WHAT IS BLOCKCHAIN?

BLOCKCHAIN DEFINED:

Blockchain is a shared, immutable ledger (list of records) that records transactions and monitors assets in a network. In a blockchain, assets can be tangible (products, currency, land) or intangible (digital goods, copyrights, intellectual property). Anything can be tracked and traded on a blockchain.

At its core blockchain is a meshing of technologies that brings security, efficiency, transparency, and trust to networks.

WHY BLOCKCHAIN IS IMPORTANT:

Business runs on data. The faster and more accurate, the better. Blockchain can provide immediate, shared, and transparent information all stored on an immutable (unchanging) ledger. The data can then only be accessed by allowed members.

Blockchain can be used to track production, payments, accounts, products, and so much more. All members on a blockchain share a single view of the truth and can see the details of every transaction. This gives everyone greater assurance, enables new efficiencies, and brings increased opportunities.

KEY ELEMENTS OF A BLOCKCHAIN

SMART CONTRACTS

Sets of rules stored on the blockchain that execute automatically when certain criteria are met (defined contract terms, quotas, etc.).

IMMUTABLE RECORDS

Records are recorded to the blockchain and no participant can alter the shared ledger. If incorrect information is entered a new transaction must take place to correct the error.
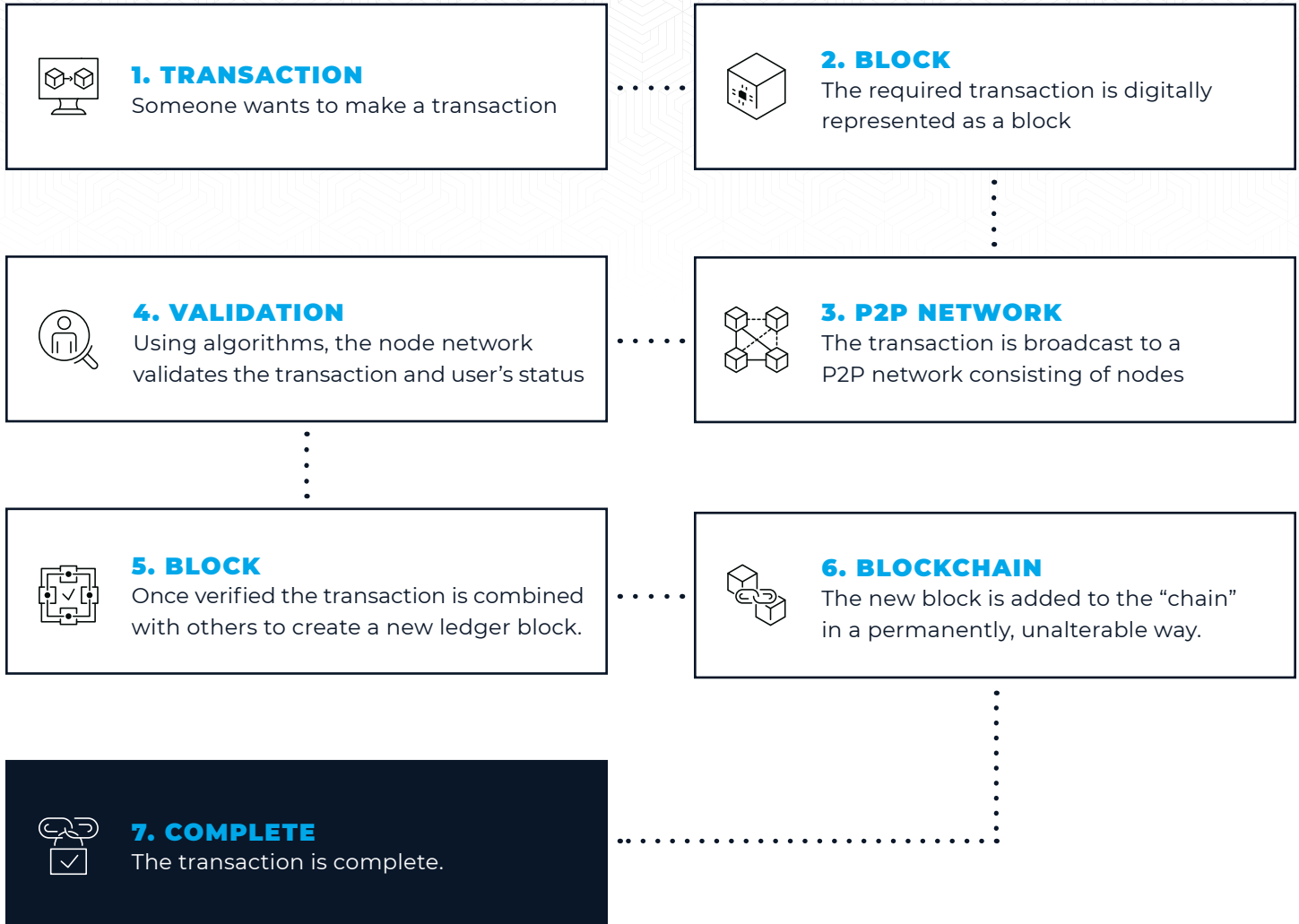
DISTRIBUTED LEDGERS

All participants have access to the public ledgers. It provide every detail of a transaction and the participants involved.

CONSENSUS

The decision making algorithm that creates reliability in the network and establishes trust between participants.

HOW IT WORKS

1. TRANSACTION
Someone wants to make a transaction

2. BLOCK
The required transaction is digitally represented as a block

4. VALIDATION
Using algorithms, the node network validates the transaction and user's status

3. P2P NETWORK
The transaction is broadcast to a P2P network consisting of nodes

5. BLOCK
Once verified the transaction is combined with others to create a new ledger block.

6. BLOCKCHAIN
The new block is added to the "chain" in a permanently, unalterable way.

7. COMPLETE
The transaction is complete.

WHY BLOCKCHAIN?

TRACEABILITY

ENHANCED SECURITY

GREATER TRANSPARENCY

INCREASED EFFICIENCY AND SPEED

COMMON USE CASES

- Supply chain and Logistics
- Secure Identity
- Payments or Royalties

- Medical Information
- NFT Marketplaces
- Cross-border Payments

- Decentralized Financial (DeFi)
- Insurance
- Government Accountability

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