Blockchain Platform Comparison Table

Blockchain Name	Type	Consensus Mechanism Used	Permission Model	Speed / Throughput	Smart Contract Support	Token Support	Typical Use Case	Notable Technical Feature
Ethereum	Public	Proof of Stake	Open	~15–30 TPS	Yes Solidity	Native (ETH)	Decentralized apps (dApps), DeFi	Rich developer ecosystem, EVM
Hyperledger Fabric	Private	Pluggable (Raft, Kafka)	Permissioned	~1,000+ TPS	Yes Chaincode	Not native	Enterprise supply chain, auditing	Modular architecture, Privacy
R3 Corda	Consortium	Notary-based (Validating/ Non-validating)	Permissioned	~170 TPS	Yes JVM based	Not native	Inter-bank settlement, trade finance	Point-to-point messaging

Short Report: Technical Comparison & Suitability

Ethereum, a public blockchain, is ideal for decentralized applications due to its open access, native token economy (ETH), and mature smart contract support using Solidity. However, its base-layer throughput is limited (~15–30 TPS), though scalability solutions like rollups and sidechains alleviate this for many dApps.

Hyperledger Fabric, in contrast, is a high-performance, private blockchain framework with a modular architecture. It allows customizable consensus, supports enterprise-grade privacy through channels, and achieves significantly higher TPS (>1000). It's best suited for closed networks like supply chains where parties are known and trust boundaries are defined.

R3 Corda operates as a consortium blockchain and differs fundamentally by not broadcasting transactions globally. Instead, it uses a notary service to validate transactions and allows private data sharing between relevant nodes. This design makes it ideal for inter-bank financial operations where confidentiality and regulatory compliance are critical.

Platform I would choose:

- **Decentralized App:** *Ethereum* – Best suited due to openness, smart contract capabilities, and token ecosystem.

- **Supply Chain Network:** *Hyperledger Fabric* – Offers privacy, high throughput, and modular consensus ideal for known partner networks.

- **Inter-bank Application:** *R3 Corda* – Purpose-built for finance with secure data handling, identity management, and point-to-point transactions.