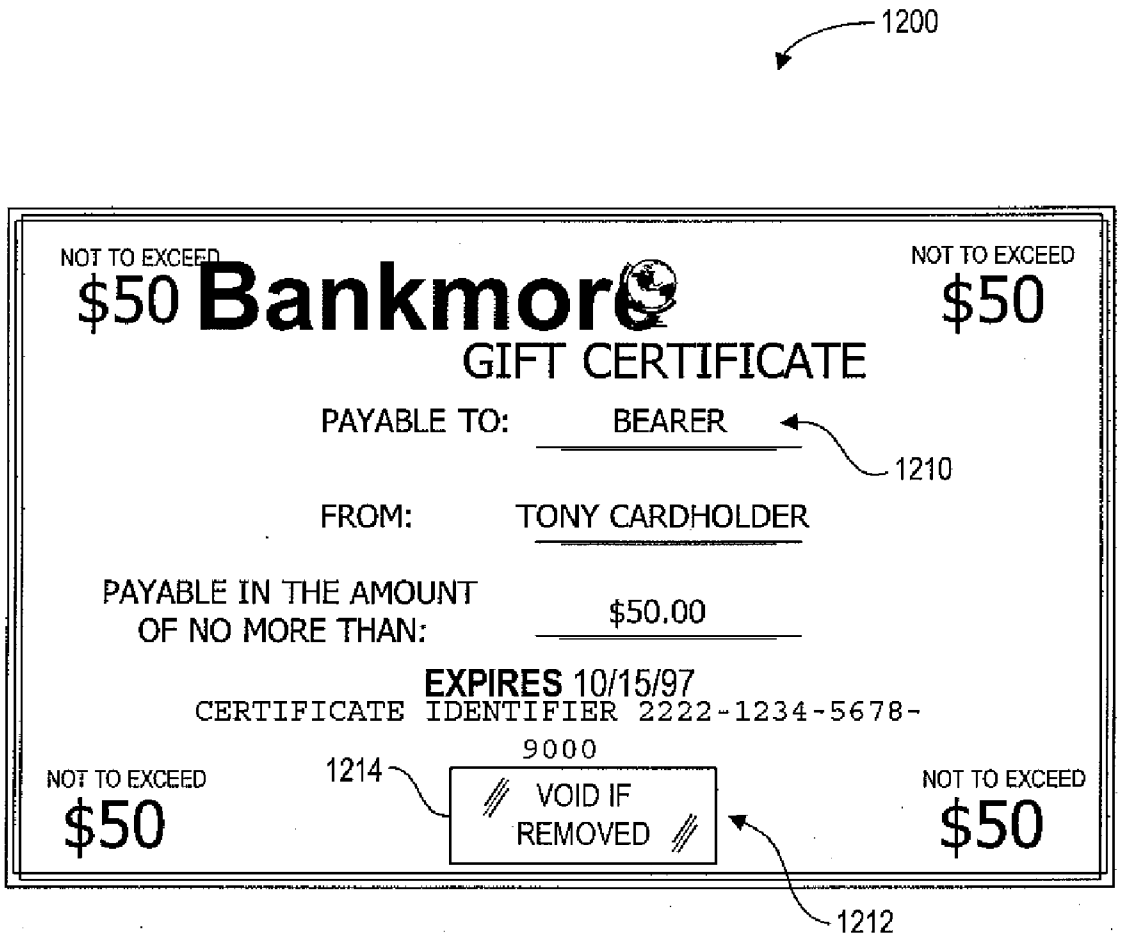

1200
NOT TO EXCEED
$50
Bankmore
NOT TO EXCEED
$50
GIFT CERTIFICATE
PAYABLE TO:
BEARER
1210
FROM:
TONY CARDHOLDER
PAYABLE IN THE AMOUNT
OF NO MORE THAN:
$50.00
EXPIRES 10/15/97
CERTIFICATE IDENTIFIER 2222-1234-5678-9000
1214
VOID IF REMOVED
NOT TO EXCEED
$50
NOT TO EXCEED
$50
1212

