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Method and System for selecting the payment credentials based on rewards during transaction processing

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TITLE OF THE INVENTION

"Method and System for selecting the payment credentials based on rewards during transaction processing"

Inventor: Deepak Tomar

Field of the Invention:

The present invention relates to providing recommendations for selecting the payment credentials during transactions more particularly to a method and system for selecting the payment credentials based on the reward percentage offered in a real-time.

Background:

Cashback rewards plays a vital role to the consumer, card schemes, and banking institutions in the card-payment system. In the current scenario, the consumer interacts with the issuer app or website to select the cashback rewards during a transaction. The consumer has to manually check through each bank website or app to avail the best cashback reward before a transaction which is very difficult. Due to this, the consumer may not receive the higher cashback reward percentage that he is eligible for through other cards that he owns.

When the consumer initiates a transaction through a processing network for example Visa network, the transaction processing is requested to the issuer. The issuer responds to the request and process the transaction. Once the transaction is successful, the cashback rewards are issued to the consumer as illustrated in the Figure 1. The disadvantages in the current system are the consumer is unable to receive the best cash back rewards offered by the Financial Institution since the consumer is unaware of the best cash back rewards offered by the other cards until and unless he checks with all issuer banks website individually. Further, all the cards are not getting used even though it offers highest cashback rewards and hence are closed due to no activity. The issuers are not getting the benefits from the full adaption and the use of their cards and losses consumer.

Summary:

In order to solve the above problems, the present invention provides a method and system that can provide best cashback reward by dynamically selecting the payment credentials based on the highest reward cashback percentage offered. In an embodiment, the present invention provides the backdoor updates of the categories and the percentage offered by the issuer on a particular card.

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The foregoing summary is illustrative only and is not intended to be in any way limiting. In addition to the illustrative aspects, embodiments, and features described above, further aspects, embodiments, and features will become apparent by reference to the drawings and the following detailed description.

Description of Drawings:

The accompanying drawings, which are incorporated in and constitute a part of this disclosure, illustrate exemplary embodiments and together with the description, serve to explain the disclosed principles. In the figures, the left-most digit(s) of a reference number identifies the figure in which the reference number first appears. The same numbers are used throughout the figures to reference like features and components. Some embodiments of device and/or methods in accordance with embodiments of the present subject matter are now described below, by way of example only, and with reference to the accompanying figures.

Figure 1 illustrates the existing method for providing cashback rewards in accordance with some embodiments of the present invention.

Figure 2 illustrates the method for providing back-door updates of the cash back rewards offered and the merchant during a transaction in accordance with some embodiments of the present invention.

Figure 3 illustrates the method for dynamically selecting the PAN to avail the best cashback reward through a recommendation engine in accordance with some embodiments of the present invention.

Figure 4 illustrates a system that host a recommendation engine to avail the best cashback reward in accordance with some embodiments of the present invention.

Figure 5 illustrates an active participation search directory of issuer in accordance with some embodiments of the present invention.

It should be appreciated by those skilled in the art that any block diagrams herein represent conceptual views of illustrative systems embodying the principles of the present subject matter. Similarly, it will be appreciated that any flowcharts, flow diagrams, state transition diagrams,

pseudo code, and the like represent various processes which may be substantially represented in computer readable medium and executed by a computer or processor, whether or not such computer or processor is explicitly shown.

Detailed Description:

In the present document, the word "exemplary" is used herein to mean "serving as an example, instance, or illustration." Any embodiment or implementation of the present subject matter described herein as "exemplary" is not necessarily to be construed as preferred or advantageous over other embodiments.

While the disclosure is susceptible to various modifications and alternative forms, specific embodiment thereof has been shown by way of example in the drawings and will be described in detail below. It should be understood, however that it is not intended to limit the disclosure to the particular forms disclosed, but on the contrary, the disclosure is to cover all modifications, equivalents, and alternatives falling within the scope of the disclosure.

The terms “comprises”, “comprising”, or any other variations thereof, are intended to cover a non-exclusive inclusion, such that a setup, device, or method that comprises a list of components or steps does not include only those components or steps but may include other components or steps not expressly listed or inherent to such setup or device or method. In other words, one or more elements in a system or apparatus proceeded by “comprises… a” does not, without more constraints, preclude the existence of other elements or additional elements in the system or method.

