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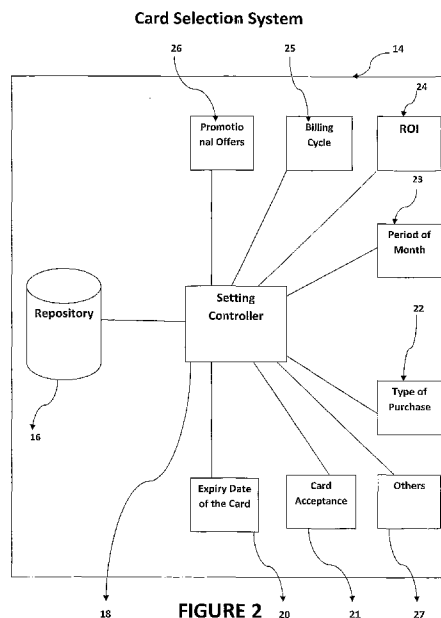(54) Title: A METHOD OF CARD SELECTION AND A SYSTEM THEREOF

FIGURE 2

(57) Abstract: The application relates to a card selection system for selecting a card account from a plurality of card accounts comprising a single card capable of representing details of a plurality of card accounts of a card owner; a settings controller capable of configuration in accordance with user preferences in selection of a card from the single card; and a repository for storing details of card owners and the associated user preferences.

The invention relates to the field of credit, debit and other account cards and devises a method and system for selecting one such card for a transaction. More specifically, the invention relates to a method and system of selecting a particular card from a plurality of cards represented by a single card.

DESCRIPTION OF RELATED ART

Credit Cards, Debit Cards, ATM Cards and other kinds of cards including smart cards are increasingly used to make purchases and are fast replacing conventional modes of payments such as currency notes and checks. Typically a person carries multiple cards on account of different facilities, features, rates and options offered by each card. With the proliferation of electronic modes of payments in recent years, even an infrequent user of cards maintains a substantial number of card accounts. It is not uncommon for a user to hold up to ten, twenty or even more cards.

A user may hold multiple credit cards as all credit cards are not always accepted by all merchants. Moreover, each card offers a different interest rate, billing cycle, payment due date and credit limit. In addition, each card has varying offers and promotional schemes linked to different vendors.

Although maintaining a plurality of cards has its advantages, it is difficult and inconvenient for a user to physically carry all cards and to fit such a large number of cards into a wallet. It is also difficult to maintain and protect these cards from theft, physical damage etc and should any of these cards be lost, stolen or misplaced it is unlikely that a user will notice the absence of that particular card till it has already been misused. It is also difficult to keep track of available credit limits, payment due dates, minimum amounts due, rates of interest, expiry dates etc for each of

these individual cards.

Further, a card issued by a financial institution is prone to security risk as it carries the name of card holder, name of the issuer, account number, and other related account information. This information can easily be read and used by hackers for fraudulent uses and purchases.

Institutions that issue cards periodically advertise promotional offers and discounts at particular vendors. However, when a user carries more than one card it becomes difficult for him to keep track of all such offers and, more importantly, to recall the offers at the time of selecting a card for a particular transaction. For example, a user having three cards say A, B and C, while booking a flight ticket may use the card C without recalling that card A is offering a 30% discount on the same ticket purchase.

There is therefore a need for a method and system that overcomes some of the limitations described above.

SUMMARY

This summary is provided to introduce simplified concepts relating to card selection for authorizing transactions. This summary is not intended to identify essential features of the claimed subject matter, nor is it intended for use in determining the scope of the claimed subject matter. The application provides for a card selection system for transactions of a card owner and provides for a single card representing details of multiple card accounts held by the card owner. The selection is based on the preferences stored in the card selection system by the single card owner. The card selection system may be instantly or periodically updated of any changes taking place within the card owner's accounts.

