

[CLAIMS]

[Claim 1]

A payment management device comprising a storage device, a memory, a computation device, and a communication device:

wherein the communication device is a network interface card that is coupled to a network and configured for communication processing with a buyer system, a supplier system, and a financial institution system;

wherein the storage device is configured to store information of a credit line issued by a financial institution to a predetermined member of a supply chain as a debtor and for which convertibility to cash is ensured, information of a digital currency issued on the basis of the credit line for the predetermined member, and account information of each member of the supply chain; and

wherein the computation device is configured to, when receiving a request for payment in the digital currency from a terminal of the predetermined member who is an ordering party in the supply chain to a different member who is a receiving party in the supply chain, execute a payment process in which the digital currency corresponding to the amount of payment indicated by the request for payment is separated from the digital currency of the predetermined member, of which information is held in the storage device, and distributed to a terminal of the different member, and when receiving a request for conversion of the digital currency to cash from the terminal of the different member, execute a conversion process in which account information of the different member is specified by the storage device and the amount of cash indicated by the request for conversion to cash is deposited into an account indicated by the account information from a cash account associated with the credit line.

[Claim 2]

The payment management device according to claim 1, wherein,

when receiving a request for issuance of a predetermined amount of digital currency based on the credit line from the terminal of the predetermined member who is the ordering party in the supply chain, the computation device is configured to further execute a process in which the predetermined amount of digital currency is generated and distributed to the terminal of the predetermined member, and reduction of the credit line according to the amount and information of the generated digital currency are stored in the storage device.

[Claim 3]

The payment management device according to claim 1, wherein

the computation device is configured to further execute

a process in which, during the payment process, a payment history including each information of the member subject to the payment process in the digital currency and the amount of payment is stored in the storage device, and a process in which, during the conversion process, a conversion history including each information of the member subject to the conversion process and the amount of the deposit is stored in the storage device, and

a process in which, upon arrival of the predetermined cash conversion deadline for the digital currency, among the members subject to the payment process in the digital currency, the person for which the conversion process has not been completed and the amount thereof are specified by collating the payment history and the conversion history in the storage device, account information of the specified person is specified by the storage device, and the amount of cash whose conversion process has not been completed is deposited into an account indicated by the account information from the cash account associated with the credit line.

[Claim 4]

The payment management device according to claim 3, wherein

the storage device is configured to further hold information of a fee for conversion of the digital currency according to a result of a credit examination on the predetermined member by the financial institution, as information of the credit line and information of the digital currency, and

the computation device is configured to further execute a process in which information of each unconverted digital currency currently held by the different member is specified based on the payment history and the conversion history in the storage device and information of the conversion fee for the specified each digital currency is extracted from the storage device, and a process in which the information of conversion fee is distributed to the terminal of the different member.

[Claim 5]

The payment management device according to claim 4, wherein,

when receiving a request for conversion to cash having the conversion target specified among the digital currencies indicated by the information of the conversion fee from the terminal of the different member, to which the information of the conversion fee has been distributed, the computation device is configured to execute the conversion process.

[Claim 6]

The payment management device according to claim 1, wherein,

when receiving a notification of completion of an order receiving operation from the terminal of the different member who is the receiving party, the computation device is configured to automatically execute the conversion process on the digital currency paid to the different member for the order receiving operation.

[Claim 7]

The payment management device according to claim 1, wherein,

during the payment process, when distributing the digital currency from the terminal of the predetermined member to the terminal of the different member, the computation device is configured to further execute a process of encrypting at least amount information of the digital currency using a public key of the different member.

[Claim 8]

The payment management device according to claim 2, wherein,

when distributing a digital currency generated in response to the request of issuance to the terminal of the predetermined member, the computation device is configured to further execute a process of encrypting at least amount information of the digital currency using a public key of the predetermined member.