

CLAIMS

1. A method comprising,
in response to interfacing a mobile communications device configured for
near field communications, “NFC”, with an NFC interface module of a transaction
terminal system, exchanging information between a mobile application on the
mobile communications device and the transaction terminal system, wherein the
information exchanged includes at least one of
information held by the transaction terminal system that is indicative
of a terminal system currency of the transaction terminal system, and
information held on the mobile communications device that is
indicative of a user currency;
comparing, by the transaction terminal system or the mobile application, the
terminal system currency to the user currency, and where there is a difference,
causing a currency choice offering to be displayed on a display of the mobile
communications device; and
in response to user selecting the user currency, causing a transaction to be
performed in the user currency.
2. The method of claim 1, wherein the display of the mobile communications device
is configured to allow a user to select a currency choice offering.
3. The method of claim 1 or claim 2, wherein the exchange of information is
performed responsive to at least a first tap of the mobile communications device on the
NFC interface module of the transaction terminal system.
4. The method of any one of the preceding claims, wherein causing a currency choice
offering to be displayed on a display of the mobile communications device comprises
displaying an amount of a transaction in at least one currency, including at least one of the
terminal system currency and user currency.
5. The method of any one of the preceding claims, wherein causing a currency choice
offering to be displayed on a display of the mobile communications device comprises

displaying an amount of a transaction in at least one currency including the user currency and displaying at least one of a currency conversion rate and a currency conversion charge between the terminal system currency and the user currency.

5 6. The method of claim 4 or claim 5, wherein the amount of the transaction is determined by the transaction terminal system as a result of input of information for goods or services to be purchased.

7. The method of any one of the preceding claims, wherein:
10 in response to interfacing the mobile communications device with the NFC interface module of the transaction terminal system, the mobile application is caused to be activated for the exchange of information.

8. The method of any one of the preceding claims, comprising maintaining, by at least
15 one of the transaction terminal system or the mobile application, currency conversion values for converting transaction amounts between currencies.

9. The method of claim 8, wherein currency conversion value identifies a currency conversion rate between a first currency and a second currency and indicates the expiry of
20 validity of the currency conversion rate.

10. The method of claim 9, wherein, where one of the transaction terminal system or the mobile application accesses a currency conversion value for which the validity of the currency conversion rate has expired, said one of the transaction terminal system or the
25 mobile application accesses a remote server to obtain a current currency conversion value.

11. The method of any one of the preceding claims, comprising determining a location of the mobile communications device by using geo-location, the location of a mobile telecommunications cell to which the mobile communication device is connected, or the
30 location of a transaction terminal system to which it is connected, and causing currency conversion values to be downloaded from a remote server to the mobile application based on the determined location of the mobile communications device.

12. The method of any one of the preceding claims comprising, in response to determining the terminal system currency and the user currency as a result of said comparing, by the transaction terminal system or the mobile application, of the terminal system currency to the user currency, causing a current currency conversion value from the transaction currency to the user currency to be downloaded from a remote server to one of the transaction terminal system or the mobile application.

13. The method of any one of the preceding claims, comprising maintaining, by at least one of the transaction terminal system and the mobile communications device, a session identifier identifying a transaction session, wherein the session identifier identifies a stage in processing of a session, whereby in the event of a session being interrupted by a break in NFC communication, the session can be restarted on resumption of the NFC session.

14. The method of any one of the preceding claims, wherein at least one of the transaction terminal system and the mobile communications device is operable to identify a break in NFC communication and to prompt a user to re-establish an interface between the mobile communications device with the transaction terminal system.

15. One or more computer programs comprising program code operable to carry out the method of any of the preceding claims.

16. A transaction terminal system, comprising a near field communications, "NFC" interface module, the transaction terminal system being configured, in response to interfacing of a mobile communications device configured for NFC with the NFC interface module of the transaction terminal system:

to cause an exchange of information between a mobile application on the mobile communications device and the transaction terminal system, wherein the information exchanged includes at least one of

information held by the transaction terminal system that is indicative of a terminal system currency of the transaction terminal system, and
information held on the mobile communications device that is indicative of a user currency;

to compare the terminal system currency to the user currency, and where there is a difference, causing a currency choice offering to be displayed on a display of the mobile communications device; and

in response to user selection of the user currency, causing a transaction to be performed in the user currency.

17. The transaction terminal system of claim 16, wherein the display of the mobile communications device is configured to allow a user to select a currency choice offering.

18. The transaction terminal system of claim 16 or claim 17, further configured to perform the exchange of information responsive to at least a first tap of the mobile communications device on the NFC interface module of the transaction terminal system.

19. The transaction terminal system of any of claims 16 to 18, configured to determine the amount of the transaction as a result of input of information for goods or services to be purchased.

20. The transaction terminal system of any one of claims 16 to 19, configured, in response to determining that the terminal system currency and the user currency differ, to cause a current currency conversion value from the transaction currency to the user currency to be downloaded from a remote server to the transaction terminal system.

