According to one aspect, there is provided a method for providing online cardholder authentication services on-behalf-of issuer financial institutions, comprising: receiving, by an on-behalf-of (OBO) issuer service computer from one of a merchant server computer or an access control server (ACS) computer, an authentication message comprising an authentication value and transaction data; storing, by the OBO issuer service computer, the authentication message in a transaction database; receiving, by the OBO issuer service computer from a payment network, a purchase transaction authorization request message; determining, by the OBO issuer service computer, that an authentication value in an universal cardholder authentication field (UCAF) of the purchase transaction authorization request message matches the authentication value of the stored authentication message; storing, by the OBO issuer service computer in the transaction database, a record of the match; and transmitting, by the OBO issuer service computer, the purchase transaction authorization request to the payment network for purchase authorization processing.

According to another aspect, there is provided a system for providing online cardholder authentication services on-behalf-of issuer financial institutions, comprising: an On-Behalf-Of (OBO) issuer service computer comprising a storage device and an OBO issuer service processor; a merchant server computer operably connected to the OBO issuer service computer; a access control server (ACS) computer operably connected to the OBO issuer service computer; and a payment network operably connected to the OBO issuer service computer; wherein the storage device stores instructions configured to cause the OBO issuer service processor to: receive an authentication message comprising an authentication value and transaction data from one of the merchant server computer or the ACS computer; store the authentication message in the storage device; receive a purchase transaction authorization request message from the payment network; determine that an authentication value in an universal cardholder authentication field (UCAF) of the purchase transaction authorization request message matches the authentication value of the stored authentication massage; store a record of the match in the storage device; and transmit the purchase transaction authorization request to the payment network for purchase authorization processing.

According to a further aspect, there is provided a method for providing online cardholder authentication services on-behalf-of issuer financial institutions, comprising: receiving, by an on-behalf-of (OBO) issuer service computer from a payment network, a purchase transaction authorization request message; transmitting, by the OBO issuer service computer to a directory service server computer, a request for an authentication result

message associated with the purchase transaction that is the subject of the purchase transaction authorization request message; receiving, by the OBO issuer service computer from the directory service server computer, the authentication result message; matching, by the OBO issuer service computer, the authentication result message with data of the purchase transaction authorization request message; storing, by the OBO issuer service computer in a transaction database, a record of the match; and transmitting, by the OBO issuer service computer, the purchase transaction authorization request to the payment network for purchase transaction authorization processing.

According to an additional aspect, there is provided a system for providing online cardholder authentication services on-behalf-of issuer financial institutions, comprising: an On-Behalf-Of (OBO) issuer service computer comprising a storage device and an OBO issuer service processor; a directory service server computer operably connected to the OBO issuer service computer; and a payment network operably connected to the OBO issuer service computer; wherein the storage device stores instructions configured to cause the OBO issuer service processor to: receive a purchase transaction authorization request message from the payment network; transmit to a directory service server computer, a request for an authentication result message associated with the purchase transaction that is the subject of the purchase transaction authorization request message; receive the authentication result message from the directory service server computer; match the authentication result message with data of the purchase transaction authorization request message; store a record of the match in the storage device; and transmit the purchase transaction authorization request to the payment network for purchase authorization processing.

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 exemplary embodiments and which are not necessarily drawn to scale, wherein:

FIG. 1 is a block diagram of a transaction system to illustrate a conventional 3-D Secure authentication process;

FIG. 2 is a block diagram of a transaction system to illustrate examples of 3-D Secure on-behalf-of ("OBO") issuer interception and validation processes in accordance with some embodiments of the disclosure;

FIG. 3 is a block diagram of an embodiment of an 3-D Secure OBO issuer service computer according to an embodiment of the disclosure;

FIG. 4 is a flowchart of an online cardholder authentication services on-behalf-of (OBO) issuer financial institutions (FIs) process according to some embodiments of the disclosure; and

FIG. 5 is a flowchart of an online cardholder authentication services on-behalf-of (OBO) issuer financial institutions (FIs) process according to some further embodiments of the disclosure.

DETAILED DESCRIPTION

Reference will now be made in detail to various embodiments according to the present disclosure. Examples of these embodiments are illustrated in the accompanying drawings, and it should be understood that the drawings and descriptions thereof are not intended to limit the invention to any particular embodiment(s). On the contrary, the descriptions provided herein are intended to cover alternatives, modifications, and equivalents thereof. In the following description, numerous specific details are set forth in order to provide a thorough understanding of the various embodiments, but some or all of