



Oregon
Blockchain

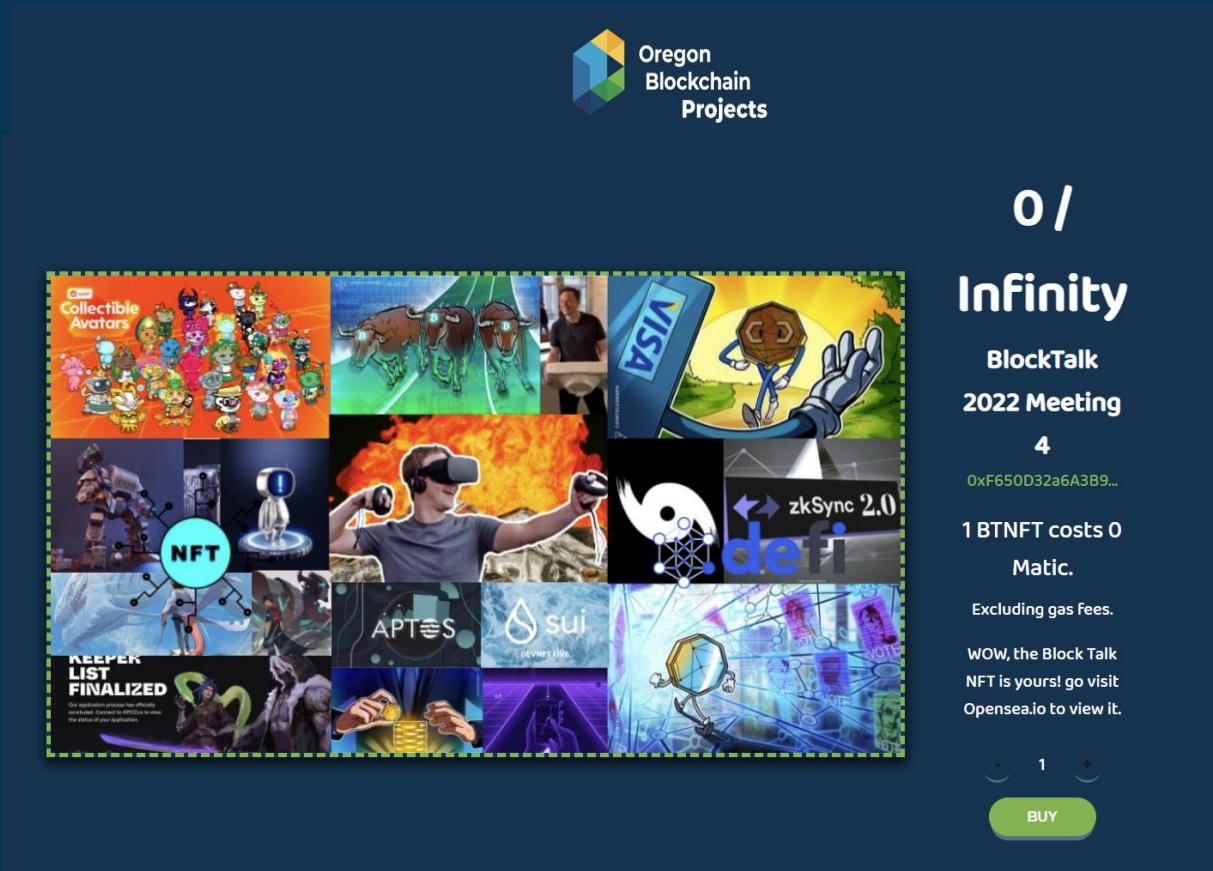
Week 4: Dapps!



