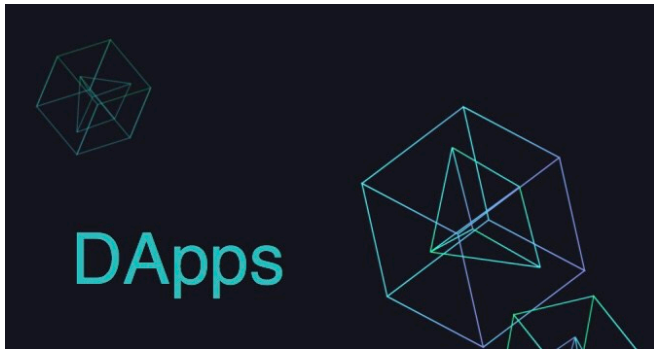




DApps

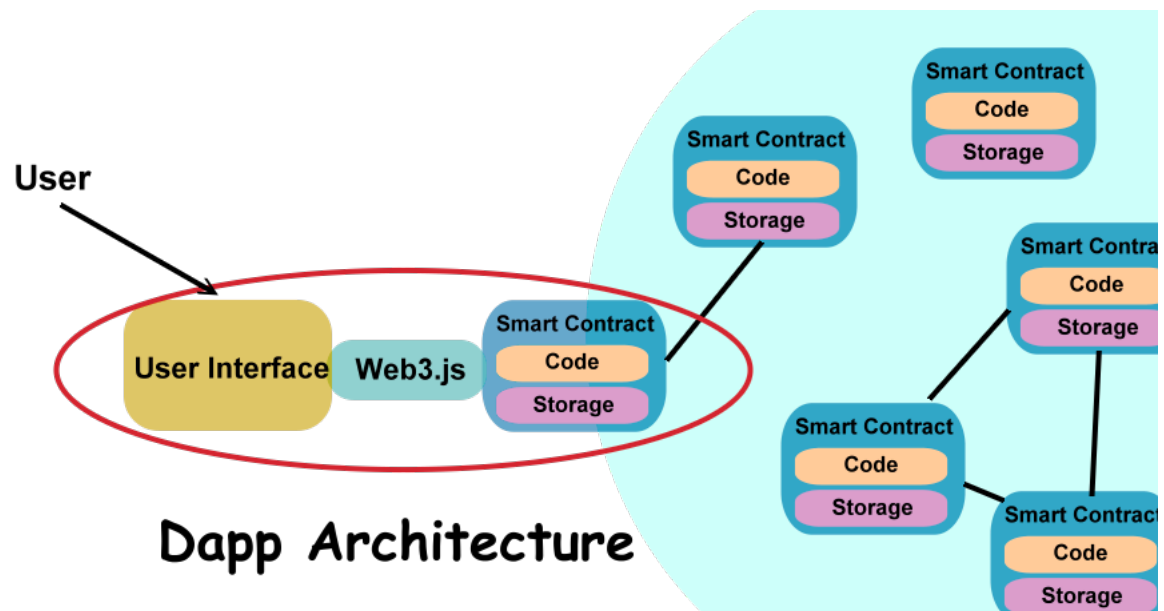
Module 3 (part 2)

