

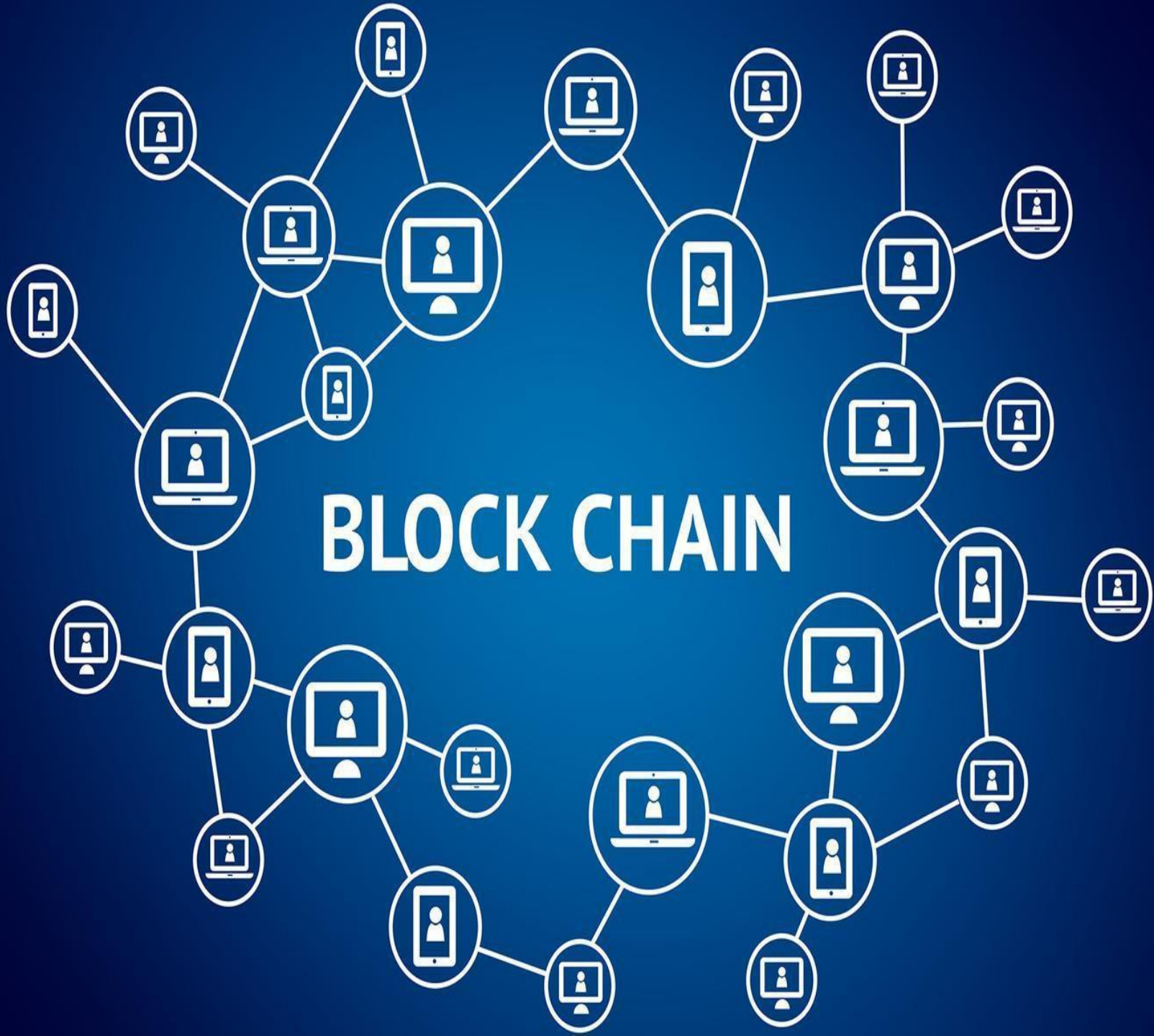
Blockchain technology: Facilitating collaborative