FIG. 12

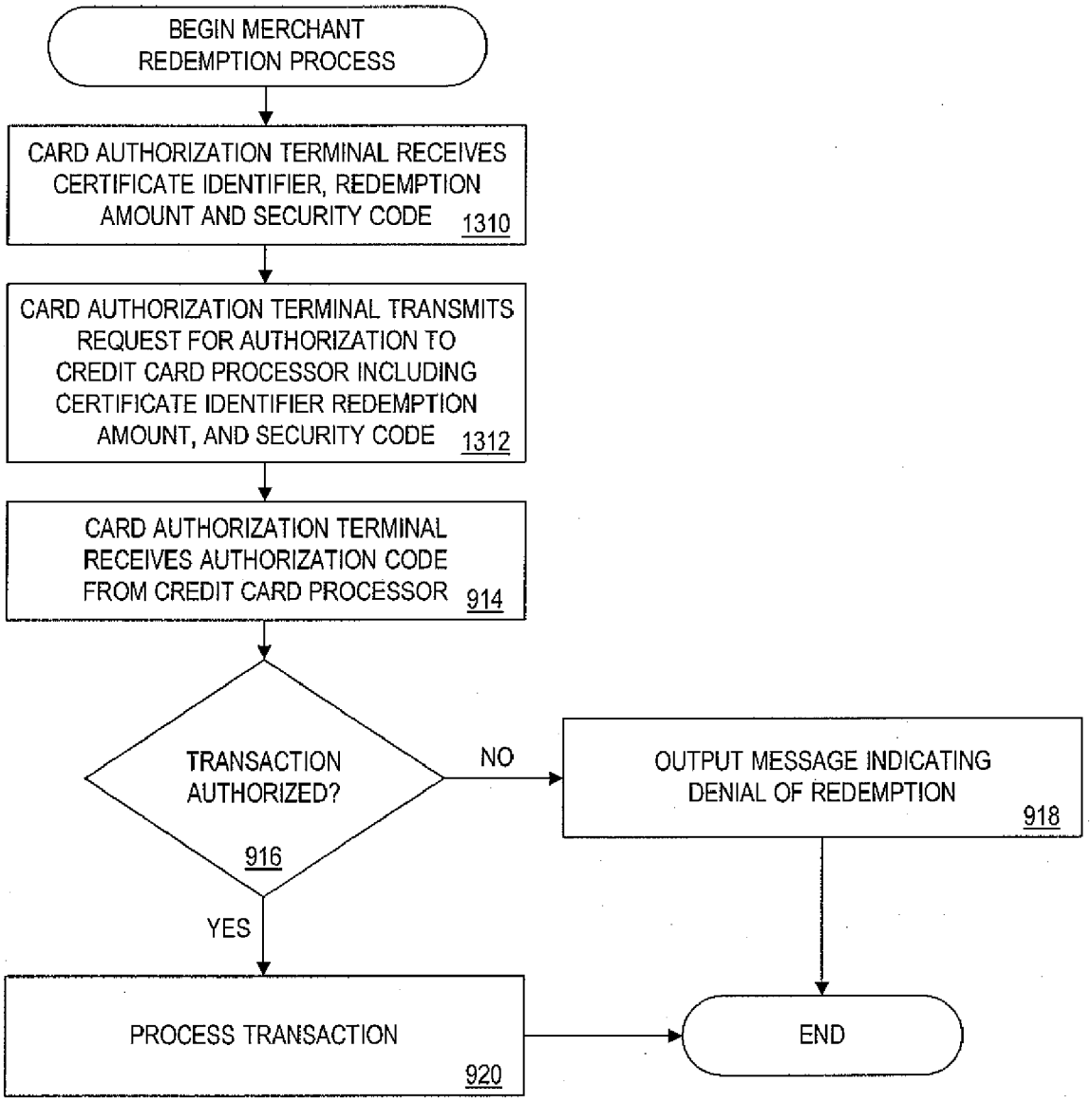

BEGIN MERCHANT REDEMPTION PROCESS
CARD AUTHORIZATION TERMINAL RECEIVES CERTIFICATE IDENTIFIER, REDEMPTION AMOUNT AND SECURITY CODE 1310
CARD AUTHORIZATION TERMINAL TRANSMITS REQUEST FOR AUTHORIZATION TO CREDIT CARD PROCESSOR INCLUDING CERTIFICATE IDENTIFIER REDEMPTION AMOUNT, AND SECURITY CODE 1312
CARD AUTHORIZATION TERMINAL RECEIVES AUTHORIZATION CODE FROM CREDIT CARD PROCESSOR 914
TRANSACTION AUTHORIZED? 916
NO
OUTPUT MESSAGE INDICATING DENIAL OF REDEMPTION 918
YES
PROCESS TRANSACTION 920
END

FIG. 13

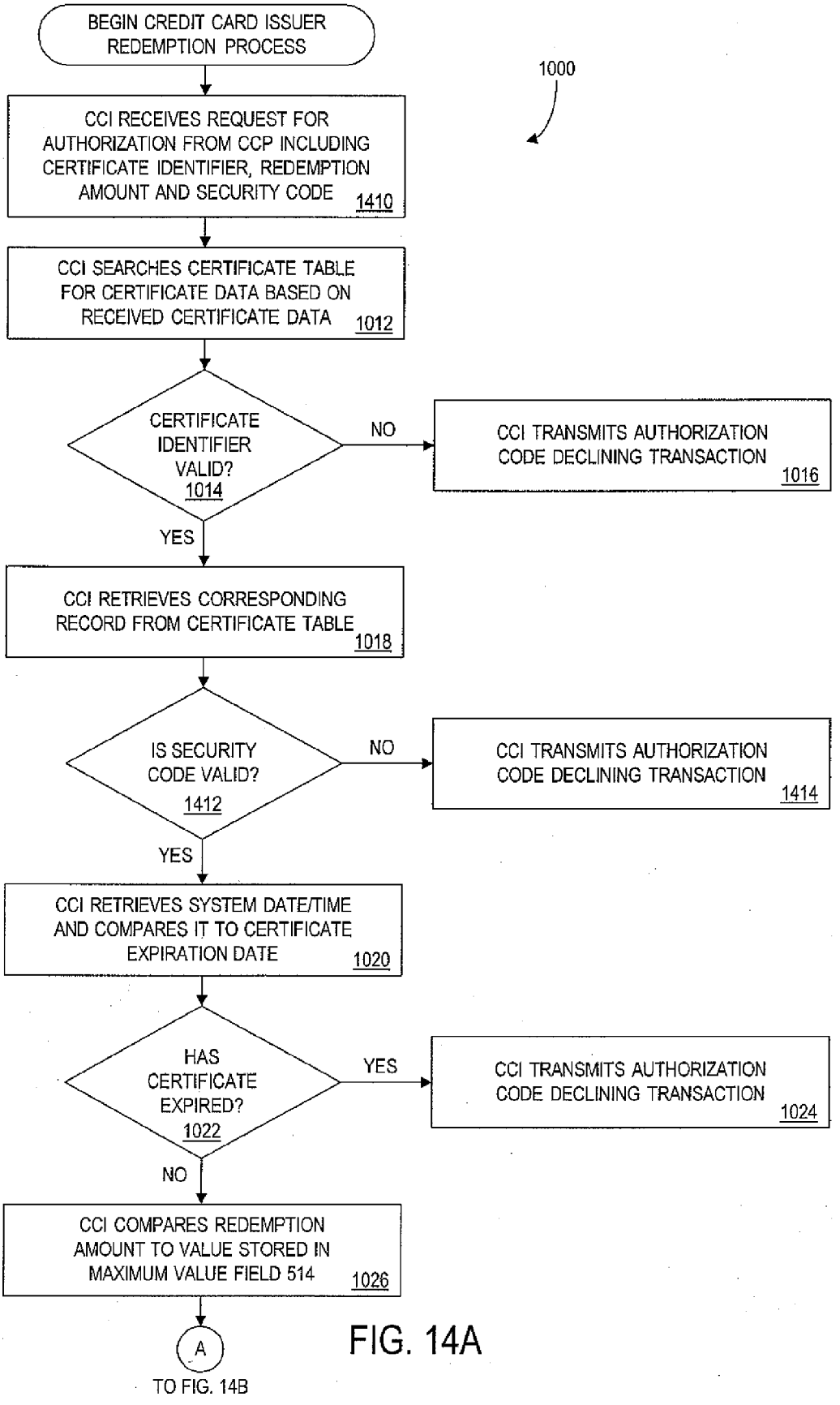

BEGIN CREDIT CARD ISSUER REDEMPTION PROCESS
1000
CCI RECEIVES REQUEST FOR AUTHORIZATION FROM CCP INCLUDING CERTIFICATE IDENTIFIER, REDEMPTION AMOUNT AND SECURITY CODE 1410
CCI SEARCHES CERTIFICATE TABLE FOR CERTIFICATE DATA BASED ON RECEIVED CERTIFICATE DATA 1012
CERTIFICATE IDENTIFIER VALID? 1014
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1016
YES
CCI RETRIEVES CORRESPONDING RECORD FROM CERTIFICATE TABLE 1018
IS SECURITY CODE VALID? 1412
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1414
YES
CCI RETRIEVES SYSTEM DATE/TIME AND COMPARES IT TO CERTIFICATE EXPIRATION DATE 1020
HAS CERTIFICATE EXPIRED? 1022
YES
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1024
NO
CCI COMPARES REDEMPTION AMOUNT TO VALUE STORED IN MAXIMUM VALUE FIELD 514 1026
A
TO FIG. 14B

