ELECTRONIC INCREMENTAL PAYMENTS

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application claims priority to U.S. Patent Application No. 14/789,457, filed on July 1, 2015, the contents of which is incorporated by reference in its entirety herein.

FIELD

The present disclosure relates generally to the electronic and computer arts, and, more particularly, to payment card networks and the like.

BACKGROUND

The use of payment cards, such as credit cards, debit cards, and pre-paid cards, has become ubiquitous. Most payment card accounts have one or more associated physical cards; however, the use of non-traditional payment devices, such as appropriately-configured "smart" cellular telephones, is increasing. In some instances, a card or non-traditional payment device is presented at a brick-and-mortar location. In card-not-present transactions, the card or non-traditional payment device is not physically present at the merchant. One example of a card-not-present transaction is Internet shopping. Another example is card-not-present recurring payments, wherein a card holder provides a merchant with the payment card account number and related information (e.g., expiration date) and the merchant uses this information to initiate recurring (e.g., monthly) transactions.

SUMMARY

Principles of the disclosure provide techniques for electronic incremental billing. In one aspect, there is provided a method comprising the steps of: obtaining, from a given one of a plurality of billers, over a payment network having a standard clearing and settlement time period, an authorization request for a payment transaction; passing, via said payment network, a special incremental payments approval authorization request response to said authorization request for said payment transaction, indicating that said given one of said plurality of billers will be paid in connection with said payment transaction in a plurality of incremental payments made

in time increments over a selected time period following said authorization request, regardless of whether funds are available for an account associated with said payment transaction, at least one of the incremental payments within the selective time period being subsequent to said standard clearing and settlement time period, wherein said payment network comprises a payment card network and said payment transaction comprises a payment card transaction; storing an identifier of said payment card transaction in a database in response to said obtaining, via said payment card network, of said special incremental payments approval authorization request response; obtaining, via said payment card network, a clearing message indicating that said payment card transaction is to be cleared and settled; and refraining from clearing and settling at least part of said payment transaction until a time subsequent to said standard clearing and settlement period, wherein said refraining is responsive to said identifier of said payment card transaction being found in said database when said clearing message is obtained.

In another aspect, there is provided a method comprising the steps of: enrolling a plurality of account holders in an incremental payments billing program; obtaining, from a given one of a plurality of billers, over a payment network having a standard clearing and settlement time period, an authorization request for a payment transaction; dispatching, into said payment network, a special incremental payments approval authorization request response to said authorization request for said payment transaction, indicating that said given one of said plurality of billers will, in accordance with said incremental payments period billing program, be paid in connection with said payment transaction in a plurality of incremental payments made in time increments over a selected time period following said authorization request, regardless of whether funds are available for an account associated with said payment transaction, said selected time period being longer than said standard clearing and settlement time period, wherein said payment network comprises a payment card network and said payment transaction comprises a payment card transaction; storing an identifier of said payment card transaction in a database in response to said obtaining, via said payment card network, of said special incremental payments approval authorization request response; and dispatching, into said payment card network, a clearing message indicating that said payment card transaction is to be cleared and settled.

In still another aspect, there is provided a method comprising the steps of: enrolling a plurality of billers in an incremental payments billing program; obtaining, via a payment card network, a special incremental payments approval authorization request response to an authorization request for a payment card transaction, indicating that a given one of said plurality of billers will be paid in connection with said payment transaction in a plurality of incremental payments made in time increments over a selected time period, said selected time period being longer than a standard clearing and settlement time for said payment card network; and passing said incremental payments approval authorization request response to said given one of said plurality of billers; wherein an identifier of said payment card transaction is stored in a database in response to said obtaining, via said payment card network, said special incremental payments approval authorization request response; and wherein a clearing message indicating that said payment card transaction is to be cleared and settled is obtained via said payment card network.

