

What is claimed is:

1. An electronic payment method supporting the use of digital currency, comprising:

obtaining payee information from a transaction medium; wherein the payee information includes a first payee address stored in a first data field of the transaction medium and a second payee address stored in a second data field of the transaction medium;

transmitting a first payment message to the first payee address and a second payment message to the second payee address based on a payment setting of a user;

wherein the first payee address is an address at a first blockchain network and the second payee address is an address at a second blockchain network,

wherein the payment setting of the user defines how payment amount is allocated between the first payee address and the second payee address.

2. The method of claim 1, wherein the payee information further includes an electronic currency payee address,

the method further comprises:

transmitting an electronic currency payment message to the electronic currency payee address based on the payment setting.

3. The method of claim 1, wherein the first blockchain network is different from the second blockchain network.

4. The method of claim 1, wherein the first data field includes an identifier of the first blockchain network and the second data field includes an identifier of the second blockchain network.

5. The method of any one of claims 1 to 4, wherein the payee information further includes a third payee address stored in a third data field of the transaction medium, and the third payee address is an address

at a third blockchain network, and wherein the third blockchain network is a redundant network of the first blockchain network or the second blockchain network.

6. The method of claim 5, wherein the transaction medium comprises at least one of:

- barcode;
- two-dimensional code;
- non-contact tag; and
- non-transitory computer-readable storage medium.

7. The method of claim 5, further comprising:
determining a first transaction route for paying a first amount of digital currency to the first payee address; and/or
determining a second transaction route for paying a second amount of digital currency to the second payee address.

8. The method of claim 7, further comprising:
determining a third transaction route to pay a third amount of digital currency to the third payee address when the first transaction route or the second transaction route is blocked.

9. The method of claim 5, wherein the transaction medium further stores digital currency header information including a flag bit, a first field for recording an amount of digital currency, and a second field for storing a check code of the header information.

10. The method of claim 9, wherein the second field further includes:
a first check code for checking the first payee address;
a second check code for checking the second payee address; and/or
a third check code for checking the third payee address.

11. A transaction system supporting the use of digital currency, configured to:

provide a transaction medium including a first data field and a second data field, wherein the first data field is used for storing a first payee address and the second data field is used for storing a second payee address; wherein the first payee address is an address at a first blockchain network and the second payee address is an address at a second blockchain network;

obtain a payment setting via a payment application of a user, wherein the payment setting of the user defines how payment amount is allocated between the first payee address and the second payee address;

provide a transaction route to transmit a first payment message to the first payee address and transmit a second payment message to the second payee address.

12. The transaction system of claim 11, wherein the transaction medium further includes an electronic currency payee address,

the transaction system is further configured to transmit an electronic currency payment message to the electronic currency payee address based on the payment setting.

13. The transaction system of claim 11, further configured to:

provide a first transaction route directed to the first payee address;

provide a second transaction route directed to the second payee address.

14. The transaction system of claim 11, further configured to:

provide a third transaction route directed to a third payee address,

wherein the third payee address is an address at a third blockchain network, and the third blockchain network is a redundant network of the first blockchain network or the second blockchain network.

15. The transaction system of any one of claims 11 to 14, further configured to check the first payee address and the second payee address by using digital currency header information stored in the transaction medium.

16. A machine-readable storage medium storing a plurality of computer-executable instructions thereon,

wherein the computer-executable instructions are configured to, when executed by a processor, implement the method of any one of claims 1 to 10.

17. A mobile payment device, comprising a memory, a processor and a computer program stored in the memory and executed by the processor, wherein the processor is configured to, when executing the computer program, implement each step of the method of any one of claims 1 to 10.