FIG. 14A

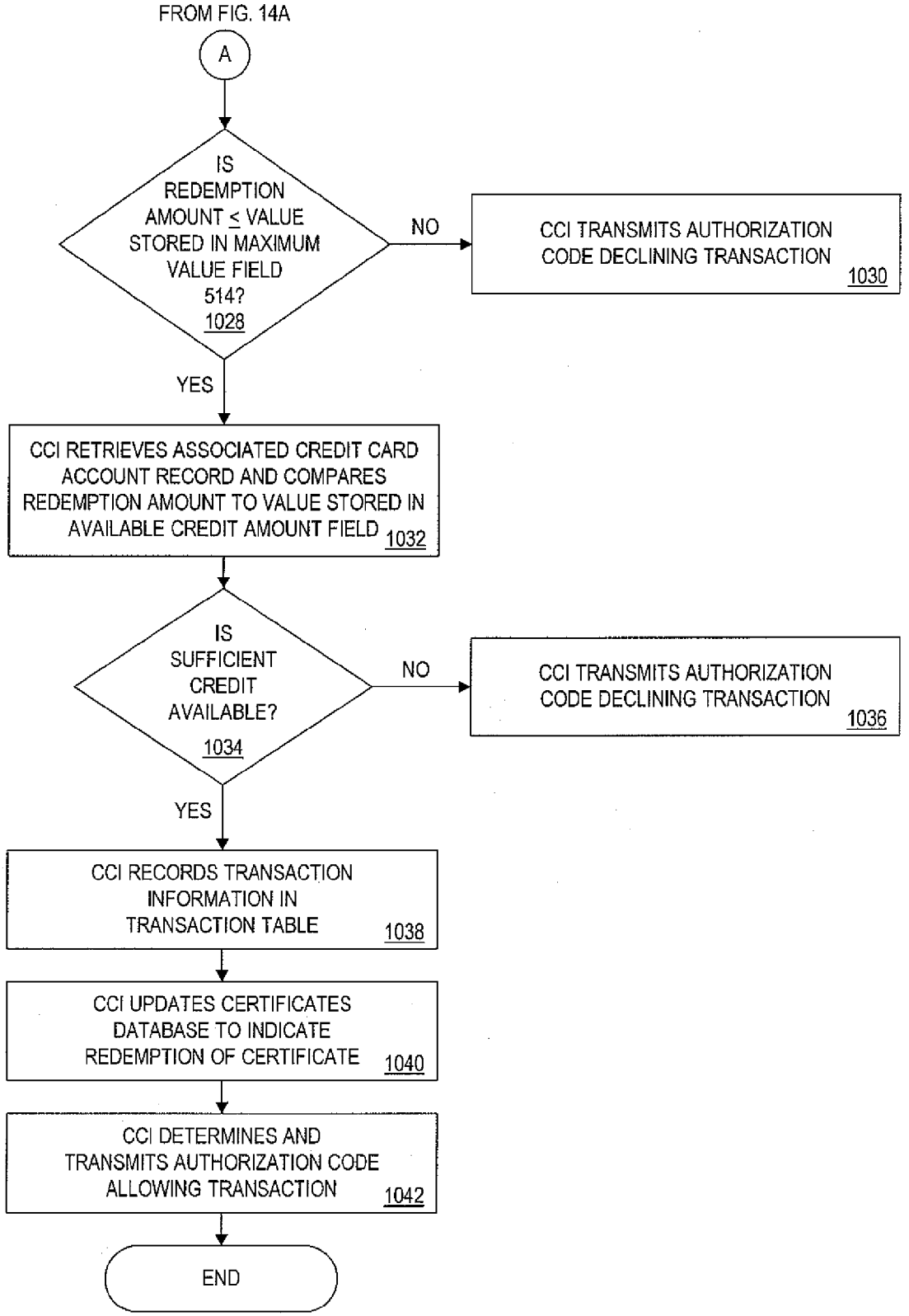

FROM FIG. 14A
A
IS REDEMPTION AMOUNT ≤ VALUE STORED IN MAXIMUM VALUE FIELD 514? 1028
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1030
YES
CCI RETRIEVES ASSOCIATED CREDIT CARD ACCOUNT RECORD AND COMPARES REDEMPTION AMOUNT TO VALUE STORED IN AVAILABLE CREDIT AMOUNT FIELD 1032
IS SUFFICIENT CREDIT AVAILABLE? 1034
NO
CCI TRANSMITS AUTHORIZATION CODE DECLINING TRANSACTION 1036
YES
CCI RECORDS TRANSACTION INFORMATION IN TRANSACTION TABLE 1038
CCI UPDATES CERTIFICATES DATABASE TO INDICATE REDEMPTION OF CERTIFICATE 1040
CCI DETERMINES AND TRANSMITS AUTHORIZATION CODE ALLOWING TRANSACTION 1042
END

FIG. 14B

METHOD AND APPARATUS FOR ISSUING AND MANAGING GIFT CERTIFICATES

CROSS-REFERENCE TO RELATED CORRESPONDING APPLICATIONS

[0001] This is a continuation-in-part of commonly owned, co-pending U.S. patent application Ser. No. 08/762,128 entitled "Postpaid Traveler's Checks" filed Dec. 9, 1996 and commonly owned, co-pending U.S. application Ser. No. 08/858,738 entitled "System and Process for Issuing and Managing Forced Redemption Vouchers having Alias Account Numbers" filed May 19, 1997, the entirety of each incorporated by reference herein.

[0002] This application is related to co-pending application (attorney title: "Dynamically Changing System for Fulfilling Concealed Value Gift Certificate Obligations," attorney docket number WD2-96-445, filed Dec. 19, 1997, inventors: Jay S. Walker, Andrew S. Van Luchene, Daniel E. Tedesco, James A. Jorasch), the entirety of which is incorporated by reference herein.

