

**CLAIMS**

What is claimed is:

1. An apparatus, comprising:
  - a near-field communication (NFC) interface;
  - a network interface;
  - a memory to store instructions; and
  - processing circuitry, coupled with the memory, the NFC interface, and the network interface, operable to execute the instructions, that when executed, cause the processing circuitry to:
    - establish, via the NFC interface, a communication link with a transaction card;
    - send, via the NFC interface on the communication link, an indication of an attempt to execute an applet for the transaction card, wherein the applet is stored in memory of the transaction card;
    - receive, via the NFC interface on the communication link, a counter value associated with the applet;
    - send, via the network interface, a first message to a server, the first message comprising the counter value, and an identifier to identify the applet;
    - receive, via the network interface, a second message from the server, the second message comprising an indication to permit the attempt to execute the applet or an indication to deny the attempt to execute the applet; and
    - permit the attempt to execute the applet based on the indication to permit received in the second message or deny the attempt to execute the applet based on the indication to deny received in the second message.
2. The apparatus of claim 1, wherein the indication to execute an applet on the contactless comprises the identifier identifying the applet, and the processing circuitry to send, via the NFC interface on the communication link, the indication of the attempt to execute the applet in an applet select message.

3. The apparatus of claim 1, the processing circuitry to receive, via the NFC interface on the communication link, the counter value associated with the applet with a message authentication code (MAC) cryptogram, the MAC cryptogram comprising a shared secret concatenated with random data.

4. The apparatus of claim 3, wherein the MAC cryptogram and a random number is encrypted with a session key comprising the counter value and received in a near field data exchange (NDEF) message format.

5. The apparatus of claim 3, wherein the MAC cryptogram further comprises a uniform resource indicator associated with the applet, the uniform resource indicator to cause an action by the processing circuitry when the applet is permitted to executed.

6. The apparatus of claim 5, wherein the action comprises causing the processing circuitry perform at least one of launching a website in a web browser, launching an application for execution by the processing circuitry, and causing communication with another device.

7. The apparatus of claim 1, wherein the indication to permit the attempt to execute the applet is based on the counter value matching another counter value or the counter value being less than the another counter value, and wherein the another counter value is stored on the server.

8. The apparatus of claim 1, wherein the indication to halt the attempt to execute the applet is based on one of the counter value not matching the other counter value, the another counter value equaling a null value, and the other counter value greater than the counter value.

9. An apparatus, comprising:  
a network interface;  
a memory to store instructions; and

processing circuitry, coupled with the memory and the network interface, operable to execute the instructions, that when executed, cause the processing circuitry to:

receive, via the network interface, a first message from a client device, the first message comprising a counter value and an identifier to identify an applet, wherein the counter value is associated with the applet, and the counter value and applet are stored in memory of a transaction card;

determine another counter value stored in storage, the other counter value associated with the transaction card;

compare the counter value and the another counter value to determine whether to permit or deny an attempt to execute the applet for the transaction card;

based on the comparison between the counter value and the another counter value, determine whether to permit or deny the attempt to execute the applet for the transaction card; and

communicate a second message to the client device, comprising an indication to permit the attempt to execute the applet or an indication to deny the attempt to execute the applet.

10. The apparatus of claim 9, the processing circuitry to determine the counter value matches the another counter value based on the comparison and communicate the second message to indicate to the client device to proceed with attempt to execute the applet.

11. The apparatus of claim 9, the processing circuitry to determine the counter value is less than the another counter value based on the comparison and communicate the second message to indicate to the client device to proceed with attempt to execute the applet.

12. The apparatus of claim 9, the processing circuitry to determine the counter value does not match the another counter value based on the comparison and

communicate the second message to indicate to the client device to halt the attempt to execute the applet.

13. The apparatus of claim 9, the processing circuitry to determine the another counter value associated with the applet is set to a null value and communicate the second message to indicate to the client device to halt the attempt to execute the applet.

14. The apparatus of claim 9, comprising:  
storage to store a data store including one or more counter values; and  
the processing circuitry to perform a lookup in the data store based on the identifier to determine the another counter value associated with the applet and retrieve the another counter value from the one or more counter values stored in the data store based on the lookup.

15. The apparatus of claim 9, the processing circuitry to:  
receive an indication to disable the applet on the transaction card, the indication comprising the identifier to identify the applet and the counter value stored on the transaction card and associated with the applet, wherein the indication is received from one the client device, an automatic teller machine (ATM), and a web-based application of a personal computer; and  
set the another counter value associated with the applet to a value in a data store storing one or more counter values for the transaction card, the value to indicate the applet is disabled.

16. The apparatus of claim 15, wherein the value is set for the another counter value is less than the counter value received in the indication to disable the applet.

17. The apparatus of claim 15, wherein the value is set for the another counter value to a null value to disable the applet.

18. The apparatus of claim 9, the processing circuitry to:  
receive an indication to enable the applet on the transaction card, the indication comprising the identifier to identify the applet and the counter value stored on the transaction card and associated with the applet, wherein the indication is received from one the client device, an automatic teller machine (ATM), and a web-based application of a personal computer; and  
set the another counter value associated with the applet to the counter value received in the indication to enable in a data store storing one or more counter values for the transaction card, the value to indicate the applet is enabled.