AGENDA

1. BlockTalk
2. Revisiting VMs - Virtual Machines
3. Go over DAPP structure
4. Connecting to Node RPC
5. Tornado Cash
6. BlockSpace explained

Block Talk NFT



obgblocktalk.surge.sh

This screenshot shows a gas fee estimation interface. At the top, a message says "New address detected! Click here to add to your address book." Below that is the URL "https://obgblocktalk.surge.sh". A transaction hash "0x97F...bCe5 : MINT" is shown with a "MINT" button next to it. The interface includes tabs for "DETAILS", "DATA", and "HEX", with "DETAILS" being active. On the right, there is an "EDIT" button (circled in red), an "Estimated gas fee" of "0.00131875 MATIC", and a "Max fee:" of "0.001319 MATIC". It also shows "Site suggested" and "Unknown processing time". A blue arrow points down to a button labeled "Edit suggested gas fee" (circled in red). Below this is a large blue "Save" button with a downward arrow. The total gas fee is displayed as "0.00922952 MATIC". At the bottom, it says "Max fee: (0.0094503 MATIC)" and "Likely in < 30 seconds". A slider at the bottom indicates the gas fee level is set to "Medium" (circled in red).

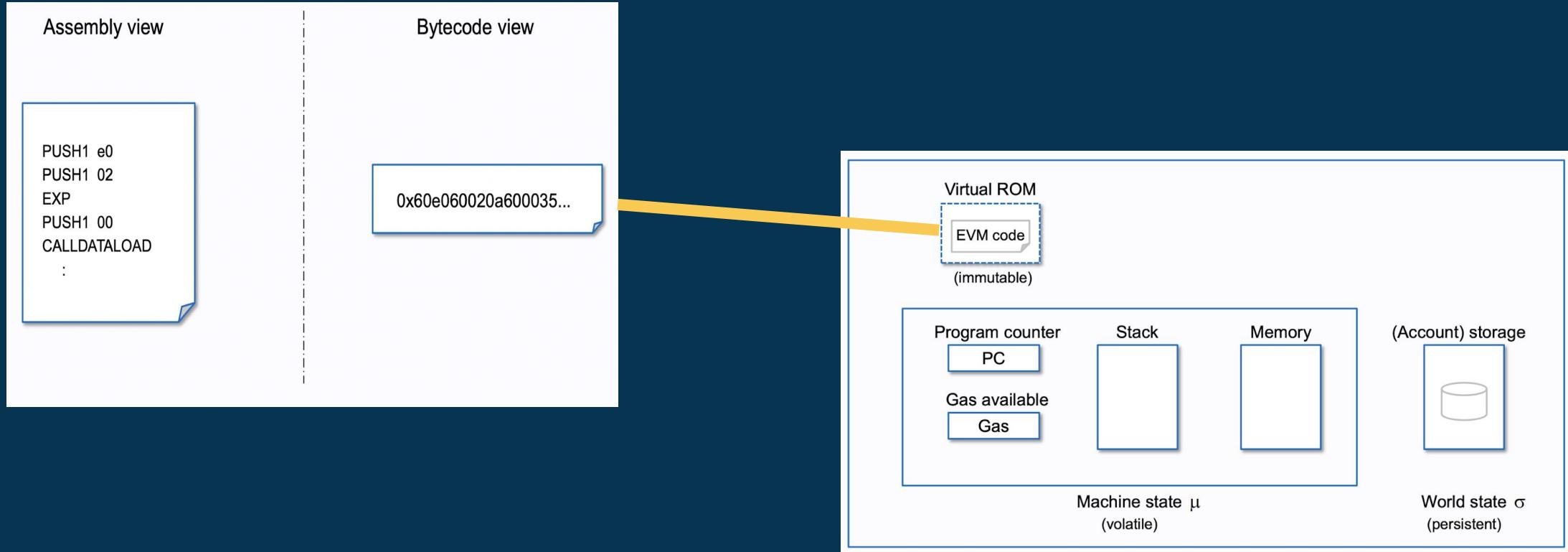
Homework!

- Running a node
- Who read Bitcoin independence day?

