Claims

1. A computerised network for carrying out payment transactions of a plurality of electronic wallets, the network comprising:

at least one merchant computer apparatus, each merchant computer apparatus configured to:

accept payment transactions using the plurality of electronic wallets;

receive transaction details of each of the payment transactions, the transaction details identifying at least one of the plurality of electronic wallets of a consumer, an electronic wallet service provider associated with the at least one of the plurality of electronic wallets, and a payment amount; and

transmit a transaction request for each of the payment transactions, the transaction request comprising the transaction details and a merchant identifier associated with each merchant computer apparatus;

a database configured to associate issuing institutions with a plurality of electronic wallet service providers; and

a universal wallet server, the universal wallet server configured to:

receive the transaction request;

query the database to identify an issuing institution for the electronic wallet service provider;

transmit an authorisation request to the issuing institution for seeking an approval by the issuing institution to authorise the transaction request, the authorisation request being communicated to the electronic wallet service provider;

receive an authorisation response from the issuing institution, the authorisation response indicating the approval or a refusal by the issuing institution to proceed with the transaction request based on a communication from the electronic wallet service provider indicating whether to proceed with the payment transaction; and

transmit a transaction response to the merchant computer apparatus, the transaction response comprising the approval or the refusal of the transaction request.

2. A universal wallet server for carrying out payment transactions of a plurality of electronic wallets, the universal wallet server comprising at least one processor configured to:

receive a transaction request associated with a payment transaction from a merchant computer apparatus, the transaction request identifying:

at least one of the plurality of electronic wallets;

a payment amount for the payment transaction;

an electronic wallet service provider associated with the at least one of the plurality of electronic wallets; and

a merchant identifier associated with the merchant computer apparatus;

query a database to identify an issuing institution for the electronic wallet service provider, the database associating issuing institutions to a plurality of the electronic wallet service providers;

transmit an authorisation request to the issuing institution for seeking an approval by the issuing institution to authorise the transaction request, the authorisation request being communicated to the electronic wallet service provider;

receive an authorisation response from the issuing institution, the authorisation response indicating the approval or a refusal by the issuing institution to proceed with the transaction request based on a communication from the electronic wallet service provider indicating whether to proceed with the payment transaction; and

transmit a transaction response to the merchant computer apparatus, the transaction response comprising the approval or the refusal of the transaction request.

3. The universal wallet server according to claim 2, wherein the at least one processor is further configured to:

receive, from an acquiring institution for a merchant, a settlement transaction request from the merchant computer apparatus, the settlement transaction request comprising a list of payment transactions made by electronic wallets via the merchant computer apparatus within a predetermined time period;

sort the settlement transaction request by associating each of the payment transactions to a corresponding issuing institution associated with each electronic wallet service provider identified in each of the payment transactions;

transmit a settlement request to each of the corresponding issuing institutions for payment transactions associated with each of the corresponding issuing institutions made at the merchant computer apparatus;

receive a settlement response comprising funds to settle the payment transactions from each of the corresponding issuing institutions;

transmit the funds to the acquiring institution; and

send a settlement transaction response to the merchant computer apparatus via the acquiring institution indicating that the list of payment transactions has been settled.

4. The universal wallet server according to claim 3, wherein the at least one processor is further configured to:

consolidate settled payment transactions from each of the corresponding issuing institutions into a consolidated statement; and

send the consolidated statement to the merchant computer apparatus.

5. The universal wallet server according to any one of claims 2 to 4, wherein the at least one processor is further configured to:

determine if the electronic wallet service provider associated with the at least one of the plurality of electronic wallets can be identified in the database, wherein the electronic wallet service provider can be identified in the database if the electronic wallet service provider is registered in the database; and

transmit a rejection response to the merchant computer apparatus if determined that the electronic wallet service provider cannot be identified in the database.

6. The universal wallet server according to any one of claims 2 to 5, wherein the at least one processor is further configured to:

transmit a verification request for the transaction request to a consumer device, the consumer device being associated with the at least one of the plurality of electronic wallets in the payment transaction, the verification request comprising the at least one of the plurality of electronic wallets and a payment amount; and

receive a verification response from the consumer device, the verification response indicating an approval or a refusal for the transaction request to proceed.