In the following detailed description of the embodiments of the disclosure, reference is made to the accompanying drawings that form a part hereof, and in which are shown by way of illustration specific embodiments in which the disclosure may be practiced. These embodiments are described in sufficient detail to enable those skilled in the art to practice the disclosure, and it is to be understood that other embodiments may be utilized and that changes may be made without departing from the scope of the present disclosure. The following description is, therefore, not to be taken in a limiting sense.

Embodiments of the present invention are directed to system and method for providing highest cashback rewards dynamically during a transaction. The method provides backdoor updates of

the cashback offers and the merchant during a transaction. The method also provides a recommendation to the user to select a PAN account when the consumer is having multiple PAN accounts to avail the highest cashback reward.

Figure 2 illustrates the method for providing back-door updates of the cash back rewards offered and the merchant during a transaction in accordance with some embodiments of the present invention. In Figure 2 the consumer (104) initiates a transaction through a processing network (101). The transaction is processed (102) by sending a request to the issuer bank (103) to authenticate the transaction. The issuer bank (103) provides back door updates (105) of the categories and the percentage offered by the issuer bank (103) on the particular card to the processing network (101).

In another embodiment, the issuer bank (103) takes the consent of the consumer (104) through last four digits of the primary PAN of the consumer (104) to perform a transaction by showing the cashback percentage offered for a particular category. The issuer bank (103) responds to the request and approves the transaction and provides the cashback rewards to the consumer (104). Processing network updates the cashback rewards offered.

Figure 3 illustrates the method for dynamically selecting the PAN to avail the best cashback reward through a recommendation engine (106) in accordance with some embodiments of the present invention. In Figure 3, the consumer (104) purchases a product at a merchant and initiates a transaction through a card. The merchant sends the credential information of the card to the acquirer (107), to process the transaction through a processing network (101). The processing network (101) co-ordinates with recommendation engine (106) which can recommend the secondary card that provides best cash back than the current card used for transaction. The card used for the transaction is swapped based on the recommendation provided by recommendation engine (106) and sends the request to the issuer bank (103). The issuer bank (103) takes the consent of the consumer (104) of swapping the cards for the transaction. If the consumer (104) has accepted for swapping the card, the issuer bank (103) swaps the card and processes the transaction through the processing network (101). If the consumer (104) has rejected for swapping the card, the issuer bank (103) does not swap the card and processes the transaction through the processing network (101).

In an embodiment, the recommendation engine (106) comprises a database (108) which stores the information such as consumer identifier, PAN, merchant, reward percentage offered,

category, promotion effective date and promotion expiration date. The recommendation engine (106) recommends the secondary card based on the above information stored in the database (108).

In another embodiment, when there is not secondary PAN found the processing network (101) shares the details such as merchant ID, use primary PAN in primary PAN field, Cash Back Reward Percentage offered and Suggested secondary PAN field is not populated to the issuer. In response to the processing network (101) the issuer bank (103) shares the details such as Primary PAN, Reward percentage of primary PAN, Consumer Identifier, Category, effective date percentage offered, expiry date percentage offered to process the transaction.

In another embodiment, if the secondary PAN is found the processing network (101) shares the details such as merchant ID, use secondary PAN in primary PAN field, Cash Back Reward Percentage offered and Suggested secondary PAN field to the issuer. In response to the processing network (101) the issuer bank (103) shares the details such as Secondary PAN, Reward percentage of secondary PAN, Consumer Identifier, Category, effective date percentage offered, expiry date percentage offered by secondary pan and decision of swapping of cards to process the transaction.

In another embodiment, the processing network (101) checks for the participation of the issuer in the “Rewards based real-time Dynamic Selection of PAN” service. The “Rewards based real-time Dynamic Selection of PAN” is a service that contains cross swapping of different PANs owned by the same issuer bank (103) or different PANs between different issuer banks within same scheme or different issuer banks in different schemes for the same consumer (104). The processing network (101) swaps the cards only when the issuer bank (103) is registered for this particular service.

Figure 4 illustrates a system that host a recommendation engine (106) to avail the best cashback reward in accordance with some embodiments of the present invention. In Figure 4, the merchant sends the credential information of the card to the acquirer (107), to process the transaction through a processing network (101). The processing network (101) co-ordinates with recommendation engine (106) which can recommend the PAN or card that provides best cash back to be used for a transaction. The processing network (101) sends a request including the details of the recommended card or PAN to the issuer bank (103). The issuer bank (103) provides response to the processing network (101) based on the approval of the consumer (104). Then the transaction is processed securely. The processing network (101) shares the real

time updates of the cash back rewards to the recommendation engine (106) to recommend the best cash back reward during a transaction.