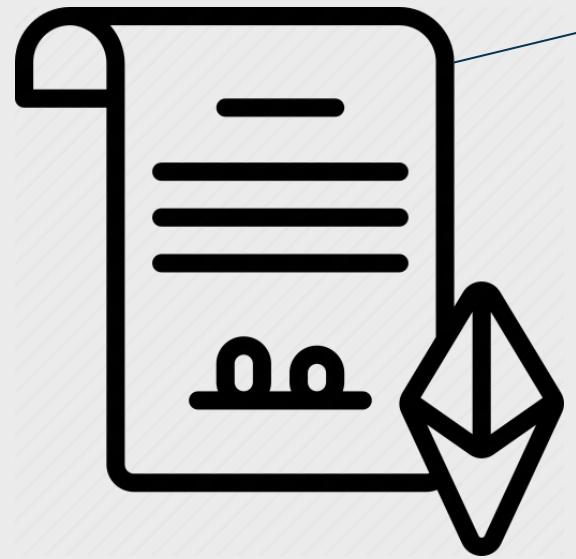




Revisiting VMs



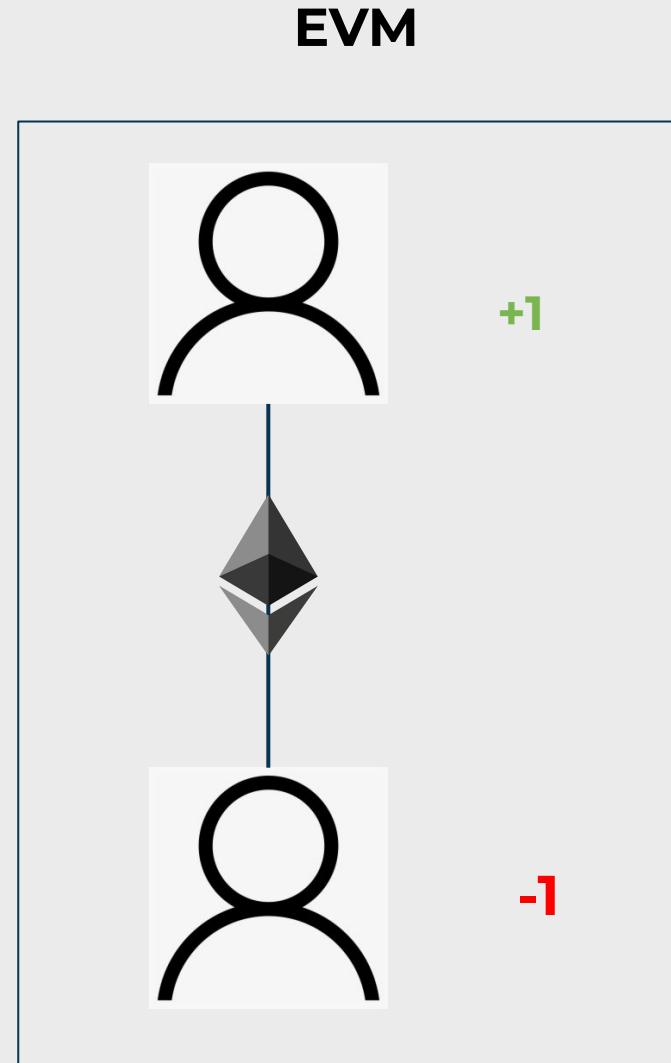
Revisiting VMs



“Hey send John 1 ETH”

Compiler

0xe0dad03b9CD74FD67
D1288773525467b261C2
008



What is a Dapp?

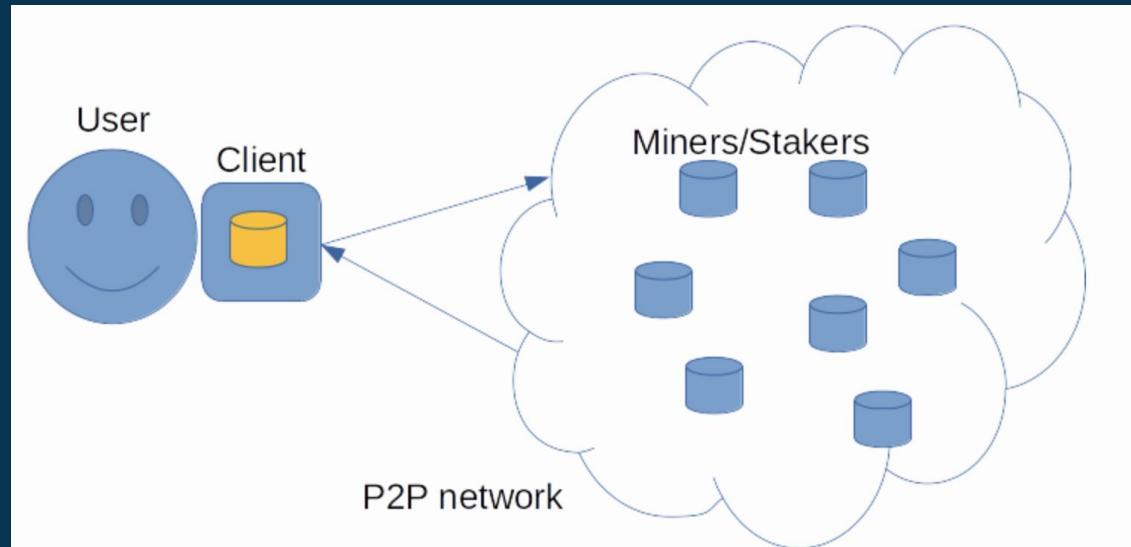
Popular Dapps!



