

[DESCRIPTION]

[Invention Title]

METHOD FOR ISSUING DIGITAL ASSET BACKED SECURITIES (DABS)
AND TRADING DABS BASED ON BLOCKCHAIN AND APPARATUS FOR
5 PERFORMING THE METHOD

[Technical Field]

The present invention relates to a method for issuing and trading digital asset-backed securities (DABS) on the basis of a blockchain and an apparatus for performing the method. More particularly, the present invention relates to a method
10 and apparatus for issuing DABS for assets, such as real estate, to trade the DABS on a blockchain.

[Background Art]

A blockchain is a digital ledger on which information on transactions made in a public network or a private network is encrypted and shared among members of the
15 corresponding network.

A copy of a transaction ledger is distributed to each network member, and thus every time a new transaction occurs, an authentication procedure for the corresponding transaction may proceed through agreement of members.

Blockchain-based transaction information cannot be arbitrarily changed.
20 Therefore, the reliability of transactions is increased, and information tracking is easy. Particularly, in the financial service field, the blockchain technology is being employed to increase work efficiency and construct a new service base.

Transparent transactions through a distributed ledger system allow a reduction in security, monitoring, and regulation costs. The blockchain technology

can be applied not only to the financial field but also to logistics, distribution, and even government public administration services.

Attempts are being made at asset-backed securitization employing such blockchain technology. Asset-backed securitization denotes replacing digital assets or spot assets and legal tender with targets which can be traded in a network.

All spot goods encompassing art works, jewelry, and real estate can be targets of asset-backed securitization through distributed ledger technology. Securitized assets can be traded on a blockchain.

Consequently, it is necessary to research a detailed and practical method for securitizing assets and trading securitized assets on a blockchain.

[Disclosure]

[Technical Problem]

Objects of the present invention are to overcome all of the above-described problems.

The present invention is directed to facilitating a transaction of assets, such as real estate, by issuing digital asset-backed securities (DABS) for the assets.

The present invention is also directed to allowing a transaction or investment in assets, which are difficult to access in a conventional way, with a relatively small amount of money by issuing DABS for assets, such as real estate, which are difficult to trade or invest due to a relatively large amount of investment or transaction money.

The present invention is also directed to reducing a conventional commission for a broker through a transaction of assets issued as DABS on a blockchain and reducing legal and administration procedures conventionally required for a transaction of assets.

[Technical Solution]

Representative configurations of the present invention for achieving the above objects are as follows.

One aspect of the present invention provides a method of issuing and trading
5 digital asset-backed securities (DABS) on the basis of a blockchain comprises
issuing, by a DABS issuance and transaction service providing node, DABS for each
of a plurality of assets in a blockchain network to generate a plurality of DABS for
each of the plurality of assets, selling, by the DABS issuance and transaction service
providing node, each of the plurality of DABS through an exchange node in the
10 blockchain network and trading, by the DABS issuance and transaction service
providing node, each of the plurality of DABS through the exchange node in the
blockchain network.

Another aspect of the present invention provides a digital asset-backed
securities (DABS) issuance and transaction service providing node for issuing and
15 trading DABS for one asset on the basis of a blockchain, the DABS issuance and
transaction service providing node comprises a communication unit implemented to
communicate with an external node and a processor operatively connected to the
communication unit, wherein the processor is implemented to generate a plurality
of DABS for each of a plurality of assets by issuing a plurality of DABS for each of
20 the plurality of assets in a blockchain network, sell each of the plurality of DABS
through an exchange node in the blockchain network, and trade each of the plurality
of DABS through the exchange node in the blockchain network.

[Advantageous Effects]

According to the present invention, a transaction of assets, such as real estate,
25 by issuing digital asset-backed securities (DABS) for the assets is facilitated.

Also, according to the present invention, a transaction or investment in assets, which are difficult to access in a conventional way, with a relatively small amount of money by issuing DABS for assets, such as real estate, which are difficult to trade or
5 invest due to a relatively large amount of investment or transaction money is allowed.

Also, according to the present invention, a conventional commission for a broker through a transaction of assets issued as DABS on a blockchain and reducing legal and administration procedures conventionally required for a transaction of
10 assets is reduced.

[Description of Drawings]

FIG. 1 is a conceptual diagram showing a blockchain system for issuing and trading DABS on the basis of a blockchain according to an exemplary embodiment of the present invention.

15 FIG. 2 is a conceptual diagram illustrating a method for issuing and trading DABS on the basis of a blockchain according to an exemplary embodiment of the present invention.

FIG. 3 is a conceptual diagram illustrating a method for issuing and trading DABS on the basis of a blockchain according to an exemplary embodiment of the
20 present invention.

FIG. 4 is a conceptual diagram illustrating a method of trading DABS at an exchange node according to an exemplary embodiment of the present invention.

FIG. 5 is a conceptual diagram illustrating a method of distributing a return of an asset on the basis of a blockchain according to an exemplary embodiment of the
25 present invention.

FIG. 6 illustrates a method of determining the price of first DABS according to an exemplary embodiment of the present invention.

FIG. 7 is a conceptual diagram illustrating an asset sale procedure according to an exemplary embodiment of the present invention.

5 FIG. 8 is a conceptual diagram illustrating a DABS transaction method according to an exemplary embodiment of the present invention.

[Modes of the Invention]

Detailed descriptions of the present invention will be made with reference to the accompanying drawings illustrating specific embodiments of the present
10 invention as examples. These embodiments will be described in detail such that the present invention can be performed by those skilled in the art. It should be understood that various embodiments of the present invention are different but are not necessarily mutually exclusive. For example, a specific shape, structure, and characteristic of an embodiment described herein may be implemented in another
15 embodiment without departing from the scope and spirit of the present invention. In addition, it should be understood that a position or an arrangement of each component in each disclosed embodiment may be changed without departing from the scope and spirit of the present invention. Accordingly, there is no intent to limit the present invention to detailed descriptions to be described below. The scope of
20 the present invention is defined by the appended claims and encompasses all equivalents that fall within the scope of the appended claims. Like numbers refer to equal or like functions throughout the description of the figures.

Hereinafter, in order for those skilled in the art to easily perform the present invention, exemplary embodiments of the present invention will be described in
25 detail with reference to the accompanying drawings.

In a method of issuing digital asset-backed securities for assets and trading the digital asset-backed securities on the basis of a blockchain and an apparatus for performing the method according to exemplary embodiments of the present invention, a method for issuing digital asset-backed securities for assets, such as real estate, and easily trading the digital asset-backed securities on a blockchain is disclosed. Issuing digital asset-backed securities for assets may enable many people to share profit from an increase in asset value and may speed up and facilitate transactions of assets.