21. The transaction terminal system of any one of claims 16 to 20, configured to maintain a session identifier identifying a transaction session, wherein the session identifier identifies a stage in processing of a session, whereby in the event of a session being interrupted by a break in NFC communication, the session is restarted on resumption of the NFC session.

22. The transaction terminal system of any one claims 16 to 21, configured to identify a break in NFC communication and to prompt a user to re-establish an interface between the mobile communications device with the transaction terminal system.

23. A mobile communications device comprising a near field communications, "NFC" interface module, the mobile communications device being configured, in response to interfacing of the mobile communications device with an NFC interface module of a transaction terminal system:

5 to exchange of information between a mobile application on the mobile communications device and the transaction terminal system, wherein the information exchanged includes at least one of

information held by the transaction terminal system that is indicative of a terminal system currency of the transaction terminal system, and

10 information held on the mobile communications device that is indicative of a user currency;

in response to receiving a currency choice offering from the transaction terminal system, to display the currency choice offering on a display of the mobile communications device; and

15 in response to user selection of the user currency, to transmit the user selection to the transaction terminal system for a transaction to be performed in the user currency.

24. The mobile communications device of claim 23, wherein the display of the mobile communications device is configured to allow a user to select a currency choice offering.

25. The mobile communications device of claim 23 or claim 24, configured to perform the exchange of information responsive to at least a first tap of the mobile communications device on the NFC interface module of the transaction terminal system.

26. The mobile communications device of any one of claims 23 to 25, configured to display an amount of a transaction in at least one currency, including at least one of the terminal system currency and user currency.

30 27. The mobile communications device of any one of claims 23 to 26, configured to display an amount of a transaction in at least one currency including the user currency and displaying at least one of a currency conversion rate and a currency conversion charge between the terminal system currency and the user currency.

28. The mobile communications device of any one of claims 23 to 27, configured, in response to interfacing the mobile communications device with the NFC interface module of the transaction terminal system, to cause the mobile application to be activated for the exchange of information.

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29. The mobile communications device of any one of claims 23 to 28, configured to maintain a session identifier identifying a transaction session, wherein the session identifier identifies a stage in processing of a session, whereby in the event of a session being interrupted by a break in NFC communication, the session can be restarted on resumption of the NFC session.

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30. The mobile communications device of any one claims 23 to 29, configured to identify a break in NFC communication and to prompt a user to re-establish an interface between the mobile communications device with the transaction terminal system.

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CLAIMS

1. A method comprising,

in response to interfacing a mobile communications device configured for near field communications, “NFC”, with an NFC interface module of a transaction terminal system, exchanging information between a mobile application on the mobile communications device and the transaction terminal system, wherein the information exchanged includes at least one of

information held by the transaction terminal system that is indicative of a terminal system currency of the transaction terminal system, and

information held on the mobile communications device that is indicative of a user currency;

comparing, by the transaction terminal system or the mobile application, the terminal system currency to the user currency, and where there is a difference, causing a currency choice offering to be displayed on a display of the mobile communications device, wherein the display of the mobile communications device is configured to allow a user to select a currency choice; and

in response to user selecting the user currency, causing a transaction to be performed in the user currency, wherein the transaction is caused to be performed in the user currency in response to user selection of currency choice offering using the display of the mobile communications device.

2. The method of claim 1, wherein the exchange of information is performed responsive to at least a first tap of the mobile communications device on the NFC interface module of the transaction terminal system.

3. The method of claim 1 or claim 2, wherein causing a currency choice offering to be displayed on a display of the mobile communications device comprises displaying an amount of a transaction in at least one currency, including at least one of the terminal system currency and user currency.

4. The method of any one of the preceding claims, wherein causing a currency choice offering to be displayed on a display of the mobile communications device comprises displaying an amount of a transaction in at least one currency including the user currency and displaying at least one of a currency conversion rate and a currency conversion charge between the terminal system currency and the user currency.

5. The method of claim 3 or claim 4, wherein the amount of the transaction is determined by the transaction terminal system as a result of input of information for goods or services to be purchased.

6. The method of any one of the preceding claims, wherein:
in response to interfacing the mobile communications device with the NFC interface module of the transaction terminal system, the mobile application is caused to be activated for the exchange of information.

7. The method of any one of the preceding claims, comprising maintaining, by at least one of the transaction terminal system or the mobile application, currency conversion values for converting transaction amounts between currencies.

8. The method of claim 7, wherein currency conversion value identifies a currency conversion rate between a first currency and a second currency and indicates the expiry of validity of the currency conversion rate.

9. The method of claim 8, wherein, where one of the transaction terminal system or the mobile application accesses a currency conversion value for which the validity of the currency conversion rate has expired, said one of the transaction terminal system or the mobile application accesses a remote server to obtain a current currency conversion value.

