**Blockchain Platform Comparison**

| **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 (PoS) | Open | ~30 TPS (Layer 1) | Yes (Solidity, Vyper) | Native (ETH) | DApps, DeFi, NFTs | EVM & Layer-2 scalability |
| **Hyperledger Fabric** | Private | Pluggable (Raft, Kafka, etc.) | Permissioned | 1000+ TPS | Yes (Go, Java, JavaScript) | No native token | Enterprise supply chain, audits | Modular architecture, private data |
| **R3 Corda** | Consortium | Notary-based consensus | Permissioned | 170 TPS (avg) | Yes (Kotlin, Java) | No native token | Interbank settlements, finance | Privacy-first, point-to-point comms |

**📄 Short Comparative Report**

Ethereum, as a **public blockchain**, is ideal for decentralized applications (DApps) due to its open access, native token (ETH), and robust smart contract support using Solidity. However, its base layer suffers from limited throughput (~30 TPS), although this is being mitigated by Layer-2 solutions.

Hyperledger Fabric is a **private blockchain** designed for enterprise use. It offers high throughput (1000+ TPS), flexible consensus mechanisms, and strong smart contract support in mainstream programming languages like Go and Java. Its permissioned model and ability to handle confidential transactions make it perfect for **supply chain networks among trusted parties**.

R3 Corda operates as a **consortium blockchain**, focusing on **financial and regulated industries**. Unlike Ethereum or Fabric, it doesn’t broadcast transactions to all participants but uses point-to-point communication. This ensures both privacy and scalability. Its architecture, designed for interoperability and compliance, makes it highly suitable for **inter-bank financial applications**.

**Recommendations:**

* For a **DApp**: Ethereum — because of its public accessibility, token economy, and widespread developer adoption.
* For a **supply chain among partners**: Hyperledger Fabric — due to its private nature, modularity, and high TPS.
* For an **inter-bank application**: R3 Corda — due to its focus on privacy, regulated environments, and direct communication channels.