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Title

Payment Network

Technical Field

The invention concerns a payment network for settling loyalty points in a loyalty programme between a plurality of issuing merchants and redemption merchants.

Background of the Invention

In most existing loyalty card programmes, loyalty cards are presented as a single card with a single points issuer and single redemption agent. In recent loyalty card programmes, more redemption merchants are tied into the programme, but the number of redemption merchants are limited to those acquired by the programme operator. For example, in major alliances such as airlines or hotel groups, a group of points issuers issue points to cardholder of an alliance card.

In traditional programmes, a credit cardholder accrues loyalty points when a charge is made to their credit card at a participating redemption merchant acquired by the credit card issuing company. The loyalty programme is tightly coupled with the credit card issuer. Over time, the cardholder accumulates sufficient points to redeem certain products from participating redemption merchants. The cardholder may choose from a catalog of redeemable products, or visit a specific redemption merchant to redeem their points against the value of the products they purchase.

Summary of the Invention

In a first preferred aspect, there is provided a payment method for purchasing a product from a redemption merchant in a loyalty programme, the method comprising:

reading a device of an account holder to determine whether a redeemable amount of loyalty points for redeeming the product has been acquired in a points account of the account holder, the loyalty points of the account holder being acquired through purchases made at issuing merchants in the loyalty programme;

wherein if a redeemable amount of loyalty points has been acquired in the points account of the account holder, transferring said loyalty points from the points account of the account holder to the points account of the redemption merchant,

and at the end of a predetermined settlement period, settling the points account of the redemption merchant by transferring an amount of funds corresponding to said loyalty points from a fund pool of the loyalty programme to a monetary account of the redemption merchant.

The redeemable amount of loyalty points may be determined by computing the monetary value of the loyalty points in the points account and comparing this to the value of the product. This computation may occur before the loyalty points from the points account of the account holder are transferred to the points account of the redemption merchant.

The device of an account holder may be a card object such as a magnetic stripe card, chip-based card or Radio Frequency Identification (RFID) card. The device of an account holder may be a mobile phone. The mobile phone may be read by a reading device of the redemption merchant via Bluetooth.

A merchant discount rate or merchant fee may be subtracted from the amount of funds transferred.

The account holder identification information may be transmitted to an accounts database to retrieve the balance of the points account of the account holder.

The fund pool may be a centralised or individual points issuer bank account. The monetary account of the redemption merchant may be a bank account.

The predetermined settlement period may be one day or until a redemption is made.

The product may include goods or services.

The redemption merchant may be one of a plurality of redemption merchants. The redemption merchant may also be an issuing merchant.

In a second aspect, there is provided a payment network for settling loyalty points in a loyalty programme between a plurality of issuing merchants and redemption merchants, the network comprising:

reading devices provided to the issuing merchants and redemption merchants to read devices of account holders in the loyalty programme and obtain account holder identification information for identifying points accounts of the account holders;

a fund pool to receive inward funds from monetary accounts of the issuing merchants, the inward funds corresponding to the amount of loyalty points issued by the issuing merchants, and to disburse outward funds to monetary accounts of the redemption merchants, the outward funds corresponding to the amount of loyalty points received by the redemption merchants after redemption by the account holders; and

a settlement system to settle points accounts of the redemption merchants by transferring an amount of funds corresponding to redeemed loyalty points from the fund pool to the monetary accounts of the redemption merchants, and to settle points accounts of the issuing merchants by receiving an amount of funds corresponding to issued loyalty points from the monetary accounts of the issuing merchants to the fund pool.

In a third aspect, there is provided a method for issuing loyalty points to reward purchases made by an account holder at an issuing merchant in a loyalty programme, the method comprising:

reading a device of the account holder to obtain account holder identification information for identifying a points account of the account holder; and

transferring an amount of loyalty points from a points account of the issuing merchant to the points account of the account holder, the amount of loyalty points corresponding to the value of purchases made by the account holder at the issuing merchant and the loyalty points acquired by the account holder being redeemable for products at redemption merchants in the loyalty programme;

wherein at the end of a predetermined settlement period, transferring an amount of funds corresponding to said loyalty points from a monetary account of the issuing merchant to a fund pool of the loyalty programme.

