

Claims

1. A method for secure transmission of funds, via a communications network, from a party A to at least one party B via a RTGS, the RTGS comprising a component associated with party A, a component associated with each of the at least one party B and a RTGS platform arranged to communicate via secure communication channels with the two components, the method comprising:

receiving at the RTGS platform, from the RTGS component associated with party A, an initiation message including details of the desired transaction, the details including at least the currency, the amount of funds to be transferred and the destination,

recording the transaction,

generating a block code from the details of the desired transaction,

transmitting, from the RTGS platform to the RTGS component associated with a single party B, a request fulfilment message including the block code,

receiving at the RTGS platform, from the RTGS component associated with the party B, a rate message including at least the rate for the transaction,

recording the further details of the transaction,

calculating a duration for a liquidity lock,

transmitting, from the RTGS platform to the RTGS component associated with party A, a transaction message including at least the rate, fees and a liquidity lock having a fixed duration, the liquidity lock instructing that the amount of funds be ringfenced at party A,

transmitting, from the RTGS platform to the RTGS component associated with the party B a liquidity lock having the fixed duration,

establishing a direct high speed connection between party A and party B,

receiving, from the RTGS component associated with party A, a confirmation message, and

in response to the confirmation message being received within the duration of the liquidity lock:

recording the completion of the transaction, and

transmitting, from the RTGS platform to the RTGS component associated with party A and to the RTGS component associated with party B, an irrevocable complete transaction message.

2. A method as claimed in claim 1, after transmission of the duration of the liquidity lock to the components associated with the parties A and B, the RTGS platform receiving a locking confirmation message from both the RTGS component associated with Party A and the RTGS component associated with Party B.
3. A method as claimed in claim 1 or claim 2, wherein the RTGS platform records the transaction details in a distributed ledger.
4. A method as claimed in claim 1, claim 2 or claim 3, further comprising the RTGS platform transmitting a plurality of rates to the RTGS component associated with party A.
5. A method as claimed in any one of claims 1 to 4, further comprising starting a timer corresponding to the period during which the liquidity lock will be valid.
6. A method as claimed in any one of claims 1 to 5 wherein the duration of the liquidity lock is less than 30 seconds, preferably less than 20 seconds and further preferably less than 8 seconds.
7. A method as claimed in any one of the claims 1 to 6, further comprising the RTGS receiving a status message from the RTGS component associated with party B indicating completion of the transaction.
8. A method as claimed in any one of claims 1 to 7, wherein the RTGS component associated with party A or party B is located in a foreign country.
9. A method as claimed in any one of the claims 1 to 8, wherein the RTGS platform, in response to failure to receive a confirmation message from the RTGS component associated with party A within the liquidity lock duration, transmitting to the RTGS

component associated with party A, a further transaction message including at least the rate, fees and a further liquidity lock having a fixed duration.

10. A method as claimed in any one of the claims 1 to 9, further comprising the RTGS populating a data lake with transactional events, which data lake may be interrogated via a secure communications channel by at least one central bank.

11. A method as claimed in any one of the claims 1 to 10, wherein at least one of party A and party B are banks which use a point-to-point encryption and communication network to communicate with the RTGS component associated therewith.

12. A method as claimed in any one of the claims 1 to 11, further comprising performing edge encryption of data.

13. A data processing apparatus comprising a processor configured to perform the steps of any one of the claims 1 to 12.

14. A data processing apparatus as claimed in claim 13, wherein the data processing apparatus comprises a secure server architecture.

15. A computer network comprising a data processing apparatus as claimed in claim 13 or claim 14, further comprising at least one RTGS component associated with a party and a secure communication channel between the RTGS platform and the RTGS component.