BACKGROUND OF THE INVENTION

[0003] 1. Field of the Invention

[0004] The present invention relates generally to the field of transaction processing methods and apparatus. More particularly, the present invention relates to methods and apparatus for issuing and processing gift certificates which may be issued and redeemed in conjunction with credit card accounts.

[0005] 2. Description of the Related Art

[0006] Businesses and consumers have employed a variety of transaction processing methods and apparatus to facilitate commerce while preventing fraud. In particular, credit card issuers facilitate hundreds of billions of dollars of purchases every year by allowing customers to conveniently pay for purchases utilizing their account services. For these services, the credit card issuers receive transaction fees from the merchants, as well as interest payments on all outstanding balances and annual fees from customers. In an effort to generate more revenues, many credit card issuers have developed marketing programs to encourage card holders to make more purchases with their credit cards.

[0007] In addition, the existence and use of store-type or specific-use gift certificates have proven transaction processing benefits. Typically, such gift certificates are issued by a store in pre-defined face value amounts. The consumer pays for the gift certificate in advance and then gives the certificate to a recipient who later redeems the certificate. A significant disadvantage associated with traditional gift certificates, however is that since the certificates are prepaid, the card holder pays for the certificates even if they are subsequently lost or never used. Further, there is presently no way to verify the authenticity of such gift certificates, making them prone to fraudulent duplication or alteration.

[0008] Some shopping malls offer mall-wide gift certificates which can be used at any store in a particular mall. Typically, these certificates are standard commercial checks with the mall checking account number printed thereon. Usually, any store in the mall accepts the gift certificate because it can be deposited in the same manner as a personal check. Typically, the mall takes the money from customers and places it in a checking account to "back-up" or cover the gift certificate check. These certificates, however, have the disadvantage of being easy to fraudulently duplicate.

[0009] Credit card companies have developed marketing programs that incorporate many of the features of gift certificates as described above. General Electric Company's GE Rewards Visa Credit Card program, for example, allows a credit card customer to automatically receive a five dollar rebate certificate for a specified volume of charges. The rebate certificates are automatically included in the credit card customer's monthly billing statement in the form of laser-printed vouchers. Although the rebate certificates are bearer instruments, making them easily redeemable, they may only be redeemed at the specific merchant or franchise printed on the face of the rebate certificate, reducing the redemption options of the recipient. Additionally, because there is no online verification of authenticity, the rebate certificates are vulnerable to counterfeit fraud.

[0010] To provide greater access to funds to card holders and to promote account activity, some credit card issuers offer convenience checks to their customers. These checks carry indicia directly linking the check to a customer's credit card account and can be used by the card holder as payment in the same manner as conventional personal checks. One difference between convenience checks and personal checks is that the former are treated as cash advances against a card holder's available credit line, instead of being deducted from money on deposit in a checking account. Large numbers of convenience checks are regularly mailed by banks and card issuers as way to promote additional consumer charge volume, encouraging consumers to build up credit card balances. Moreover, convenience checks are also used to encourage card holders to pay off other credit cards they might hold, thereby, effectively transferring the balance. Because there is no online authentication process, however, these checks are subject to the same fraud problems as conventional checks and gift certificates.

[0011] With losses from check fraud now exceeding ten billion dollars per year, many merchants are only willing to accept a personal check if the check is accompanied by photo identification as well as a major credit card to prevent fraud. For this reason, convenience checks are not well suited as gift items since a recipient's name cannot be pre-printed on the check. Additionally, card holders with balances near their credit line may be reluctant to make further purchases after giving out convenience checks to recipients, thereby defeating the purpose of incenting charge volume. Convenience checks returned to the issuer for clearing might result in the card holder's account exceeding the established limit if the card holder had made additional purchases.

[0012] Some credit card companies have offered other limited-use programs combining credit cards with gift certificates, such as the AMERICAN EXPRESS GIFT CHECK program and the AMERICAN EXPRESS "BE MY GUEST" program. The AMERICAN EXPRESS GIFT CHECK program allowed card holders to purchase pre-paid "gift checks" in certain specified denominations by either paying for them in cash or by charging them to their AMERICAN EXPRESS account. Once paid for and provided to a card holder, the gift check could be given to a recipient who may

redeem the gift check at a merchant. Because the gift checks are processed in the same manner as traveler's checks, the recipient can only redeem such checks wherever AMERICAN EXPRESS traveler's checks are accepted, reducing the utility of the checks. Additionally, gift checks stolen in the mail may be fraudulently redeemed.

[0013] The AMERICAN EXPRESS "BE MY GUEST" program used a variable-value gift certificate known as a "BE MY GUEST" certificate. This gift certificate entitled a recipient, for example, to a meal at a participating restaurant at a card holder's expense. The certificate is accompanied by an AMERICAN EXPRESS charge slip in which the gift amount and card holder's credit card account number are already recorded. The card holder obtains the certificate from AMERICAN EXPRESS by requesting the same, and is charged the full designated value when the certificate is used or presented to a participating restaurant. The conventional credit card clearing process provides online authentication of the certificate. Minimal fraud prevention is provided in that a user presenting falsified duplicate certificates will eventually be denied service since the card holder's credit limit will eventually be exceeded. However, although losses to restaurants are potentially capped at the credit limit of the card holder, the card holder and card issuer still may experience substantial losses. In addition, attempts to fraudulently alter the amount of the certificate may not be detected, thereby allowing for more casual fraud. There are also significant security problems associated with the use of the certificates since the recipient can see the credit card account holder's AMERICAN EXPRESS account number. The recipient or an unscrupulous third party may receive the certificate, write down the account number, use the certificate, and then use the card number for purchases made over the Internet or by telephone.

[0014] Accordingly, it would be advantageous to provide an improved method and apparatus for issuing, redeeming and authorizing gift certificates that overcomes the shortcomings associated with the related art. The present invention addresses such problems by providing an apparatus and processing approach that have not previously been proposed.

SUMMARY OF THE INVENTION

[0015] The present invention provides a method and apparatus for redeeming a gift certificate drawn on a credit card or other financial account. A first aspect of the present invention is directed toward a merchant card authorization terminal. According to this first aspect, the present invention includes the step of receiving a gift certificate for payment of an identified value. The gift certificate, which is issued by an account issuer, includes thereon a certificate identifier corresponding to an account identifier. The account identifier identifies the financial account from which funds will be drawn to support the gift certificate transaction.

[0016] The method of redeeming a gift certificate at a merchant card authorization terminal further includes the step of transmitting a request for authorization, including the certificate identifier, to a central server. The merchant card authorization terminal then receives an authorization code from the central server. The received authorization code represents an indication that redemption of the gift certificate for the identified value is authorized. The method also includes receiving a payment from the account issuer based on said identified value of the gift certificate.