The issuing merchant may transfer funds to the fund pool when the account holder redeems an amount of loyalty points corresponding to the value of the transferred funds.

In a fourth aspect, there is provided a method for issuing loyalty points to reward purchases made by an account holder at an issuing merchant in a loyalty programme, the method comprising:

reading a device of the account holder to obtain account holder identification information for identifying a points account of the account holder;

determining if the account holder is known to the issuing merchant;

wherein if the account holder is unknown to the issuing merchant, the issuing merchant stores the account holder identification information and transfers an amount of loyalty points from a points account of the issuing merchant to the points account of the account holder, the amount of loyalty points corresponding to the value of purchases made by the account holder at the issuing merchant and the loyalty points acquired by the account holder being redeemable for products at redemption merchants in the loyalty programme.

Brief Description of the Drawings

An example of the invention will now be described with reference to the accompanying drawings, in which:

Figure 1 is a transactional flow diagram of the payment network;

Figure 2 is a transactional flow diagram of the issuance process;

Figure 3 is a transactional flow diagram of the redemption process;

Figure 4 is a interactivity diagram of a primary and secondary points issuer and account holders;

Figure 5 is a interactivity diagram of a points issuer and primary and secondary account holders;

Figure 6 is a process flow diagram of points issuance;

Figure 7 is a process flow diagram of points redemption;

Figure 8 is a process flow diagram of settlement for issuing merchants; and

Figure 9 is a process flow diagram of settlement for redemption merchants.

Detailed Description of the Drawings

Referring to Figure 1, a payment network 10 for settling loyalty points in a loyalty programme is described. The loyalty programme involves the interaction between a plurality of issuing merchants 11 and redemption merchants 12 and account holders 13. The network 10 comprises: devices (not shown) of redemption and issuing merchants such as card reading devices for obtaining account holder

information from account holders 13, a fund pool 20 and a settlement system 30. The card reading devices are provided to the issuing merchants 11 and redemption merchants 12 to read the devices of account holders 13 in the loyalty programme. One such device is an Access Card. Other devices may be a mobile phone. The Access Card is a magnetic stripe card similar in appearance to existing credit cards. In other examples, the Access Card may be a chip-based card such as a smart card. The card reading devices obtain account holder identification information which are able to identify the points accounts of the account holders 13. The account holder identification information is obtained by communicating with an accounts database (not shown) which stores all account holder's 13 account information.

The fund pool 20 receives inward funds from monetary accounts of the issuing merchants 11. Typically, these monetary accounts are the bank accounts of the issuing merchants 11. The inward funds corresponding to the amount of loyalty points issued by the issuing merchants 11. The fund pool 20 also disburses outward funds to the monetary accounts of the redemption merchants 12. The outward funds corresponding to the amount of loyalty points received by the redemption merchants 12 after redemption by the account holders 13. The settlement system 30 settles the points accounts of the redemption merchants 12 by transferring an amount of funds corresponding to redeemed loyalty points from the fund pool to the monetary accounts of the redemption merchants 12. The settlement system 30 also settle points accounts of the issuing merchants 11 by receiving an amount of funds corresponding to issued loyalty points from the monetary accounts of the issuing merchants 11 to the fund pool 20.

The payment network 10 is settlement based and enables the value of loyalty points to be unlocked by account holders 13. The loyalty programme allows multiple issuers, which may be unknown to each other, to issue points into a points account held by a consumer. The points account is identifiable typically via the Access Card. The consumer may have other devices to identify their points account such as their mobile phone. One advantage of a settlement based payment network 10 is that the consumer base of account holders 13 is shared among the issuing merchants 11 and redemption merchants 12. Another advantage is that account holders 13 have access to multiple issuing merchants 11 on demand to earn loyalty points, and have the ability to redeem their loyalty points

at multiple redemption merchants 12 without requiring pre-registration before they are able to redeem their loyalty points from them.