The application relates to a card selection system for selecting a card account from a

plurality of card accounts comprisinga single card capable of representing details of a plurality of card accounts of a card owner; a settings controller capable of configuration in accordance with user preferences in selection of a card from the single card; and a repository for storing details of card owners and the associated user preferences.

The application provides for a method of selecting a card from a plurality of cards stored on a single card comprising the steps of submitting details of the single card to a merchant card authentication system; forwarding details of the single card to a card selection system that stores details of the plurality of cards represented by the single card and the associated card selection preferences; selecting a card from the plurality of cards represented on the single card on the basis of the preferences stored in the card selection system.

The application provides for a method of selecting a card from a plurality of cards stored on a single card comprising the steps of submitting details of the single card to a merchant card authentication system; forwarding details of the single card to a card selection system that stores details of the plurality of cards represented by the single card and the associated card selection preferences; selecting a card from the plurality of cards represented by the single card on the basis of the preferences stored in the card selection system, and forwarding details of the selected card to the merchant card authentication system.

A method of selecting a card from a plurality of cards stored on a single card comprising the steps of submitting details of the single card to a merchant card authentication system; forwarding details of the single card to a card selection system that stores details of the plurality of cards represented by the single card and the associated card selection preferences; selecting a card from the plurality of cards represented by the single card on the basis of the preferences stored in the card selection system, and forwarding details of the selected card to the merchant

card authentication system, wherein the merchant card authentication system forwards details of selected card to the financial institution for authorization.

A method of selecting a card from a plurality of cards stored on a single card comprising the steps of submitting details of the single card to a merchant card authentication system; forwarding details of the single card to a card selection system that stores details of the plurality of cards represented by the single card and the associated card selection preferences; selecting a card from the plurality of cards represented by the single card on the basis of the preferences stored in the card selection system, and forwarding details of selected card to the financial institution for authorization.

BRIEF DESCRIPTION OF THE DRAWINGS

Aspects of the instant system will become apparent to those skilled in the art upon review of the following description of specific embodiments of the instant system in conjunction with the accompanying figures. The same numbers are used throughout the drawings to reference like features and components.

Figure 1 illustrates a single card representing multiple card accounts.

Figure 2 illustrates a card selection system and some parameters for selecting a card

Figure 3 illustrates an embodiment of a transaction employing the card selection system.

Figure 4 illustrates an alternate embodiment of a transaction employing the card selection system.

DETAILED DESCRIPTION OF THE DRAWINGS

The card selection system will now be described in detail with reference to the drawings, which are provided as illustrative examples of the instant system so as to enable those skilled in

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the art to practice the card selection system. Notably, the figures and examples below are not

meant to limit the card selection system. Where certain elements of the instant system can be

partially or fully implemented using known components, those portions of such known

components will be omitted so as not to obscure the instant system. Further, the present system

encompasses present and future known equivalents to the known components referred to herein

by way of illustration.

In accordance with a first aspect of the invention, a single card 10 capable of representing a

plurality of cards 12 is provided, as illustrated by Figure 1. The single card 10 is capable of

representing or storing details of multiple card accounts 12 held by a card owner. The single card

may be issued by an independent third party or any of the card issuing institutions. In accordance

with an embodiment the single card is issued by a third party and a user has the option of adding

details of multiple cards on to the single card by accessing the card selection system. The single

card has its own unique number series or identification such that on using the single card for a

transaction the authorization request is automatically directed to the card selection system as

provided by this application. It is however possible that an existing card be designated as a single

card and details of other card accounts be added to the representative single card.

The provision of a single third party card effectively reduces the security risk in card

transactions as the third party card does not carry user sensitive account information.

Figure 2 illustrates an embodiment of the card selection system 14 including some

representative parameters for selecting an appropriate card for authorizing a transaction at a

merchant card authentication system. The card selection system comprises of a repository 16 that

stores information in respect of the card owner, the single card and the associated preferences.

