WE CLAIM

1. A method of communicating application data between an NFC terminal and an integrated circuit card (ICC), the method including:

designating a first memory location on the ICC and a second memory location on the ICC, the first memory location designated for storing a one command application data unit (C-APDU), the second memory location designated for storing one response application data unit (R-APDU);

writing, by the application on the NFC terminal, a first C-APDU to the first memory location, the first C-APDU containing a first sequence number;

reading, by the application on the NFC terminal from the second memory location, a first R-APDU, the first R-APDU containing a second sequence number, the second sequence number greater than the first sequence number;

responsive to the second sequence number in the R-ADPU being greater than the first sequence number, processing the R-APDU at the application on the NFC terminal;

generating, by the application on the NFC terminal, a subsequent C-APDU;

writing, by the application on the NFC terminal, the subsequent C-APDU to the first memory location on the ICC;

reading the second memory location on the ICC via the application on the NFC terminal after writing the subsequent C-APDU to the first memory location of the ICC;

comparing a contents of the second memory location to the first R-APDU; and

repeating the steps of reading the contents of the second memory location on the ICC and comparing the contents of the second memory to the first R-APDU until the contents of the second memory do not equal the first R-APDU;

processing the contents of the second memory as a second R-APDU; and

completing communication between the application on the NFC terminal and an applet on the ICC using successive data transfers via the first

memory location for data for C-APDU data sent from the NFC terminal to the ICC and the second memory location for R-APDU data read from the ICC.

2. The method of claim 1, further comprising generating the first sequence number at the NFC terminal prior to generating the first C-APDU to send to the ICC.

3. The method of claim 1, further comprising:

reading data the first memory location via the applet on the ICC;

evaluating the data as a C-APDU as part of a payment process;

processing the R-APDU responsive to requirements associated with the C-APDU; and

writing the R-APDU to the second memory location, overwriting any existing data in the second memory location.

4. The method of claim 1, further comprising:

encrypting the first C-APDU prior to writing to the first C-APDU to the first memory location.

5. The method of claim 1, wherein writing, by the application on the NFC terminal, the first C-APDU to the first memory location comprises writing the first C-APDU using a NFC Type 4 tag write memory command.

6. The method of claim 1, wherein reading the first R-APDU by the application on the NFC terminal comprises reading the first R-APDU using a NFC Type 4 tag read memory command.

7. A system for transferring application session data during an application session between an NFC terminal and an integrated circuit card (ICC), comprising:

a first memory location on the ICC that stores data accessible to both the ICC and the NFC terminal, the first memory location used by convention for storing a command application data unit (C-APDU);

a second memory location on the ICC that stores data accessible to both the ICC and the NFC terminal, the second memory location used by convention for storing a response application data unit (R-APDU);

the NFC terminal executing an application, the application performing steps:

generating a unique number associated with the application session;

generating a first C-APDU;

writing the first C-APDU to the first memory location;

reading the second memory location;

determining that the second memory location contains an R-APDU ; and

processing the R-APDU, and

an applet on the ICC, the applet performing the steps:

checking the first memory location for a change from a previous value;

responsive to a new value at the first memory location, processing the contents of the first memory location as a C-APDU;

generating an R-APDU responsive to the C-APDU; and

writing the R-APDU to the second memory location on the ICC, overwriting any previous data in the second memory location.

8. The system of claim 7, wherein the applet contains a payment function and an NDEF function, the NDEF function responsive to a trigger caused by data being written to the first memory location and a payment function performing transaction-related processing for responding to C-APDUs related to a payment request.

9. The system of claim 7, further comprising launching the applet on the ICC responsive to an NFC Data Exchange Format (NDEF) message being written to the first memory.

10. The system of claim 7, wherein the unique number is a nonce, the method further comprising writing a tag memory location with the nonce, wherein determining that the second memory location contains an R-APDU comprises determining that the tag memory has a new nonce.

11. The system of claim 7, wherein the unique number is a sequence number that is incremented for each message transmission, the sequence number included in the C-APDU.

12. The system of claim 7, wherein the unique number is a sequence number that is incremented for each message transmission, the sequence number included in the R-APDU.

13. The system of claim 7, wherein the R-APDU contains a personal account number associated with the ICC, the ICC being a bank payment card.

14. A method of communicating application protocol data between an NFC terminal and an integrated circuit card (ICC), the method including:

reserving a first memory location on the ICC for receiving data from the NFC terminal;

reserving a second memory location on the ICC for sending data to the NFC terminal;

activating a payment applet on the ICC responsive to data being written to the first memory location, wherein activating the payment applet on the ICC comprises setting a flag on the first memory location to activate the payment applet responsive to receipt of data at the first memory location;

i) responsive to determining a contents of the first memory location is different from a previous contents of the first memory location, parsing the memory contents of the first memory location into a command application protocol data unit (C-APDU);

ii) processing the C-APDU via the payment applet to generate a response application protocol data unit (R-APDU); and

writing the R-APDU to the second memory location, wherein the steps i and ii are repeated to a programmatic end of a data processing function of the applet with the NFC terminal.

15. The method of claim 14, wherein the ICC is a payment card.

16. The method of claim 14, wherein a protocol used to read and write data to the first and second memory locations is an NFC data exchange (NDEF) protocol.

17. The method of claim 14, wherein the R-APDU is an error message responsive to the C-APDU being unparsable.