Digital asset-backed securities may be digital securities which are issued on the basis of assets and tradable in a network such as a blockchain. Hereinafter, digital asset-backed securities will be indicated by the term “DABS,” and DABS may be interpreted in a broad sense as including various means which have a predetermined value and are tradable in a network such as a blockchain.

In other words, a transaction or investment in assets, which are difficult to approach in a conventional way, can be allowed even with a relatively small amount of money by issuing DABS for assets, such as real estate, which are difficult to trade or invest due to a relatively large amount of investment or transaction money

Also, a conventional commission for a broker can be reduced through a transaction of assets issued as DABS on a blockchain, and legal and administration procedures conventionally required for a transaction of assets can be reduced.

Although real estate is described as an example of assets in the present invention for convenience of description, various assets other than real estate may be targets of the method of issuing DABS for assets and trading the DABS on the basis of a blockchain.

According to exemplary embodiments of the present invention, DABS may be digital securities matching real beneficiary certificates or the right of a claim for a return.

Specifically, a trust organization may issue beneficiary securities
5 corresponding to an investment object (e.g., real estate) as real things, and beneficiary securities issued as real things to initial investors may be received and held in the custody of a person who is designated as a custodian. For example, the trust organization may be an asset trust company, such as a real estate trust company (or a trust node to be described below), and the real estate trust company (or the trust
10 node) may make a real estate disposition and trust contract with a real estate owner who wants to securitize the corresponding real estate and issue real beneficiary certificates which confer a right to receive earnings from leasing the corresponding real estate on the basis of the contract. The real beneficiary certificates may be held in the custody of a custodian. In exemplary embodiments of the present invention,
15 a node providing a DABS issuing and transaction service which will be disclosed below may be designated as a custodian.

Digital securities (e.g., DABS) matching such real beneficiary certificates and the right of a claim for a return of real beneficiary certificates from a custodian may be issued, and the digital securities may be traded on a specific platform. A node
20 providing a DABS issuing and transaction service may provide a platform which allows issuance and transactions of digital securities.

More specifically, real beneficiary certificates issued by a real estate investment trust company (or a trust node) are received and held in the custody of a custodian (e.g., an organization corresponding to a node providing a DABS issuing
25 and transaction service) according to a real beneficiary certificate custody contract of

an initial investor (or an apparatus employing a DABS issuing and transaction service which will be described below in an exemplary embodiment of the present invention) made with a person who is designated as a custodian among applicants. The initial investor (or the apparatus employing a DABS issuing and transaction
5 service) may be issued digital securities (DABS) matching real beneficiary certificates and the right of a claim for a return of real beneficiary certificates using distributed ledger technology and a platform of a node providing a DABS issuing and transaction service. The issued DABS may be a sign of agreement made about transfer of real beneficiary certificates and the right of a claim for a return among
10 investors in assets corresponding to the apparatus employing a DABS issuing and transaction service on the platform provided by the node providing a DABS issuing and transaction service. The DABS may similarly serve as a contract or a contract document in a transaction outside the platform.

Thereafter, whenever the investors having the DABS (or the apparatus
15 employing a DABS issuing and transaction service) transfer the DABS on the trading platform, which is run using distributed ledger technology by the node providing a DABS issuing and transaction service, contracts for transfer of the real beneficiary certificates and the right of a claim for a return may be considered as being made. Therefore, the real beneficiary certificates can be easily and safely traded through
20 DABS transfer (without drawing up a transfer contract) on the platform.

Also, requisites of beneficiary certificate issuance for transferring beneficiary certificates may be satisfied by transferring the claim for a return of real beneficiary certificates according to the custody contract of the initial investor (or the apparatus employing a DABS issuing and transaction service) made with the custodian (or an
25 apparatus providing a DABS issuing and transaction service). Written consent of

the custodian (or the node providing a DABS issuing and transaction service) to DABS transfer (including transfer of the claim for a return) which is made for one day on the basis of a fixed time is drafted every business day to receive and store definite data so that requisites for setting up against transfer of the right of a claim for a return may be satisfied.

FIG. 1 is a conceptual diagram showing a blockchain system for issuing and trading DABS on the basis of a blockchain according to an exemplary embodiment of the present invention.

FIG. 1 shows each element (or node or device) of the blockchain system for issuing and trading DABS on the basis of a blockchain.

Referring to FIG. 1, the blockchain system (or blockchain network) for issuing and trading DABS may include a DABS issuance and transaction service providing node 110, DABS issuance and transaction service management nodes 120, an exchange node 130, valuation devices 140, and DABS issuance and transaction service subscriber devices 150.

The term “node” may denote an element which directly generates a transaction on a blockchain, and the term “device” may denote an element which does not directly generate a transaction on a blockchain. Each node or device includes a communication unit and a processor. The communication unit may be implemented for communication with the blockchain network and/or another node, and the processor may be operatively connected to the communication unit. However, such a configuration is an example of the blockchain system for issuing and trading DABS for assets. A node shown in FIG. 1 may operate as a device, or a device shown in FIG. 1 may operate as a node. Such an embodiment also falls within the scope of the present invention.

A blockchain may be generated to store and/or process various transactions generated by the nodes and the devices which operate in the blockchain network. Each of a plurality of blocks included in the blockchain may include transaction information (or hash information of transactions) which is generated for a
5 predetermined time (e.g., the time between generation of a previous block and generation of a current block) and verified by nodes.

Specifically, each block constituting the blockchain may store transaction information generated on the blockchain, information related to programming codes (hereinafter, blockchain codes) for executing specific algorithms, such as a smart
10 contract, on the basis of the blockchain, and the like. Alternatively, while transaction information generated on the blockchain is included in a separate storage unit, only hash information of transactions may be included in blocks, or while blockchain codes are installed according to roles of the nodes, information related to the blockchain code may be stored in blocks.

15 After the nodes verify a transaction, information on blocks connected to the blockchain may be propagated to at least one node (e.g., the DABS issuance and transaction service providing node 110 and the DABS issuance and transaction service management nodes 120) in the blockchain network. The nodes which verify the transaction may be set separately.

20 The blocks connected to the blockchain may be generated on the basis of mining. As a mining method, it is possible to use various methods such as proof of work (POW), proof of stake (POS), delegated proof of stake (DPOS), and a method in which a node given a specific right generates a block on the basis of a hyperledger. A block is mined to include information on a previous block, and such a mining
25 method may prevent forgery of transaction information recorded in blocks.