7. A computer-implemented method for carrying out payment transactions using a plurality of electronic wallets, the method being carried out at a universal wallet server and comprising:

receiving a transaction request associated with a payment transaction from a merchant computer apparatus, the transaction request identifying:

at least one of the plurality of electronic wallets;

a payment amount for the payment transaction;

an electronic wallet service provider associated with the at least one of the plurality of electronic wallets; and

a merchant identifier associated with the merchant computer apparatus;

querying a database to identify an issuing institution for the electronic wallet service provider, the database associating issuing institutions with a plurality of electronic wallet service providers;

transmitting an authorisation request to the issuing institution for seeking an approval by the issuing institution to authorise the transaction request, the authorisation request being communicated to the electronic wallet service provider;

receiving an authorisation response from the issuing institution, the authorisation response indicating the approval or a refusal by the issuing institution to proceed with the transaction request based on a communication from the electronic wallet service provider indicating whether to proceed with the payment transaction; and

transmitting a transaction response to the merchant computer apparatus, the transaction response comprising the approval or the refusal of the transaction request.

8. The method according to claim 7 further comprising:

receiving, from an acquiring institution for a merchant, a settlement transaction request from the merchant computer apparatus, the settlement request comprising a list of payment transactions made by electronic wallets via the merchant computer apparatus within a predetermined time period;

sorting the settlement transaction request by associating each of the payment transactions to a corresponding issuing institution associated with each electronic wallet service provider identified in each of the payment transactions;

transmitting a settlement request to each of the corresponding issuing institutions for payment transactions associated with each of the corresponding issuing institutions made at the merchant computer apparatus;

receiving a settlement response comprising funds to settle the payment transactions from each of the corresponding issuing institutions;

transmitting the funds to the acquiring institution; and

sending a settlement transaction response to the merchant computer apparatus via the acquiring institution indicating that the list of payment transactions has been settled.

9. The method according to claim 8, wherein the step of sending the settlement transaction response further comprises:

consolidating settled payment transactions from each of the corresponding issuing institutions into a consolidated statement; and

sending the consolidated statement to the merchant computer apparatus.

10. The method according to any one of claims 7 to 9, wherein the step of querying the database further comprises:

determining if the electronic wallet service provider associated with the at least one of the plurality of electronic wallets can be identified in the database, wherein the electronic wallet service provider can be identified in the database if the electronic wallet service provider is registered in the database; and

transmitting a rejection response to the merchant computer apparatus if it is determined that the electronic wallet service provider cannot be identified in the database.

11. The method according to any one of claims 7 to 10 further comprising:

transmitting a verification request for the transaction request to a consumer device, the consumer device being associated with the at least one of the plurality of electronic wallets in the payment transaction, the verification request comprising the at least one of the plurality of electronic wallets and a payment amount; and

receiving a verification response from the consumer device, the verification response indicating an approval or a refusal for the transaction request to proceed.

12. The method according to claim 11 wherein the verification request further comprises an authentication request to authorise use of the at least one of the plurality of electronic wallets for the payment transaction, the authentication request requiring at least one of the following inputs from the consumer device: a personal identification number (PIN), a one-time password (OTP), a gesture or a biometric.

13. The method according to any one of claims 7 to 12, wherein the step of receiving the authorisation response further comprising:

determining, via the issuing institution, if an account balance associated with the at least one of the plurality of electronic wallets is more than or equal to the payment amount;

receiving the authorisation response from the issuing institution, the authorisation response comprising the approval by the issuing institution to proceed with the transaction request if it is determined that the account balance associated with the at least one of the plurality of electronic wallets is more than or equal to the payment amount.

14. The method according to any one of claims 7 to 13 wherein the step of receiving the transaction request is transmitted wirelessly.

15. The method according to any one of claims 7 to 14 wherein the issuing institution is one of the following: a bank, a financial technology company, or a financial institution.

16. The method according to any one of claims 7 to 15 further comprising repeating the steps of claim 8 for another payment transaction from the merchant computer apparatus for another one of the plurality of electronic wallets.

17. The method according to any one of claims 7 to 16 wherein the payment transactions carried out at the merchant computer apparatus are contactless transactions.

18. The method according to any one of claims 7 to 17 wherein the merchant computer apparatus comprises a point-of-sale terminal.

19. The method according to any one of claims 7 to 18 wherein the steps of receiving the transaction request and sending the transaction response are through an acquiring institution.