In an embodiment, the recommendation engine (106) comprises a database (108) which stores the information such as consumer identifier, PAN, merchant, reward percentage offered, category, promotion effective date and promotion expiration date. The recommendation engine (106) recommends the best card or PAN for a transaction based on the above information stored in the database (108).

Consumer identifier	PAN	Merchant	Reward Percentage offered	Category	Promotion effective date	Promotion expiration date
CI1	PAN_1	MRCH_1	X%	Sporting Goods	Current Date	Future Date
CI1	PAN_1	MRCH_1	Y%	Sporting Goods	Past Date	Past Date
CI1	PAN_2	MRCH_1	V% (Highest)	Sporting Goods	Current Date	Future Date

For example, the recommendation engine database stores the above information in a table format. The consumer (CI1) is having 2 PAN accounts (PAN_1 and PAN_2). The consumer (CI1) initiated a transaction using PAN_1 at the merchant MRCH_1 which is offering Y percentage of cash back reward. The recommendation engine (106) checks the details that are used for transaction by consumer. The recommendation engine (106) checks whether the current card used for the transaction is availing the highest cash back reward to the consumer (CI1). In the table, the PAN_2 is providing the highest cashback reward. Hence, the recommendation engine (106) recommends the PAN_2 for the transaction to avail the highest cash back reward.

Figure 5 illustrates an active participation search directory of issuer in accordance with some embodiments of the present invention. In Figure 5, the processing network (101) comprises an active participation search directory (110) which gives the list of issuer banks (103a, 103b, 103c) that are participating the “Rewards based real-time Dynamic Selection of PAN” service. The processing network (101) stores the profiles of issuer banks in a database (109). The processing network (101) processes the transactions of different issuer banks that are participating the “Rewards based real-time Dynamic Selection of PAN” service through API’s. When a consumer (104) initiates a transaction the active participation search directory (110)

shows the issuer banks (103a, 103b, 103c) which are participating in the “Rewards based real-time Dynamic Selection of PAN” service.

Therefore, in this way the present invention provides the best cashback rewards to a consumer during a transaction.

Advantages:

- The consumer does not need to update reward categories manually.
- The processing network and issuer constantly updates the recommendation engine with the latest percentage of the cash back rewards offered in real-time
- During transaction processing, the recommendation engine provides the recommendation for the best card available in real-time to avail the cashback reward.
- The present invention supports the cross issuers based on their participation and selection of their choices in APSD.
- Consumer does not need to track the cash back rewards offer in real-time and cash back rewards are automatically applied at the time of the purchase.

Abstract:

The present invention provides a method and system that can provide best cashback reward by dynamically selecting the payment credentials based on the highest reward cashback percentage offered. In an embodiment, the present invention provides the backdoor updates (105) of the categories and the percentage offered by the issuer on a particular card during a transaction.

