Armstrong Teasdale

DIGITAL TRANSFORMATION

SESSION TWO: THE INTERSECTION OF BLOCKCHAIN, CRYPTO, AND DEFI WITH DATA INNOVATION, PRIVACY AND SECURITY | MARCH 2022

Blockchain vs. Distributed Ledger Technology ("DLT")

- Computer software that is distributed, runs on peer-to-peer networks and offers transparent, verifiable, permanent transaction management maintained through a consensus mechanism rather than by a trusted third-party intermediary, and that guarantees execution.
- Blockchain is the "operating system" while DLT is the ledger itself.
- Can track ownership and place of origin of any asset.

Basics on Blockchains

- Blocks are a file containing data and that information is locked and encrypted so only someone with a key can access the information.
- The files (blocks) are linked one after the other forming a "chain."
- Each file (block) includes a timestamp that records when it was created, history about the files (blocks) that precede it in the chain, and information that is new to that file (block). The "blockchain" is the collection of the files.

Wyoming

- To date, Wyoming is the most crypto-friendly state in the nation, passing nearly two dozen blockchain-enabling laws in the past three years.
- These laws seek to clarify the existing regulatory environment around cryptocurrency businesses and serve as a model for other states and federal agencies to follow.

Delaware

- In July 2017 Delaware enacted Senate Bill 69, which provides statutory authority for Delaware corporations to use networks of electronic databases (including blockchain) to create and maintain corporate records.
- On June 19, 2019 Delaware enacted Senate Bills 89, 90, and 91 which, among other things, amend certain laws such as the Delaware Revised Uniform Partnership Act and Delaware Limited Liability Company Act to permit the use of "distributed ledgers" or a "blockchain" to maintain certain records and facilitate certain electronic transmissions.

Smart Contracts

- Smart contracts are digital contracts stored on a blockchain that are automatically executed when predetermined terms and conditions are met.
- They typically are used to automate the execution of an agreement so that all participants can be immediately certain of the outcome, without any intermediary's involvement or time loss.
- They can also automate a workflow, triggering the next action when conditions are met.

Nodes and Distributed Ledgers

- Anything that is used to access the internet when connected together is a "node" of the blockchain (anything from smartphones to servers).
- Nodes store the blockchain.
- Permissionless blockchains are open to anyone (crypto mining).
- Permissioned blockchains are limited to certain users (sale of goods, finance transaction, supply chain).
- A distributed ledger is a system in which data is stored and shared across multiple sites.
- A traditional database stores all the digital data in a centralized location.
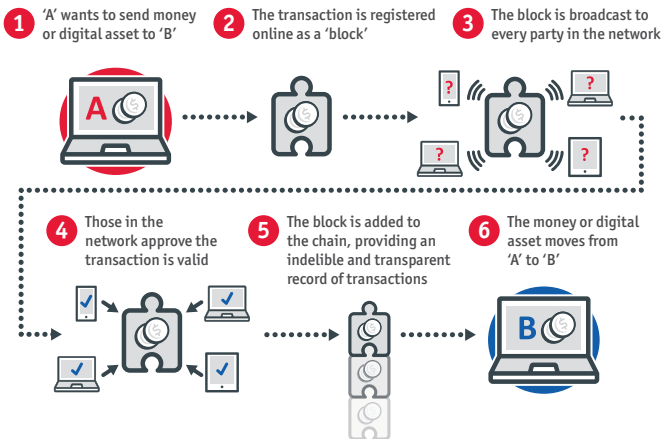- With blockchain, the different nodes store the same data.

Cryptocurrency (Virtual Currency) vs. Digital Token

- Cryptocurrency – digital representation of value that can be traded and functions as a unit of account or stored value.
- Token – representation of a unit functionality, service, or rights in or to an asset.
- NFTs can represent real-world items like artwork and real estate. "Tokenizing" these real-world tangible assets makes buying, selling, and trading them more efficient while reducing the probability of fraud.
- Wallet (or Digital Wallet).
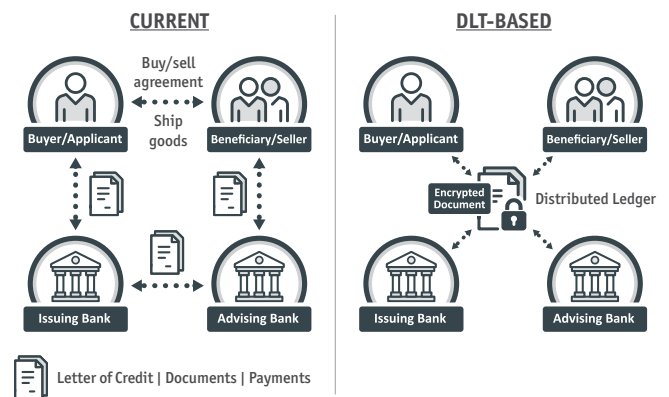
Written Information Security Program (WISP)

- "Evaluate and adjust the [Written] Information Security Program in light of any changes to [your] operations or business arrangements …."
- i.e., emerging technologies like blockchain, crypto, etc.

How Blockchain Works

1. 'A' wants to send money or digital asset to 'B'
2. The transaction is registered online as a 'block'
3. The block is broadcast to every party in the network
4. Those in the network approve the transaction is valid
5. The block is added to the chain, providing an indelible and transparent record of transactions
6. The money or digital asset moves from 'A' to 'B'

Distributed Ledger

How Trade Finance on Distributed Ledger Works

CURRENT

Buy/sell agreement
Ship goods
Buyer/Applicant — Beneficiary/Seller
Issuing Bank — Advising Bank

DLT-BASED

Buyer/Applicant — Beneficiary/Seller
Encrypted Document — Distributed Ledger
Issuing Bank — Advising Bank

Letter of Credit | Documents | Payments

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