In a further aspect, there is provided a payment card network having a standard clearing and settlement time period, said payment card network comprising: an acquirer payment card network interface configured to obtain, from a given one of a plurality of billers, an authorization request for a payment card transaction; an issuer payment card network interface configured to obtain from a corresponding issuer, a special incremental payments approval authorization request response to said authorization request for said payment card transaction, indicating that said given one of said plurality of billers will be paid in connection with said payment card transaction in a plurality of incremental payments made in time increments over a selected time period following said authorization request, regardless of whether funds are available for an account associated with said payment card transaction, said selected time period being longer than said standard clearing and settlement time period; and a clearing and settlement system coupled to said acquirer payment card network interface and said issuer payment card network interface, said clearing and settlement system comprising a hold queue which holds said payment card transaction so that said payment card transaction does not settle completely until expiration of said selected time period, said clearing and settlement system configured to store an identifier of said payment card transaction in a database in response to said obtaining of said special incremental payments approval authorization request response; and

obtain, via said payment card network, a clearing message indicating that said payment card transaction is to be cleared and settled.

Aspects of the disclosure contemplate the method(s) performed by one or more entities herein, as well as facilitating one or more method steps by the same or different entities. As used herein, "facilitating" an action includes performing the action, making the action easier, helping to carry the action out, or causing the action to be performed. Thus, by way of example and not limitation, instructions executing on one processor might facilitate an action carried out by instructions executing on a remote processor, by sending appropriate data or commands to cause or aid the action to be performed. For the avoidance of doubt, where an actor facilitates an action by other than performing the action, the action is nevertheless performed by some entity or combination of entities.

One or more embodiments of the disclosure or elements thereof can be implemented in the form of a computer program product including a tangible computer readable recordable storage medium with computer usable program code for performing the method steps indicated stored thereon in a non-transitory manner. Furthermore, one or more embodiments of the disclosure or elements thereof can be implemented in the form of a system (or apparatus) including a memory and at least one processor that is coupled to the memory and operative to perform exemplary method steps. Yet further, in another aspect, one or more embodiments of the disclosure or elements thereof can be implemented in the form of means for carrying out one or more of the method steps described herein; the means can include (i) specialized hardware module(s), (ii) software module(s) stored in a non-transitory manner in a tangible computer-readable recordable storage medium (or multiple such

Claims

What is claimed is:

1. A method comprising the steps of:

obtaining, from a given one of a plurality of billers, over a payment network having a standard clearing and settlement time period, an authorization request for a payment transaction;

passing, via said payment network, a special incremental payments approval authorization request response to said authorization request for said payment transaction, indicating that said given one of said plurality of billers will be paid in connection with said payment transaction in a plurality of incremental payments made in time increments over a selected time period following said authorization request, regardless of whether funds are available for an account associated with said payment transaction, at least one of the incremental payments within the selective time period being subsequent to said standard clearing and settlement time period, wherein said payment network comprises a payment card network and said payment transaction comprises a payment card transaction;

storing an identifier of said payment card transaction in a database in response to said obtaining, via said payment card network, of said special incremental payments approval authorization request response;

obtaining, via said payment card network, a clearing message indicating that said payment card transaction is to be cleared and settled; and

refraining from clearing and settling at least part of said payment transaction until a time subsequent to said standard clearing and settlement period, wherein said refraining is responsive to said identifier of said payment card transaction being found in said database when said clearing message is obtained.

2. The method of Claim 1, wherein:

said step of refraining from clearing and settling is carried out at an intermediate node in said payment card network; and

said step of passing said special incremental payments approval authorization request response comprises obtaining said response from an issuer of a payment card associated with said payment card transaction.

3. The method of Claim 2, further comprising obtaining, via said payment card network, a clearing message indicating that said payment transaction is to be cleared and settled in accordance with terms of said special incremental payments approval authorization request, wherein said refraining is responsive to said clearing message.

4. The method of Claim 3, wherein said payment card network comprises an ISO 8583 payment card network and wherein, in said step of obtaining said clearing message, said clearing message comprises an ISO 8583 message type indicator 1240 with data element 24 function code value 200 and a private data sub-element incremental payments flag.

5. The method of Claim 2, wherein said refraining comprises placing said payment transaction in a hold queue of a clearing and settlement system.

6. The method of Claim 2, wherein, in said step of obtaining, from said issuer of said payment card, said special incremental payments approval authorization request, said payment card comprises a prepaid payment card.