[0017] A second aspect of the present invention is directed toward a credit card issuer central controller. According to the second aspect of the present invention, a method is disclosed for authorizing the redemption of a gift certificate drawn on a credit card or other financial account. The method includes the step of receiving a request to authorize redemption of a gift certificate for an identified value. The request includes a certificate identifier. The method further includes the steps of determining an account identifier based on the certificate identifier, and accessing stored account data associated with the account identifier.

[0018] According to the second aspect of the present invention, the method also includes the step of analyzing the account data to determine whether to authorize the redemption of the identified gift certificate. An authorization code is then transmitted to a remote terminal. The authorization code represents an indication that redemption of the identified gift certificate is authorized. The method still further includes the step of updating the account data to reflect redemption of the identified gift certificate for the identified value.

[0019] An apparatus is also disclosed and claimed to implement the methods of the present invention.

[0020] It is an object of the present invention to provide a method and apparatus for more securely redeeming gift certificates associated with a credit card or other financial account. Another object of the present invention is to provide a method and apparatus for issuing and redeeming gift certificates utilizing a secure alias account identifier. The above object and other objects features and advantages are readily apparent from the detailed description when taken in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] A more complete appreciation of the invention and many of the attendant advantages thereof may be readily obtained by reference to the following detailed description when considered with the accompanying drawings, wherein:

[0022] **FIG. 1** is a schematic block diagram illustrating the general information flow between parties according to a first embodiment of the present invention;

[0023] **FIG. 2** is a schematic block diagram of a credit card issuer's data processing system;

[0024] **FIG. 3** is a schematic block diagram of a credit card processor's data processing system;

[0025] **FIG. 4** is a table illustrating the record structure of the credit card account table depicted in **FIG. 2**;

[0026] **FIG. 5** is a table illustrating the record structure of the certificate table depicted in **FIG. 2**;

[0027] **FIG. 6** is a table illustrating the record structure of the transaction table depicted in **FIG. 2**;

[0028] **FIG. 7** is a table illustrating the record structure of the transaction request table depicted in **FIG. 3**;

[0029] **FIG. 8** depicts an exemplary gift certificate having a certificate identifier and additional relevant features;

[0030] **FIG. 9** is a flow chart illustrating the process steps performed by a merchant card authorization terminal during redemption of a gift certificate according to the present invention;

[0031] **FIGS. 10A-10B** is a flow chart illustrating the process steps performed by a credit card issuer central controller during redemption of a gift certificate according to the present invention;

[0032] **FIG. 11** is a schematic block diagram illustrating the general information flow between parties according to a second embodiment of the present invention;

[0033] **FIG. 12** depicts a second exemplary a gift certificate having a visually obscured security code for use with the system shown in **FIG. 11**;

[0034] **FIG. 13** is a flow chart illustrating the process steps performed by a merchant card authorization terminal during redemption of a gift certificate according to the second embodiment of the present invention; and

[0035] **FIGS. 14A-14B** is a flow chart illustrating the process steps performed by a credit card issuer central controller during redemption of a gift certificate according to the second embodiment of the present invention.

DETAILED DESCRIPTION

[0036] A first embodiment of the method and apparatus of the present invention will now be discussed with reference to **FIGS. 1-10B**. Referring to **FIG. 1**, the general information flow between parties according to a first embodiment of the present invention is depicted in schematic block diagram format.

[0037] As illustrated by system **100**, in the first embodiment of the present invention, a credit card issuer **102** produces a gift certificate associated with a credit card account. According to the present invention, a gift certificate may be any instrument or token which represents financial value, including a traditional paper certificate, a stored value card, or a magnetic stripe card having an alias account number thereon. Credit card issuer **102** may be a bank or other entity having the sub-systems necessary to issue and maintain general purpose credit/debit accounts. Credit card issuer **102** assigns a corresponding certificate identifier which may be used to identify the certificate and the associated credit card account. Accordingly, the certificate identifier is an alias identifier which provides an indirect link to the credit card account of credit card holder **104**. Preferably, the gift certificate identifier is a sixteen digit numeric value, which has not been previously assigned to an existing credit card account, so as to be compatible with conventional credit card transaction processing systems. The gift certificate, including the certificate identifier, is distributed to credit card holder **104**, the party responsible for the account.

[0038] According to the first embodiment, credit card holder **104** determines a maximum value for the certificate and transfers the certificate, including the certificate identifier and an indication of the maximum value, to recipient **106**. Recipient **106** may then present the gift certificate to pay for goods and/or services at participating merchants, such as merchant **108**. A participating merchant is one that is capable of processing credit card transactions on behalf of the credit card issuer designated on the gift certificate, such as gift certificate **820** more fully described with reference to **FIG. 8**. Upon presentation of the gift certificate, merchant **108** verifies the authenticity of the gift certificate via credit card processor **110**.

[0039] To verify the authenticity of the gift certificate, merchant **108** transmits the certificate identifier and a redemption amount to credit card processor **110**. Such transmission may be accomplished using a conventional telecommunications link and a card authorization terminal ("CAT") such as a VeriFone model OMNI® 490. Credit card processor **110**, such as First Data Corp., acting as a commercial clearing house for credit card transactions, receives the data and forwards the data to credit card issuer **102**. Credit card issuer **102** determines whether the gift certificate identifier is valid and whether the associated credit card account has sufficient available credit to honor the gift certificate. If the received data indicates that the gift certificate is not authentic or that the credit card account cannot support the redemption amount, credit card issuer **102** transmits an authorization code indicating that the transaction is declined to credit card processor **110**. Otherwise, credit card issuer **102** transmits an authorization code indicating that the transaction is approved to credit card processor **110**. In either event, credit card processor **110** forwards the authorization code to merchant **108** for completion of the transaction.

[0040] Referring now to **FIG. 2**, an exemplary credit card issuer central controller ("CCI") **200** is illustrated. CCI **200** could be any conventional programmable digital computer having sufficient processing power, data storage, and communications facilities to accomplish the data processing tasks typically required of a credit card issuer. As shown, CCI **200** generally includes a central processing unit ("CPU") **210**, a clock **212**, a random access memory ("RAM") **214**, a read only memory ("ROM") **216**, a communication port **218**, and a data storage device **220**. Communication port **218** provides a connection between CCI **200** and transaction authorization network **112** allowing communication between CCI **200** and transaction authorization network **112**.

