

The image features a central graphic of a globe with a world map overlay. The globe is partially enclosed by a white circular arc. Overlaid on the globe is the text 'CØSMOS' in a bold, black, sans-serif font. The 'O' in 'CØSMOS' is replaced by a black circle with a diagonal slash through it. The background is a light gray gradient with faint, semi-transparent text elements: 'XMR' in the upper left, 'BTC' in the upper right, 'EXCHANG' on the right side, and 'DOGE' on the left side.

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“Impossibility of Distributed Consensus with One Faulty Process”

- Fischer, Lynch, Paterson (1985) (FLP)

“Consensus in the Presence of Partial Synchrony”

- Dwork, Lynch, Stockmeyer (1988) (DLS)

“Practical Byzantine Fault Tolerance (PBFT)”

- Castro, Liskov (1999)

“Bitcoin: A Peer-to-Peer Electronic Cash System”

- Satoshi Nakamoto (2008)



Tendermint BFT “Blockchain Engine”

- **Fast finality** - e.g. 100 validators, 3 second block times
- **High throughput** - the app logic is the bottleneck
- **Fault tolerance** - up to $\frac{1}{3}$ of malicious actors
- **Fork-accountability** - can punish $\frac{1}{3}$ of malicious actors
- **Open-source** - Apache2.0 (<http://github.com/tendermint>)
- **General-purpose** - network socket interface (ABCI)

