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## How Can Collateral Management Benefit from DLT?

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### Node

In the context of blockchain systems, nodes are the peers of the peer-to-peer network which can take on different logical roles. A “node” is a logical function in the sense that multiple nodes of different types can run on the same physical server. If a node is maintaining a full copy of the distributed ledger it is usually referred to as a “full node”.

### Public Key

A unique string of data which can be used to encrypt data that can then only be decrypted by the corresponding private key. The public key can also be used to decrypt data that have been encrypted by the corresponding private key. This property can be used to identify the sender of a message within a network. It can be shared publicly.

### Private Key

A unique string of data which can be used to decrypt data that has been encrypted by the corresponding public key. The private key can also be used to encrypt data that can then be decrypted by the corresponding public key. This property can be used as a proof of identity within a network, for example the right to access and own that participant’s wallet within a cryptocurrency. It can be compared to a personal password which must be kept secret.

### Smart Contract

A computer program stored in a blockchain that can be executed by participants of the blockchain system. It serves as a way to create a mathematically guaranteed promise between two parties.

### Token

Tokens are a digital representation of one or more assets or rights. Tokens can represent basically anything, not only cash and securities, but also real estate or precious metals. Security tokens are units of value which represent similar rights to those of a security and therefore are usually treated as such.

### Tokenization

The issuance of a digital representation, called token, of a certain good or right after locking away the good/right in the existing ledger.

### Triparty agent (TPA)

Triparty collateral management services (TCMS) provided by triparty agents (TPAs) allow market participants to optimize the use of their securities portfolios when collateralizing credit and other exposures stemming from different products and instruments (e.g. repo, securities lending, central bank credit, secured loans and exposures arising from CCP or OTC transactions).

### Two-phase/Three-phase commit protocol

Two-phase or three-phase commit protocols are algorithms which let all nodes in single or multiple distributed systems agree upon a transaction and its related conditions. The protocol ensures that the transaction is committed, otherwise it will undo the changes which is also known as a rollback.

### Wallet

A software program capable of storing and managing public and private key pairs used to access digital assets.

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