

## Understanding Hyperledger Fabric Blockchain Resources.

Please find below some easy to reference graphics and links.

### ***HYPERLEDGER Overview***

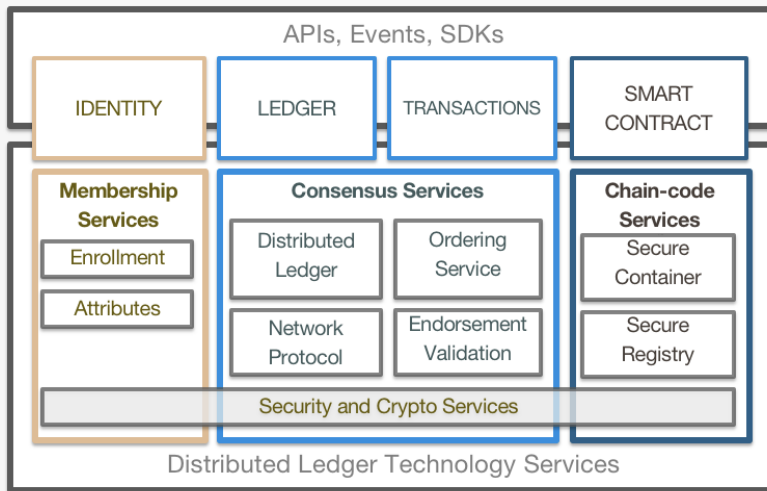
#### ***Hyperledger Blockchain Frameworks***

Framework	Smart Contract Technology	Smart Contract Type	Language(s) for Writing Smart Contracts
<b>Hyperledger Burrow</b>	Smart contract application engine	On-Chain	Native language code
<b>Hyperledger Fabric</b>	Chaincode	Installed	Golang (> v1.0) or Javascript (> v1.1)
<b>Hyperledger Indy</b>	None	None	None
<b>Hyperledger Iroha<sup>2</sup></b>	Chaincode	On-chain	Native language code
<b>Hyperledger Sawtooth</b>	Transaction families	On-Chain and Installed	C++, Go, Java, JavaScript, Python, Rust, or Solidity (through Seth)

*Graphic Courtesy of the Linux Foundation*

#### ***Hyperledger Fabric Reference Architecture***

## Reference Architecture



### IDENTITY

Pluggable, Membership, Privacy and Auditability of transactions.

### LEDGER | TRANSACTIONS

Distributed transactional ledger whose state is updated by consensus of stakeholders

### SMART CONTRACT

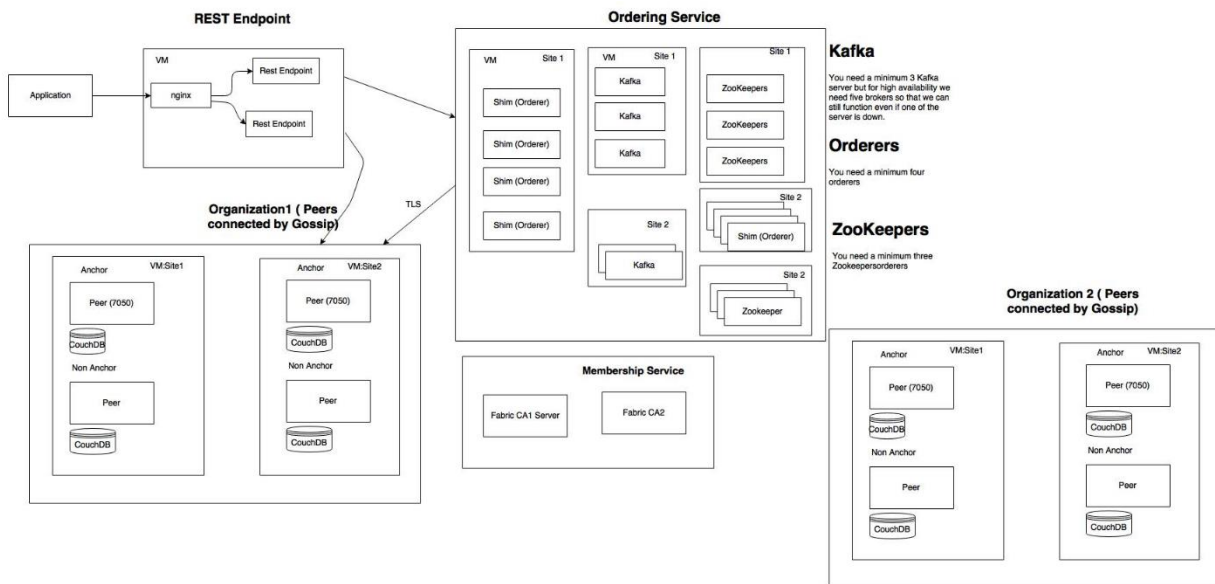
"Programmable Ledger", provide ability to run business logic against the blockchain (aka smart contract)

