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**Blockchain Platform Comparison**

| **Blockchain Name** | **Type** | **Consensus Mechanism Used** | **Permission Model** | **Speed / Throughput** | **Smart Contract Support** | **Token Support** | **Typical Use Case** | **Notable Technical Feature** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Solana** | Public | Proof of History + PoS | Open | ~65,000 TPS | Yes (Rust, C, C++) | Native (SOL) | High-performance DApps, DeFi | Ultra-high throughput, low latency |
| **Hyperledger Fabric** | Private | Pluggable (Raft, Kafka) | Permissioned | ~1,000+ TPS | Yes (Go, Java, JavaScript) | No native token | Enterprise/internal systems | Channel-based data isolation, modularity |
| **Quorum** | Consortium | Istanbul BFT / Raft | Permissioned | ~1,500 TPS | Yes (Solidity, EVM compatible) | Optional token | Financial networks, enterprise apps | Private transactions, Ethereum-compatible |

**Short Report: Technical Comparison and Platform Suitability**

Solana is a public blockchain optimized for speed and scalability, boasting ~65,000 TPS using a hybrid **Proof of History + Proof of Stake** consensus. It supports smart contracts in Rust and is ideal for decentralized applications (DApps) and decentralized finance (DeFi), thanks to native token support and a thriving developer ecosystem.

Hyperledger Fabric, a private blockchain, excels in controlled environments. It offers high throughput (~1,000+ TPS), modular consensus, and smart contracts in general-purpose languages. Its permissioned architecture and private channels make it ideal for internal enterprise systems where data privacy and governance are critical.

Quorum, a consortium blockchain, provides Ethereum compatibility with enhanced privacy and speed. It supports smart contracts via Solidity and enables confidential transactions between known parties, making it suitable for cross-institutional use like financial networks.

**Recommended Platforms by Use Case:**

* **Decentralized App:** *Solana* – for high performance, open access, and robust token support.
* **Supply Chain Network:** *Hyperledger Fabric* – due to its permissioned model, data isolation via channels, and scalability.
* **Inter-bank Financial Application:** *Quorum* – offering EVM compatibility, permissioned access, and private transactions tailored for financial ecosystems.