The blockchain network may be a network serving as a platform which is available for other blockchain-based services, such as the existing Ethereum blockchain network, or a network generating its own blockchain for issuing and trading DABS according to the exemplary embodiment of the present invention (e.g.,
5 a permissioned blockchain or a private blockchain).

In the blockchain network, DABS may be issued or traded on the basis of a blockchain code recorded in a block by the DABS issuance and transaction service providing node 110 or a blockchain code installed on each node.

The DABS issuance and transaction service providing node 110 may be
10 implemented to implement a DABS issuance and asset transaction service on a blockchain and provide the DABS issuance and asset transaction service. For example, the DABS issuance and transaction service providing node 110 may store/install a blockchain code for the DABS issuance and asset transaction service, such as a smart contract or a chain code, on a private blockchain (or node). On the
15 basis of an uploaded blockchain code, transactions generated by the DABS issuance and transaction service providing node 110, the DABS issuance and transaction service management nodes 120, and the exchange node 130 are processed so that the DABS issuance and asset transaction service disclosed in the exemplary embodiment of the present invention may be provided.

20 First DABS and/or second DABS may be issued on the blockchain by the DABS issuance and transaction service providing node 110. The first DABS may be generated when DABS are generated for assets (e.g., real estate). The first DABS may not be securities but may be evidential documents for receiving a return and the like from leasing assets (e.g., real estate).

The first DABS may be defined depending on assets. For example, first DABS-A, first DABS-B, first DABS-C, etc. may be defined for real estate A, real estate B, real estate C, etc., respectively. The first DABS corresponding to a plurality of assets for which the first DABS are issued to be tradable may be traded
5 through the exchange node.

The first DABS do not prove the ownership of assets but may prove a right to receive a share of profit from an increase in asset value and asset management.

The second DABS may be digital securities related to a transaction fee which is paid to trade the first DABS in the exchange node. For example, the second
10 DABS may be securities with which a part (e.g., 50 %) of a transaction fee of a specific percentage (e.g., 0.1 %) generated upon a transaction of the first DABS is reduced. The second DABS may not be issued on the basis of assets and may be referred to as another term.

The DABS issuance and transaction service providing node 110 may
15 distribute profits from management of assets issued as DABS to DABS owners. The DABS issuance and transaction service providing node 110 may be a node of a foundation which provides the DABS issuance and asset transaction service.

Also, according to the exemplary embodiment of the present invention, contracts for asset-specific transactions may be separately set on the basis of a
20 blockchain code. When the first DABS for assets are purchased on the basis of a blockchain code, details of a contract may be transmitted to the DABS issuance and transaction service subscriber devices so that an agreement procedure for the asset transaction may proceed. Agreement result information of a first DABS purchaser may be stored in the blockchain. For example, when assets for which DABS are
25 issued are traded, a buyback procedure may proceed for the first DABS owned by

DABS issuance and transaction service subscriber devices. The DABS issuance and transaction service subscriber devices which own the first DABS may mandatorily sell the first DABS. Special rules are defined for assets issued as such DABS. When the first DABS are purchased, the special rules are transmitted to a
5 DABS issuance and transaction service subscriber device so that an agreement procedure for the special rules may proceed. An agreement result may be stored on the blockchain.

The DABS issuance and asset transaction service implemented on the blockchain by the DABS issuance and transaction service providing node 110 will be
10 described in further detail below.

The DABS issuance and transaction service management nodes 120 may be nodes which mine blocks. The DABS issuance and transaction service management nodes 120 may verify a transaction, such as DABS issuance and a DABS transaction, occurring on the blockchain. The verified transaction (of hash
15 information related to the transaction) may be included in a block and recorded on the blockchain. The DABS issuance and transaction service management nodes 120 may be nodes to which a right to mine a block is allocated by the DABS issuance and transaction service providing node 110 (or nodes on which a blockchain code, such as a chain code, for mining is installed). The DABS issuance and
20 transaction service providing node 110 may also be one DABS issuance and transaction service management node 120.

The exchange node 130 may be implemented to provide a transaction service for assets which are issued as DABS. The exchange node 130 may trade the first DABS for assets. Transaction information of the first DABS for assets generated in
25 the exchange node 130 may be recorded on the blockchain as a transaction. A

transaction fee may be charged for the transaction of the first DABS, and the transaction fee for the transaction of the first DABS may be determined according to second DABS which are owned.

The valuation devices 140 may be implemented to value assets. To issue
5 DABS for assets, such as real estate, asset valuation may be performed. The valuation devices may value assets and transmit the valuation result to the blockchain network. DABS may be issued for the assets on the basis of the valuation result of the assets transmitted to the blockchain. The valuation devices 140 may transmit the valuation result directly to the blockchain network or through
10 the DABS issuance and transaction service providing node 110.

The DABS issuance and transaction service subscriber devices 150 may be devices which trade or own assets issued as DABS (e.g., the first DABS) through the exchange node. For example, the DABS issuance and transaction service subscriber devices 150 may trade and keep the first DABS of specific real estate in a
15 personal wallet.

Also, the DABS issuance and transaction service subscriber devices 150 may acquire asset management profit determined on the basis of the first DABS. For example, when a DABS issuance and transaction service subscriber device 150 owns the first DABS-A of real estate A, management profit of real estate A may be shared
20 with the DABS issuance and transaction service subscriber device 150 on the basis of the first DABS-A. A monthly rent income of real estate A issued as the first DABS-A may be received in legal tender or other digital property that is exchanged and may be distributed depending on the amount of first DABS-A which are owned.

According to an exemplary embodiment of the present invention, a broker
25 node (e.g., a trust node/bank node) which is trusted with assets and/or keeps and

transmits digital assets may be additionally included. Specifically, the DABS issuance and transaction service providing node 110 may issue DABS for assets according to a request of a trust node. Also, securitized assets, such as digital assets or legal tender, may be moved through the trust node/bank node. For example, the DABS issuance and transaction service subscriber devices 150 may deposit legal tender corresponding to issued DABS and receive DABS through a public offering of assets, and the legal tender may be provided to an owner/manager of the assets through the broker node such as a trust node/bank node.

Also, financial transactions (transactions of investment returns, invested costs, interests, etc.) based on assets for which DABS are issued may be performed through the trust node/bank node. For example, investment returns, interests, etc. based on assets may be provided to the DABS issuance and transaction service subscriber devices 150 through the trust node/bank node.

In the exemplary embodiment of the present invention, operation of the broker node (e.g., a trust node/bank node) will not be additionally mentioned for convenience of description. However, according to a method of issuing and trading DABS on the basis of a blockchain, the broker node may operate.