[0041] As shown in **FIG. 2**, storage device **220** stores a database of account, certificate and transaction data, including a credit card holder account table **400**, a certificate table **500** and a transaction table **600**. Tables **400**, **500** and **600** comprise at least a portion of the database stored by storage device **220** and are described more fully with reference to **FIGS. 4-6** respectively. Storage device **220** further stores instructions for performing credit card issuer redemption process **1000**. Storage device **220** is preferably a magnetic disk drive, but could be a CD-ROM drive, optical disk drive, RAM drive or any other conventional data storage device.

[0042] Referring now to **FIG. 3**, an exemplary credit card processor central controller ("CCP") **300** is illustrated. CCP **300** could be any conventional programmable digital computer having sufficient processing power, data storage and communications facilities to accomplish the data processing tasks typically required of a credit card processor. As shown, CCP **300** generally includes a central processing unit ("CPU") **310**, a clock **312**, a random access memory ("RAM") **314**, a read only memory ("ROM") **316**, a communication port **318**, and a storage device **320**. Communication port **318** provides a connection between CCP **300** and

transaction authorization network **112**, allowing communication between CCP **300** and transaction authorization network **112**. CCP **300** also includes storage device **320** for storing a transaction request table **700** which is described more fully with reference to **FIG. 7**. Storage device **320** further stores instructions for processing credit card processor redemption process **1100**. Storage device **320** is preferably a magnetic disk drive, but could be a CD-ROM drive, optical disk drive, RAM drive, or any other conventional data storage device.

Data Tables

[**0043**] **FIG. 4** illustrates the contents of credit card holder account table **400** in tabular format. Each record of account table **400** includes, but is not limited to, seven information elements representing information pertaining to a card holder account.

[**0044**] Account identifier field **410** stores a unique account identifier. Account identifier field **410** is assigned by the credit card issuer to uniquely identify an account of a card holder. In the present embodiment, the unique account identifier will be a standard **16** digit credit card account number, although more or fewer digits may be used.

[**0045**] Card holder name element **412** stores the name of a card holder **104** who is primarily associated with the account described by the account table record. Card holder name element may be a single field, but will more likely be a combination of fields, including first name, last name, and middle initial. In the case of joint accounts, more than one name may be stored.

[**0046**] Address element **414** stores the mailing address of the card holder. Although the preferred embodiment shows only one address element, it may be useful to provide multiple address elements to accommodate a home address, a billing address and a business address. Address element **414** may be a single field, but preferably includes a combination of fields, including street, city, state, and postal code.

[**0047**] Telephone number field **416** stores the home telephone number of the card holder **104** responsible for the account. Additional telephone numbers, such as office and facsimile numbers, may also be stored in account table **400**.

[**0048**] Original credit line field **418** stores the maximum amount of credit that the credit card issuer has provided to the card holder responsible for the account. Available credit line field **420** stores the amount of unused credit available to the credit card holder responsible for the account.

[**0049**] Referring now to **FIG. 5**, there is depicted an exemplary certificate table **500** storing information pertaining to the post-paid gift certificates of the present invention. Each record of certificate table **500** defines the parameters of a certificate and provides a link to the account identifier of the credit card or other financial account from which funds will be drawn to back the gift certificate. It should be noted that the present invention is not limited to credit card accounts. The present invention will provide similar benefits and operate effectively in conjunction with other types of financial accounts, such as checking accounts and savings accounts linked to automated teller machine ("ATM") cards. Each record of certificate table **500** includes certificate identifier field **510** which stores the certificate identifier of the certificate associated with the record stored in table **400**. Each record of certificate table **500** also includes account identifier field **512** which acts as a pointer to the associated credit card account. Each certificate record further includes maximum value field **514** for storing the maximum value of the certificate. Preferably, the contents of field **514** are defined by the credit card holder **104**. In an alternate embodiment, credit card issuer **102** may define the contents of field **514**.

[**0050**] Expiration date field **516** stores the date on which the associated certificate expires; status field **518** stores a code representing the status of the associated certificate; and security code field **520** stores a security code which may be required to authorize a recipient's redemption of the associated certificate. The second embodiment of the present invention employing a security code is described more fully with reference to **FIGS. 11-14B**. In the second embodiment, the security code must be presented by the person redeeming the corresponding certificate. The security code and the expiration date are set by the credit card issuer in the present embodiment. Alternatively, however, the expiration date and the security code can be set by the credit card holder. In another variation of the second embodiment, the security code set by the credit card holder can be complemented by personal information identifying the intended recipient, such as the recipient's zip code ("06468"), as shown in field **520** of record **504**.

[**0051**] In yet another embodiment of the present invention, personalized challenge field **522** and personalized response field **524** may be employed to improve the security of gift certificates. Generally, field **522** stores a challenge which is presented to the recipient of a gift certificate at the time of redemption via the card authorization terminal to verify the identity of the person attempting to redeem the gift certificate. The contents of field **522** may be defined by either the credit card holder or the intended recipient. Similarly, the correct response to the challenge stored in field **522** is stored in field **524**. Like the challenge, the response may be defined by either the credit card holder or the intended recipient, allowing the security challenge and response to be personalized.

[**0052**] Uses remaining field **526** stores the remaining number of times the gift certificate may be used. Field **526** will be initially populated with "1" for a record corresponding to a single use gift certificate. For a multiple use gift certificate, field **526** may be populated with a code indicating the multiple use nature of the corresponding gift certificate. Value remaining field **528** stores the remaining value for which the gift certificate may be redeemed. Prior to redeeming the corresponding gift certificate, the contents of value remaining field **528** will equal the contents of maximum value field **514**. One of ordinary skill in the art will realize that variations and combinations of fields **526** and **528** may be implemented.

[**0053**] Certificate table **500** contains three records: **502**, **504** and **506**. Record **502** represents a single-use gift certificate payable up to $50.00 which was redeemed for $47.54. Record **504** represents a gift certificate of unlimited number of uses up to a total of $100.00. Record **506** represents a multiple-use gift certificate for up to $50.00. According to record **506**, the gift certificate has been redeemed at least once for a total of $47.95 leaving a remaining value of $2.05.

[0054] Referring now to **FIG. 6**, an exemplary transaction table stored by CCI **200** is illustrated in tabular format. Each record of transaction table **600** stores information pertaining to a transaction conducted utilizing a credit card account. Account/certificate identifier field **610** stores an identifier which indicates the account from which funds will be drawn to support the transaction. For records corresponding to traditional credit card transactions, such as records **604** and **606**, account/certificate identifier field **610** stores a credit card or other financial account identifier. For records corresponding to transactions supported by a redeemed gift certificate, such as records **602** and **608**, account/certificate identifier field **610** stores a certificate identifier which may be used to determine an account identifier.

