

Distributed ledger technology

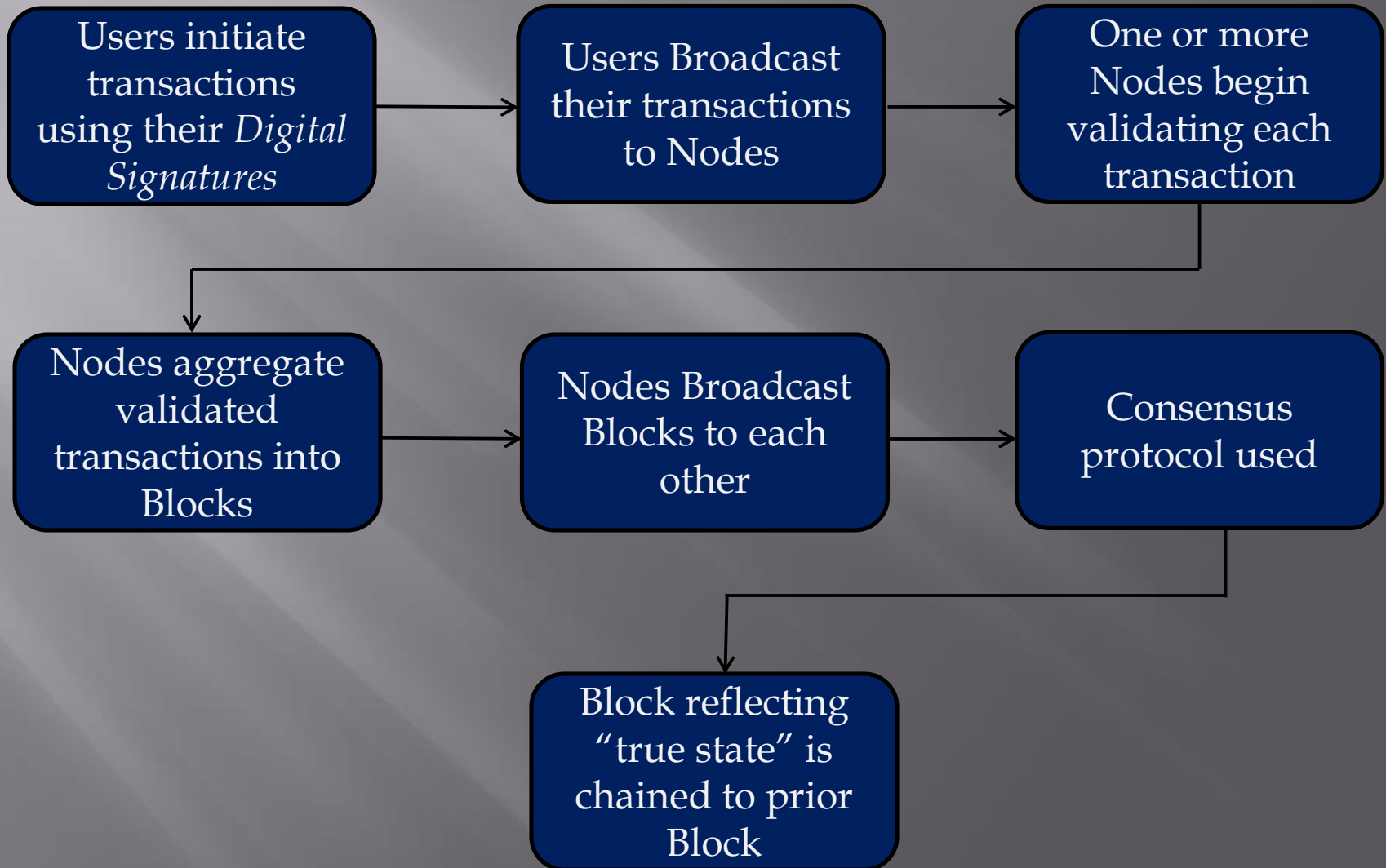
Distributed ledger technology

- ▣ A decentralized database of which there are multiple identical copies distributed among several participants
- ▣ Updates are performed in a synchronized manner by consensus of the participants