### APIs, Events, SDKs

Multi-language native SDKs allow developers to write DLT apps

Graphic Courtesy of the Linux Foundation

## Hyperledger Component Overview



Graphic Courtesy of the Linux Foundation

Hyperledger Project

<https://www.hyperledger.org/>

Hyperledger Fabric

<https://www.hyperledger.org/projects/fabric>

Hyperledger Fabric Glossary

<http://hyperledger-fabric.readthedocs.io/en/latest/glossary.html>

Hyperledger Fabric Architecture Guide

<http://hyperledger-fabric.readthedocs.io/en/latest/architecture.html>

Hyperledger Arch Whitepaper 1

[https://www.hyperledger.org/wp-content/uploads/2017/08/Hyperledger Arch WG Paper 1 Consensus.pdf](https://www.hyperledger.org/wp-content/uploads/2017/08/Hyperledger_Arch_WG_Paper_1_Consensus.pdf)

Hyperledger Arch Whitepaper 2

[https://www.hyperledger.org/wp-content/uploads/2018/04/Hyperledger Arch WG Paper 2 SmartContracts.pdf](https://www.hyperledger.org/wp-content/uploads/2018/04/Hyperledger_Arch_WG_Paper_2_SmartContracts.pdf)

Hyperledger Publications

<https://www.hyperledger.org/resources/publications>

Build your first Network

[http://hyperledger-fabric.readthedocs.io/en/latest/build\\_network.html](http://hyperledger-fabric.readthedocs.io/en/latest/build_network.html)

Hyperledger Composer

<https://hyperledger.github.io/composer/latest/>

Hyperledger Composer Playground

<https://composer-playground.mybluemix.net/login>

Composer Architecture Solution

<https://hyperledger.github.io/composer/latest/introduction/solution-architecture.html>

Hyperledger Fabric SDK

<https://fabric-sdk-node.github.io/>

**IBM Blockchain Sandbox**

<https://ibm-blockchain.github.io/>

## **DOCKER**

Install Docker for Ubuntu

<https://docs.docker.com/v17.09/engine/installation/linux/docker-ce/ubuntu/>

Install Docker for Mac <https://docs.docker.com/v17.09/docker-for-mac/install/>

## **IBM Cloud**

**Sandbox Instructions**

<https://ibm-blockchain.github.io/>

**Bluemix/IBM Cloud (BaaS)**

IBM Blockchain offerings are built on the [Hyperledger Fabric](#) V1.1 code base that leverages a modular architecture to achieve enterprise levels of security, data integrity, scalability, and performance to meet your business needs.

- **Starter Plan** is an environment to learn or get started developing blockchain networks.
- **Enterprise Plan** is a production environment that offers high levels of security and support.
- **Enterprise Plus Plan** offers a dedicated production environment for additional performance and isolated compute and storage resources to protect critical data.

<https://console.bluemix.net/dashboard/apps/>

## Hyperledger Certification

### Certified Blockchain Developer Hyperledger (CBDH)

*The BTA Certified Blockchain Developer Hyperledger Fabric (CBDH) exam is an elite way to demonstrate your knowledge and skills in this emerging space. Additionally, you will become a member of a community of Blockchain leaders. With certification comes monthly industry updates via email and video.*

*The CBDH exam is a 70 question multiple-choice exam that lasts 1.5 hours and is a performance-based evaluation of Hyperledger Fabric development skills and knowledge*

<https://blockchaintrainingalliance.com/products/cbdh>

## Free Training

Hyperledger.org Free Sponsored Training

<https://www.hyperledger.org/resources/training>

## Books

Recommended Book.. (Free on Safari)

# Hands-On Blockchain with Hyperledger



<https://www.safaribooksonline.com/library/view/hands-on-blockchain-with/9781788994521/>