A detailed procedure of issuing DABS and trading assets in a blockchain network will be described below.

FIG. 2 is a conceptual diagram illustrating a method for issuing and trading DABS on the basis of a blockchain according to an exemplary embodiment of the present invention.

FIG. 2 shows a DABS issuance method based on a blockchain. In particular, a method of valuating assets, such as real estate, for DABS issuance is illustrated.

Referring to FIG. 2, a DABS issuance and transaction service providing node 210 may record a blockchain code for DABS issuance and transaction on a blockchain. For example, the DABS issuance and transaction service providing node 210 may upload a blockchain code which may serve as a smart contract to a block. Alternatively, the DABS issuance and transaction service providing node 210 may install a blockchain code for DABS issuance and transaction thereon.

The DABS issuance and transaction service providing node 210 may determine a DABS issuance and transaction service management node 220 which will generate a block. The determined DABS issuance and transaction service management node 220 may verify a transaction on the blockchain and record information included in the verified transaction (or hash information) in the block.

Also, the DABS issuance and transaction service providing node 210 may request a valuation device 240 to value a DABS target asset, and the valuation device 240 may value the DABS target asset. The number of valuation devices 240 may be one or more, and the valuation device 240 may transmit a transaction including asset valuation result information directly to the blockchain network or indirectly through the DABS issuance and transaction service providing node 210.

The transaction including the asset valuation result information may be verified by the DABS issuance and transaction service management node 220, and the asset valuation result information (or a hash value of the asset valuation result information) may be recorded in the block (or a storage space).

The blockchain code may be called on the basis of the asset valuation result information recorded in the block, and sharing the asset valuation result information and issuing DABS for the asset may be performed on the basis of the blockchain code.

When the asset valuation result information is uploaded, the asset valuation result information may be transmitted to the DABS issuance and transaction service providing node 210 and an exchange node 230 on the basis of the blockchain code. Also, when the asset valuation result information is uploaded, DABS may be issued
5 for the asset on the basis of the blockchain code. For example, the price of first DABS to be issued and the number of first DABS to be issued may be determined according to the price of the asset.

When there are a plurality of valuation results, the price of the asset may be determined by a predefined algorithm on the basis of the blockchain code. For
10 example, the price of the asset may be determined to be an average or median of a plurality of valuation results, or different weights may be set for the plurality of valuation results so that the price of the asset may be determined.

Alternatively, recommended DABS price information or investment request information may be separately collected regarding real estate from a plurality of
15 DABS issuance and transaction service subscriber devices 250, and the price of the first DABS may be determined according to the recommended DABS price information or investment request information.

FIG. 3 is a conceptual diagram illustrating a method for issuing and trading DABS on the basis of a blockchain according to an exemplary embodiment of the
20 present invention.

FIG. 3 shows a method of issuing DABS for an asset on the basis of a blockchain. In particular, a method of issuing DABS for a valuated asset (e.g., real estate) is illustrated.

Referring to FIG. 3, asset valuation result information may be shared with a plurality of DABS issuance and transaction service subscriber devices 350 which use an exchange node.

On the basis of the asset valuation result information, DABS issuance-related
5 information may be collected from the plurality of DABS issuance and transaction service subscriber devices 350. The DABS issuance-related information may include investment demand information of a valued asset such as real estate. Specifically, the DABS issuance-related information may include the number and price of first DABS desired when DABS are issued for the asset. The DABS
10 issuance-related information collected from the plurality of DABS issuance and transaction service subscriber devices 350 may be input to a blockchain code and used to finally determine the price and number of first DABS of the asset.

The exchange node 330 may collect investment demand information of real estate A. For example, when 1,000 people request investment with an average of
15 5,000,000 won, there are investment demands corresponding to 5,000,000,000 won. In consideration of such investment demands, the number and price of first DABS which correspond to a smallest unit may be determined.

Specifically, to issue DABS for the asset, investment demand information may be collected during an investment demand information collection period. The
20 price of first DABS may be determined on the basis of a first DABS price determination step and a second DABS price determination step.

A first DABS price may be determined on the basis of the investment demand information collected during the investment demand information collection period. The investment demand information may be investment amount information of the
25 corresponding asset. For example, information on such investment amounts, such

as 100,000 won, 1,000,000 won, 2,000,000 won, and 10,000,000 won, may be input, and information, such as a minimum investment amount, a maximum investment amount, an investment amount which is invested the highest number of times, and an average investment amount, may be extracted from the distribution of such investment amounts.

On the basis of the investment demand information, transaction fluidity/price stability may be determined for each DABS price for an asset transaction. For example, when the initial price of first DABS is set to 100,000 won, the number of first DABS may be determined for each DABS issuance and transaction service subscriber device which is an investor, and transaction fluidity/price stability may be determined by the number of first DABS for each DABS issuance and transaction service subscriber device.

For example, transaction fluidity may be determined on the basis of the number of first DABS for each DABS issuance and transaction service subscriber device. Specifically, transaction fluidity may be determined on the basis of the average number of first DABS of DABS issuance and transaction service subscriber devices. Price stability may be determined on the basis of a ratio of DABS issuance and transaction service subscriber devices which correspond to high-ranking DABS owners (e.g., a threshold percentage (e.g., 1 %) or more of all DABS) on the basis of the number of first DABS for each DABS issuance and transaction service subscriber device.

The DABS issuance and transaction service providing node may set transaction fluidity/price stability required for each asset to determine the price of first DABS. In this way, the DABS issuance and transaction service providing node may make a setting so that assets may have different transaction characteristics.

Such transaction fluidity and price stability may be adjusted according to characteristics of buildings.

According to the exemplary embodiment of the present invention, the price of first DABS may vary depending on required transaction fluidity and price stability.

5 After an initial sale, details of first DABS transactions are collected, and the existing price and number of first DABS may be adjusted for transaction fluidity and price stability on the basis of the details of first DABS transactions so that set transaction fluidity and price stability may be achieved. A procedure for adjusting the number and price of first DABS may proceed on the basis of the blockchain code so that
10 assets may have different degrees of transaction fluidity and price stability. Specifically, transaction fluidity and price stability may be set on the blockchain code upon the initial sale of an asset issued as DABS, and the price and number of first DABS may be adjusted on the basis of the set blockchain code.

Also, according to the exemplary embodiment of the present invention, the
15 price of first DABS may be set according to the purpose of investment in an asset. A DABS issuance and transaction service subscriber device may invest in first DABS for the main purpose of monthly rent or an increase in building price. When the main purpose is an increase in building price, the investment may take a longer time than that of a case when the main purpose is monthly rent. Therefore,
20 information on the purpose of investment in first DABS may be collected to determine the price of first DABS for transaction fluidity and price stability.