Account holders 13 earn loyalty points and use them via a widely available payment network 10. Redemption merchants 12 are able to receive payment for their products (goods or services) in a similar manner to conventional cashless based transactions such as credit cards or debit cards. The benefit to account holders 13 is that they are able to use the loyalty points as a cash equivalent throughout payment network 10.

For example, one loyalty programme operator 11 in the network may be a petrol outlet operator such as Shell. Shell 11 issues the Access Card to the consumer which makes them an account holder 13 in the loyalty programme. The account holder 13 is able to earn loyalty points at any loyalty point issuing merchant 12, for example, a shopping retailer such as Carrefour, participating the Access Card loyalty programme as a secondary loyalty customer. Since the loyalty programme is operated as an umbrella loyalty programme without being restricted to the Access Card issuer, the account holder 13 is able to accrue or earn points from a large base of points issuing merchants 11.

When the account holder 13 has accumulated enough points for a redemption, they can use their Access Card as an alternate form of a payment card to pay for purchases at participating redemption merchants 12. Participating redemption merchants 12 accept the Access Card as a card based payment method. In one example, the Access Card account holder 13 can recognise a participating redemption merchant 12 if a Card acceptance logo is displayed. When a redemption is made, the funds are transferred from the fund pool 20 to the bank account of the redemption merchant 12 at the end of the settlement period, typically one day.

The account holder 13 is able to earn points from multiple issuing merchants 11 and redeem points from multiple redemption merchants 12 through the payment network 10. The network 10 is open and allows for seamless transfer of funds between entities. The settlement system 30 in the payment network 10 facilitates funds transfer easily between various issuing 11 and redemption merchants 12 even if the merchants 11, 12 not recognise each other under the same loyalty programme.

The redemption merchants 12 are not handled or acquired by the points issuer 11. This removes the responsibility and associated costs of covering redemption process by the points issuers 11. In current loyalty programmes, a large portion of the cost in operating the programme is attributed to the acquisition aspects of acquiring redemption products for the loyalty programme member. The payment network 10 frees the issuers from having to manage that aspect of the programme, by linking the redemption process through a settlement based payment network.

Points issuers 11 are able to customise their issuing rules to award certain points to an account holder 13. For example, if a Shell account holder 13 has Shell as their primary points issuer 11A, when they pay for petrol at Shell, they are issued premium points. The same Shell account holder 13 is able to purchase products at secondary issuers 11B (issuers other than Shell) and earn basic points. Secondary issuers 11B do not issue the Access Card to the account holder 13. In this example, a secondary issuer 11B is Carrefour. The account holder 13 becomes Carrefour's secondary account holder 13B. Carrefour is now the account holder's secondary issuer 11B and when they purchase products from Carrefour are able to earn basic points. The ratio of the value of premium points to basic points is adjustable and set according to the issuer 11.

Referring to Figure 5, the primary account holder 13A is a person which is issued an Access Card by the issuer 11A. If the account holder visits a points issuer 11B with an Access Card issued by another issuer 11A, the account holder 13 is considered a secondary account holder 13B.

The Access Card allows account holders 13 to automatically register themselves as loyalty members under secondary points issuers 11B. For example, if the Shell Card account holder 13 shops at Carrefour for the first time and presents their Access Card, the account holder 13 is automatically enrolled under the Carrefour loyalty programme and receives basic points issued by Carrefour as a secondary issuer 11B. Enrolment does not require a separate registration process to be completed by the account holder 13 or an Access Card to be issued from Carrefour 11B.

Referring to Figures 2, 4 and 6, the process of issuing points is described. There are two types of issuing merchants: a primary points and Access Card issuer 11A and secondary points issuers 11B. Primary issuers 11A issues the Access Card to the account holders 13 and also issues premium points to an account holder 13 for rewarding the loyalty of the customer making purchases at the primary issuer 11A. Secondary issuers 11B issue basic points for rewarding the loyalty of the customer making purchases at the secondary issuer 11B. The issuers 11A, 11B must contribute funds to the fund pool 20 whenever they issue points to account holders 13. The amount of funds that are contributed is equivalent in value to the number of loyalty points issued to the account holders 13 by the issuing merchants 11A, 11B. Issuance of points begins when the account holder 13 presents their Access Card at the point of sale at an issuing merchant 11. By swiping the Access Card through a card reader provided to the issuing merchant 11, the issuing merchant 11 is able to determine 62 whether the account holder 13 is a primary account holder 13A. If they are a primary account holder 13A with the issuing merchant 11, premium points are issued 65 and credited the account holder's account. This is updated 67 through the settlement system 30. If the account holder 13 is not a primary account holder 13A, the issuing merchant 11 determines 63 whether they are a registered secondary account holder 13B. If they are not registered, they are automatically registered 64. Then, basic points are issued 66 by the issuing merchant 11 and credited the account holder 's account. This is updated 67 through the settlement system 30.