The card selection system also comprises of a settings controller 18 that allows the user or card

owner to configure preferences for selection of a card from a plurality of cards. The selection can be based on a wide variety of criteria including those illustrated as 20 to 27 namely promotional offers, billing cycles, rates of interest, period of the month, type of purchase being made, expiry date of the card, card acceptance and other parameters.

The selection based on promotional offers relates to the latest offers provided by a financial institution offering the selected card account with respect to the purchase made by the user. The system selects the appropriate card account for authorizing a transaction initiated by the card owner.

The selection based on the billing cycle relates to selecting a card account with respect to the maximum credit period available from the date of purchase.

The selection based on the rate of interest relates to the rate of interest being charged by the financial institution which has issued the card account to the card owner. If a card owner makes a purchase and wants to carry forward the amount to the next billing cycle, then the selection is based upon the card account offering the minimal rate of interest.

The selection based on type of purchase relates to the item, goods, objects or services being purchased by the card owner. To exemplify, if the card owner is purchasing an airline ticket, then Card A may be used. If the card owner is purchasing grocery or paying utility bills then Card B and Card C may be used respectively.

The selection based on card acceptance relates to specific type of cards being accepted by merchant outlets. For example one merchant may accept a VISA enabled card account and not any other transaction standard or protocol such as MASTERCARD, CIRRUS etc. Whereas there may be other merchant outlets accepting MASTERCARD enabled card accounts and not any other transaction standard or protocol.

The selection of an appropriate card for authorizing a transaction may be determined either on the basis of a combination of any of the parameters described above or a single parameter. In the event multiple parameters are to be employed in the selection of a card a hierarchy may be assigned to the parameters selected. Alternatively, the card selection system may have a pre-configured hierarchy.

The card selection system also allows a user to configure the card selection system using the settings controller as per the user's preferences for card selection. A user may assign a hierarchy to the parameters selected or set the system to automatically configure itself considering selected or all parameters. A user may also assign weightage for different parameters selected for card selection.

Figure 3 illustrates an embodiment of a transaction employing the card selection system. The card owner in order to authorize a transaction such as purchase of goods, services, objects or items presents the single card 10 to a merchant. The merchant or service provider using a merchant card authentication system such as a Point of Sale terminal (POS) 32 swipes the card for authorization. The card details are routed for verification to the card selection system 14. On positive verification of the card at the repository, the system checks for the card owner's profile and the preferences of the card owner for selecting an appropriate card account for authorizing a transaction. Based on these preferences an appropriate card account is selected, the details of which are verified by a financial institution 30 or a payment gateway or payment processor. A debit is initiated on the selected card account and the account details are accordingly updated and stored in the financial institution's servers. The acknowledgement towards the debit of the appropriate card account and the completion of the transaction is forwarded to the merchant's POS by the financial institution 30 thereby acknowledging the completion of the transaction. On

the selection of a card by the card selection system for authorizing a transaction, the card selection system may either forward the authorization request to the financial institution, payment gateway or payment processor for the selected card account or may send the details of the selected card to the merchant card authentication system. The merchant card authentication system may then proceed with the authorization request as a regular transaction by forwarding the details of the selected card to the appropriate payment gateway, payment processor or financial institution.

Figure 4 illustrates an alternate embodiment of a transaction employing the card selection system 14. The card owner in order to authorize a transaction such as purchase of goods, services, objects or items presents the single card 10 to a merchant. The merchant or service provider using a merchant card authentication system such as a Point of Sale terminal (POS) 32 swipes the card for authorization. The card details are routed for verification to the card selection system 14. On positive verification of the card at the repository, the card selection system checks for the card owner's profile and the preferences of the card owner for selecting an appropriate card account for authorizing a transaction. Based on these preferences an appropriate card account is selected, the details of which are verified by a financial institution 30. The card selection system forwards details of the selected card to the appropriate payment gateway, payment processor or financial institution. The financial institution on authorizing or declining the transaction sends the authorization or card decline decision back to the card selection system which in turn forwards the same to the merchant card authentication system. This ensures the card selection system stays updated of the status of a users card accounts.

