CLAIMS

1. A system for managing expense processing data based on blockchain, comprising:

a transmitting/receiving unit configured to receive expense processing information including card transaction information and expense evidence information;

a hash extraction unit configured to generate a hash value corresponding to the expense processing information;

a data processing unit configured to divide the card transaction information into financial information, personal identification information and general transaction information, and divide the financial information and the personal identification information into a plurality of segment data;

a transmission unit configured to upload the plurality of segment data and the hash value onto a blockchain network; and

a storage unit configured to store the general transaction information and the expense evidence information,

wherein the data processing unit is further configured to:

before dividing the financial information and the personal identification information into a plurality of segment data, examine if the financial information and the personal identification information are pre-stored in the storage unit or the blockchain network,

when the financial information and the personal identification information are pre-stored in the storage unit of the blockchain network, match the general transaction information and the expense evidence information with the pre-stored financial information and personal identification information and store them in the storage unit,

when the financial information and the personal identification information are not pre-stored in the storage unit of the blockchain network, divide the financial information and the personal identification information into a plurality of segment data for uploading the

financial information and the personal identification information to the blockchain network, and

transmit identification information of the plurality of segment data on the blockchain network to the user device such that the user device downloads the plurality of segment data from the blockchain network, and transmit the general transaction information and the expense evidence information stored in the storage unit to the user device,

wherein the identification information of the plurality of segment data comprises information of a data block where the segment data is recorded or a hash value included in the data block,

wherein the general transaction information and the expense evidence information transmitted to the user device are to reconstruct the expense processing information in combination with the plurality of segment data corresponding to the identification information, and

wherein the transmission unit is further configured to store each of the plurality of segment data generated from the financial information or the personal identification information in different blocks on the blockchain network.

2. The system for managing expense processing data based on blockchain according to claim 1, further comprising:

a verification unit configured to verify the financial information and the personal identification information of the reconstructed expense processing information by comparing the hash value corresponding to the reconstructed expense processing information with the hash value shared on the blockchain network.

3. The system for managing expense processing data based on blockchain according to

claim 1, wherein the data processing unit is further configured to encode the plurality of segment data, and

the transmission unit is further configured to upload the plurality of encoded segment data and the hash value onto the blockchain network.

4. A method for managing expense processing data based on blockchain, comprising:

receiving, by a system for managing expense processing data, expense processing information including card transaction information and expense evidence information;

dividing, by the system for managing expense processing data, the card transaction information into financial information, personal identification information and general transaction information;

generating, by the system for managing expense processing data, a hash value corresponding to the expense processing information;

examining, by the system for managing expense processing data, if the financial information and the personal identification information are pre-stored in the system for managing expense processing data or blockchain network;

matching, by the system for managing expense processing data, the general transaction information and the expense evidence information with the pre-stored financial information and personal identification information and storing them in the system for managing expense processing data, when the financial information and the personal identification information are pre-stored in the system for managing expense processing data or the blockchain network;

dividing, by the system for managing expense processing data, the financial information and the personal identification information into a plurality of segment data when the financial information and the personal identification information are not pre-stored in the

system for managing expense processing data or the blockchain network;

uploading, by the system for managing expense processing data, the plurality of segment data and the hash value onto a blockchain network;

storing, by the system for managing expense processing data, the general transaction information and the expense evidence information in the system for managing expense processing data;

transmitting, by the system for managing expense processing data, identification information to the user device, wherein the identification information is for the user device to download the plurality of segment data from the blockchain network; and

transmitting, by the system for managing expense processing data, the general transaction information and the expense evidence information stored in the system for managing expense processing data to the user device;

wherein the identification information of the plurality of segment data comprises information of a data block where the segment data is recorded or a hash value included in the data block,

wherein the general transaction information and the expense evidence information transmitted to the user device are to reconstruct the expense processing information in combination with the plurality of segment data corresponding to the identification information, and

wherein the uploading onto the blockchain network comprises storing, by the system for managing expense processing data, each of the plurality of segment data generated from the financial information or the personal identification information in different blocks on the blockchain network.

5. The method for managing expense processing data based on blockchain according to

claim 4, further comprising:

verifying, by the system for managing expense processing data, the financial information and the personal identification information of the reconstructed expense processing information by comparing the hash value corresponding to the reconstructed expense processing information with the hash value shared on the blockchain network.

6. The method for managing expense processing data based on blockchain according to claim 4, further comprising:

encoding, by the system for managing expense processing data, the plurality of segment data,

wherein the uploading onto the blockchain network comprises uploading, by the system for managing expense processing data, the plurality of encoded segment data and the hash value onto the blockchain network.

7. A computer program stored in a computer-readable recording medium to perform the method for managing expense processing data based on blockchain according to any one of claims 4, 5 and 6, in combination with hardware.