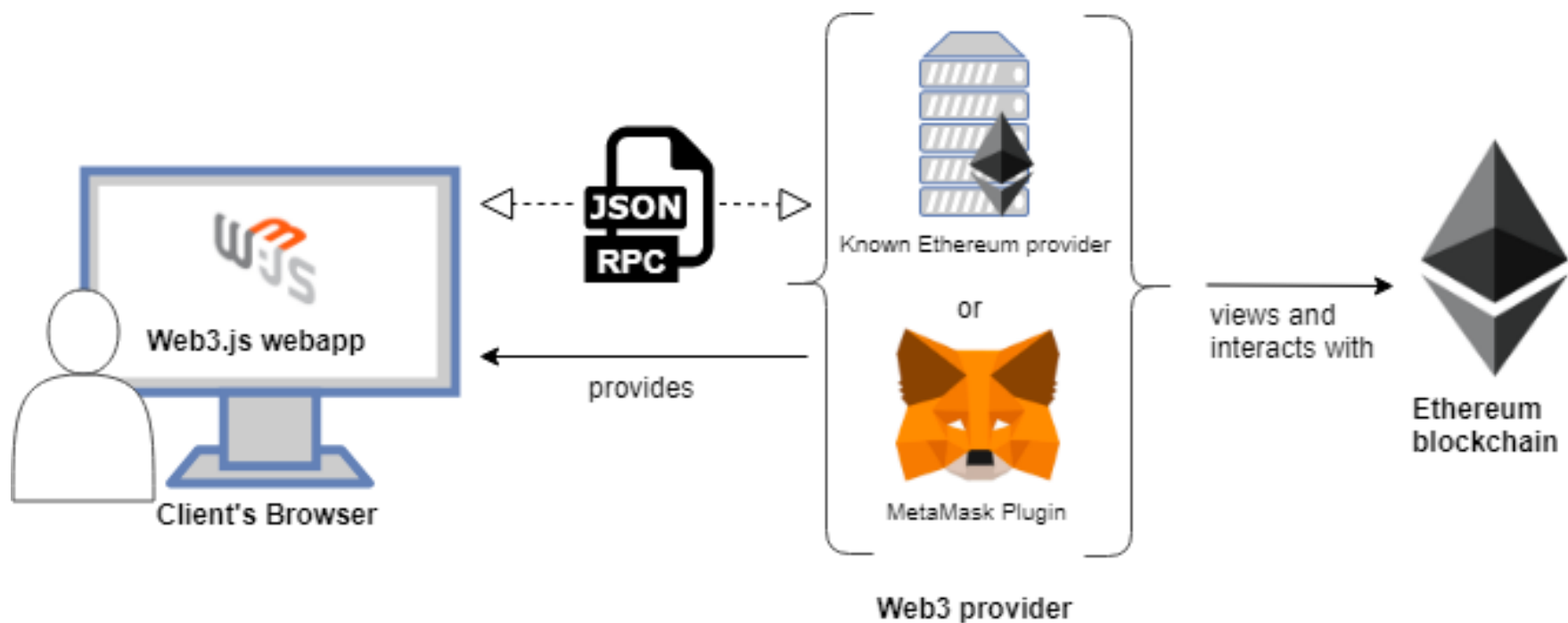
Part 2

Breaking down a D-App

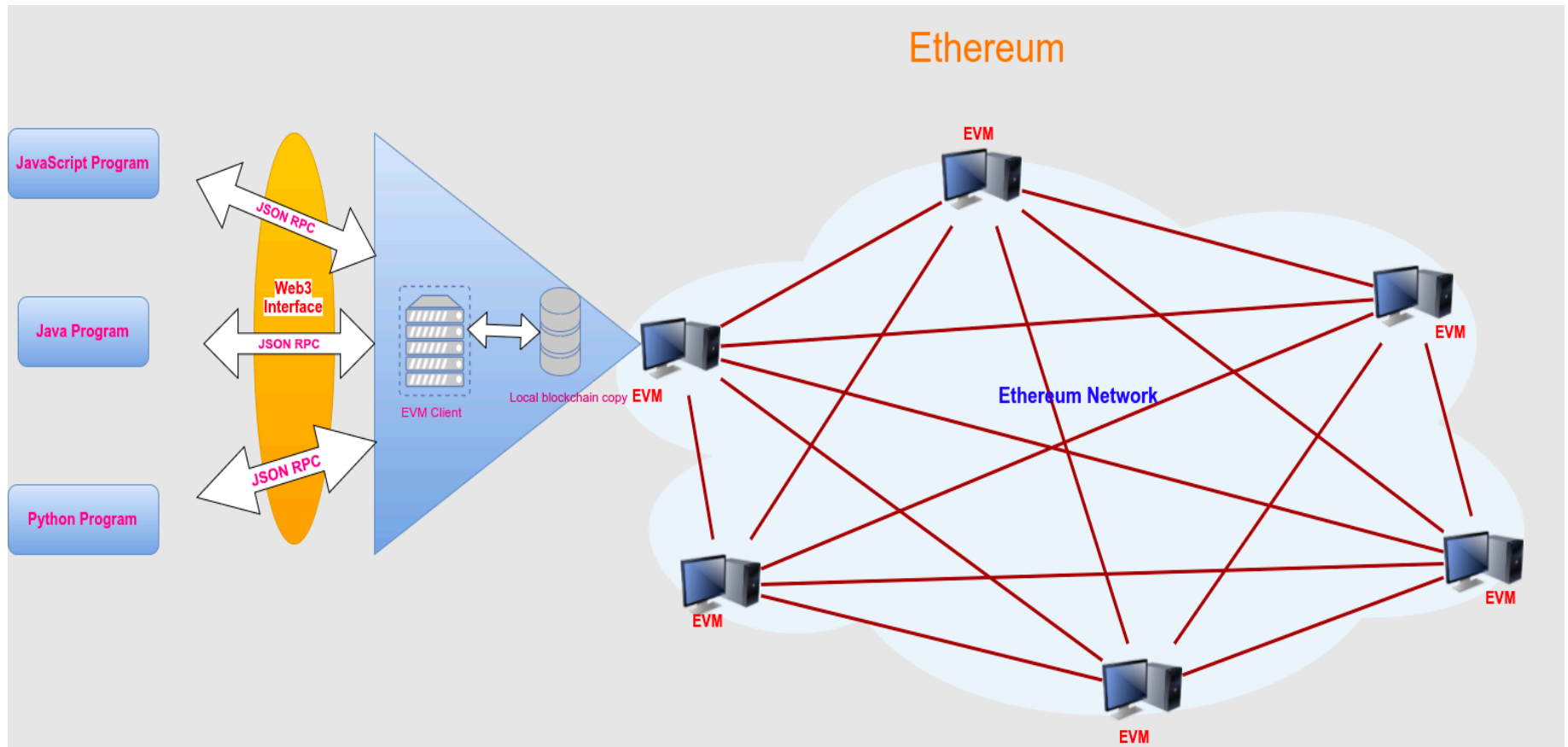
A dapp has two main programming components:

- Solidity
- Web3 JS/Web3 Python (similar to JQuery)





You don't need to talk to all nodes



Each node has a full copy of the blockchain and its state—
each node acts like an API or server

Data in Ethereum Blockchain

- **Where and how application data is stored in Ethereum?**
- **How can I read and write data in the Ethereum Blockchain?**
- **What sort of data should be stored on blockchain?**

...

- You can store data in the blockchain:
 - **contract data**
 - **transaction input data** (very limited)
 - Through your dapp front-end

Reading /Writing

- To read data stored on the Ethereum Blockchain, you can simply use [Ethereum \(ETH\) BlockChain Explorer](#)

[reading, doesn't cost you any gas but writing does]

- Programmatically? (from you dapp)
- From a DApp point of view, you can use web3.js to read and write data on Ethereum blockchain and communicate with your smart contracts