Other than these arrangements there may be other arrangements possible comprising of the card selection system. The method of using the single card and the card selection system need

not be restricted only to the above-mentioned two arrangements as explained.

The card selection system may be periodically or automatically updated of any changes in details of the card owner including increase in credit limit, cancellation of card etc by the financial institution or the card issuing institution. The financial institution or card issuing institution may also directly update the card selection system of promotional offers or deals and based on the user configured settings for his card, these offers may automatically be considered as parameters in card selection.

It is also to be noted that though the card selection system has been described using some commonly used parameters for card selection, the card selection system as provided by this document is capable of being configured to select a card on the basis of any parameter and its corresponding hierarchy. Furthermore, though the above description describes the principles of the card selection system using a point of sale terminal as an example, the card selection system is equally applicable for net based transactions. Moreover, though the description above refers to a financial institution, the term financial institution includes any card issuing institution and the accompanying payment gateways or payment processors.

I Claim

1. A card selection system for selecting a card account from a plurality of card accounts comprising:

    a single card capable of representing details of a plurality of card accounts of a card owner;

    a settings controller capable of configuration in accordance with user preferences in selection of a card from the single card; and

    a repository for storing details of card owners and the associated user preferences.

2. A card selection system as claimed in claim 1 wherein the settings controller is capable of manual configuration by a card owner.

3. A card selection system as claimed in claim 1 wherein the settings controller is capable of automatic configuration on instructions of a card owner.

4. A card selection system as claimed in claim 1 wherein the details of the plurality of card accounts on the single card is encrypted.

5. A card selection system as claimed in claim 1 wherein user preferences in selection of a card include parameters such as billing cycle, promotional offers, period of month, type of purchase, rate of interest, expiry date of the card and card acceptance.

6.   A card selection system as claimed in any preceding claim wherein a hierarchy is assigned

      to the parameters selected for card selection.

7.   A card selection system as claimed in claim 1 wherein the said system is automatically

      updated of any changes in details of card owners.

8.   A card selection system as claimed in claim 1 wherein the repository is capable of adding

      or removing of card accounts from the single card.

9.   A method of selecting a card from a plurality of cards stored on a single card comprising

      the steps of:

            submitting details of the single card to a merchant card authentication system;

            forwarding details of the single card to a card selection system that stores details

      of the plurality of cards represented by the single card and the associated card selection

      preferences;

            selecting a card from the plurality of cards represented on the single card on the

      basis of the preferences stored in the card selection system.

10.   A method of selecting a card from a plurality of cards stored on a single card comprising

      the steps of:

            submitting details of the single card to a merchant card authentication system;

            forwarding details of the single card to a card selection system that stores details

      of the plurality of cards represented by the single card and the associated card selection

preferences;

      selecting a card from the plurality of cards represented by the single card on the basis of the preferences stored in the card selection system, and

      forwarding details of the selected card to the merchant card authentication system.

11.   A method of selecting a card from a plurality of cards stored on a single card comprising the steps of:

      submitting details of the single card to a merchant card authentication system;

      forwarding details of the single card to a card selection system that stores details of the plurality of cards represented by the single card and the associated card selection preferences;

      selecting a card from the plurality of cards represented by the single card on the basis of the preferences stored in the card selection system, and

      forwarding details of the selected card to the merchant card authentication system,

      wherein the merchant card authentication system forwards details of selected card to the financial institution for authorization.

12.   A method of selecting a card from a plurality of cards stored on a single card comprising the steps of:

      submitting details of the single card to a merchant card authentication system;

      forwarding details of the single card to a card selection system that stores details of the plurality of cards represented by the single card and the associated card selection preferences;

selecting a card from the plurality of cards represented by the single card on the

basis of the preferences stored in the card selection system, and

forwarding details of selected card to the financial institution for authorization.

