

SYSTEMS AND METHODS FOR LINKING DEVICES TO USER ACCOUNTS

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application claims priority to U.S. Patent Application No. 14/286,248 filed May 23, 2014 entitled “SYSTEMS AND METHODS FOR LINKING DEVICES TO USER ACCOUNTS”, which is expressly incorporated by reference herein in its entirety.

FIELD

[0002] The present disclosure relates to magnetic stripe storage and transmission devices.

BACKGROUND

[0003] Transmission of magnetic stripe data has been done primarily by swiping a magnetic stripe card against a magnetic stripe reader (MSR) to enable payment, identification (ID), and access control functions. Mobile wallet applications on smartphones and tablets have had difficulty interacting with existing merchant point of sale (POS) devices or other devices with MSRs. Contactless reader enabled POS terminals (typically using, for example, an ISO 14443 standard) are not ubiquitous to accept contactless or near field communications (NFC) payments. It would be expensive and would take time to replace the millions of merchant POS devices or door locks that only accept magnetic stripe cards, just to interact with NFC phones or other transmission means like barcodes.

SUMMARY

[0004] The present disclosure relates to devices, systems, and methods including a magnetic stripe storage and transmission device (also referred to as a magnetic stripe transporter (MST)) for use in conjunction with a mobile wallet application to capture, store and transmit magnetic stripe card data to merchants' conventional point of sale (POS) terminals and other devices with magnetic stripe readers (MSRs) or checkout systems, in physical and virtual environments. The devices, systems, and methods provide secure binding, linking, or pairing of the MST to a user account. In ~~one aspect~~some embodiments, this unique binding of the MST to a specific user account provides increased security.

[0004a] According to a first aspect of the present invention, there is provided a method of binding a device to a user account, comprising: sending a binding challenge to a magnetic stripe transporter (MST); receiving a response from the MST; sending a binding request to a server; receiving a binding token from the server in response to the binding request; and

sending the binding token to the MST for use in binding the MST to the user account.

[0004b] According to a second aspect of the present invention, there is provided a method of binding a device to a user account, comprising: receiving a binding challenge from a computing device; sending a response to the binding challenge to the computing device; receiving a binding token generated by a server from the computing device; verifying the binding token; and binding the device to the user account in response to the verification of the binding token.

[0004c] According to a third aspect of the present invention, there is provided a method of binding a device to a user account, comprising: receiving a binding request including user input and information corresponding to a magnetic stripe transporter (MST); authenticating a user with the user account based on the user input; determining whether the information corresponding to the MST is valid and the MST is not bound to a second user account; and sending a binding token for use in binding the MST to the user account in response to the information corresponding to the MST being valid and the MST not being bound to the second user account.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Embodiments of devices, systems, and methods are illustrated in the figures of the accompanying drawings which are meant to be exemplary and not limiting, in which like