| **Blockchain Name** | **Type** | **Consensus Mechanism** | **Permission Model** | **Speed / TPS** | **Smart Contract Support** | **Token Support** | **Typical Use Case** | **Notable Technical Feature** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Ethereum** | Public | Proof of Stake (Ethereum 2.0) | Open | 15–30 TPS (Layer 1) | Solidity | Yes (Ether) | Decentralized applications (dApps) | Smart contract platform, Layer 2 scaling |
| **Hyperledger Fabric** | Private | Pluggable) | Permissioned | 1,000+ TPS | Chaincode (Go, Java) | No | Enterprise supply chains | Modular architecture, channel privacy |
| **IBM Food Trust** | Consortium | Based on Hyperledger Fabric | Permissioned | 1,000+ TPS | Chaincode (Go, Java) | No | Food supply chain transparency | Track & trace, data immutability, IoT-ready |

10 July 25 **TASK**

**Ethereum** is a public blockchain, which means anyone can use it or build on it. It's mostly used for making decentralized apps (dApps), and it has its own token called Ether. It can run smart contracts written in a language called Solidity. The only thing is, it's not very fast on its own — it can handle around 15 to 30 transactions per second — but it can be made faster using extra layers (called Layer 2).

**Hyperledger Fabric** is a private blockchain used inside companies. It’s really fast (over 1000 TPS) and supports smart contracts too, but it doesn’t have any token. It’s permissioned, which means only selected members can join. It’s great for things like supply chains where data needs to stay private between partners.

**IBM Food Trust** is a consortium blockchain, which means it's used by a group of known partners working together. It’s actually based on Hyperledger Fabric, but it’s made specifically for the food industry. It’s great for tracking food items through the supply chain, from farm to store. It’s fast, private, and perfect for businesses that already know and trust each other.