

Claims

1. An NFC Active Tag (1) comprising of
 - a. a radio frequency (RF) transceiver chip (2) for long range communication with wireless network (10); and
 - b. a near field communication (NFC) chip (3) for close proximity wireless communication (7) reading/writing of information with an NFC device (8).
2. An NFC Active Tag (1) of claim 1, wherein the said RF transceiver is connected to the NFC chip (3) via an electrical interface bus (5).
3. The NFC Active Tag (1) of claim 1 further comprising:
 - a. an RF antenna (6); and
 - b. a short range NFC antenna (4);wherein the RF antenna (6) is connected to the RF transceiver chip (2) and the NFC antenna (4) is connected to the NFC chip (3)
4. The NFC Active Tag (1) of claim 1: wherein data exchanging between the said RF transceiver chip (2) and the NFC chip (3) via the electrical interface bus (5) ; the NFC chip (3) , having been activated by external NFC device (8) (eg. NFC enabled mobile phone), sending an interrupt signal to the RF transceiver chip (2) ; the RF transceiver chip (2) communicating with the NFC chip (3) via the electrical interface bus (5) to exchange data to and from the external NFC device (8) via the NFC chip (3) .
5. The NFC Active Tag (1) of claim 1: wherein data exchanging between the said RF transceiver chip (2) and the NFC chip (3) via the electrical interface bus (5); the RF transceiver chip (2) periodically checking with the NFC chip (3) if any new data is present, if so exchanging data to and from the NFC chip (3) via the electrical interface bus (5).
6. The claim 4 and 5 further comprising of securing the data exchange between the RF transceiver chip (2) and the NFC chip (3) via an electrical interface bus (5);
7. The claim 6 wherein the RF transceiver chip (2) and NFC chip (3) will use scrambling techniques or encryption methods to read and write data so that the data exchanging will not be in plain text or actual values.
8. The NFC Active Tag (1) of claim 1: wherein the data from NFC device (8) as in claim 4 and 5 is uploaded to the back-end server using the long

range wireless network (10) which the NFC Active Tag (1) is connected to.

9. The NFC Active Tag (1) of claim 1: wherein the data from back-end server using the long range wireless network (10) which the NFC Active Tag (1) is connected to is written to the NFC device (8) as in claim 4 and 5.