7. A method comprising the steps of:

enrolling a plurality of account holders in an incremental payments billing program;

obtaining, from a given one of a plurality of billers, over a payment network having a standard clearing and settlement time period, an authorization request for a payment transaction;

dispatching, into said payment network, a special incremental payments approval authorization request response to said authorization request for said payment transaction, indicating that said given one of said plurality of billers will, in accordance with said incremental payments period billing program, be paid in connection with said payment transaction in a plurality of incremental payments made

in time increments over a selected time period following said authorization request, regardless of whether funds are available for an account associated with said payment transaction, said selected time period being longer than said standard clearing and settlement time period, wherein said payment network comprises a payment card network and said payment transaction comprises a payment card transaction;

storing an identifier of said payment card transaction in a database in response to said obtaining, via said payment card network, of said special incremental payments approval authorization request response; and

dispatching, into said payment card network, a clearing message indicating that said payment card transaction is to be cleared and settled.

8. The method of Claim 7, wherein said dispatching step is responsive to determining that said funds are not currently available for said account associated with said payment transaction.

9. The method of Claim 8, wherein:

said account comprises a payment card account; and

said steps of enrolling, obtaining, and dispatching are carried out at a payment card issuer, interfacing with said payment card network, said payment card issuer having issued said payment card account.

10. The method of Claim 9, further including the step of causing a plurality of incremental payments over the payment card network and within the selected time period, to said given one of said plurality of billers, in satisfaction of the payment transaction.

11. The method of Claim 10, further comprising, during said enrollment, obtaining agreement to said selected time period.

12. The method of Claim 11, wherein said selected time period is timed to begin subsequent to the standard clearing and settlement time period.

13. The method of Claim 10, further comprising, during said enrollment, enrolling at least some of said plurality of account holders in an electronic billing program.

14. The method of Claim 10, further comprising, prior to dispatching said special incremental payments approval authorization request

response, verifying that trust conditions still apply to a given one of said account holders associated with said payment card transaction.

15. The method of Claim 9, wherein said payment card network comprises an ISO 8583 payment card network, and wherein, in said dispatching step, said special incremental payments approval authorization request response comprises an ISO 8583 message type indicator 0110 having an incremental payments flag in data element 39.

16. A method comprising the steps of:

enrolling a plurality of billers in an incremental payments billing program;

obtaining, via a payment card network, a special incremental payments approval authorization request response to an authorization request for a payment card transaction, indicating that a given one of said plurality of billers will be paid in connection with said payment transaction in a plurality of incremental payments made in time increments over a selected time period, said selected time period being longer than a standard clearing and settlement time for said payment card network; and

passing said incremental payments approval authorization request response to said given one of said plurality of billers;

wherein an identifier of said payment card transaction is stored in a database in response to said obtaining, via said payment card network, said special incremental payments approval authorization request response; and wherein a clearing message indicating that said payment card transaction is to be cleared and settled is obtained via said payment card network.

17. The method of Claim 16, further comprising refraining from dispatching a clearing and settlement message for said payment card transaction into said payment card network until the selected time period begins.

18. The method of Claim 16, wherein said payment card network comprises an ISO 8583 payment card network, further comprising dispatching into said payment card network a clearing message comprising an ISO 8583 message type indicator 1240 with data element 24 function code value 200 and a private data sub-element (PDS) incremental payments flag.

19. A payment card network having a standard clearing and settlement time period, said payment card network comprising:

an acquirer payment card network interface configured to obtain, from a given one of a plurality of billers, an authorization request for a payment card transaction;

an issuer payment card network interface configured to obtain from a corresponding issuer, a special incremental payments approval authorization request response to said authorization request for said payment card transaction, indicating that said given one of said plurality of billers will be paid in connection with said payment card transaction in a plurality of incremental payments made in time increments over a selected time period following said authorization request, regardless of whether funds are available for an account associated with said payment card transaction, said selected time period being longer than said standard clearing and settlement time period; and

a clearing and settlement system coupled to said acquirer payment card network interface and said issuer payment card network interface, said clearing and settlement system comprising a hold queue which holds said payment card transaction so that said payment card transaction does not settle completely until expiration of said selected time period, said clearing and settlement system configured to store an identifier of said payment card transaction in a database in response to said obtaining of said special incremental payments approval authorization request response; and obtain, via said payment card network, a clearing message indicating that said payment card transaction is to be cleared and settled.

20. The payment card network of claim 19, wherein the clearing and settlement system is further configured to effect clearing and settlement of the payment card transaction in the hold queue in increments over the selected time period.