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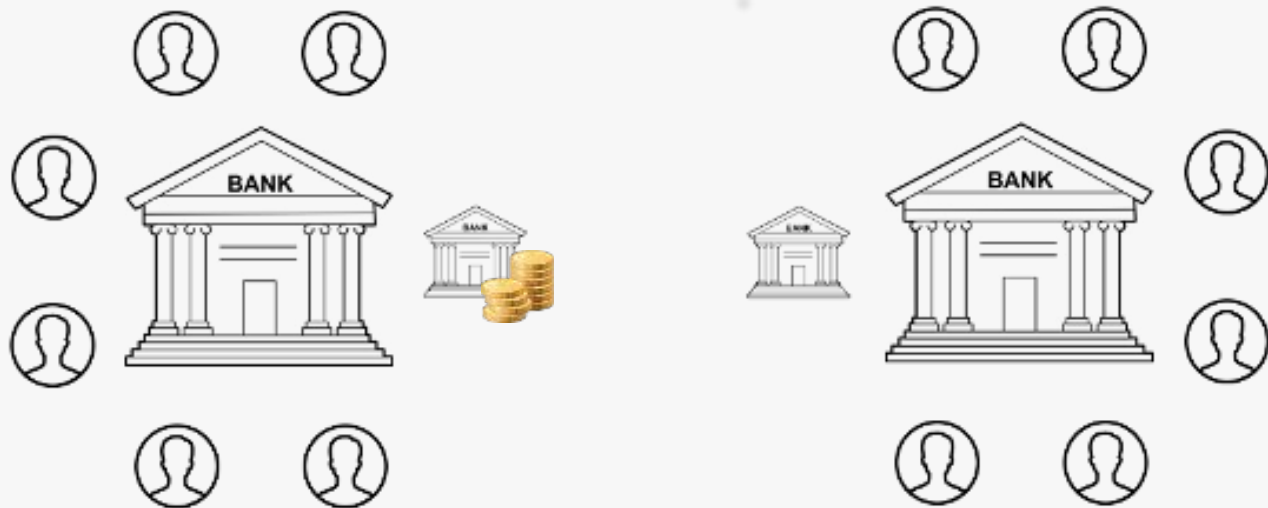
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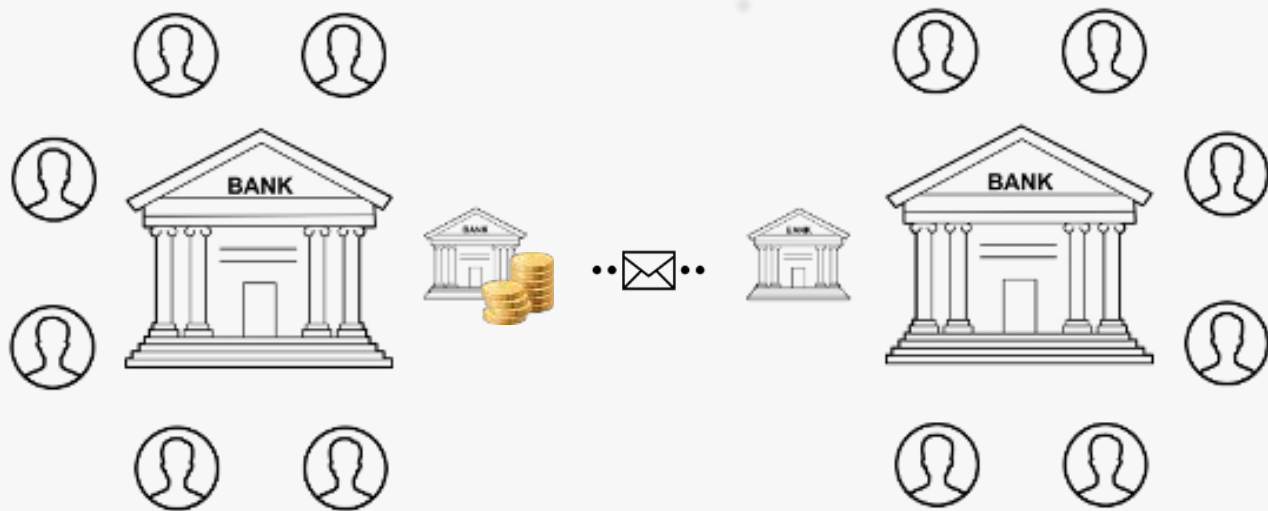
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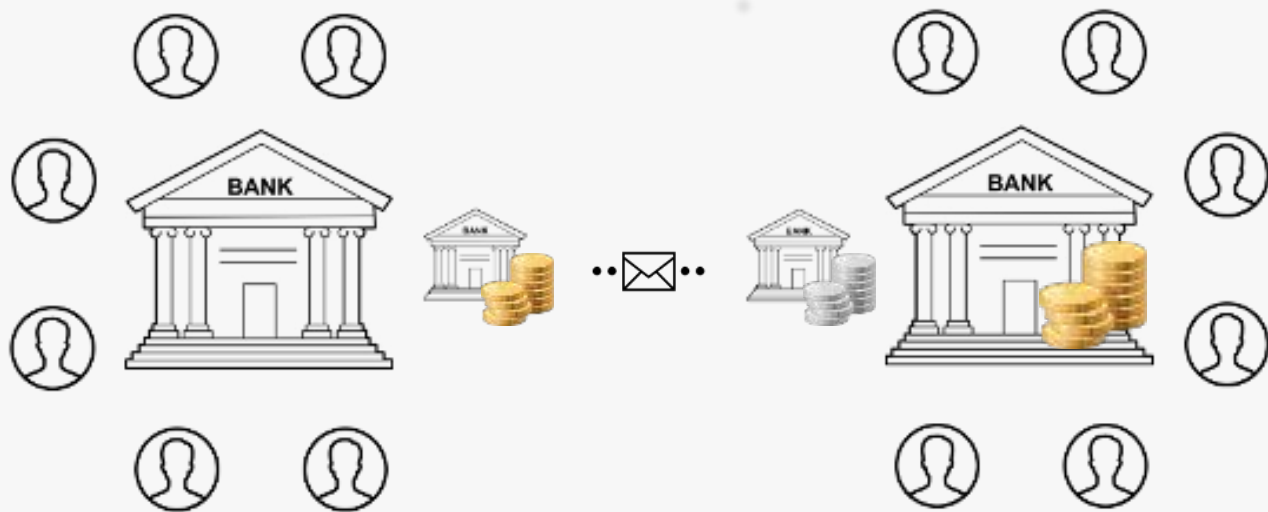
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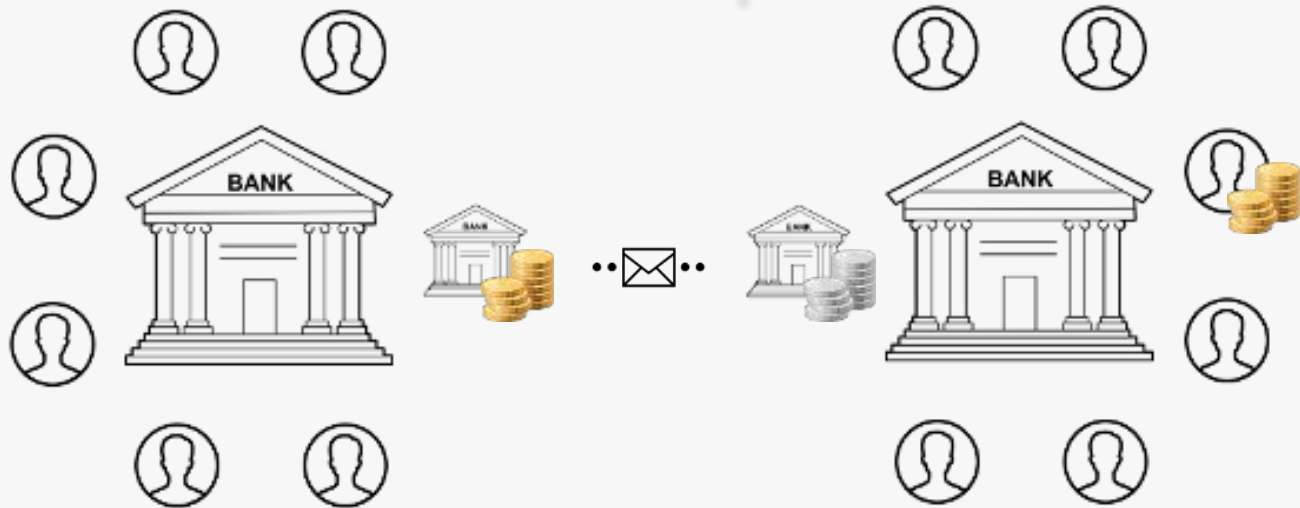
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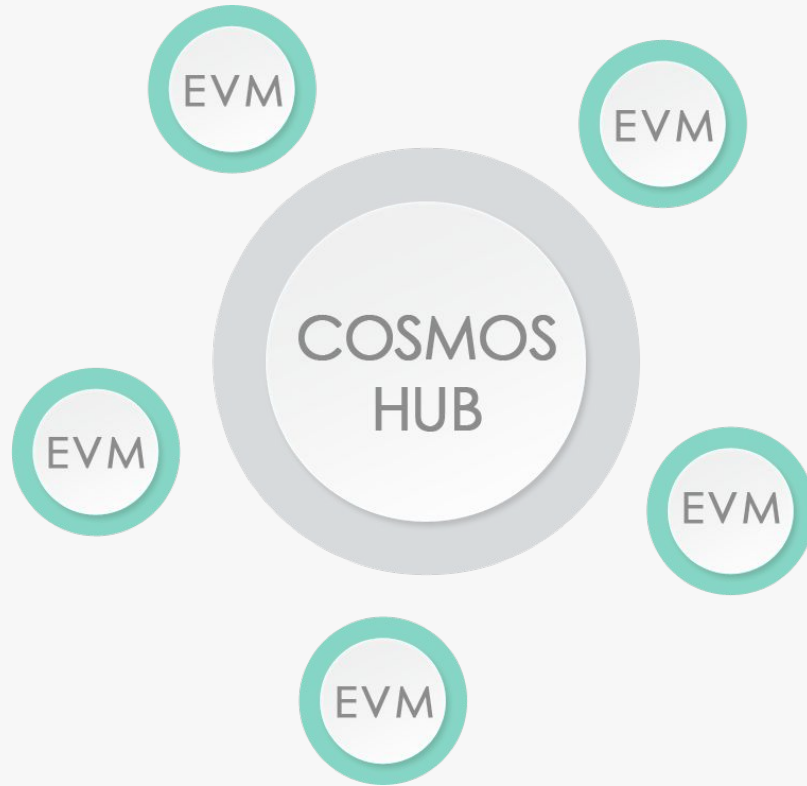
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Cosmos Dex (distributed exchange):

- Distributed custody
 - Centralized order matching
- Best of both worlds

Cosmos Proof-of-Stake:

- Based on Tendermint BFT
- “Atom” staking token
- Delegated proof-of-stake w/ “skin in the game”
- 100 validator spots

Bonded Atom stakers can:

- Commit blocks on the blockchain(s)
- Participate in governance
- Share transaction fees

Blockchain governance

- Genesis Constitution defines who, how, & why
- Proposals to update predefined parameters
- Proposals to upgrade the blockchain
- Proposals to rewards development etc
- Offline tools to coordinate hard forks

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<http://cosmos.network>

<http://tendermint.com>

(& we're hiring)