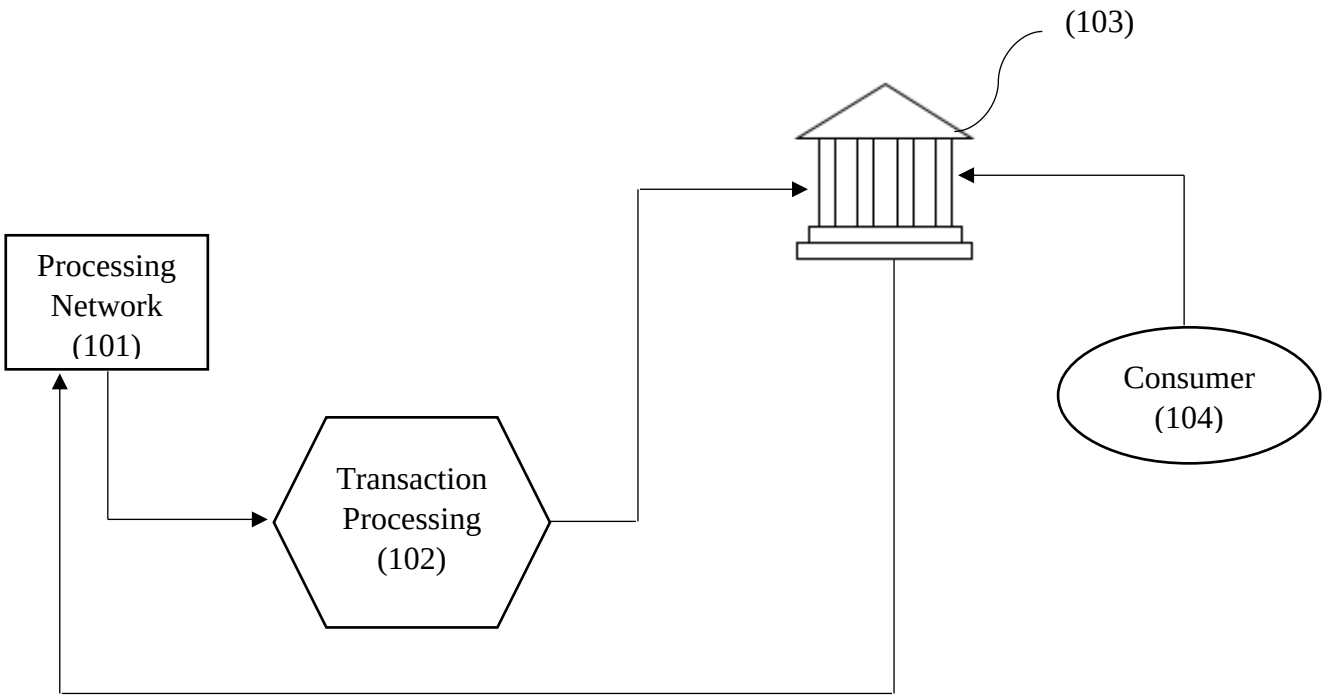

Figure 1
(prior art)

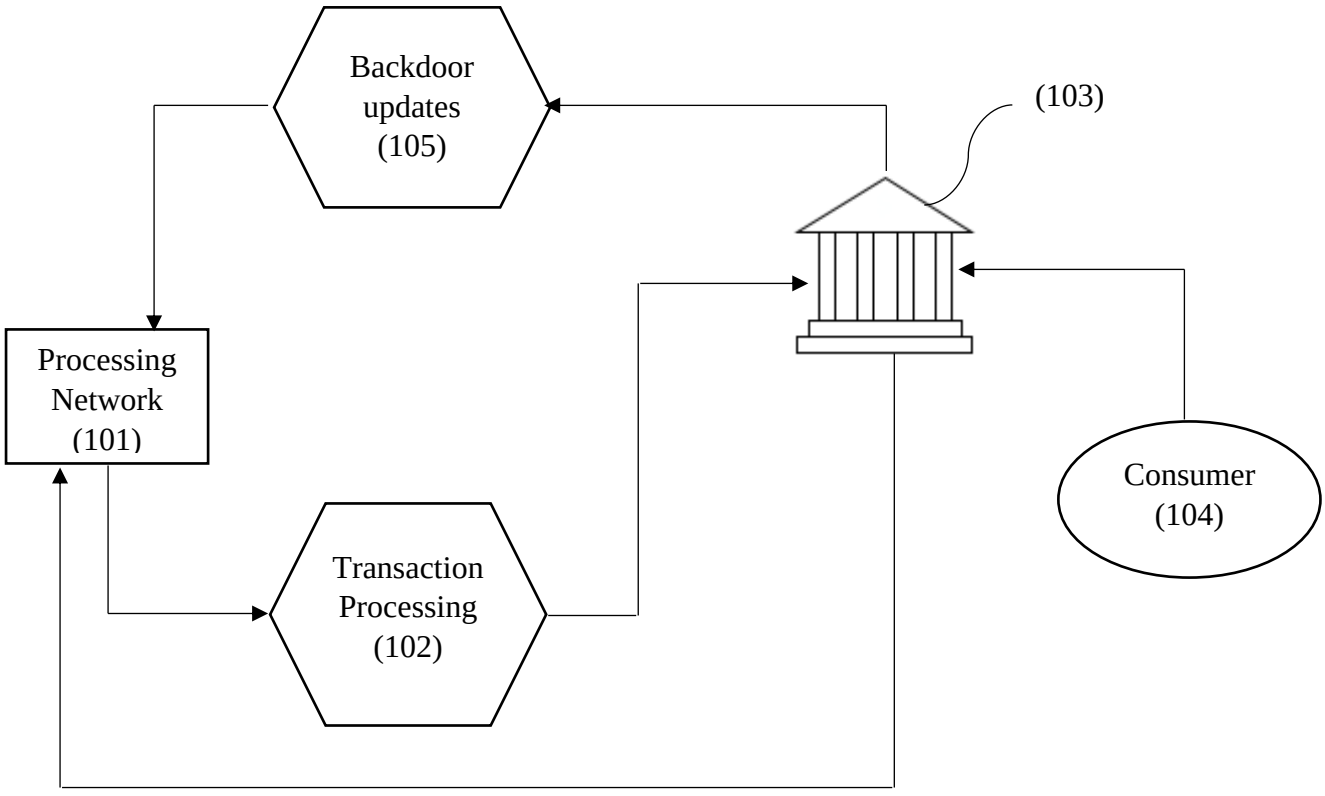
Backdoor updates (105)
(103)
Processing Network (101)
Consumer (104)
Transaction Processing (102)