13.   A card selection system substantially as herein described and as illustrated by the

accompanying drawings.

14.   A method of selecting a card substantially as herein described and as illustrated by the
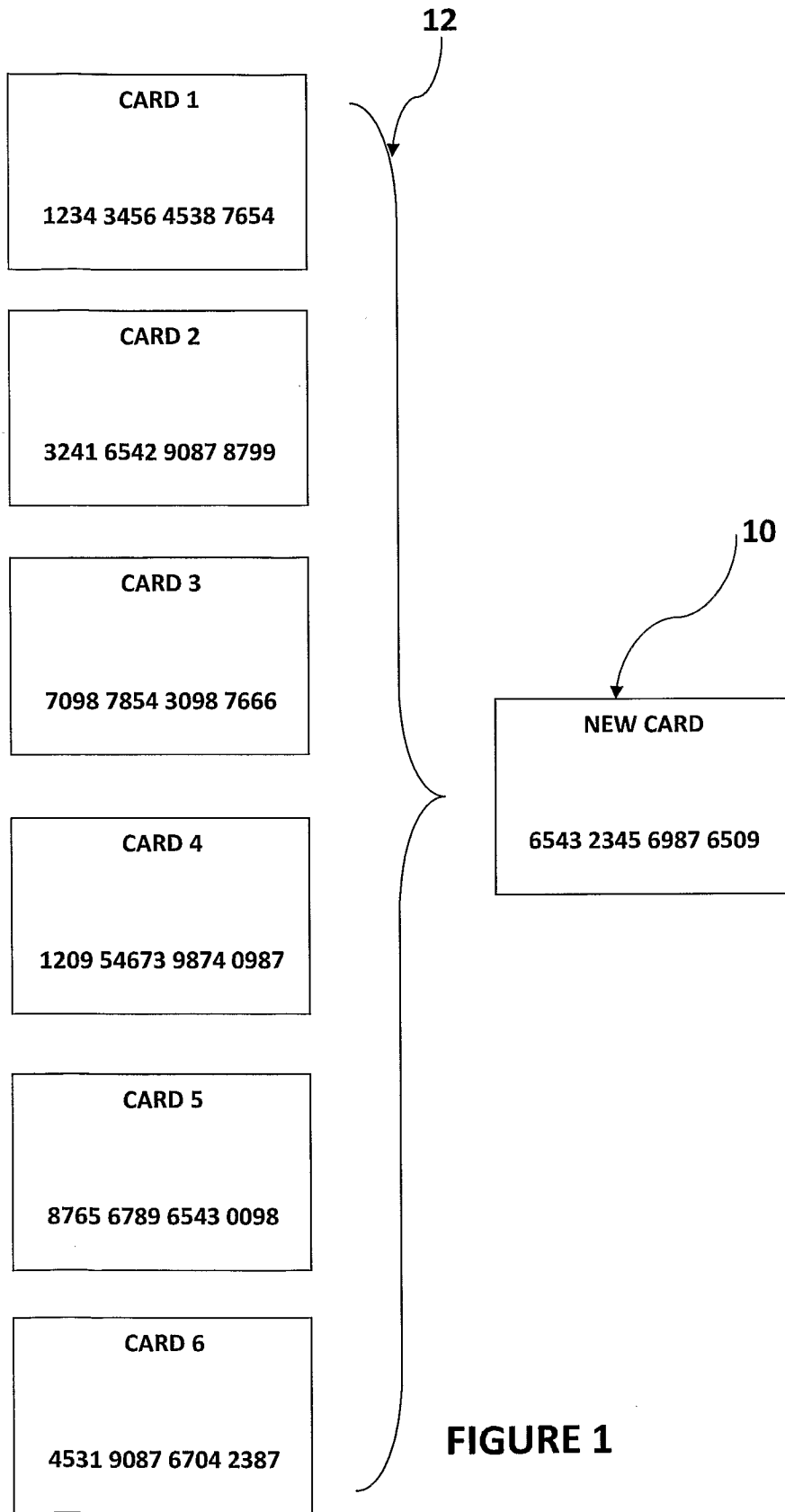