

CLAIMS

What is claimed is:

1. A method, the method comprising:
 - sending, via a mobile device, a request to update a card number on a payment card to be reissued, wherein the request includes an indication that a card number presented on a display of the payment card and encoded on a magnetic strip of the payment card is invalid and unusable;
 - in response to the sent request, receiving, by the mobile device, an authorization to reissue the payment card and update the card number;
 - in response to the received authorization, obtaining an updated card number from a secure source of updated card numbers;
 - outputting, in response to command signals from a signal generation component, an updated card number signal representing the updated card number via a near-field communication circuit in the mobile device; and
 - in response to outputting the updated card signal, receiving, via a near-field communication circuit in the mobile device a signal indicating that updating of the card number was successfully.
2. The method of claim 1, wherein receiving, by the mobile device, the authorization to reissue the payment card and update the card number further comprises:
 - prior to sending the request for authorization to reissue the payment card, generating an authentication message to be included in the request with the indication, wherein the authentication message includes information related to the mobile device stored by an authentication server of a service provider.
3. The method of claim 1, wherein obtaining the updated card number from the secure source of updated card numbers, comprises:
 - retrieving the updated card number from a secure element of the mobile device;

reporting the updated card number of the payment card to an issuer server related to an issuer of the payment card; and
deleting the updated card number from the secure element.

4. The method of claim 1, wherein obtaining the updated card number from the secure source of updated card numbers, comprises:

retrieving the updated card number from an issuer server associated with an issuer of the payment card.

5. The method of claim 1, further comprising:

selecting account display preferences in a user interface provided by the reissue application for displaying information on the payment card;
modifying, by the signal generation component, signal parameters in response to the selected account display preferences provided by the reissue application; and
prior to transmitting the signal representing the updated card number, transmitting, based on the modified signal parameters, a user preference display signal causing one or more of: a last transaction amount, a rewards total amount, an account balance, an account ceiling limit, or a warning related to account balance, to be presented on the visual display of the payment card.

6. A method, comprising:

emitting, by a near-field communication device of a payment card, an authentication signal for receipt by a near-field communication device of a mobile device, wherein the emitted authentication signal:

includes a payment card number currently displayed on a visual display of the payment card,

is emitted after the payment card is introduced into any portion of a near-field communication electric field surrounding the mobile device, and

is approval of a request to change the card number currently displayed on the visual display of the payment card;

receiving, while the payment card remains within any portion of the near-field communication electric field surrounding the mobile device, by a near-field

communication device of the payment card, an updated card number signal, wherein the updated card number signal contains an updated card number; and

in response to receiving the updated card number signal, replacing the card number currently displayed on the visual display of the payment card with an updated card number.

7. The method of claim 6, further comprising:

storing, in a memory device on the payment card, an indication that a payment card number encoded on a magnetic strip of the payment card is invalid and unusable.

8. The method of claim 6, further comprising:

in response to receiving the updated card number signal by the near-field communication device of the payment card, generating a display drive signal for driving the visual display of the payment card to change the card number currently displayed to display the updated card number.

9. The method of claim 6, further comprising:

receiving an account status signal from the near-field communication device of the mobile device; and

modifying, in response to the account status signal, the visual display of the payment card to present at least one of: a payment card account balance, a most recent transaction amount, an annual percentage rate of account, a rewards points balance, a payment due date, a location-based discount, or a location-based reward.

10. A system, comprising:

a payment card comprising a payment card near-field communication device, a rewriteable visual display, a processor, and a memory, wherein the rewriteable visual display of the payment card is operable to present a prior-issued card number;

a reissue application on a mobile device, wherein the reissue application is executable by a processor of the mobile device and when executed is operable to reissue a card number of the payment card; and

an authentication server operable to communicate with the reissue application,

wherein the reissue application, when executed, is further operable to:

- send a request to the authentication server to verify that the reissue application is associated with the payment card;

- in response to a verification that the reissue application is associated with the payment card, obtain an updated card number, wherein the updated card number is different from the prior-issued card number;

- generate an updated card number signal including the updated card number and information related to at least one of: a card verification value, an expiration date, or an issuer;

- cause the updated card number signal to be output; and

wherein the payment card is operable to:

- receive, via the payment card near-field communication device, the updated card number signal; and

- drive, based on the updated card number signal, the rewriteable visual display to present an updated card number in place of the prior-issued card number.

11. The system of claim 10, wherein the reissue application, when executed, is further operable to:

- provide a user interface;

- receive an input via the user interface;

- present, via the user interface, information in response to signals generated by the reissue application;

- present a menu of selectable user preferences via the user interface, wherein the selectable user preferences in the menu include one or more of: a payment card account balance, a most recent transaction amount, an annual percentage rate of account, a rewards points balance, a payment due date, a location-based discount, or a location-based reward;

- receiving, via the user interface, a selection of at least one selectable user preference from the menu of selectable user preferences; and

- storing the at least one selected user preference.

12. The system of claim 11, wherein the reissue application, when executed, is further operable to:

in response to a verification that the reissue application is associated with the payment card,

obtain information related to the selected at least one of the selectable user preferences, wherein the information is retrieved via the authentication server; and

generate a user preference display signal, wherein the user preference display signal includes the information related to the selected at least one of the selectable user preferences; and

cause the output of the generated user preference display signal to the payment card near-field communication device.

13. The system of claim 12, wherein the payment card is further operable to:

receive, via the payment card near-field communication device, the outputted user preference display signal;

process the user preference display signal; and

forward the processed user preference display signal to the rewriteable visual display for output of the information related to the selected at least one of the selectable user preferences.

14. The system of claim 10, wherein the reissue application, when executed, is further operable to:

provide a user interface;

present, via the user interface, an indication of where the payment card is to be placed to enable near-field communication signals to be exchanged with the payment card near-field communication device.

15. The system of claim 10, further comprising:

a payment account server coupled to a data storage device and communicatively coupled to the authentication server, wherein the payment account server is operable to:

store payment account information related to the payment card, wherein the payment account information includes at least one of: a payment account balance, payment account limits, information related to the mobile device, user preference selections, transaction information, payment card number history, a list of undeployed payment card numbers, or information related to users authorized to use the payment card.

16. The system of claim 10, further comprising:
a payment account server coupled to a data storage device communicatively coupled to the authentication server, wherein the payment account server is operable to:

in response to a request from the reissue application, retrieve the updated card number from the data storage device; and
send the updated card number to the reissue application.

17. The system of claim 10, wherein the reissue application is operable to:
detect an authentication signal emitted from the payment card near-field communication device;
forward the authentication signal to the authentication server; and
in response to forwarding the authentication signal, receive verification that the payment card is a valid payment card associated with the reissue application.

18. The system of claim 10, wherein:
the rewriteable visual display is an electronic ink display, and
the payment card near-field communication device transforms the updated card number signal to voltage values suitable to drive the electronic ink display to replace the prior-issued card number with the updated card number.

19. The system of claim 10, wherein:
the payment card processor is operable when obtaining the updated card number to:

generate an updated card number using a cryptographic hash function and data maintained in the payment card memory.

20. The system of claim 10, further comprising:
an issuer server communicatively coupled to the reissue application, and
wherein the reissue application is further operable when obtaining the updated card number to:

retrieve the updated card number from an issuer server associated with an issuer of the payment card.