[0055] Date field **612**, time field **614** and transaction amount field **620** store data describing the date, time and amount of the transaction, respectively. Reference code field **616** stores data uniquely identifying the transaction, and authorization code field **618** stores the code transmitted to the merchant representing authorization for the transaction.

[0056] **FIG. 7** depicts an exemplary transaction request table **700** stored by CCP **300**. Transaction request table **700** may be used to monitor, audit and control the transaction authorization process. Each record of transaction request table **700** represents a transaction authorization request processed by CCP **300**. Transaction authorization request table **700** includes merchant identifier field **710** that stores data identifying the merchant initiating the request to authorize a transaction. Transaction request table **700** also includes date field **712**, time field **714**, account/certificate identifier field **716** and transaction amount field **718** for storing the date, time, account/certificate identifier and transaction amount, respectively. Table **700** further includes authorization code field **720** for storing the authorization code transmitted to the merchant indicating that the transaction is authorized. If the transaction request is not authorized, the authorization code field may remain unpopulated or may be populated with data representing an unauthorized transaction.

[0057] Referring now to **FIG. 8**, there is depicted an exemplary gift certificate in accordance with the first embodiment of the present invention. Gift certificate **800** is a single-use financial instrument that may be negotiated by the bearer, as indicated by the example at reference numeral **810**. Gift certificate **800** corresponds to record **502** of certificate table **500**, and includes the name of the credit card holder **812**, a maximum value **814**, and an expiration date **816**. Gift certificate **800** expires on 10/15/97 and is redeemable for merchandise worth up to the maximum value, in this case $50.00. Alternatively, gift certificate **800** may be redeemed for $50.00 cash.

[0058] Gift certificate **800** further includes a certificate identifier **818** and the name of the credit card issuer **820**. The sixteen-digit certificate identifier **818** is, in fact, a corresponding alias account number. There is no way for a person to visually inspect gift certificate **800** to discern the account number belonging to credit card holder **812**. The person would only see the certificate identifier (alias account number) and would not have access to the entire available credit line of the credit card holder. The name of the credit card issuer **820** is provided to indicate that the gift certificate is redeemable by any merchant who accepts credit cards from the designated issuer.

[0059] Having thus described the system architecture and components of the present embodiment, the operation of the system will now be described in greater detail with reference to **FIGS. 9 and 10A-10C** with continuing reference to **FIGS. 1-8**. It is to be understood that the software instructions necessary to provide the functionality described herein are preferably stored in a storage device such as **220** or in a ROM such as **216**.

[0060] Referring now to **FIG. 9**, there is illustrated the process steps performed by a merchant when redeeming a gift certificate according to the present invention. Although the merchant may perform these steps manually, they are preferably performed with the aid of a networked card authorization terminal.

[0061] According to the redemption process, the merchant receives a gift certificate as payment for goods or services. Upon the merchant's receipt of the gift certificate, the card authorization terminal of the merchant, as shown at step **910**, reads the certificate identifier and determines the redemption amount. As previously indicated, the certificate identifier is preferably printed on the certificate for easy reading by a merchant, but the certificate identifier could easily be included on a paper certificate in machine readable form through the use of bar codes, magnetic stripes or "MICR" type face. If the certificate is embodied in a magnetic stripe card or stored value card, the certificate identifier and other information can be stored and read using the magnetic stripe or other data storage device such as RAM.

[0062] The redemption amount is determined based on the face value of the certificate and the value of the goods and/or services to be purchased. If the face value of the gift certificate is less than or equal to the value of the goods and/or services to be purchased, the redemption amount equals the face value of the gift certificate. If the face value of the gift certificate is greater than the value of the goods and/or services to be purchased, the redemption amount may be set equal to either the face value of the gift certificate or the value of the goods and/or services to be purchased, possibly depending on whether the gift certificate is a single-use gift certificate or a gift certificate which may be partially used, such as a stored value card. As shown at step **912**, the card authorization terminal then transmits a request for authorization, including the certificate identifier and the redemption amount, to CCP **300**.

[0063] At step **914**, the card authorization terminal receives an authorization code from CCP **300** indicating whether the transaction is authorized. As illustrated by decision step **916**, if the transaction is authorized, the card authorization terminal processes the gift certificate transaction at step **920**. If the received authorization signal indicates that the transaction is not authorized, the card authorization terminal denies redemption of the gift certificate according to step **918**.

[0064] Referring now to **FIGS. 10A-10C**, there are illustrated the instructions **1000**, or process steps performed by CCI **200** when authorizing a redemption of a gift certificate in accordance with the present invention. At step **1010**, CCI **200** receives a request for authorization of a gift certificate. The request for authorization originates with the merchant and is routed through CCP **300**. The request for authorization includes the certificate identifier and the redemption amount.

[0065] At step **1012**, CCI **200** searches certificate identifier field **510** of certificate table **500** for relevant certificate data based on the received certificate identifier. CCI **200** then determines if the received certificate identifier is valid, as shown by step **1014**. A received certificate identifier is valid if a record having a matching certificate identifier is found and if status field **518** of the record indicates that the certificate is "active." If CCI **200** determines that the received certificate identifier is not valid, CCI **200** transmits an authorization code declining the transaction, as shown by step **1016**. If CCI **200** determines that the received certificate identifier is valid, CCI **200** retrieves the corresponding record from certificate table **500** at step **1018**.

[0066] As shown by steps **1020-1022**, CCI **200** then retrieves the system date/time and compares it to the certificate expiration date stored in field **516** and determines whether the gift certificate bearing the certificate identifier has expired. If the gift certificate has expired, CCI **200** performs step **1024** and transmits an authorization code declining the redemption of the identified gift certificate. Otherwise, CCI **200** performs step **1026** and compares the received redemption amount to the value stored in maximum value field **514**. According to step **1028**, if the redemption amount is greater than the value stored in field **514**, CCI **200** performs step **1030** and transmits an authorization code declining the redemption of the gift certificate. If the redemption value is less than or equal to the maximum value of the gift certificate, CCI **200** retrieves the associated credit card account record from table **400** and compares the redemption value to the amount stored in available credit line field **420**.

[0067] If sufficient credit is not available, CCI **200** transmits an authorization code declining the transaction, as shown by steps **1034** and **1036**. If sufficient credit is available, CCI **200** processes step **1038** and records transaction information in transaction table **600**. CCI **200** then updates status field **518** of the relevant record of certificate table **500** to indicate redemption of the certificate and transmits an authorization code allowing the gift certificate redemption, as shown by steps **1040** and **1042**.

