Hyperledger Fabric

Lars Erik Wik

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Summary

Hyperledger Fabric is an operating system for permissioned blockchains, allowing businesses to define asset types, business logic and access controls themselves. In Fabric the efficiency is increased by dividing nodes into client-, peer- and ordering nodes. Clients submit transactions; peers execute and validate transactions; and the ordering nodes establish a total order of events. Transactions are done through chaincode. [1, 2]

Fabric differs from Ethereum in that Fabric is a modular blockchain platform, meaning that whiles Ethereum uses a Proof-of-Work (Proof-of-Stake after Casper update) consensus protocol, Fabric allows multiple approaches. Another example is that Ethereum has a built-in currency, while this must be specifically defined in Fabric through chaincode. Furthermore Fabric is a permissioned blockchain technology, this in contrast to Ethereum that is permissionless. [3]

References

[1] Elli Androulaki et al. "Hyperledger Fabric: A Distributed Operating System for Permissioned Blockchains". In: *Proceedings of the Thirteenth EuroSys Conference*. EuroSys '18. Porto, Portugal: Association for Computing Machinery, 2018. ISBN: 9781450355841. DOI: 10.1145/3190508.3190538. URL: https://doi.org/10.1145/3190508.3190538.

[2] Hyperledger. URL: https://hyperledger-fabric.readthedocs.io/en/release-1.4/key_concepts.html (visited on 03/08/2022).

[3] Martin Valenta and Philipp G. Sandner. "Comparison of Ethereum, Hyperledger Fabric and Corda". In: 2017.