ADAPTABLE MESSAGING

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims priority to and the benefit of the filing date of U.S. Application Serial No. 14/881,249, filed October 13, 2015, which is hereby incorporated by reference in its entirety.

BACKGROUND

It is increasingly common for consumers to make purchases using devices such as mobile phones or the like. These remote purchase transactions pose challenges to financial institutions and other entities. For example, these transactions present challenges related to the authentication of users and other fraud related matters. A number of approaches have been proposed to improve user authentication and to reduce fraud in remote transactions. For example, one desirable approach is to utilize the authentication and security features provided by the EMV Standards (at www.emvco.com) in remote transactions. However, not all online or remote merchant systems support these standards. It would be desirable to provide systems and methods that allow remote transactions from a browser, on mobile devices, in-application or the like to provide a good user experience while reducing fraud.

SUMMARY

In one aspect, the present disclosure refers to a method for operating a device to complete a transaction, comprising, receiving a request to initiate a transaction with a merchant, transmitting a payment transaction initiation message to a merchant server associated with said merchant, receiving a request message from said merchant server for remote payment data, said request message including information identifying whether said merchant server supports a selected one of a first data format and an alternative data format, and providing said remote payment data to said merchant server in said selected data format for use by said merchant server to

initiate authorization processing of said transaction, wherein said selected data format is an alternative data format, the method further comprising: converting said remote payment data and said alternative data format into an authorization request message using said first data format, wherein said converting is performed by an entity after said device provides said remote payment data to said merchant server in said selected data format.

In another aspect, the present disclosure refers to an apparatus, comprising a communication device to communicate with a merchant server associated with a merchant, a computer storage unit for receiving, storing and providing data associated with a transaction, a processor, in communication with the communication device and the computer storage unit, wherein the processor is configured for receiving a request to initiate a transaction with a merchant, transmitting a payment transaction initiation message to said merchant server associated with said merchant, receiving a request message from said merchant server for remote payment data, said request message including information identifying whether said merchant server supports a selected one of a first data format and an alternative data format, and providing said remote payment data to said merchant server in said selected data format for use by said merchant server to initiate authorization processing of said transaction, wherein said selected data format is an alternative data format, the processor further configured for: converting said remote payment data and said alternative data format into an authorization request message using said first data format, wherein said converting is performed by an entity after said device provides said remote payment data to said merchant server in said selected data format.

BRIEF DESCRIPTION OF THE DRAWINGS

Features and advantages of some embodiments of the present invention, and the manner in which the same are accomplished, will become more readily apparent upon consideration of the following detailed description of the invention taken in conjunction with the accompanying drawings, which illustrate preferred and exemplary embodiments and which are not necessarily drawn to scale, wherein:

FIG. 1 is a block diagram that illustrates a system in which the present invention may be applied.

FIG. 2 is a block diagram that illustrates an example embodiment of a payment-enabled smartphone provided in accordance with aspects of the present invention.

WHAT IS CLAIMED IS:

1. A method for operating a device to complete a transaction, comprising:

receiving a request to initiate a transaction with a merchant;

transmitting a payment transaction initiation message to a merchant server associated with said merchant;

receiving a request message from said merchant server for remote payment data, said request message including information identifying whether said merchant server supports a selected one of a first data format and an alternative data format; and

providing said remote payment data to said merchant server in said selected data format for use by said merchant server to initiate authorization processing of said transaction,

wherein said selected data format is an alternative data format, the method further comprising:

converting said remote payment data and said alternative data format into an authorization request message using said first data format, wherein said converting is performed by an entity after said device provides said remote payment data to said merchant server in said selected data format.

2. The method of claim 1, wherein the first data format is a data format that allows receipt of a complete Authorization Request Cryptogram ("ARQC").

3. The method of claim 2, wherein the alternative data format is a data format that allows receipt, by said merchant server, of a modified Authorization Request Cryptogram ("ARQC") from said device.

4. The method of claim 3, wherein said modified ARQC is generated using a partial set of data inputs.

5. The method of claim 4, wherein said partial set of data inputs include at least a first data field that is set to a default value rather than a value specific to said transaction.

6. The method of claim 1, wherein the device is a mobile device having at least a first payment cardlet stored in a secure element.

7. The method of claim 6, wherein the at least first payment cardlet is personalized such that at least the following data elements may be returned in a command response: (i) an Application PAN, and (ii) an Application PAN sequence number.

8. An apparatus, comprising:

a communication device to communicate with a merchant server associated with a merchant;

a computer storage unit for receiving, storing and providing data associated with a transaction;

a processor, in communication with the communication device and the computer storage unit, wherein the processor is configured for:

receiving a request to initiate a transaction with a merchant;

transmitting a payment transaction initiation message to said merchant server associated with said merchant;

receiving a request message from said merchant server for remote payment data, said request message including information identifying whether said merchant server supports a selected one of a first data format and an alternative data format; and

providing said remote payment data to said merchant server in said selected data format for use by said merchant server to initiate authorization processing of said transaction,

wherein said selected data format is an alternative data format, the processor further configured for:

converting said remote payment data and said alternative data format into an authorization request message using said first data format, wherein said converting is performed by an entity after said device provides said remote payment data to said merchant server in said selected data format.

9. The apparatus of claim 8, wherein the first data format is a data format that allows receipt of a complete Authorization Request Cryptogram ("ARQC").

10. The apparatus of claim 9, wherein the alternative data format is a data format that allows receipt, by said merchant server, of a modified Authorization Request Cryptogram ("ARQC") from said device.

11. The apparatus of claim 10, wherein said modified ARQC is generated using a partial set of data inputs.

12. The apparatus of claim 11, wherein said partial set of data inputs include at least a first data field that is set to a default value rather than a value specific to said transaction.

13. The apparatus of claim 8, wherein the apparatus is a mobile device having at least a first payment cardlet stored in a secure element.

14. The apparatus of claim 13, wherein the at least first payment cardlet is personalized such that at least the following data elements may be returned in a command response: (i) an Application PAN, and (ii) an Application PAN sequence number.