Security Code Embodiment

[0068] An alternate embodiment of the method and apparatus of the present invention will now be discussed with reference to **FIGS. 11-14B**. Referring to **FIG. 11**, the general information flow between parties according to the alternate embodiment of the present invention is depicted in schematic block diagram format.

[0069] System **1100** depicted in **FIG. 11** is similar to system **100** depicted in **FIG. 1**. A significant difference between systems **100** and **1100** is that in system **1100**, credit card holder **104** transmits a gift certificate request to credit card issuer **102** instead of simply receiving an unsolicited bearer certificate. The gift certificate request depicted in **FIG. 11** includes the card holder account identifier and a maximum value. Of course, the credit card holder could optionally specify the recipient, the number of times the certificate may be used, the address of the recipient, or other information defining the characteristics of the gift certificate. In response, credit card issuer **102** produces a gift certificate associated with data received from credit card holder **104**. As previously described with reference to system **100**, credit card issuer **102** assigns a corresponding certificate identifier which may be used to identify the certificate and the associated credit card account. Credit card issuer then distributes a security code and the gift certificate, including the certificate identifier, to credit card holder **104**, the party responsible for the account.

[0070] Credit card holder **104** then transfers the gift certificate, including the certificate identifier and an indication of the maximum value, to recipient **106**. In addition, credit card holder **104** transmits the security code to recipient **106**. Of course, the distribution of the gift certificate and security code could occur in other ways. For example, if credit card holder **104** provided credit card issuer with the address of the recipient, credit card issuer could distribute both the gift certificate and the security code directly to the recipient. Preferably, credit card issuer **102** would separate the gift certificate and security code and stagger the delivery of the two items to improve security.

[0071] Upon receiving both the gift certificate and the security code, recipient **106** may then present the gift certificate to pay for goods and/or services at participating merchants, such as merchant **108**. Upon presentment of the gift certificate, merchant **108** requests and receives the security code from recipient **106**. As in system **100**, merchant **108** verifies the authenticity of the gift certificate via credit card processor **110**.

[0072] To verify the authenticity of the gift certificate, merchant **108** transmits the certificate identifier, the security code received from recipient **106** and a redemption amount to credit card processor **110**. Credit card processor receives the data and forwards the data to credit card issuer **102**. Credit card issuer **102** determines whether the gift certificate identifier is valid, whether the associated credit card account has sufficient available credit to honor the gift certificate and whether the security code received from merchant **108** matches the stored security code associated with the certificate identifier. As in system **100**, credit card issuer **102** transmits an authorization code to credit card processor **110**, indicating that the transaction is declined or approved. In either event, credit card processor **110** forwards the authorization code to merchant **108** for completion of the transaction.

[0073] In addition to the previously described embodiments of the gift certificate of the present invention, the gift certificate may take the form of a card or ticket **1200** as depicted in **FIG. 12**. Card **1200** includes many of the same elements as gift certificate **800**, but further includes payee identification **1210** and verification element **1212**. Payee identification **1210** indicates the name of the person authorized to redeem the certificate, such as recipient **106**. Verification element **1212** is used to independently verify that recipient **106** is authorized to redeem certificate **1200**. Verification element includes a removable covering **1214** visually obscuring a portion of card **1200**. The scratch-off or otherwise removable covering is preferably a latex coating applied over an area of card **1200** on which the security code is printed. In this embodiment, the authenticity of the security code provided by recipient **106** could be independently verified by merchant **108**, who would remove the covering to confirm that the recipient provided the correct security code. The independent verification could be employed in place of, or in addition to, verification by credit card issuer **102**. If removable covering **1214** is removed

prior to presentation of the gift certificate, or if the bearer does not present the correct security code, the gift certificate may be voided as a security measure.

[0074] Referring now to **FIG. 13**, there is illustrated the process steps performed by a merchant, when redeeming a gift certificate according to the embodiment of the present invention employing a security code. At step **1310**, the card authorization terminal, or merchant **108** if the process is performed manually, receives a certificate identifier, redemption amount, and security code. At step **1312**, the card authorization terminal transmits a request for authorization to CCP **300**. The request for authorization includes the certificate identifier, redemption amount and security code.

[0075] At step **1314**, the card authorization terminal determines whether the authenticity of the recipient should be locally verified. This may be accomplished be receiving a signal from the card authorization terminal operator, by sensing the presence of a scratch-off area of the gift certificate or by any method known by one of ordinary skill. If the determination of decision step **1314** is positive, the authenticity of the recipient is verified locally. In the case of a gift certificate embodied as a scratch-off card, this is accomplished manually by the merchant who may scratch off the removable latex covering to reveal the security code of the certificate. In the case of a gift certificate embodied as a card with a magnetic stripe, the card authorization terminal compares the security code received from recipient **106** with a security code stored on the magnetic stripe. Steps **916** and **920** of the process are substantially the same as those described with reference to **FIG. 9**.

[0076] Referring now to **FIGS. 14A-14B**, there are illustrated the instructions **1000** or process steps performed by CCI **200** when authorizing a redemption of a gift certificate in accordance with the security code embodiment of the present invention. At step **1410**, CCI **200** receives a request for authorization of a gift certificate. The request for authorization originates with the merchant and is routed through CCP **300**. The request for authorization includes the certificate identifier, the redemption amount and the security code received from recipient **106**.

[0077] At step **1412**, CCI **200** determines whether the security code received from recipient **106** is valid. This is accomplished by comparing the received security code with the security code stored in field **520** of the relevant record from certificate table **500**. If CCI **200** determines that the received security code is not valid, CCI **200** transmits an authorization code declining the transaction, as shown by step **1414**. If CCI **200** determines that the received security code is valid, CCI **200** continues processing at step **1020**. Steps **1012-1042** are performed as described with reference to **FIG. 10**.

[0078] While the best mode for carrying out the invention has been described in detail, those familiar with the art to which the invention relates will recognize various alternative designs and embodiments for practicing the invention. These alternative embodiments are within the scope of the present invention. Accordingly, the scope of the present invention embodies the scope of the claims appended hereto.

1. A method for issuing a gift certificate corresponding to a financial account, comprising the steps of:

identifying and accessing stored account data associated with a financial account, said stored data including an account identifier;

determining a certificate identifier corresponding to said account identifier;

producing a gift certificate including thereon said certificate identifier; and

distributing said gift certificate to an owner of said financial account.

2-69. (canceled)

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