Corda Blockchain

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Public vs Private Blockchain

	Public Blockchains	Private Blockchains
Access level	○ Anyone	○ Single organization
Participation	○ Permissionless ○ Anonymous	○ Permissioned ○ Identities are known
Security	○ Consensus mechanism ○ Proof of Work / Proof of Stake	○ Pre-approved participants ○ Voting / multi-party consensus
Performance	○ Slow transaction speed	○ Lighter blockchain ○ Fast transaction speed

Figure: Comparision between the two types

Private Blockchain in Financial Services

- Capital Markets
  - Issuance
  - Sales and trading
  - Clearing and Settlement

- Asset Management
  - Fund Launch
  - Fund administration
  - Transfer agency in asset management

- Banking and Lending
  - Credit Prediction and Credit Scoring
  - Asset Collateralization

Introduction to Corda

- Corda helps businesses in Banking, Capital Markets, Trade Finance, Insurance and beyond to transact directly and in strict privacy using smart contracts, reducing transaction and record-keeping costs and streamlining business operations.

- It is built for highly regulated industries.

- Delivers the core attributes of open source with enterprise functionality, services and support.

Challenges Faced by Corda

- The absence of blocks makes the simplification of validation impossible and requires to perform complete verification of transaction history which will become more resource-consuming over time.

- Corda is vulnerable to double-spending attacks which requires using special oracles to prevent attackers from performing such kind of attack.

Benefits of Corda in Finance

The immutability and transparency of a Corda blockchain help empower financial institutions for gaining fast and secure access to up-to-date customer data. ,

- Transaction finality.
- Ability to scale.
- Privacy.
- Legally identified parties.
- Developer productivity and enterprise integration.

📄 Alehub.io. *What's wrong with Corda R3 and how ALEHUB maintains private blockchains?* June 2018. URL: https://medium.com/@alehub/whats-wrong-with-corda-r3-and-how-alehub-maintains-private-blockchains-5bc85da9da7f.

📄 *Blockchain Platform Solving Complex Business Problems.* URL: https://www.corda.net/why-corda/.

📄 LuxTag. *Private vs. Public Blockchains: What are the Major Differences?* URL: https://www.luxtag.io/blog/private-vs-public-blockchain-what-are-the-major-differences/.