10. The method of any one of the preceding claims, comprising determining a location of the mobile communications device by using geo-location, the location of a mobile telecommunications cell to which the mobile communication device is connected, or the location of a transaction terminal system to which it is connected, and causing currency

conversion values to be downloaded from a remote server to the mobile application based on the determined location of the mobile communications device.

11. The method of any one of the preceding claims comprising, in response to
5 determining the terminal system currency and the user currency as a result of said comparing, by the transaction terminal system or the mobile application, of the terminal system currency to the user currency, causing a current currency conversion value from the transaction currency to the user currency to be downloaded from a remote server to one of the transaction terminal system or the mobile application.

12. The method of any one of the preceding claims, comprising maintaining, by at least one of the transaction terminal system and the mobile communications device, a session identifier identifying a transaction session, wherein the session identifier identifies a stage in processing of a session, whereby in the event of a session being interrupted by a break in
15 NFC communication, the session can be restarted on resumption of the NFC session.

13. The method of any one of the preceding claims, wherein at least one of the transaction terminal system and the mobile communications device is operable to identify a break in NFC communication and to prompt a user to re-establish an interface between the
20 mobile communications device with the transaction terminal system.

14. One or more computer programs comprising program code operable to carry out the method of any of the preceding claims.

25 15. A transaction terminal system, comprising a near field communications, "NFC" interface module, the transaction terminal system being configured, in response to interfacing of a mobile communications device configured for NFC with the NFC interface module of the transaction terminal system:

to cause an exchange of information between a mobile application on the
30 mobile communications device and the transaction terminal system, wherein the information exchanged includes at least one of

information held by the transaction terminal system that is indicative of a terminal system currency of the transaction terminal system, and

information held on the mobile communications device that is indicative of a user currency;

5 to compare the terminal system currency to the user currency, and where there is a difference, causing a currency choice offering to be displayed on a display of the mobile communications device, wherein the display of the mobile communications device is configured to allow a user to select a currency choice offering; and

10 in response to user selection of the user currency, causing a transaction to be performed in the user currency, wherein the transaction is caused to be performed in the user currency in response to user selection of currency choice offering using the display of the mobile communications device.

15 16. The transaction terminal system of claim 15, further configured to perform the exchange of information responsive to at least a first tap of the mobile communications device on the NFC interface module of the transaction terminal system.

17. The transaction terminal system of claim 15 or 16, configured to determine the
20 amount of the transaction as a result of input of information for goods or services to be purchased.

18. The transaction terminal system of any one of claims 15 to 17, configured, in response to determining that the terminal system currency and the user currency differ, to
25 cause a current currency conversion value from the transaction currency to the user currency to be downloaded from a remote server to the transaction terminal system.

19. The transaction terminal system of any one of claims 15 to 18, configured to maintain a session identifier identifying a transaction session, wherein the session identifier
30 identifies a stage in processing of a session, whereby in the event of a session being interrupted by a break in NFC communication, the session is restarted on resumption of the NFC session.

20. The transaction terminal system of any one claims 15 to 19, configured to identify a break in NFC communication and to prompt a user to re-establish an interface between the mobile communications device with the transaction terminal system.

21. A mobile communications device comprising a near field communications, "NFC" interface module, the mobile communications device being configured, in response to interfacing of the mobile communications device with an NFC interface module of a transaction terminal system:

to exchange of information between a mobile application on the mobile communications device and the transaction terminal system, wherein the information exchanged includes at least one of

information held by the transaction terminal system that is indicative of a terminal system currency of the transaction terminal system, and

information held on the mobile communications device that is indicative of a user currency;

in response to receiving a currency choice offering from the transaction terminal system, to display the currency choice offering on a display of the mobile communications device, wherein the display of the mobile communications device is configured to allow a user to select a currency choice offering; and

in response to user selection of the user currency, to transmit the user selection to the transaction terminal system for a transaction to be performed in the user currency, wherein the transaction is caused to be performed in the user currency in response to user selection of currency choice offering using the display of the mobile communications device.

22. The device of claim 21, configured to perform the exchange of information responsive to at least a first tap of the mobile communications device on the NFC interface module of the transaction terminal system.

23. The device of claim 21 or 22, configured to display an amount of a transaction in at least one currency, including at least one of the terminal system currency and user currency.

24. The device of any one of claims 21 to 23, configured to display an amount of a transaction in at least one currency including the user currency and displaying at least one of a currency conversion rate and a currency conversion charge between the terminal system currency and the user currency.

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25. The device of any one of claims 21 to 24, configured, in response to interfacing the mobile communications device with the NFC interface module of the transaction terminal system, to cause the mobile application to be activated for the exchange of information.

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26. The device of any one of claims 21 to 25, configured to maintain a session identifier identifying a transaction session, wherein the session identifier identifies a stage in processing of a session, whereby in the event of a session being interrupted by a break in NFC communication, the session can be restarted on resumption of the NFC session.

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27. The device of any one claims 21 to 26, configured to identify a break in NFC communication and to prompt a user to re-establish an interface between the mobile communications device with the transaction terminal system.