Also, according to the exemplary embodiment of the present invention, the price of first DABS may be determined in consideration of another asset which is very similar to the asset. The most similar asset may be determined in
25 consideration of the location of the asset, price, investment purpose, transaction

records, etc., and the price of first DABS may be determined by additionally considering a current first DABS price of the most similar asset. As such transaction records are accumulated, the price of first DABS may be set to fit desired transaction fluidity and price stability.

5 FIG. 4 is a conceptual diagram illustrating a method of trading DABS at an exchange node according to an exemplary embodiment of the present invention.

FIG. 4 shows a method in which a DABS issuance and transaction service subscriber device 450 trades first DABS and second DABS at an exchange node.

Referring to FIG. 4, an exchange node 430 may sell and trade first DABS-A
10 of real estate A.

First, in a sale step, the exchange node 430 may start an initial sale after first DABS are issued for the initial asset and may proceed with a transaction after the initial sale. For example, when first DABS-A for real estate A are defined to be 100,000 won and the amount of issued first DABS-A is set to 10,000, the initial sale
15 may be performed during an initial sale period. During the initial sale period, a sale may proceed without additional transactions. During the initial sale period, sale information of first DABS-A may be recorded on a blockchain. The sale information may include first DABS-A purchaser information and purchased amount information of first DABS-A purchasers. First DABS-A may be transferred to
20 wallets of the first DABS-A purchasers on the basis of the first DABS-A purchaser information and the purchased amount information of the first DABS-A purchasers.

When the sale is completed during the set initial sale period, a transaction of first DABS-A may be started even before the initial sale period expires.

When the sales are not completed during the set initial sales period, a
25 transaction of first DABS-A may be started after the initial sales period. First

DABS-A which are not sold may be transferred to a wallet of a DABS issuance and transaction service providing node 410.

Subsequently, in a transaction step, it is possible to trade first DABS-A sold to DABS issuance and transaction service subscriber devices 450 and the first
5 DABS-A which are not sold and thus are stored in the wallet of the DABS issuance and transaction service providing node 410.

Unlike existing exchanges, transaction information of first DABS-A may be included in transactions and transmitted to DABS issuance and transaction service management nodes 420 and may be recorded on the blockchain through verification
10 of the DABS issuance and transaction service management nodes 420. The transaction information may include information on vendors of first DABS-A, offered quantities, purchasers of first DABS-A, purchased quantities, and transaction times.

According to the exemplary embodiment of the present invention, the DABS
15 issuance and transaction service management nodes 420 are a small number of selected nodes, and the transaction information of first DABS-A may be recorded in a block nearly in real time through rapid block generation by the small number of selected nodes. For such a separate setting of the DABS issuance and transaction service management nodes 420, an additional blockchain code may be installed on
20 the DABS issuance and transaction service management nodes 420, or a separate channel may be set for managing the DABS issuance and transaction service management nodes 420. By setting the additional blockchain code or the separate channel, operation of the DABS issuance and transaction service management nodes 420 may be set, and an access right to data processed by the DABS issuance and
25 transaction service management nodes 420 may be limited.

Alternatively, according to the exemplary embodiment of the present invention, sell request information and purchase request information is recorded in a block in addition to transaction information, and sell request information and purchase request information are matched to each other on a block so that a transaction may proceed.

Specifically, when a DABS issuance and transaction service subscriber device (sale) offers 100 first DABS A for 100,000 won per first DABS-A, the exchange node may determine whether 100 first DABS-A are present in the wallet of the DABS issuance and transaction service subscriber device (sale) on the basis of records on the blockchain. When it is determined that 100 first DABS-A are present in the wallet of the DABS issuance and transaction service subscriber device (sale) on the basis of records on the blockchain, the offer may be approved.

In this case, the sell request information (first DABS-A, 100 shares, and 100,000 won) may be included in a transaction and transmitted to the DABS issuance and transaction service management nodes 420 and may be recorded on the blockchain through verification of the DABS issuance and transaction service management nodes 420.

On the other hand, when a DABS issuance and transaction service subscriber device (purchase) bids 100,000 won for each of 100 first DAB-A, the exchange node 430 may determine whether there is a purchase asset of 100,000 won for purchasing 100 first DABS-A on the basis of records on the blockchain regarding a wallet of the DABS issuance and transaction service subscriber device (purchase). When it is determined that there is the purchase asset on the basis of the records in the block, a purchase request information may be generated. In this case, the purchase request information (first DABS-A, 100 shares, and 100,000 won) may be included in a

transaction and transmitted to the DABS issuance and transaction service management nodes 420 and may be recorded on the blockchain through verification of the DABS issuance and transaction service management nodes 420.

When the sell request information and the purchase request information are
5 matched to each other on the blockchain, the transaction is performed, and the transaction results may be transferred to the exchange node 430, the DABS issuance and transaction service subscriber device (sale), and the DABS issuance and transaction service subscriber device (purchase).

When sell request information and purchase request information are matched
10 to each other on the basis of the blockchain code, a transaction may proceed, and first DAB may be transferred according to the transaction. When the transaction proceeds, 100 first DABS-A stored in the wallet of the DABS issuance and transaction service subscriber device (sale) may be transmitted to the wallet of the DABS issuance and transaction service subscriber device (purchase). On the other
15 hand, an asset (e.g., legal tender or a digital asset) corresponding to 100 first DABS-A may be transferred from the DABS issuance and transaction service subscriber device (purchase) to the wallet of the DABS issuance and transaction service subscriber device (sale).

On the basis of the number of second DABs stored in the wallet of the DABS
20 issuance and transaction service subscriber device (sale), a transaction fee of the DABS issuance and transaction service subscriber device (sale) may be determined. Likewise, a transaction fee of the DABS issuance and transaction service subscriber device (purchase) may be determined on the basis of the number of second DABS stored in the wallet of the DABS issuance and transaction service subscriber device
25 (purchase).

In other words, unlike a transaction on an existing ledger, a transaction method according to the exemplary embodiment of the present invention may be a method of performing a transaction by actually matching sell request information and purchase request information to each other on a blockchain. A direct DABS transaction on the blockchain rather than a DABS transaction on a ledger may be rapidly performed by setting an additional blockchain code or through a verification and agreement method of the DABS issuance and transaction service management nodes connected through a separate channel in comparison with a conventional verification and agreement method.