Loyalty points may be used as a form of credit account and inter-change of account holder information may be prevented. This may lead to consumers holding less cards even though they shop at a large number of point issuing merchants 11.

Referring to Figures 3 and 7, the process of redeeming points and disbursing funds from the fund pool 20 during settlement is described. Redemption transactions are conducted at various redemption merchants 12 which accept the Access Card as a payment method similar to Visa or MasterCard cards. In contrast to a credit card or debit card, the Access Card does not draw funds from credit or debit accounts of the account holder 13. The amount that may be spent by the account holder 13 at redemption merchants 12 is limited by the amount of loyalty points earned by the participating points issuers 11. A redemption begins by the account holder 13 presenting 71 the Access Card at the point of sale at a redemption merchant 12. By swiping the Access Card through a card reader provided to the redemption

merchant 12, the balance of the loyalty points in a dollar amount is checked 72. In other examples, the Access Card does not require swiping but is presented to the redemption merchant 12 and the balance of the loyalty points in a dollar amount is checked 72. If there are sufficient points (loyalty points or monetary value of points) for a redemption 73, the points are redeemed 76 and the account holder's account is updated through the settlement system 30. If there is not sufficient points, it may be possible to adjust 74 the redemption value downwards. If adjustment is possible, the points are redeemed 76 and the account holder's account is updated through the settlement system 30. If adjustment is not possible, the transaction is terminated 75.

Referring to Figure 8, the process of settlement for issuing merchants 11 is described. When a points issuer or issuing merchant 11 issues loyalty points to the account holder13, they must transfer the equivalent value in funds to the fund pool 20 at the end of the settlement period, typically, one day. In another example, the settlement period may be until the loyalty points are redeemed. The funds are kept in the fund pool 20 until the points are redeemed by the account holder 13 at a redemption merchant 12. Settlement for an issuing merchant 11 begins 81 by consolidating 82 any new secondary account holders 13B. These new secondary account holders13B are automatically signed on 83 with the issuing merchant 11. Next, the issued points issued by the issuing merchant 11 before the end of the settlement period are consolidated 84. The issued points include both premium and basic points. The value of the issued points is computed 85 into a dollar value. Then, the issuing merchant 11 submits 86 for settlement through the settlement system 30. Next, an instruction to their financial institution is made by the issuing merchant 11 to effect a funds transfer 87 of the computed dollar value from their bank account to the fund pool 20.

Referring to Figure 9, the process of settlement for redemption merchants 12 is described. The funds are transferred from the fund 20 pool to the redemption merchant 12 equivalent to the value of the loyalty points redeemed. Settlement for a redemption merchant 12 begins 91 by computing 92 the dollar value of the redeemed points received by the redemption merchant 12 before the end of the settlement period. Then, the redemption merchant 12 submits 93 for settlement through the settlement system 30. Next, an instruction is made to effect a funds transfer 94 of the computed dollar value from the fund pool 20 to the bank account of the redemption merchant 12.

The Access Card allows the account holder 13 to realise the value of their accrued loyalty points through a widely available payment network 10. The redemption merchants 12 offer redemption because it is an alternative form of payment to receive their funds (less merchant discount rate or merchant fee) for the goods and services paid for through the Access Card payment network 10.

