# 🔗 Blockchain Platform Comparison

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| Blockchain Name | Type | Consensus Mechanism Used | Permission Model | Speed / Throughput (TPS) | Smart Contract Support | Token Support | Typical Use Case | Notable Technical Feature |
| Ethereum | Public | Proof of Stake (PoS) | Open | ~30 TPS (can scale via L2) | Yes (Solidity, Vyper) | Native (ETH) | Decentralized applications, NFTs, DeFi | EVM compatibility, strong L2 ecosystem |
| Hyperledger Fabric | Private | Pluggable (e.g., Raft, Kafka) | Permissioned | ~3,000 TPS | Yes (Chaincode - Go, Java, Node.js) | No native token | Enterprise workflows, supply chains | Modular architecture, data privacy |
| R3 Corda | Consortium | Not blockchain, uses Notary | Permissioned | ~170 TPS (depends on setup) | Yes (Kotlin, Java) | No native token | Inter-bank transfers, trade finance | Point-to-point communication, legal contracts |

## 🧾 Short Report

The selected platforms — Ethereum, Hyperledger Fabric, and R3 Corda — cater to different blockchain needs based on openness, performance, and technical architecture.  
  
Ethereum, a public blockchain, is highly decentralized and secure, ideal for building DApps that need trustless environments. It supports smart contracts using Solidity and has a native token (ETH), but its throughput (~30 TPS) is lower unless supported by Layer 2 solutions.  
  
Hyperledger Fabric is a private, permissioned blockchain well-suited for enterprise use cases. It offers high throughput (~3,000 TPS), modular architecture, and rich privacy controls. It supports smart contracts (Chaincode) in general-purpose languages but lacks native token support.  
  
R3 Corda, while often grouped as a blockchain, is technically a distributed ledger optimized for consortiums. It provides point-to-point communication, legal contract integration, and smart contract support using Java/Kotlin. It's ideal for regulated sectors like banking, though it doesn’t use a traditional blockchain structure or native tokens.  
  
Platform Recommendations:  
- Decentralized App: Ethereum – open access, tokenization, and ecosystem tools.  
- Supply Chain Among Partners: Hyperledger Fabric – permissioned, high TPS, privacy.  
- Inter-Bank Financial Application: R3 Corda – legal compliance, privacy, secure messaging.