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BLOCK CHAIN



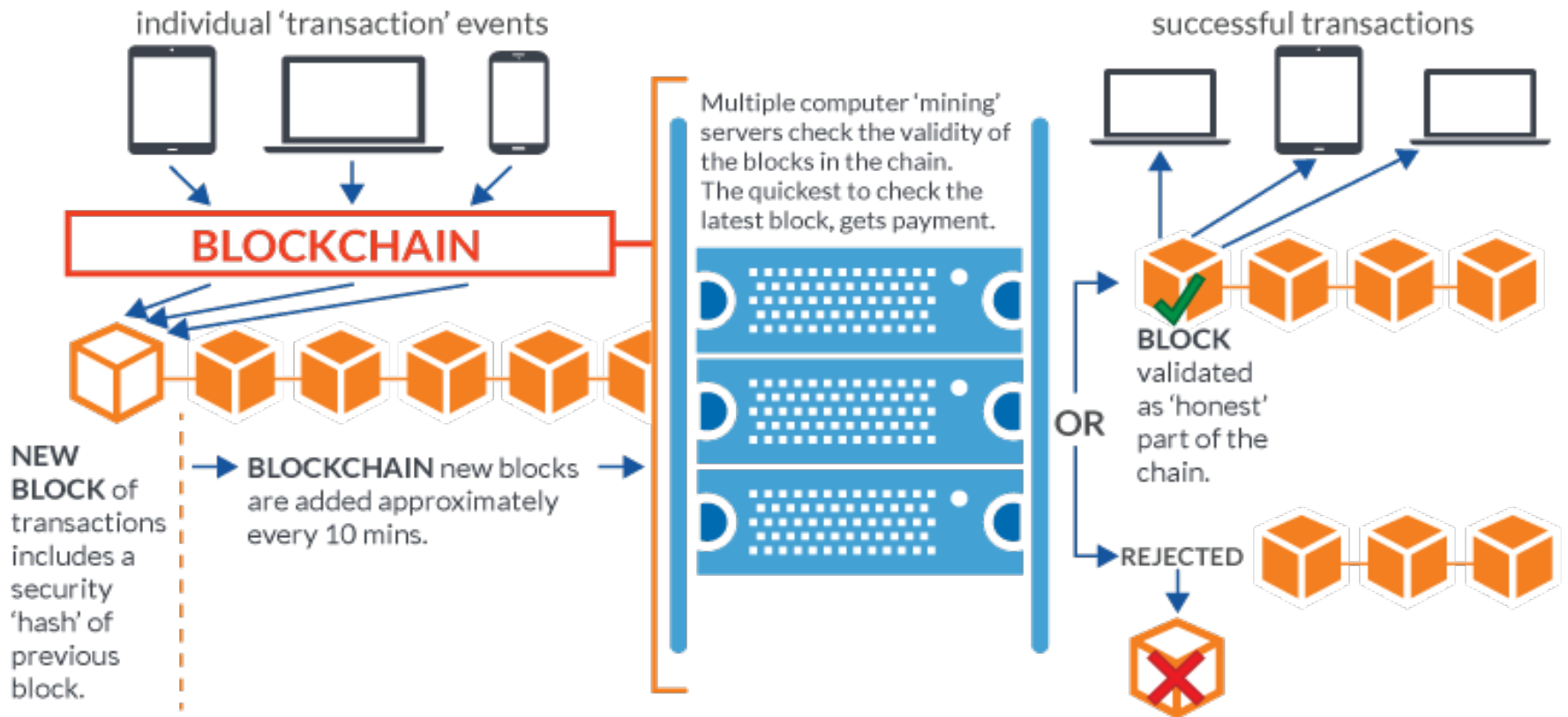
What is BlockChain

“Blockchain is a type of **distributed database** that stores a **permanent** and **tamper-proof** ledger of **transaction data.**”

Properties

- Distributed Ledger
- Open Ledger- Anyone can see it Public ledger
- Tamper proof record of transactions onto a public ledger
- Everyone has an identical copy of a distributed ledger
- Hacking is extremely difficult- hacker would have to hack every computer and

HOW BLOCKCHAIN WORKS



Types of Blockchain

- Public
- Private
- Consortium

Public Blockchain

- Decentralized,
- anyone can read and send transactions, e.g. Bitcoin, Ethereum,
- Anyone can verify and add a block of transactions

Private Blockchain

- Centralized under one organization which controls the right to view and send transactions
- Allow only specific people in the organisation to verify and add transaction blocks
- Everyone on the internet is generally allowed to view

Consortium based Blockchain

- Only a group of organisations (such as banks, universities) can verify and add transactions but the ledger can be open or restricted to selected groups.

- **Permissionless Blockchain:** Every node in the network participate in consensus procedure, e.g. Bitcoin Blockchain (Proof of Work)
- **Permissioned Blockchain:** Only Selected nodes(validators, e.g. Government or trusted nodes) participate in consensus procedure e.g. Hyperledger Blockchain

Forms of Intellectual Property

- Copyrights. ...
- Patents....
- Trademarks. .

Benefits of Using Blockchain in IP Sharing

- Decentralised
- Hacking is extremely difficult- hacker would have to hack every computer and change every single copy
- Accessibility-Open Ledger, anyone can see the Public ledger
- Tamper proof record of transactions

Other Application Areas

- Financial Institutions-hyper ledger
- Elections(voting)-Democracy Earth, FollowMyVote
- Agreement of sales
- Diamond Sales – digital signature identifying its origins
- Government-Dubai is aiming to put all its documents on the blockchain by 2020

Programming Language

- Solidity is a contract-oriented, high-level language whose syntax is similar to that of JavaScript and it is designed to target the Ethereum Virtual Machine (EVM).
- Solidity is statically typed, supports inheritance, libraries and complex user-defined types among other features.

THANK YOU FOR YOUR ATTENTION

THE END

Q&A