## Blockchain Platforms Comparison Table

| Blockchain Name | Type | Consensus Mechanism | Permission Model | Speed / Throughput | Smart Contract Support | Token Support | Typical Use Case | Notable Technical Feature |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ethereum** | Public | Proof of Stake (PoS) | Open | ~30 TPS (Post-Merge) | Yes (Solidity, Vyper) | Native (ETH) | Decentralized apps (dApps) | EVM, Wide Developer Adoption |
| **Hyperledger Fabric** | Private | Pluggable (e.g., Raft) | Permissioned | 1000+ TPS | Yes (Chaincode - Go, Java) | No native token | Supply chain, enterprise solutions | Modular, Channels for data privacy |
| **R3 Corda** | Consortium | Notary-based | Permissioned | ~170 TPS (w/ tuning) | Yes (JVM, Kotlin, Java) | No native token | Inter-bank transactions, legal systems | Point-to-point transactions |

## Short Technical Comparison Report

Each blockchain platform excels in different contexts. **Ethereum**, as a public blockchain, supports a truly decentralized environment with wide smart contract capabilities using Solidity. It is ideal for dApps where open access and trustlessness are essential. However, it suffers from lower throughput (~30 TPS), making it less suitable for enterprise-grade performance.

**Hyperledger Fabric**, being a private and modular framework, enables high throughput (1000+ TPS) and strict permissioned access. It supports pluggable consensus and confidential data channels, making it perfect for use cases like **supply chain management** among known stakeholders where data privacy and scalability are paramount.

**R3 Corda**, though often categorized under private/consortium blockchains, uniquely features peer-to-peer data flow rather than global broadcasting. It is built for the financial sector, supporting JVM-based smart contracts and ensuring data is shared only with intended parties. It’s particularly strong in **inter-bank or legal workflows** where privacy and legal compliance are critical.

### Platform Recommendations:

* **Decentralized App** → *Ethereum* (open, decentralized, smart contract-rich)
* **Supply Chain Network Among Known Partners** → *Hyperledger Fabric* (private, high TPS, modular)
* **Inter-bank Financial Application** → *R3 Corda* (privacy-focused, legal and financial sector-ready)