

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
25 the financial institution using the payment network, wherein the return transaction message includes a third data element configured to store a response code.

3. The method of claim 2, further comprising:
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a receiving device configured to receive 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;

- 5 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
- 10 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
- 15 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

20 configured to receive a return transaction message from the financial institution using the 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

25 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

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