Categories of DLTs

- ▣ **Permission-less Distributed Ledger**
 - Users are not required to obtain permissions to maintain and operate permission-less distributed ledger
- ▣ **Permissioned Distributed Ledger**
 - Only authorized nodes are maintaining the distributed ledger
- ▣ **Hybrid Distributed Ledger**
 - Combines both permission-less and permissioned networks and offers a network that benefits from both of them

How a Distributed Ledger Work



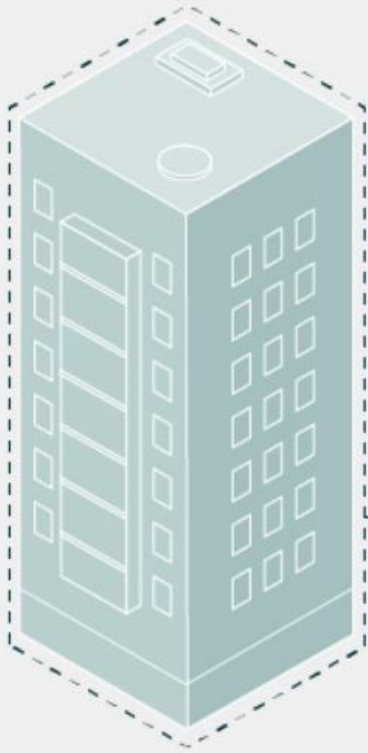
Initiatives at CDC

- ▣ Real Estate Tokenization

Tokenizing Real Estate on the Blockchain

- ▣ Tokenization is a solution that divides an asset into digital tokens which act as ownership shares
- ▣ Since tokens support fractional ownership, they considerably lower the cost of entry, further opening up the investor pool and unlocking developing regions and economies around the world

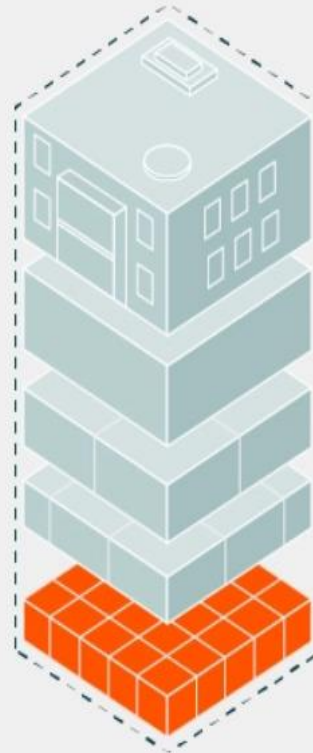
Tokenizing Real Estate on the Blockchain



Consider an office tower that is worth **\$10 million**.



This type of asset is typically only **accessible to institutional investors** with large amounts of capital.



Through tokenization, the ownership of this building could be split into **100,000 digital tokens worth \$100 each**.



These tokens would be traded securely on a blockchain ledger and made accessible to investors around the world.

Smart contract functionality on each token would ensure every owner receives their share of the building's rental income.