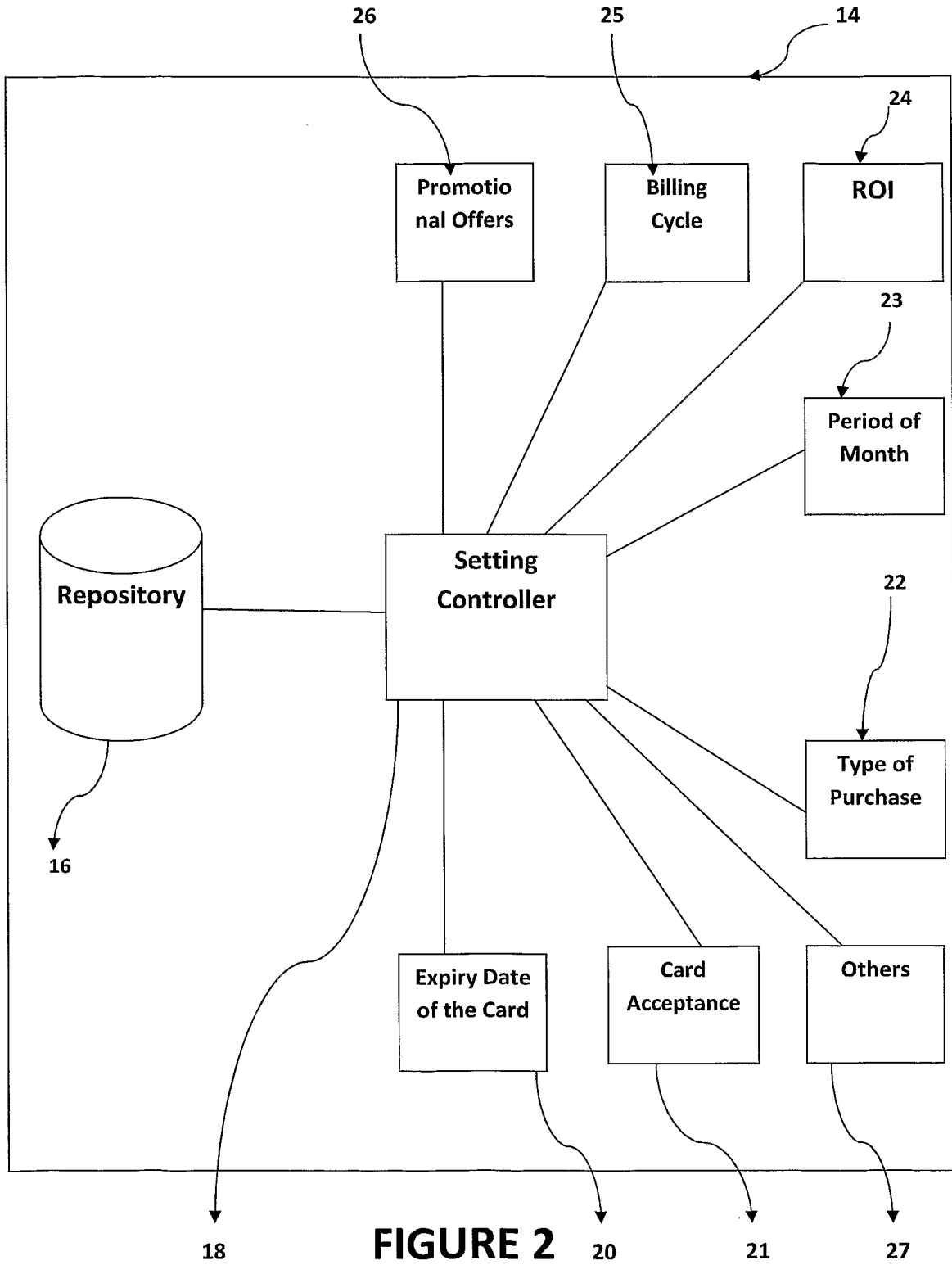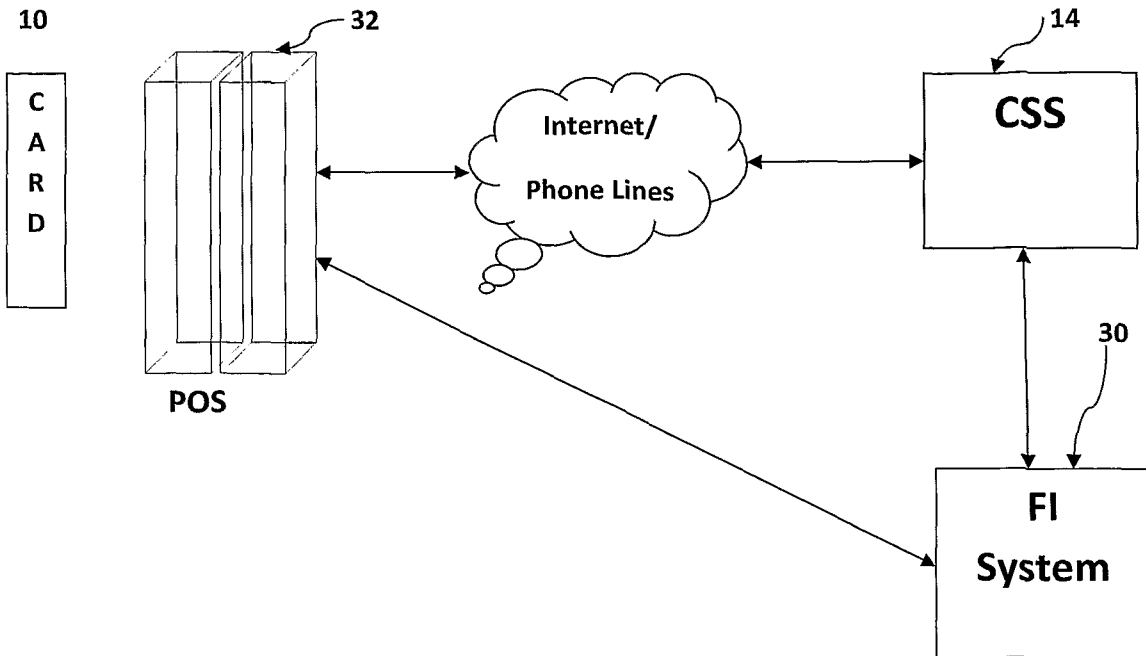
accompanying drawings.