Also, according to the exemplary embodiment of the present invention, second DABS may be traded through an external exchange node 460 rather than the exchange node 430 authorized by the DABS issuance and transaction service providing node 410. A wallet for second DABS may also be opened to the external exchange node 460, and thus it is possible to make a deposit or withdrawal for second DABS. Deposit or withdrawal records of second DABS may also be recorded on the blockchain. A blockchain code for exerting only a part of authority on the blockchain network may be installed on the external exchange node 460, or the separate channel may be set to allow a limited deposit or withdrawal for second DABS.

As described above, first DABS may be issued for each asset and traded through the exchange node 430. For example, first DABS-A for real estate A, first DABS-B for real estate B, first DABS-C for real estate C, and first DABS-D for real estate D may be issued, and the issued first DABS-A, first DABS-B, first DABS-C, and first DABS-D may be traded through the exchange node 430.

FIG. 5 is a conceptual diagram illustrating a method of distributing a return of an asset on the basis of a blockchain according to an exemplary embodiment of the present invention.

FIG. 5 shows a method of distributing a return of an asset through a
5 blockchain.

Referring to FIG. 5, when profit is derived from an asset for which first DABS are issued, the profit derived from the asset for which the first DABS are issued may be distributed to DABS issuance and transaction service subscriber devices 550 which have the first DABS in wallets thereof.

10 When a monthly rent income of real estate A is distributed, the monthly rent income may be deposited and then converted into a specific digital asset. For example, when there is 100,000,000 won as the monthly rent income of real estate A, the monthly rent income may be converted into a digital asset corresponding to 100,000,000 won, and the converted digital asset may be distributed to DABS
15 issuance and transaction service subscriber devices 550 which have first DABS-A on the basis of first DABS-A distribution information.

For example, when the total number of issued DABS is 10,000 and DABS issuance and transaction service subscriber device A has 10 DABS, $1/1,000$ of the total amount of digital asset converted from the monthly rent may be deposited in the
20 wallet of the DABS issuance and transaction service subscriber device A. Records of such a conversion of monthly rent into virtual currency and distribution of the virtual currency may be included in a transaction and recorded on the blockchain.

FIG. 6 illustrates a method of determining the price of first DABS according to an exemplary embodiment of the present invention.

25 FIG. 6 shows a method of determining the price of first DABS.

Referring to FIG. 6, a lowest price range of first DABS may be set. The lowest price range of first DABS may be determined in consideration of the current price of first DABS and the initial sale price of first DABS.

5 The lowest price of first DABS may be determined in consideration of the current price of first DABS and the initial sale price of first DABS received through an exchange node 630 on the basis of a blockchain code.

After the lowest price of first DABS is determined, the price of first DABS traded through the exchange node 630 may drop to the lowest price of first DABS or less. In this case, to defend the lowest price of first DABS, a purchase of first
10 DABS may be requested.

When an input current price of first DABS is the lowest price of first DABS or less on the basis of the blockchain code, a DABS issuance and transaction service providing node may purchase first DABS which are on sale for the lowest price or less through a buy order for first DABS on the basis of the blockchain code. When
15 the price of first DABS is the lowest price or more on the basis of the blockchain code, the DABS issuance and transaction service providing node may stop the buy order.

The lowest price of first DABS may be determined on the basis of the price stability described above with reference to FIG. 3. Asset-specific price stability
20 may be set. The minimum price of first DABS which is set as the lowest range of price stability may be the lowest price of first DABS. Setting the lowest price range of first DABS allows investment according to asset-specific characteristics, and the price may be prevented from dropping to a predetermined range from the price of valuated real estate or below. Also, the lowest price range may be additionally
25 adjusted in consideration of additional information (e.g., officially announced land

price) transferred to an external node. When the officially announced land price drops, the lowest price range may be relatively widened. On the contrary, when the officially announced land price rises, the lowest price range may be relatively narrowed. Information on the officially announced land price may be transferred to the blockchain network through an external node, and the lowest price range may be set on the basis of the transferred officially announced land price information and a set chain code.

FIG. 7 is a conceptual diagram illustrating an asset sale procedure according to an exemplary embodiment of the present invention.

FIG. 7 shows a method for trading an asset issued as DABS for trading.

Referring to FIG. 7, a procedure of purchasing first DABS for an asset may proceed to sell the asset which is issued as DABS for trading.

The first DABS for an asset do not give the actual ownership of the asset but may give a right to manage the asset and for profit from an increase in asset value.

As described above, monthly rent income of real estate A may be distributed on the basis of first DABS-A. Alternatively, an increase in the value of real estate A may lead to an increase in the value of first DABS-A, and an owner of first DABS-A may thereafter have a right to profit from the increase in real estate value by selling first DABS-A along with sale of real estate A.

To transfer the ownership of real estate A issued as first DABS-A, it is possible to make a purchase of first DABS-A. A DABS issuance and transaction service providing node 710 may determine a purchase price for purchasing first DABS-A to transfer the ownership of real estate A. The DABS issuance and transaction service providing node 710 may determine the purchase price of first DABS-A in consideration of the current price of first DABS-A, the initial price of

first DABS-A, the sale price of real estate A, and the like on the basis of a blockchain code.

Also, the DABS issuance and transaction service providing node 710 may determine a purchase period of first DABS-A. The purchase period of first DABS-A may be determined in consideration of owner information of first DABS-A, sale
5 period information of the real estate, and the like.

The DABS issuance and transaction service providing node 710 may notify purchase of first DABS-A to a DABS issuance and transaction service subscriber device 750 which has first DABS-A in its wallet during the first DABS-A purchase
10 period.

The DABS issuance and transaction service subscriber device 750 may sell first DABS-A for the determined purchase price, and the first DABS-A sale record may be included in a transaction and recorded on a blockchain.

When the first DABS-A purchase period set on the basis of the blockchain
15 code expires or a procedure for purchasing a set threshold number of first DABS-A or more proceeds even before the first DABS-A purchase period expires, a real estate A ownership transfer procedure may be available. The threshold number of remaining first DABS-A may be sold all at once for the determined price, and the corresponding amount of money may be provided to the user of a DABS issuance
20 and transaction service subscriber device 750 which does not directly sell first DABS-A through a deposit process.

The ownership of real estate A is transferred through such a buyback procedure, and all the first DABS-A for real estate A may be burned. Alternatively, according to the exemplary embodiment of the present invention, the buyback period

of first DABS-A and the buyback price of first DABS-A may be determined as follows.