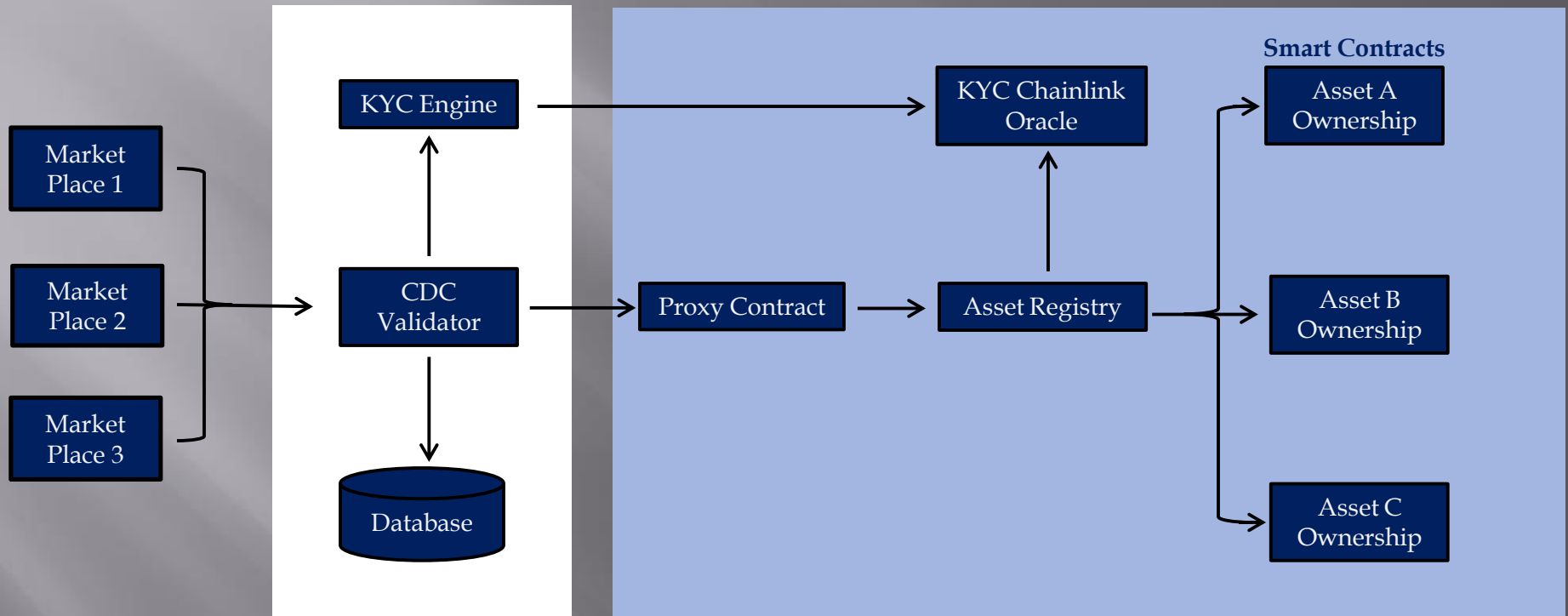
Benefits of Smart Contracts for Real Estate

- ▣ **Transparency**
 - Immutability
 - Visibility
 - Transaction history is available to every network participant
- ▣ **Higher Transaction Speed**
 - Real estate arrangements are known to be time-consuming.
 - A simple smart contract for real estate can eliminate the inconvenience.
- ▣ **Cost Reduction**
 - Due to the peer-to-peer nature of Blockchain, the real estate transactions processed on the network do not require mediators as traditional deals do.
 - Leveraging smart contracts for real estate helps save costs while giving the buyer and the seller more freedom as the affected partakers alone may determine the final terms of an agreement.
- ▣ **Fractionalization**
 - It lowers the investment barriers, simplifies the access to the asset, diversifies the investor's portfolio etc.
- ▣ **Improved Liquidity**
 - The adoption of a smart contract for real estate can boost the assets' liquidity as the transactions will no longer take months to complete.
 - the fractional ownership will facilitate the trading mechanism, and the property will become accessible globally.
- ▣ **Better Security**
 - Blockchain-based technology ensures lower fraud risk and better security compared to traditional legal agreements.

Tokenizing Real Estate CDC Use Case

CDC Backend

CDC Blockchain



Tokenizing Real Estate

CDC Use Case

- ❑ Blockchain will act as the master copy, this will resolve dispute cases
- ❑ Legacy applications will fetch data using web services
- ❑ Market participants will not have to code the business logic.
- ❑ Blockchain smart contracts will provide all the business logic.
- ❑ KYC data from off-chain is brought to on-chain network
- ❑ KYC information can be a separate blockchain network.
- ❑ Transfer will be done using smart contract



Thank You