The payment network 10 enables the account holder 13 to tap into a large variety of merchants 12 for redeeming their loyalty reward points as a replacement for cash. In the payment network 10, the redemption merchants 12 are signed up independently from issuing merchants 11, and are not restricted to the issuer's choice of merchants 12 or limits in recruiting new merchants 12. A terminal application (not shown) can be deployed into card readers which currently accept credit cards like Visa or MasterCard, in order to now read the Access Cards. The terminal application may also be deployed in other reading devices of the merchants to obtain account holder identification from the account holder's device wirelessly. In addition to accepting these modes of payment, the merchants 12 will be able to accept the Access Card as an alternate form of payment.

Since redemption merchants 12 are handled separately and not recruited by the issuing merchants directly, the redemption merchant base is broadened relatively easily.

The Access Card accounts are topped up when the account holder 13 shops and spends at a points issuer 11. The points issuer 11 tops up the accounts in a ratio with respect to the amount spent, based on issuance rules. This encourages higher spending at all participating issuing merchants 11 by account holders 13.

Every point that is issued by the points issuer 11 is matched by the issuer 11 in funds transferred to the fund pool 20. In a specific example, if the issuer issues 300,000 points to account holders 13 in one day, at the end of the day during settlement, the issuer 11 must match the issuance of points by transferring $3,000 (assuming there is a 100 points to $1 conversion ratio) into the fund pool 20. This is in contrast to existing loyalty programmes, where issuers do not realise the actual value of their issued loyalty points until the point of redemption. The payment network 10 allows loyalty points issuers 11 to match expenses to the current accounting period and maintain proper accounts.

Automatic Enrolment of Account holders

The account holder 13 is automatically enrolled into secondary points issuers as a loyalty customer when he decides to use his Access Card at a points issuer. For example, if a Shell account holder 13 goes to a Carrefour for the first time, he will have the option of presenting his Access Card to receive points for his purchases. By displaying his Shell Card for points issuance from Carrefour, he agrees to transfer a subset of his customer profile/information to Carrefour for registration as a secondary loyalty customer of Carrefour. This means that all issuing merchants have instant access to a large pool of customers and have the means to tap into this potentially huge pool easily. From the consumer's perspective, it will be easy to register and sign up at another loyalty points issuer.

In further embodiments, the Access Card may be linked to a debit account or store value account. The Access Card may also be an identity card to identify the account holder 13.

Although redemption and issuing merchants 11, 12 update the Access Card system 10 whenever points are issued or redeemed by account holders 13, it is possible for the account holder 13 to update the Access Card system 10 if a chip card is used instead of a magnetic stripe card.

It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the scope or spirit of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects illustrative and not restrictive.

14 JUL 2005

WE CLAIM:

1. A payment method for purchasing a product from a redemption merchant in a loyalty programme, the method comprising:

reading a device of an account holder to determine whether a redeemable amount of loyalty points for redeeming the product has been acquired in a points account of the account holder, the loyalty points of the account holder being acquired through purchases made at issuing merchants in the loyalty programme;

wherein if a redeemable amount of loyalty points has been acquired in the points account of the account holder, transferring said loyalty points from the points account of the account holder to the points account of the redemption merchant, and at the end of a predetermined settlement period, settling the points account of the redemption merchant by transferring an amount of funds corresponding to said loyalty points from a fund pool of the loyalty programme to a monetary account of the redemption merchant.

2. The method according to claim 1, wherein the redeemable amount of loyalty points is determined by computing the monetary value of the loyalty points in the points account and comparing this to the value of the product.

3. The method according to claim 2, where the computation occurs before the loyalty points from the points account of the account holder are transferred to the points account of the redemption merchant.

4. The method according to claim 1, wherein the device of the account holder is a card object such as a magnetic stripe card, chip-based card or Radio Frequency Identification (RFID) card.

5. The method according to claim 1, wherein the device of the account holder is a mobile phone.

6. The method according to claim 5, wherein the mobile phone is read by a reading device of the redemption merchant via Bluetooth.

7. The method according to claim 1, wherein a merchant discount rate or merchant fee is subtracted from the amount of funds transferred.

8. The method according to claim 1, wherein the account holder identification information is transmitted to an accounts database to retrieve the balance of the points account of the account holder.

