

WHAT IS CLAIMED IS:

1. A method for acceptance of blockchain payment at a traditional point of sale device through issuer processing, comprising:

receiving, by a receiver of a processing server, an authorization request for a fiat payment transaction originating from a point of sale device and routed through a payment network, wherein the authorization request includes at least a transaction account number and a transaction amount;

identifying, by a processor of the processing server, blockchain payment acceptance for a transaction account associated with the transaction account number;

receiving, by the receiver of the processing server, a destination address for an electronic wallet associated with a blockchain network;

transmitting, by a transmitter of the processing server, a new blockchain transaction to a blockchain node in the blockchain network, the new blockchain transaction including at least the destination address, a cryptocurrency amount based on the transaction amount, a digital signature, and one or more unspent transaction outputs;

receiving, by the receiver of the processing server, a transaction identifier from the blockchain node; and

transmitting, by the transmitter of the processing server, an authorization response for the fiat payment transaction to the payment network for routing to the point of sale device, wherein the authorization response includes an indication of approval of the fiat payment transaction and the transaction identifier.

2. The method of claim 1, further comprising:
transmitting, by the transmitter of the processing server, a routing message to an exchange server, wherein
the destination address is received from the exchange server in response to the routing message.
3. The method of claim 2, wherein the routing message is formatted pursuant to one or more standards used in formatting the authorization request and the authorization response.
4. The method of claim 2 or claim 3, wherein
the response to the routing message further includes an exchange rate, and
the cryptocurrency amount is based on the exchange rate and the transaction amount.
5. The method of any one of claims 1 to 4, further comprising:
identifying, by the processor of the processing server, a private key of a cryptographic key pair; and
generating, by the processor of the processing server, the digital signature using the private key.

6. The method of any one of claims 1 to 5, wherein the authorization response is formatted pursuant to a standard governing the exchange of financial transaction messages.
7. The method of claim 6, wherein the standard is ISO 8583.
8. The method of claim 6 or claim 7, wherein the transaction identifier is stored in a data element reserved for private use as specified in the standard.
9. A system for acceptance of blockchain payment at a traditional point of sale device through issuer processing, comprising:
 - a payment network;
 - a blockchain network comprised of a plurality of blockchain nodes;
 - a point of sale device; and
 - a processing server, the processing server including
 - a receiver receiving an authorization request for a fiat payment transaction originating from the point of sale device and routed through the payment network, wherein the authorization request includes at least a transaction account number and a transaction amount,
 - a processor identifying blockchain payment acceptance for a transaction account associated with the transaction account number, and
 - a transmitter, wherein

the receiver further receives a destination address for an electronic wallet associated with a blockchain network,

the transmitter transmits a new blockchain transaction to one of the plurality of blockchain nodes in the blockchain network, the new blockchain transaction including at least the destination address, a cryptocurrency amount based on the transaction amount, a digital signature, and one or more unspent transaction outputs,

the receiver receives a transaction identifier from the one of the plurality of blockchain nodes, and

the transmitter transmits an authorization response for the fiat payment transaction to the payment network for routing to the point of sale device, wherein the authorization response includes an indication of approval of the fiat payment transaction and the transaction identifier.

10. The system of claim 9, wherein

the transmitter of the processing server transmits a routing message to an exchange server, and

the destination address is received from the exchange server in response to the routing message.

11. The system of claim 10, wherein the routing message is formatted

pursuant to one or more standards used in formatting the authorization request and the authorization response.

12. The system of claim 10 or claim 11, wherein the response to the routing message further includes an exchange rate, and the cryptocurrency amount is based on the exchange rate and the transaction amount.

13. The system of any one of claims 9 to 12, wherein the processor of the processing server

identifies a private key of a cryptographic key pair, and generates the digital signature using the private key.

14. The system of any one of claims 9 to 13, wherein the authorization response is formatted pursuant to a standard governing the exchange of financial transaction messages.

15. The system of claim 14, wherein the standard is ISO 8583.

16. The system of claim 14 or claim 15, wherein the transaction identifier is stored in a data element reserved for private use as specified in the standard.