CLAIMS

1. A contactless card, comprising:

a processor circuit;

a memory coupled with the processor circuit, the memory configured to store:

a first applet configured to maintain a first account number for the contactless card in the memory, the first account number identifying an account associated with the contactless card to perform transactions;

a second applet distinct from the first applet, the second applet configured to communicate with an application of a device, wherein the second applet to:

receive, from the device, an instruction to change the first account number;

authenticate the contactless card by causing the processor circuit to generate a cryptogram, encrypt the cryptogram using a diversified key based on a counter value, a master key, and a cryptographic algorithm, send the cryptogram generated by the contactless card to an authentication server, and receive an authentication approval from the authentication server;

in response to authentication of the contactless card,

communicate a command to change the first account number to a second account number to the first applet; and

the first applet, in response to the command, change the first account number to the second account number.

2. The contactless card of claim 1, wherein the first applet to set the second account number to perform transactions in place of the first account number.

3. The contactless card of claim 1, wherein the first applet to select the second account number from a plurality of account numbers in the memory.

4. The contactless card of claim 1, wherein the first applet to generate the second account number as a new account number.

5. The contactless card of claim 1, wherein the instruction to change the first account number are received from the device via a near field communication (NFC) communication.

6. The contactless card of claim 5, the processor circuit to establish an NFC connection with the device via an NFC exchange initiated in response to the contactless card coming within an NFC communication range of the device.

7. The contactless card of claim 1, comprising a display, and the processor circuit configured to cause the display to display an identifying number derived from the first account number.

8. The contactless card of claim 7, the processor circuit to update the display with a second identifying number derived from the second account number in response to changing the first account number to the second account number.

9. A computer-implemented method to change account numbers on a contactless card using secure applets, comprising:

maintaining, by a first applet of the contactless card, a first account number in a memory of the contactless card, the first account number configured to identify an account associated with the contactless card to perform transactions;

receiving, by a second applet of the contactless card from a device, an instruction to change the first account number, wherein the second applet is distinct from the first applet;

authenticating the contactless card by causing circuitry of the contactless card to generate a cryptogram, encrypt the cryptogram using a diversified key based on a counter value, a master key, and a cryptographic algorithm, send the cryptogram to an authentication server, and receive an authentication approval from the authentication server;

in response to authentication of the contactless card,

communicating, by the second applet, a command to change the first account number to a second account number; and

changing, by the first applet and in response to the command, the first account number to the second account number.

10. The computer-implemented method of claim 9, comprising setting, by the first applet, the second account number to perform the transactions to replace the first account number.

11. The computer-implemented method of claim 10, comprising selecting, by the first applet, the second account number from a plurality of account numbers to set the second account number to perform the transactions.

12. The computer-implemented method of claim 10, generating, by the first applet, the second account number as a new account number and to set the second number to perform the transactions.

13. The computer-implemented method of claim 9, comprising:
establishing, by the second applet, an NFC communication channel with a mobile device via an NFC exchange initiated in response to the contactless card coming within an NFC communication range of the device, and wherein the instruction to change the first account number received from the device via a near field communication (NFC) communication via the NFC communication channel.

14. The computer-implemented method of claim 9, comprising displaying, on a display of the contactless card, an identifying number derived from the first account number.

15. The computer-implemented method of claim 14, comprising updating the display with a second identifying number derived from the second account number in response to changing the first account number to the second account number.

~~16. A contactless card, comprising:~~
~~a processor circuit;~~
~~a memory coupled with the processor circuit, the memory configured to store:~~
~~a first applet configured to maintain a first account number for the contactless card in the memory, the first account number identifying an account associated with the contactless card to perform transactions;~~
~~a second applet distinct from the first applet, the second applet configured to communicate with an application of a device, wherein the second applet to:~~
~~determine, based on a predefined pattern of operations performed with the application of the device, to change the first account number;~~
~~communicate a command to change the first account number to a second account number to the first applet; and~~

~~the first applet, in response to the command, change the first account number to the second account number.~~

~~17. The contactless card of claim 16, wherein the first applet to set the second account number to perform transactions in place of the first account number.~~

~~18. The contactless card of claim 16, wherein the predefined pattern of operations is based on a number of taps of the contactless card on the device within a predefined time limit.~~

~~19. The contactless card of claim 16, wherein the predefined pattern of operation is based on a rate of a number of taps of the contactless card on the device.~~

~~20. The contactless card of claim 16, wherein the predefined pattern of operations is based on a near-field communications exchanges with the device to perform authentication operations, encryption operations, or a combination thereof.~~

16. An apparatus having a contact pad comprising:

an antenna configured to receive a short range communication from a device;

a microprocessor circuit powered by the antenna using energy from the short range communication;

a memory storing:

transaction logic configured to reference an identifier for the apparatus in connection with a transaction; and

encryption and authentication logic configured to communicate with the device via the antenna, wherein

the encryption and authentication logic is further configured to recognize a directive from the device and received by the antenna, the directive indicating that the identifier is to be rewritten, authenticate the contactless card by instructing the contactless card to generate a cryptogram, encrypting the cryptogram using a diversified key based on a counter value, a master key, and a cryptographic algorithm, transmitting the cryptogram generated by the contactless card to an authentication server, and receiving an authentication approval from the authentication server, and, in response to authenticating the contactless card, communicate the directive to the transaction logic, and

the transaction logic is further configured to rewrite the identifier based on the directive.

17. The apparatus of claim 16, wherein the first applet is preloaded with a plurality of PANs at the time that the contactless card is issued, and changing the first PAN to the second PAN comprises advancing to the next preloaded PAN.

18 The apparatus of claim 16, wherein the instruction to rewrite the identifier is received via the antenna using near field communication (NFC).

19. The apparatus of claim 16, wherein the instruction to rewrite the identifier registered by the encryption and authentication logic as a tapping of the apparatus against an interactable element in a predetermined pattern.

20. The apparatus of claim 16, further comprising a rewritable display configured to display the identifier, and wherein rewriting the identifier comprises updating the rewritable display.