

CLAIMS

1. A computer- implemented method of transferring an asset on a blockchain network, comprising the steps of:

receiving and/or requesting, by a resource which is a transferee of the asset and from a further resource which is a transferor of the asset:

complete transaction data relating to at least one blockchain transaction; and
a Merkle path for the at least one blockchain transaction; and

using by the resource, the Merkle path and the complete transaction data to verify a Merkle proof for the at least one transaction.

2. A method according to claim 1 and further comprising the step of storing, at or on the resource: at least one public key and/or at least one private key.

3. A method according to claim 1 or 2 and further comprising the step of storing, receiving and/or requesting, at or on the resource: at least one block header.

4. A method according to claim 3 wherein the at least one block header is received from the further resource, and wherein the further resource comprises a digital wallet.

5. A method according to any preceding claim, and further comprising the step of requesting the Merkle path and complete transaction data by the resource and from the further resource.

6. A method according to any preceding claim, and further comprising the step of sending to the further resource: a public key address; and/or an transfer value.

7. A method according to any preceding claim, and comprising the step of sending, from the resource to the further resource, a request for transfer data comprising at least one of:

data relating to at least one unspent blockchain transaction output (UTXO);
a transaction ID (TXID) for a transaction containing the at least one unspent blockchain transaction output (UTXO);
a signature for spending at the at least one unspent blockchain transaction output (UTXO);

a Merkle path for a transaction containing the at least one unspent blockchain transaction output (UTXO); and/or
a public key address.

8. A method according to claim 7 wherein the transfer data is requested by the computer-implemented resource, and/or received from the further, using a blockchain transaction template.

9. A method according to claim 6 or 7 wherein the transfer data is received from the further resource in the form of a complete blockchain transaction or a partially complete blockchain transaction.

10. A method according to any preceding claim and further comprising the step of submitting a blockchain transfer transaction to a blockchain network upon successful verification of the Merkle proof for the at least one blockchain transaction.

11. A method according to any preceding claim wherein the resource comprises a digital wallet.

12. A computer-implemented system comprising a resource operative to facilitate a transfer of an asset on a blockchain network, and arranged to:

receive and/or request, from a further resource which is a transferor of the asset:

complete transaction data relating to at least one blockchain transaction; and

a Merkle path for the at least one blockchain transaction; and

use the Merkle path and the complete transaction data to verify a Merkle proof for the at least one transaction. .

13. A computer-implemented system according to claim 12 and wherein: the complete transaction data relating to the at least one blockchain transaction is received by the resource from the further resource in response to a request; the resource is operative to send, to the further resource, a transfer amount and an output address; and the first-at least one blockchain transaction comprises an output (UTXO) which spends an amount of cryptocurrency to an address specified or determined by the resource.

14. A computer-implemented system according to claims 12 or 13 and further comprising: a processor; and memory including executable instructions that, as a result of execution by the processor, causes the system to perform any embodiment of the method claimed in any of claims 1 to 11.

15. A non- transitory computer-readable storage medium having stored thereon executable instructions that, as a result of being executed by a processor of a computer system, cause the computer system to at least perform an embodiment of the method as claimed in claims 1 to 11.