9. The method according to claim 1, wherein the fund pool is a centralised or individual points issuer bank account.

10. The method according to claim 1, wherein the monetary account of the redemption merchant is a bank account.

11. The method according to claim 1, wherein the predetermined settlement period is one day.

12. The method according to claim 1, wherein the predetermined settlement period is until a redemption is made.

13. The method according to claim 1, wherein the product includes goods or services.

14. The method according to claim 1, wherein the redemption merchant is one of a plurality of redemption merchants.

15. The method according to claim 1, wherein the redemption merchant is also an issuing merchant.

16. A payment network for settling loyalty points in a loyalty programme between a plurality of issuing merchants and redemption merchants, the network comprising:

reading devices provided to the issuing merchants and redemption merchants to read devices of account holders in the loyalty programme and obtain account holder identification information for identifying points accounts of the account holders;

a fund pool to receive inward funds from monetary accounts of the issuing merchants, the inward funds corresponding to the amount of loyalty points issued by the issuing merchants, and to disburse outward funds to monetary accounts of the redemption merchants, the outward funds corresponding to the amount of

loyalty points received by the redemption merchants after redemption by the account holders; and

a settlement system to settle points accounts of the redemption merchants by transferring an amount of funds corresponding to redeemed loyalty points from the fund pool to the monetary accounts of the redemption merchants, and to settle points accounts of the issuing merchants by receiving an amount of funds corresponding to issued loyalty points from the monetary accounts of the issuing merchants to the fund pool.

17. The network according to claim 16, wherein the account holder identification information is transmitted to an accounts database to retrieve the balance of the points account of the account holder.

18. The network according to claim 16, wherein the fund pool is a centralised or individual points issuer bank account.

19. A method for issuing loyalty points to reward purchases made by an account holder at an issuing merchant in a loyalty programme, the method comprising:

reading a device of the account holder to obtain account holder identification information for identifying a points account of the account holder; and

transferring an amount of loyalty points from a points account of the issuing merchant to the points account of the account holder, the amount of loyalty points corresponding to the value of purchases made by the account holder at the issuing merchant and the loyalty points acquired by the account holder being redeemable for products at redemption merchants in the loyalty programme;

wherein at the end of a predetermined settlement period, transferring an amount of funds corresponding to said loyalty points from a monetary account of the issuing merchant to a fund pool of the loyalty programme.

20. The method according to claim 19, wherein the issuing merchant transfers funds to the fund pool when the account holder redeems an amount of loyalty points corresponding to the value of the transferred funds.

21. A method for issuing loyalty points to reward purchases made by an account holder at an issuing merchant in a loyalty programme, the method comprising:

reading a device of the account holder to obtain account holder identification information for identifying a points account of the account holder;

determining if the account holder is known to the issuing merchant;

wherein if the account holder is unknown to the issuing merchant, the issuing merchant stores the account holder identification information and transfers an amount of loyalty points from a points account of the issuing merchant to the points account of the account holder, the amount of loyalty points corresponding to the value of purchases made by the account holder at the issuing merchant and the loyalty points acquired by the account holder being redeemable for products at redemption merchants in the loyalty programme.

ABSTRACT

Payment Network

A payment network (10) for settling loyalty points in a loyalty programme between a plurality of issuing merchants (11) and redemption merchants (12), the network (10) comprising: reading devices provided to the issuing merchants (11) and redemption merchants (12) to read devices of account holders (13) in the loyalty programme and obtain account holder identification information for identifying points accounts of the account holders (13); a fund pool (20) to receive inward funds from monetary accounts of the issuing merchants (11), the inward funds corresponding to the amount of loyalty points issued by the issuing merchants (11), and to disburse outward funds to monetary accounts of the redemption merchants (12), the outward funds corresponding to the amount of loyalty points received by the redemption merchants (12) after redemption by the account holders (13); and a settlement system (30) to settle points accounts of the redemption merchants (12) by transferring an amount of funds corresponding to redeemed loyalty points from the fund pool to the monetary accounts of the redemption merchants (12), and to settle points accounts of the issuing merchants (11) by receiving an amount of funds corresponding to issued loyalty points from the monetary accounts of the issuing merchants (11) to the fund pool.

Figure 1