The first DABS-A buyback period may be determined in consideration of distribution information and investment amount distribution information of first
5 DABS-A owners, first DABS-A holding tendency information of the first DABS-A owners, etc. extracted on the basis of information on the backchain. Information of first DABS-A owners recorded in a block upon the determination of buyback may be extracted. The first DABS-A buyback period may be increased as the number of first DABS-A owners doing a small amount of investment becomes relatively larger.
10 Also, the first DABS-A buyback period may be relatively increased as the first DABS-A owners have a tendency of holding first DABS-A that becomes relatively higher.

First DABS-A buyback results of such a buyback procedure after a buyback announcement may be fed back and then used in adjusting the length of a buyback
15 announcement period. For example, when a buyback procedure is shorter than a set period in distribution information and investment amount distribution information of similar first DABS-A owners and first DABS-A holding tendency information of the first DABS-A owners, a follow-up buyback period may be relatively reduced and set. On the contrary, when a buyback procedure is longer than a set period in distribution
20 information and investment amount distribution information of similar first DABS-A owners and first DABS-S holding tendency information of the first DABS-A owners, a follow-up buyback period may be relatively increased. In this way, it is possible to repurchase many first DABS-A as quickly as possible.

The first DABS-A buyback price may be determined in consideration of an
25 existing price and the sale price of real estate A. The price of first DABS-A

calculated from the sale price of real estate A is compared with the current price of DABS-A. When the current price of first DABS-A is higher than or equal to the calculated price, the current price of first DABS-A may be the buyback price. On the contrary, the price of first DABS-A calculated from the sale price of real estate A is compared with the current price of DABS-A. When the current price of first DABS-A is lower than the calculated price, the calculated price of first DABS-A may be the buyback price. The price of DABS-A calculated from the sale price of real estate A may be a price determined by additionally valuating first DABS-A rather than a value obtained by simply dividing the sale price.

Also, according to the exemplary embodiment of the present invention, the buyback price of first DABS-A may be set according to buyback periods. To rapidly repurchase first DABS-A, first DABS-A which are rapidly offered for sale may be purchased at a higher price. A buyback period may be divided into a plurality of sub-buyback periods to set the price of first DABS-A. In this way, it is possible to allow owners to rapidly sell first DABS-A.

FIG. 8 is a conceptual diagram illustrating a DABS transaction method according to an exemplary embodiment of the present invention.

FIG. 8 shows a method of performing a first DABS transaction occurring in an exchange node.

Referring to FIG. 8, an example of a method in which three DABS issuance and transaction service subscriber devices sell and purchase first DABS is illustrated. This is one example and may be applied to other first DABS transactions of a plurality of DABS issuance and transaction service subscriber devices in the same way.

It may be assumed that a first DABS issuance and transaction service subscriber device 810 sells three first DABS, a second DABS issuance and transaction service subscriber device 820 purchases one first DABS, and a third DABS issuance and transaction service subscriber device 830 purchases two first
5 DABS.

The first DABS issuance and transaction service subscriber device 810 may generate a sell order 815 for three first DABS. The sell order 815 may include offeror information, offered DABS number information, offered DABS price information, and signature information of the first DABS issuance and transaction
10 service subscriber device 810.

The second DABS issuance and transaction service subscriber device 820 may generate a first buy order 825 for two first DABS. The first buy order 825 may include first purchaser information (or identification information of the second DABS issuance and transaction service subscriber device), first DABS bid number
15 information, first bid information, and signature information of the second DABS issuance and transaction service subscriber device.

The third DABS issuance and transaction service subscriber device 830 may generate a second buy order 835 for one first DABS. Likewise, the second buy order 835 may include second purchaser information (or identification information of
20 the third DABS issuance and transaction service subscriber device), second DABS bid number information, second bid information, and signature information of the third DABS issuance and transaction service subscriber device.

When the sell order 815, the first buy order 825, and the second buy order 835 are matched to each other, an exchange node may generate a transaction 850
25 including transaction information based on the sell order 815, the first buy order 825,

and the second buy order 835 and transmit the transaction 850 to a DABS issuance and transaction service management device. The DABS issuance and transaction service management device may verify the transaction and record transaction information in a block.

5 As input values, the transaction information may include the offered DABS number information included in the sell order 815, the first bid information included in the first buy order 825, and the second bid information included in the second buy order 835.

Also, as output values, the transaction information may include first DABS
10 information to be delivered to the second DABS issuance and transaction service subscriber device 820, first DABS information to be delivered to the third DABS issuance and transaction service subscriber device 830, and offered amount information, which results from the offer, to be delivered to the first DABS issuance and transaction service subscriber device.

15 When the transaction 850 including the transaction information is verified or the transaction information is recorded in a block after the verification procedure, the offered amount of money is deposited in a wallet of the first DABS issuance and transaction service subscriber device 810, and first DABS may be transferred to a wallet of the second DABS issuance and transaction service subscriber device 820
20 and a wallet of the third DABS issuance and transaction service subscriber device 830.

According to an exemplary embodiment of the present invention, nodes in a blockchain network may have a hierarchical structure according to limited functions. A DABS issuance and transaction service providing node may set first level nodes,
25 second level nodes, third level nodes, and fourth level nodes according to functions

and a data access right. For example, the aforementioned DABS issuance and transaction service management nodes, exchange node, valuation devices, DABS issuance and transaction service subscriber devices, etc. may be classified as first level nodes, second level nodes, third level nodes, and fourth level nodes according to available operation and accessible data in the blockchain network. The first level nodes, the second level nodes, the third level nodes, and the fourth level nodes may be classified on the basis of channels, chain codes, and data classifications.

Specifically, the first level nodes, the second level nodes, and the third level nodes may be connected to a first channel, and the fourth level external nodes may be connected to a second channel. In this way, the fourth level external nodes may be separated from the first level nodes, the second level nodes, and the third level nodes, and the fourth level nodes may perform limited operation in the blockchain network.

Channel code A may be set for the first level nodes and the second level nodes among the first level nodes, the second level nodes, and the third level nodes, and channel code B may be set for the third level nodes. The first level nodes and the second level nodes for which channel code A is set may share data related to channel code A, and the third level nodes for which channel code B is set may share data related to channel code B. In this way, the third level nodes may be separated from the first level nodes and the second level nodes, and the third level nodes may perform limited operation in the blockchain network.

Also, private data may be set to be accessed by only the first level nodes among the first level nodes and the second level nodes. In this case, the private data can only be accessed by the first level nodes and may not be accessed by the second level nodes. In this way, the first level nodes and the second level nodes may be

separated from each other, and the second level nodes may perform limited operation in the blockchain network.