Web3.js

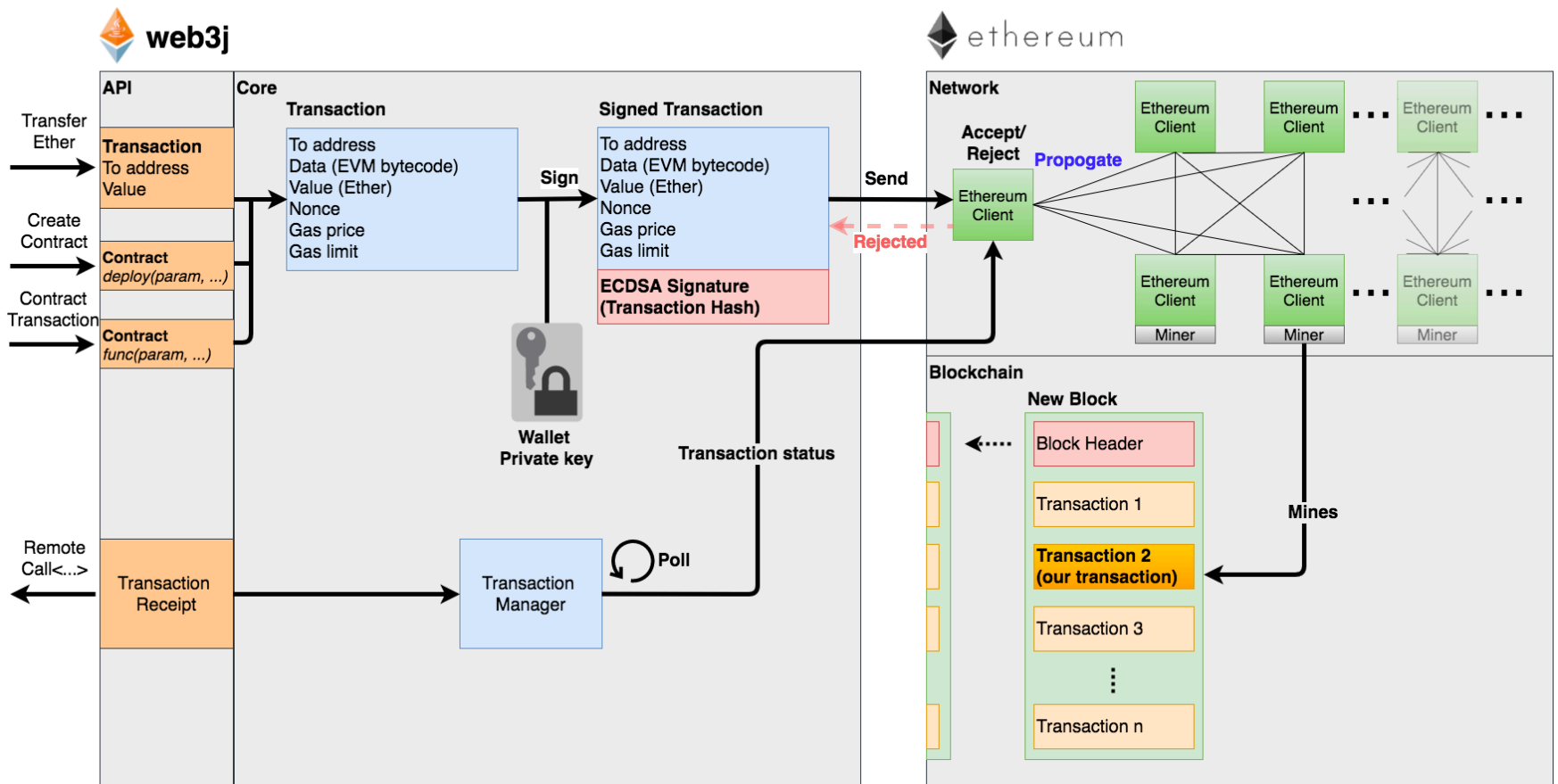
- web3.js is a collection of libraries which allow you to interact with a *local* or *remote* ethereum node, using a HTTP or IPC connection.
 - For calling into Ethereum smart contracts and many more functions
- <https://github.com/ethereum/wiki/wiki/JavaScript-API>

