

CLAIMS

1. A method of operating a merchant payment terminal comprising:-
receiving an activation input,
5 simultaneously outputting a first wireless signal and a second wireless signal, in response to receiving an activation input, wherein the first wireless signal is for communicating with an NFC enabled card or smartphone with NFC, and the second wireless signal is for communicating with a BLE enabled smartphone, wherein the first and second wireless signals are formatted in respective mutually different first and second protocols,
10 receiving a reply to either one of the first and second wireless signals, and terminating outputting of the other of the first and second wireless signals, in response to receiving the reply.
2. The method of claim 1, further comprising processing the reply to authenticate the NFC
15 enabled card, the smartphone with NFC, or the BLE enabled smartphone to thereby establish a communication channel.
3. The method of claim 1, further comprising processing the reply to authenticate the NFC enabled card, the smartphone with NFC, or the BLE enabled smartphone, and after the processing
20 step implementing the terminating step.
4. The method of claim 2, further comprising
receiving from the communication channel, data indicative of a user;
receiving, at an input, data indicative of a transaction amount; and
25 transferring the data indicative of a user and data indicative of a transaction amount to a server.
5. The method of claim 4, further comprising
receiving from the communication channel data indicative of a one-time verifier for
30 identifying a current transaction; and transferring the data indicative of the one-time verifier to the server.

6. The method of claim 5, further comprising outputting a new one-time verifier over the communication channel.

7. The method of claim 1, further comprising communicating with a server information
5 indicative of which of the first and second wireless signals is responded to.

8. A merchant payment terminal for communicating wirelessly with an external device, the merchant payment terminal comprising

10 a processing device, and
a store holding instructions to control the processing device to cause the merchant payment terminal to respond to an activation input to output simultaneously:

a first wireless signal for communicating with an NFC enabled card or a smartphone with NFC, and

15 a second wireless signal for communicating with a BLE enabled smartphone,
wherein the first and second wireless signals are formatted in respective mutually different first and second protocols,

wherein the processing device, in response to receiving a reply to either one of the first and second wireless signals, is configured to terminate outputting of the other of the first and second wireless signals.

20

9. The merchant payment terminal of claim 8, further comprising a keypad for providing the activation signal, a display for displaying information under control of the processing device, and an output device for communicating with a server.

25 10. The merchant payment terminal of claim 8, further comprising a first wireless device configured to output the first wireless signal and a second wireless device configured to output the second wireless signal, both under control of the processing device.

30 11. The merchant payment terminal of claim 8, further comprising a security device comprising a store for security keys, the security device being configured to use the keys to encrypt or decrypt data for use by the merchant payment terminal.

12. The merchant payment terminal of claim 8, further comprising a ~~personal area network device~~near field communication device configured to output the first wireless signal.

13. The merchant payment terminal of claim 8, further comprising a ~~near field communication device~~personal area network device configured to output the second wireless signal.

14. A computer program, computer program product or non-transitory storage medium storing instructions which, when executed by a processor, cause the processor to perform the method of any one of claims 1 to 7.