instability of blockchain currency, lack of processing speed, etc. However, it may be useful when used in conjunction with a transaction processing network to provide for added verification of traditionally processed transactions, and for increased performance and processing speed of blockchain transactions. Thus, there is a need for a technical solution where a payment transaction network may be used in conjunction with a blockchain network for increased processing of both types of transactions.

SUMMARY

The present disclosure provides a description of systems and methods for validating electronic transactions using a private blockchain.

A method for validating electronic transactions using a private blockchain includes: storing, in a memory of a processing server, a blockchain, wherein the blockchain is a distributed database that includes a plurality of data records, each data record being associated with a processed electronic transaction, wherein the processing server is a priority node in a blockchain network associated with the blockchain; receiving, by a receiving device of the processing server, a transaction message, wherein the transaction message is associated with an electronic transaction, is formatted based on one or more standards, and includes at least a message type indicator indicative of a type of transaction and a plurality of data elements, each data element configured to store a transaction data value; generating, by a generation module of the processing server, a data record, wherein the data record is associated with the electronic transaction and includes at least the message type indicator and one or more transaction data values stored in the plurality of data elements included in the received transaction message; updating, by an updating module of the processing server, the blockchain to include the generated data record; electronically transmitting, by a transmitting device of the processing server, the received transaction message to a payment network for processing; and electronically transmitting, by the transmitting device of the processing server, the updated blockchain to a plurality of transaction processing devices for validation.

A system for validating electronic transactions using a private blockchain includes: a memory of a processing server configured to store a blockchain, wherein the blockchain is a distributed database that includes a plurality of data records, each data record being associated with a processed electronic transaction, wherein the processing server is a priority node in a blockchain network associated with the blockchain; a receiving device of the processing server configured to receive a

WHAT IS CLAIMED IS:

1. A method for validating electronic transactions using a private blockchain, comprising:

storing, in a memory of a processing server, a blockchain, wherein the blockchain is a distributed database that includes a plurality of data records, each data record being associated with a processed electronic transaction, wherein the processing server is a priority node in a blockchain network associated with the blockchain;

receiving, by a receiving device of the processing server, a transaction message, wherein the transaction message is associated with an electronic transaction, is formatted based on one or more standards, and includes at least a message type indicator indicative of a type of transaction and a plurality of data elements, each data element configured to store a transaction data value;

generating, by a generation module of the processing server, a data record, wherein the data record is associated with the electronic transaction and includes at least the message type indicator and one or more transaction data values stored in the plurality of data elements included in the received transaction message;

updating, by an updating module of the processing server, the blockchain to include the generated data record;

electronically transmitting, by a transmitting device of the processing server, the received transaction message to a payment network for processing; and

electronically transmitting, by the transmitting device of the processing server, the updated blockchain to a plurality of transaction processing devices for validation.

2. The method of claim 1, wherein the type of transaction is one of: authorization, clearing, or settlement.

3. The method of claim 1, wherein the one or more standards includes the ISO 8583 standard.

4. The method of claim 1, wherein the transaction data value included in a data element of the plurality of data elements is one of: transaction amount, transaction time, transaction date, primary account number, merchant identifier, issuer identifier, acquirer identifier, processor identifier, and geographic location.

5. The method of claim 1, wherein the generated data record includes the received transaction message.

6. The method of claim 1, further comprising:

receiving, by the receiving device of the processing server, a further updated blockchain from a transaction processing device, wherein the further updated blockchain includes the plurality of data records, the generated data record, and a new data record; and

validating, by a validation module of the processing server, the new data record.

7. The method of claim 6, further comprising:

storing, in the memory of the processing server, one or more validation algorithms, wherein

the new data record is validated based on application of the one or more validation algorithms to data included in the new data record.

8. The method of claim 6, further comprising:

electronically transmitting, by the transmitting device of the processing server, a data signal superimposed with a confirmation of validation of the new data record to the transaction processing device.

9. The method of claim 1, wherein the processing server is a transaction processing device associated with the payment network.

10. The method of claim 1, wherein each of the plurality of transaction processing devices is associated with the payment network.

11. A system for validating electronic transactions using a private blockchain, comprising:

a memory of a processing server configured to store a blockchain, wherein the blockchain is a distributed database that includes a plurality of data records, each data record being associated with a processed electronic transaction, wherein the processing server is a priority node in a blockchain network associated with the blockchain;

a receiving device of the processing server configured to receive a transaction message, wherein the transaction message is associated with an electronic transaction, is formatted based on one or more standards, and includes at least a message type indicator indicative of a type of transaction and a plurality of data elements, each data element configured to store a transaction data value;

a generation module of the processing server configured to generate a data record, wherein the data record is associated with the electronic transaction and includes at least the message type indicator and one or more transaction data values stored in the plurality of data elements included in the received transaction message;

an updating module of the processing server configured to update the blockchain to include the generated data record; and

a transmitting device of the processing server configured to electronically transmit

the received transaction message to a payment network for processing, and

the updated blockchain to a plurality of transaction processing devices for validation.

12. The system of claim 11, wherein the type of transaction is one of: authorization, clearing, or settlement.

13. The system of claim 11, wherein the one or more standards includes the ISO 8583 standard.

14. The system of claim 11, wherein the transaction data value included in a data element of the plurality of data elements is one of: transaction amount, transaction time, transaction date, primary account number, merchant identifier, issuer identifier, acquirer identifier, processor identifier, and geographic location.

15. The system of claim 11, wherein the generated data record includes the received transaction message.

16. The system of claim 11, further comprising:

a validation module of the processing server, wherein

the receiving device of the processing server is further configured to receive a further updated blockchain from a transaction processing device, wherein the further updated blockchain includes the plurality of data records, the generated data record, and a new data record, and

the validation module of the processing server is configured to validate the new data record.

17. The system of claim 16, wherein

the memory of the processing server is further configured to store one or more validation algorithms, and

the new data record is validated based on application of the one or more validation algorithms to data included in the new data record.

18. The system of claim 16, wherein the transmitting device of the processing server is further configured to electronically transmit a data signal superimposed with a confirmation of validation of the new data record to the transaction processing device.

19. The system of claim 11, wherein the processing server is a transaction processing device associated with the payment network.

20. The system of claim 11, wherein each of the plurality of transaction processing devices is associated with the payment network.