Connect your Dapp to live networks

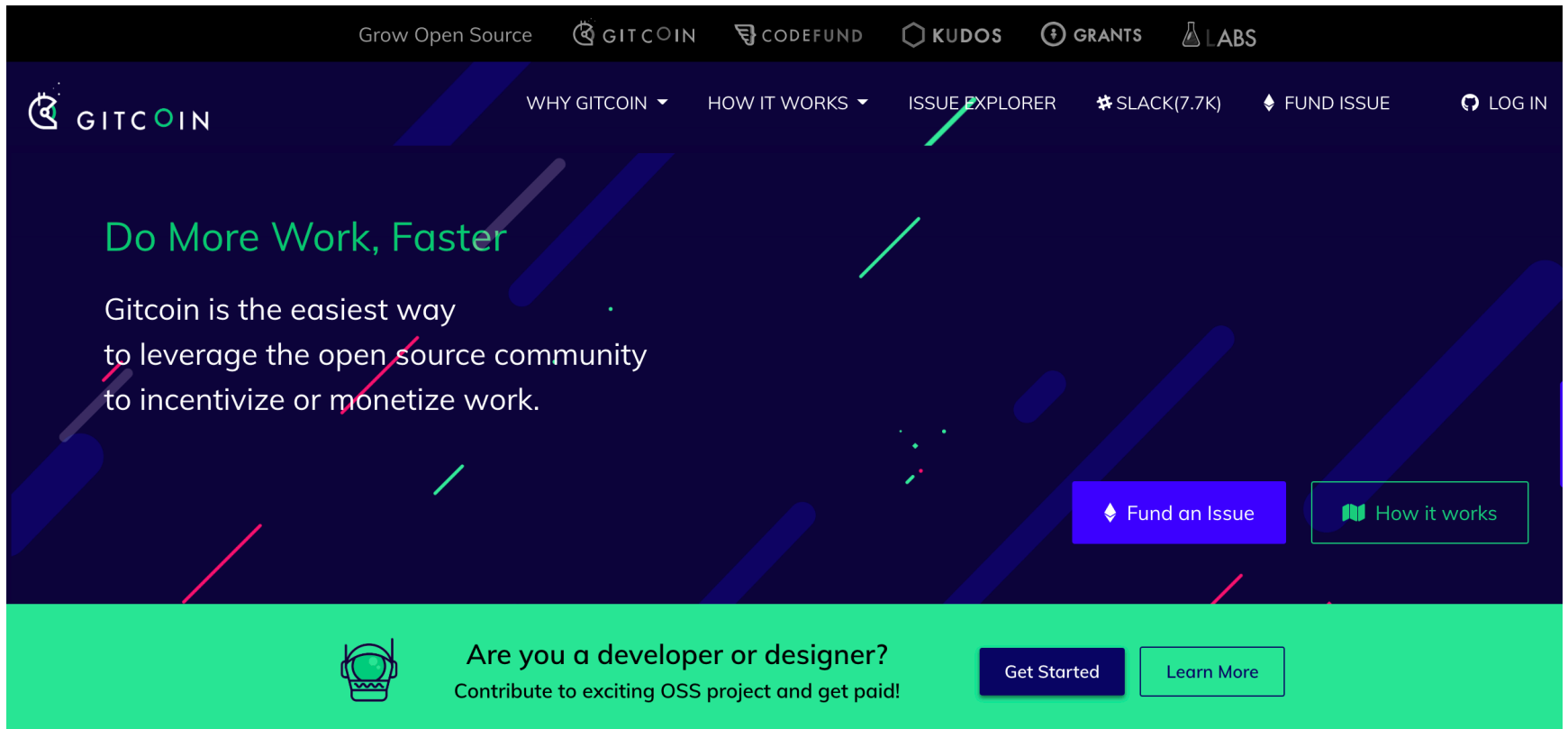
- How to connect your developed dapp (created in Truffle) to live networks
 - You need a node to connect to:
 - Two solutions:
 - **With your own node:** need a client app [geth](#)
 - » Need to sync with whole blockchain, takes up space and time
 - **With a public node like [Infura](#)**
 - » A third-part service, fast and light-weight

[tutorial 5]

Transactions in web3js



A cool way to make money



The screenshot shows the Gitcoin website homepage with a dark blue background and abstract geometric shapes. The top navigation bar includes links for 'Grow Open Source', 'GITCOIN', 'CODEFUND', 'KUDOS', 'GRANTS', and 'LABS'. The main header features the Gitcoin logo, navigation links for 'WHY GITCOIN', 'HOW IT WORKS', 'ISSUE EXPLORER', 'SLACK(7.7K)', 'FUND ISSUE', and 'LOG IN'. The main content area has the headline 'Do More Work, Faster' and a sub-headline 'Gitcoin is the easiest way to leverage the open source community to incentivize or monetize work.' Below this are two buttons: 'Fund an Issue' and 'How it works'. The footer has a green background with a robot icon, the text 'Are you a developer or designer? Contribute to exciting OSS project and get paid!', and two buttons: 'Get Started' and 'Learn More'.

Grow Open Source GITCOIN CODEFUND KUDOS GRANTS LABS

GITCOIN WHY GITCOIN HOW IT WORKS ISSUE EXPLORER SLACK(7.7K) FUND ISSUE LOG IN

Do More Work, Faster

Gitcoin is the easiest way to leverage the open source community to incentivize or monetize work.

Fund an Issue How it works

 Are you a developer or designer?
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Get Started Learn More

<https://gitcoin.co/>