Node-specific right setting according to the exemplary embodiment of the present invention may be performed by a setup node (e.g., a DABS issuance and transaction service providing node). The setup node may include a communication unit which is implemented to communicate with an external node and a processor which is operatively connected to the communication unit. The processor may perform a node-specific right setting method.

According to the exemplary embodiment of the present invention, as described above, it is possible to limitedly set different data transaction rights in a blockchain depending on channels, chain codes, and data classifications.

Also, according to the exemplary embodiment of the present invention, limited functions may be given through a channel, and the channel may be limited through an independent channel connection and a virtual channel connection. When a plurality of nodes which will use the same channel are set with separate channels without interference of other nodes, limited functions may be set through the physically separated channels. For example, when node A, node B, and node C may be connected as nodes in a channel without an intermediate node, node A, node B, and node C may be set as independent channels which are physically separated channels.

However, when nodes in a channel are connected only through an intermediate node outside the channel because it is necessary to set the plurality of nodes with the same channel, security of data delivered through the channel may be problematic. For example, when node A, node B, and node C are connected as nodes in a channel only through node X which is an intermediate node outside the

channel, it is not possible to set physically separated channels. In this case, according to the exemplary embodiment of the present invention, it is possible to use a partial channel section data separating encryption method even when an intermediate node outside the channel is included.

5 When it is necessary to transmit data through the intermediate node outside the channel, a section in which the data should be transmitted through the intermediate node outside the channel may be set as a data separating encryption section, and data separating encryption may be performed in the data separating encryption section. Specifically, the data delivered from a node in the channel to
10 the node outside the channel may be encrypted and delivered to a subsequent node in the channel in a bypass manner. In this case, encryption may be performed on the basis of an encryption key value included in previously transmitted data after initial encryption. Therefore, only a node in the channel which decrypts the data that is previously transmitted while continuously varying can decrypt the encrypted data.
15 There may be a plurality of data separating encryption sections, and different encryption key values may be separately applied to the plurality of data separating encryption sections. In this way, even when there is an intermediate node outside the channel, nodes may be connected through a virtual independent channel.

 The above-described embodiments of the present invention may be
20 implemented as the form of a computer instruction that can be executed through various computer components and may be recorded in computer readable recording media. The computer readable recording media may include a program instruction, a data file, and a data structure, and/or combinations thereof. The program instruction recorded in the computer readable recording media may be specially
25 designed and prepared for the present invention or may be an available well-known

instruction for those skilled in the field of computer software. Examples of the computer readable recording media include, for example, magnetic media such as a hard disk, a floppy disk, and a magnetic tape, optical media such as a compact disc read only memory (CD-ROM) and a digital video disc (DVD), magneto-optical
5 media such as a floptical disk, and a hardware device, such as a read only memory (ROM), a random access memory (RAM), or a flash memory, that is specially made to store and perform the program instruction. Examples of the program instruction may include a machine code generated by a compiler and a high-level language code that can be executed in a computer using an interpreter. Such a hardware device
10 may be configured as at least one software module in order to perform operations of the present invention and vice versa.

While the present invention has been described with reference to specific details such as detailed components, specific embodiments and drawings, these are only examples to facilitate overall understanding of the present invention and the
15 present invention is not limited thereto. It will be understood by those skilled in the art that various modifications and alterations may be made.

Therefore, the spirit and scope of the present invention are defined not by the detailed description of the present invention but by the appended claims and encompass all modifications and equivalents that fall within the scope of the
20 appended claims.

[CLAIMS]

[Claim 1]

A method of issuing and trading digital asset-backed securities (DABS) on the basis of a blockchain, the method comprising:

5 issuing, by a DABS issuance and transaction service providing node, DABS for each of a plurality of assets in a blockchain network to generate a plurality of DABS for each of the plurality of assets;

 selling, by the DABS issuance and transaction service providing node, each of the plurality of DABS through an exchange node in the blockchain network; and

10 trading, by the DABS issuance and transaction service providing node, each of the plurality of DABS through the exchange node in the blockchain network.

[Claim 2]

 The method of claim 1, wherein the issuing of the DABS comprises determining the number and an initial sale price of the plurality of DABS on the
15 basis of asset valuation results of the plurality of assets and a blockchain code, and

 the blockchain code is installed on the DABS issuance and transaction service providing node or stored on a blockchain.

[Claim 3]

 The method of claim 1, further comprising distributing, by the DABS
20 issuance and transaction service providing node, management profit of each of the plurality of assets to wallets of DABS issuance and transaction service subscriber devices owning the plurality of DABS on the basis of a blockchain code.

[Claim 4]

The method of claim 1, further comprising repurchasing, by the DABS issuance and transaction service providing node, at least one of the plurality of assets for which the DABS are issued,

wherein the repurchasing is performed on the basis of a buyback price, which
5 is determined on the basis of a blockchain code, of DABS for the at least one asset,
and

a DABS issuance and transaction service subscriber device owning the DABS for the at least one asset sells the DABS for the at least one asset at the buyback price.

10 [Claim 5]

A digital asset-backed securities (DABS) issuance and transaction service providing node for issuing and trading DABS for one asset on the basis of a blockchain, the DABS issuance and transaction service providing node comprising:

a communication unit implemented to communicate with an external node;
15 and

a processor operatively connected to the communication unit,

wherein the processor is implemented to generate a plurality of DABS for each of a plurality of assets by issuing a plurality of DABS for each of the plurality of assets in a blockchain network, sell each of the plurality of DABS through an
20 exchange node in the blockchain network, and trade each of the plurality of DABS through the exchange node in the blockchain network.

[Claim 6]

The DABS issuance and transaction service providing node of claim 5, wherein the issuing of the DABS comprises determining the number and an initial

sale price of the plurality of DABS on the basis of asset valuation results of the plurality of assets and a blockchain code, and

the blockchain code is installed on the DABS issuance and transaction service providing node or stored on a blockchain.

5 [Claim7]

The DABS issuance and transaction service providing node of claim 5, wherein the processor is implemented to distribute management profit of each of the plurality of assets to wallets of DABS issuance and transaction service subscriber devices owning the plurality of DABS on the basis of a blockchain code.

10 [Claim 8]

The DABS issuance and transaction service providing node of claim 5, wherein the processor is implemented to repurchase at least one of the plurality of assets for which the DABS are issued,

15 wherein the repurchase is performed on the basis of a buyback price, which is determined on the basis of a blockchain code, of DABS for the at least one asset, and

a DABS issuance and transaction service subscriber device owning the DABS for the at least one asset sells the DABS for the at least one asset at the buyback price.