Figure 2

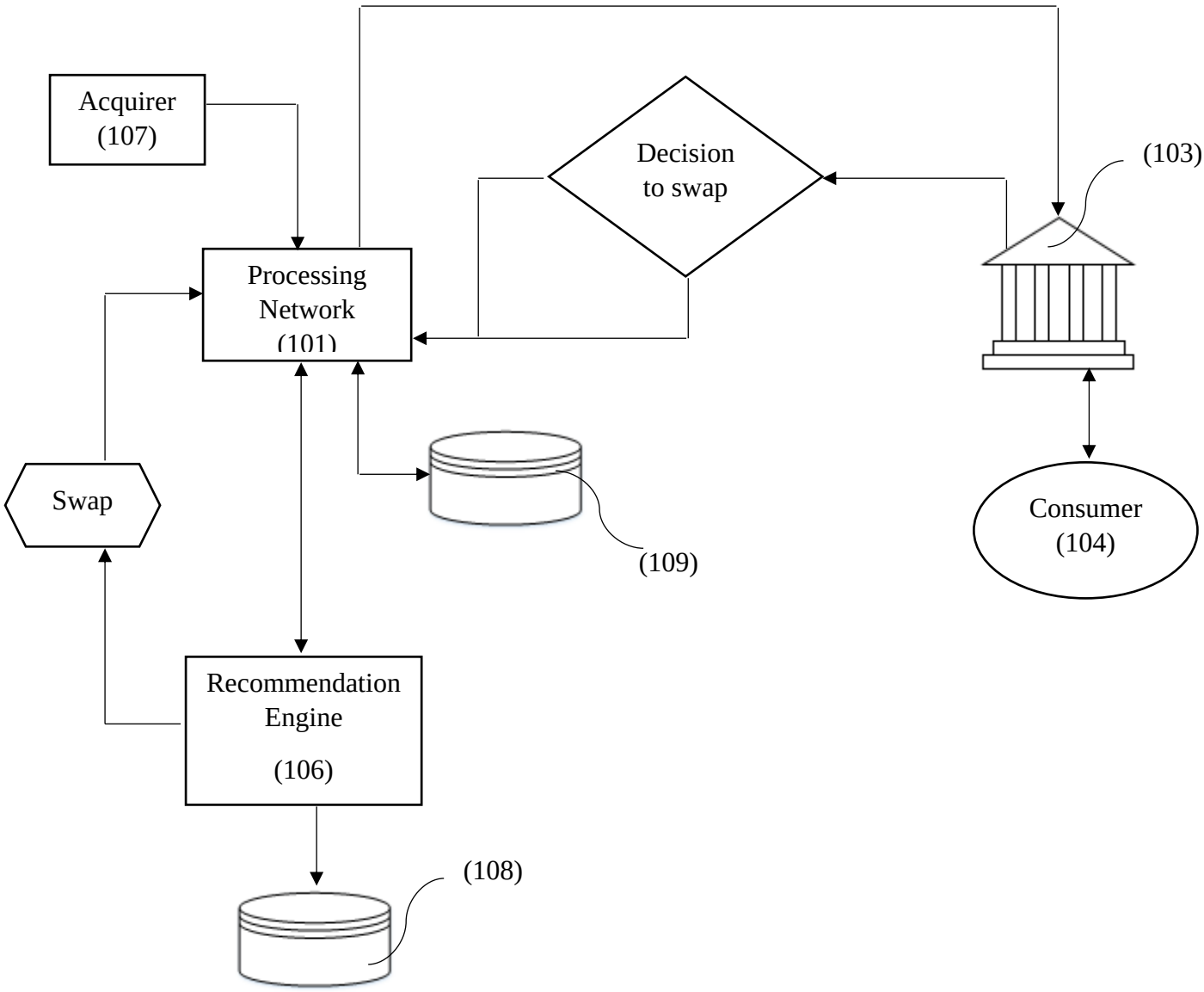
Acquirer
(107)
Decision
to swap
(103)
Processing
Network
(101)
Swap
(109)
Consumer
(104)
Recommendation
Engine
(106)
(108)

