

WHAT IS CLAIMED IS:

1. A method for authorizing a blockchain-based transaction, comprising:

5 receiving, by a receiving device, a transaction request, wherein the transaction request includes at least a network identifier associated with a blockchain network, a transaction amount, and one of: a public key and an address identifier;

generating, by a processing device, an address identifier using at least the public key included in the received transaction request if the received
10 transaction request does not include an address identifier;

generating, by the processing device, a transaction message, wherein the transaction message includes a plurality of data elements, including at least a first data element configured to store a transaction amount and a second data element, and

15 the first data element includes a zero value and the second data element includes at least (i) the network identifier or an encoded value based on the network identifier, (ii) the address identifier, and (iii) the transaction amount; and

transmitting, by a transmitting device, the transaction message.
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2. The method of claim 1, further comprising:

receiving, by the receiving device, a return transaction message from a financial institution using a payment network, wherein the return transaction message includes a third data element configured to store a response code.
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3. The method of claim 2, further comprising:

transmitting, by the transmitting device, the return transaction message in response to the received transaction request.

30 4. The method of claim 2, wherein if the response code is indicative of approval of a transaction associated with the generated

transaction message, the second data element further includes a reference identifier.

5 5. The method of claim 4, wherein the reference identifier is at least one of: a value associated with a transaction conducted using the associated blockchain network and a digital signature generated based on at least a portion of the data included in the second data element included in the generated transaction message.

10 6. The method of claim 1, wherein the transaction message is formatted based on at least the ISO 8583 standard.

 7. The method of claim 1, wherein the transaction message includes a message type indicator indicative of an authorization message.
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 8. The method of claim 1, wherein the encoded value based on the network identifier is a hexadecimal value generated using at least the network identifier and one or more algorithms.

20 9. The method of claim 1, wherein the address identifier is generated further using the Base58Check encoding.

 10. The method of claim 1, wherein the transaction message includes a third data element configured to store a processing code indicative of a non-currency transaction.
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 11. A system for authorizing a blockchain-based transaction, comprising:
 a receiving device configured to receive a transaction request, wherein
30 the transaction request includes at least a network identifier associated with a blockchain network, a transaction amount, and one of: a public key and an address identifier;
 a processing device configured to

generate an address identifier using at least the public key included in the received transaction request if the received transaction request does not include an address identifier, and

generate a transaction message, wherein

5 the transaction message includes a plurality of data elements, including at least a first data element configured to store a transaction amount and a second data element, and

 the first data element includes a zero value and the second data element includes at least (i) the network identifier or an encoded
10 value based on the network identifier, (ii) the address identifier, and (iii) the transaction amount; and

a transmitting device configured to transmit the transaction message.

12. The system of claim 11, wherein the receiving device is further
15 configured to receive a return transaction message from a financial institution using a payment network, wherein the return transaction message includes a third data element configured to store a response code.

13. The system of claim 12, wherein the transmitting device is
20 further configured to transmit the return transaction message in response to the received transaction request.

14. The system of claim 12, wherein if the response code is indicative of approval of a transaction associated with the generated
25 transaction message, the second data element further includes a reference identifier.

15. The system of claim 14, wherein the reference identifier is at least one of: a value associated with a transaction conducted using the
30 associated blockchain network and a digital signature generated based on at least a portion of the data included in the second data element included in the generated transaction message.

16. The system of claim 11, wherein the transaction message is formatted based on at least the ISO 8583 standard.

17. The system of claim 11, wherein the transaction message
5 includes a message type indicator indicative of an authorization message.

18. The system of claim 11, wherein the encoded value based on the network identifier is a hexadecimal value generated using at least the network identifier and one or more algorithms.
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19. The system of claim 11, wherein the address identifier is generated further using the Base58Check encoding.

20. The system of claim 11, wherein the transaction message
15 includes a third data element configured to store a processing code indicative of a non-currency transaction.