12

CARD 1
1234 3456 4538 7654

CARD 2
3241 6542 9087 8799

CARD 3
7098 7854 3098 7666

CARD 4
1209 54673 9874 0987

CARD 5
8765 6789 6543 0098

CARD 6
4531 9087 6704 2387

10

NEW CARD
6543 2345 6987 6509

FIGURE 1

Card Selection System
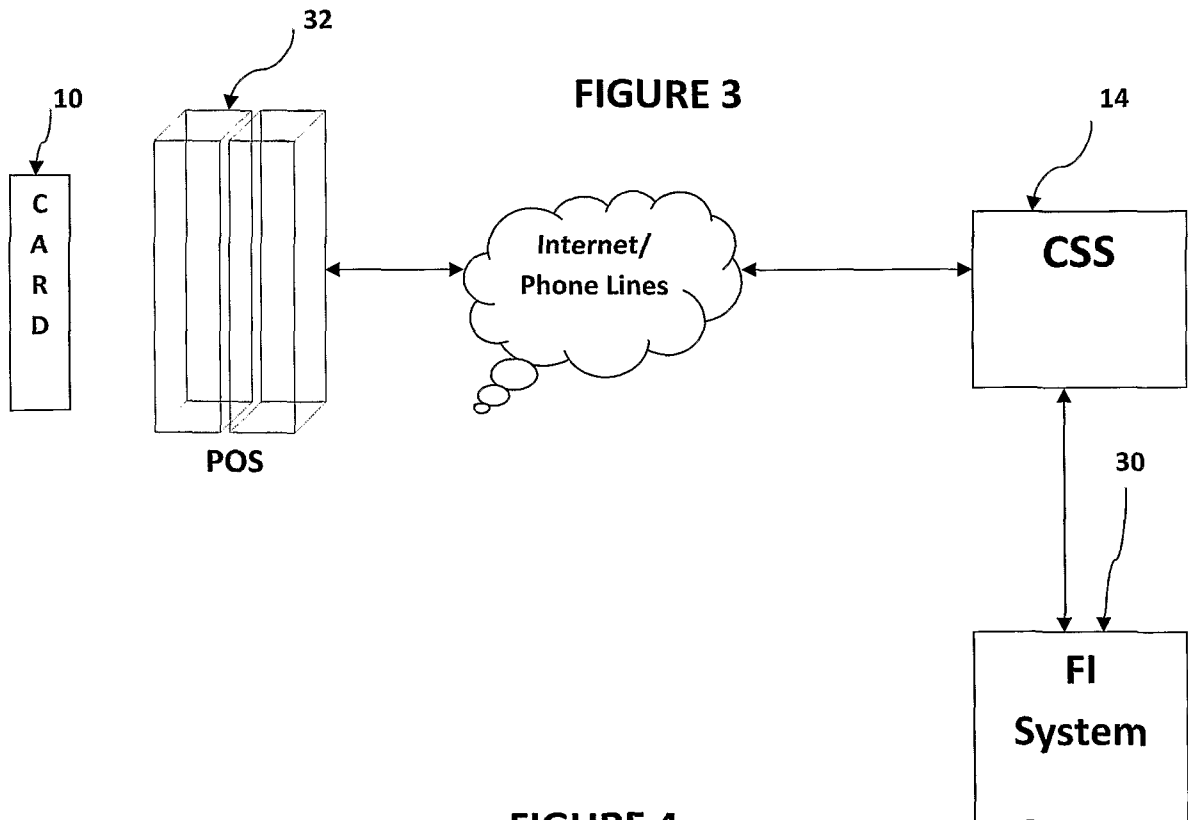
FIGURE 2

FIGURE 3

FIGURE 4

INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
INV. G07F7/02   G06Q20/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
G07F G06Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 2005/273431 A1 (ABEL LUTHER C [US] ET AL) 8 December 2005 (2005-12-08) abstract paragraphs [0035], [0038] – [0040], [0044] – [0046], [0057] – [0059] figures	1-14
X	US 2005/137949 A1 (RITTMAN DANNY [US] ET AL) 23 June 2005 (2005-06-23) abstract paragraphs [0008], [0009] figures	1-14
	-/--	

[X] Further documents are listed in the continuation of Box C.	[X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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"P" document published prior to the international filing date but later than the priority date claimed

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
26 November 2008	04/12/2008

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31–70) 340–2040, Fax: (+31–70) 340–3016	Authorized officer Breugelmans, Jan

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 03/010701 A (FIRST USA BANK N A [US]) 6 February 2003 (2003-02-06) abstract paragraphs [0008], [0015] - [0017], [0020] - [0023], [0025] - [0028], [0031] - [0033] figures	1-14
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A	US 5 530 232 A (TAYLOR DOUGLAS C [US]) 25 June 1996 (1996-06-25) abstract column 3, lines 1-3 column 4, line 14 - column 5, line 11 column 5, lines 55-63 figures	1-14
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INTERNATIONAL SEARCH REPORT

Information on patent family members

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