Figure 3

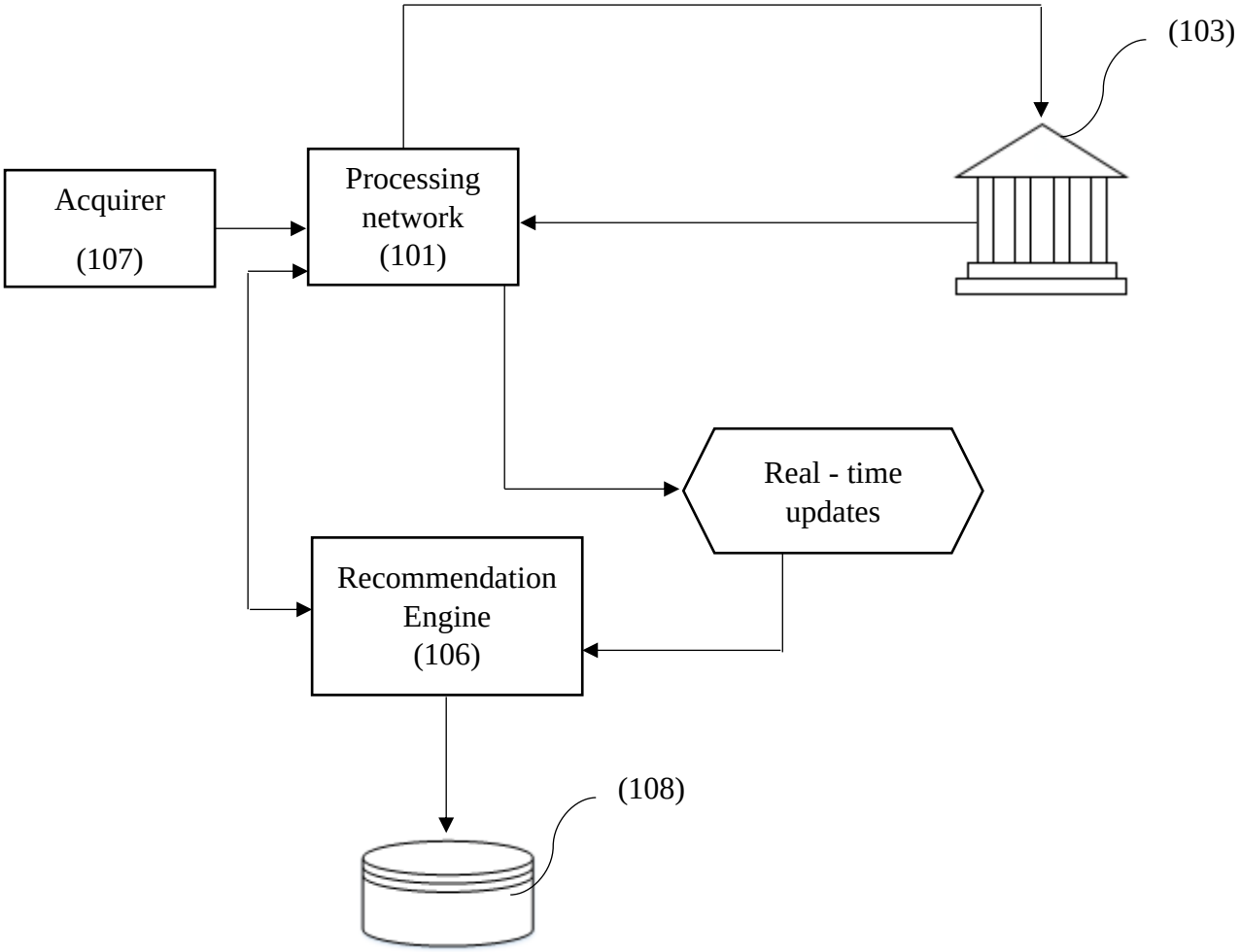
(103)
Acquirer
(107)
Processing
network
(101)
Real - time
updates
Recommendation
Engine
(106)
(108)

Figure 4

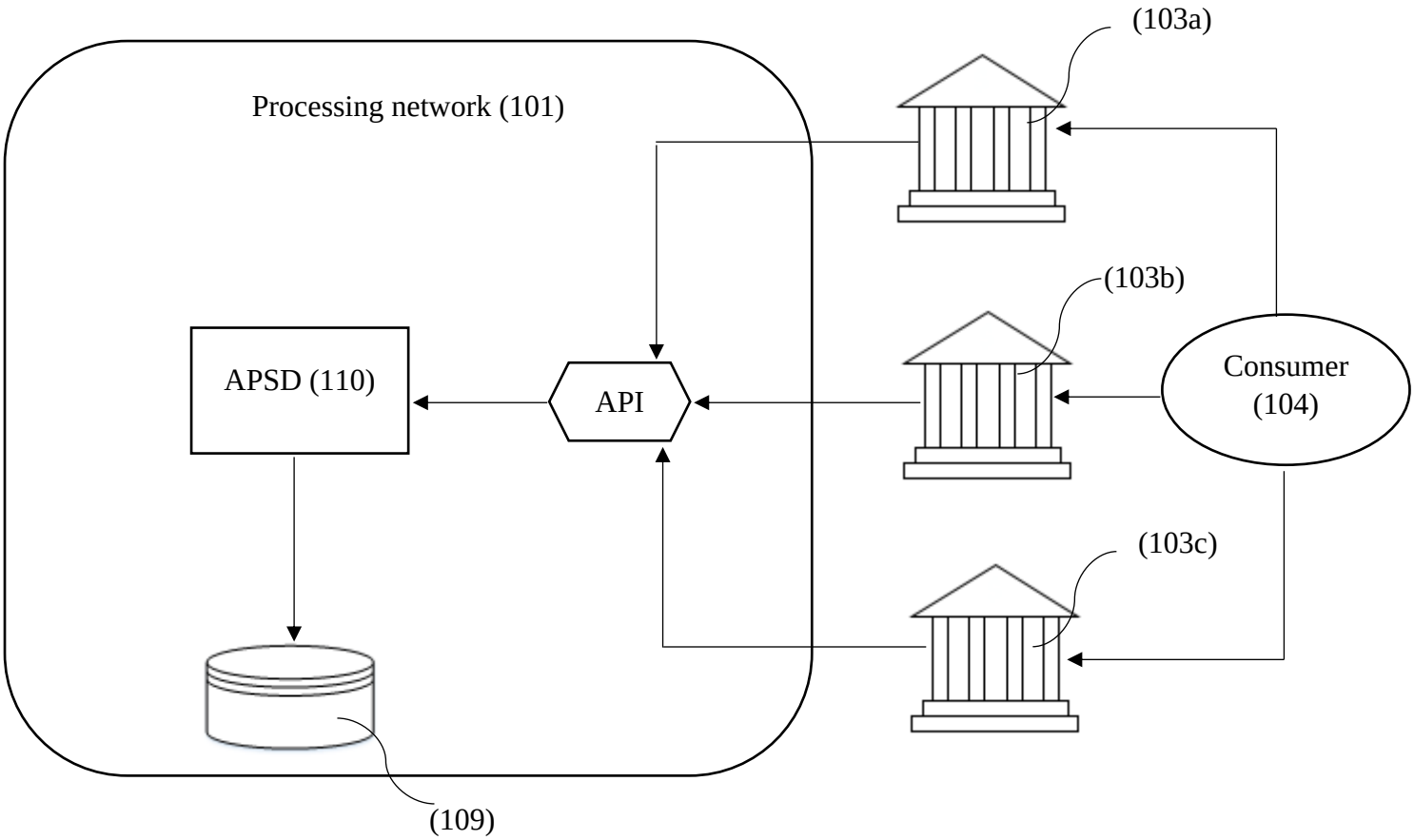
(103a)
Processing network (101)
(103b)
APSD (110)
API
Consumer
(104)
(103c)
(109)

Figure 5