Dapps in the OBG Fund!



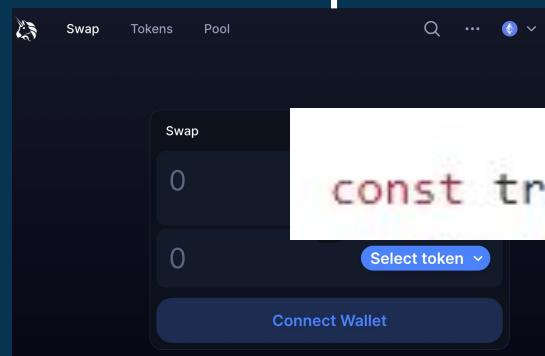
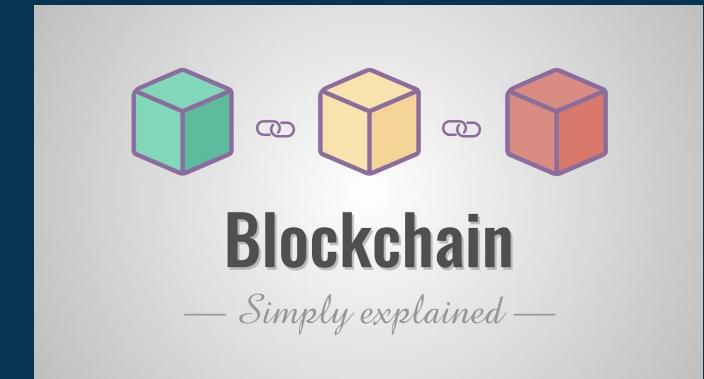
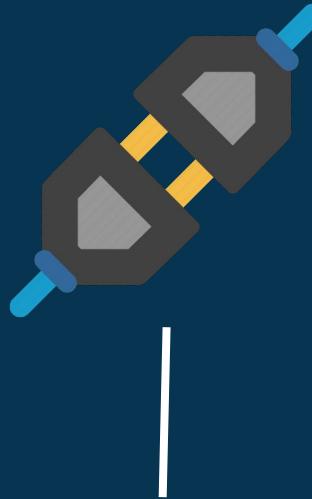
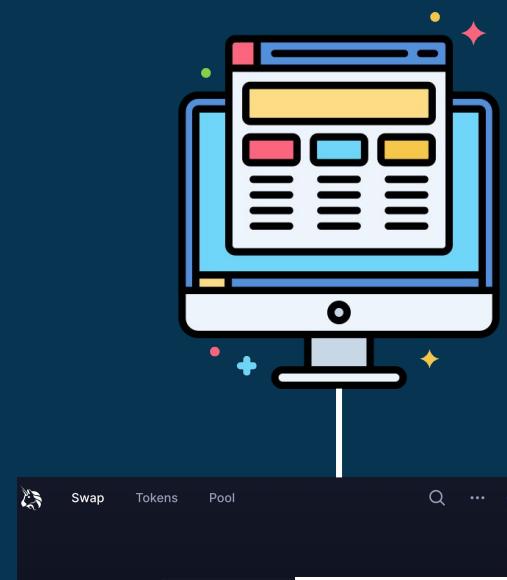
Dapps



Cefi



Dapp Structure

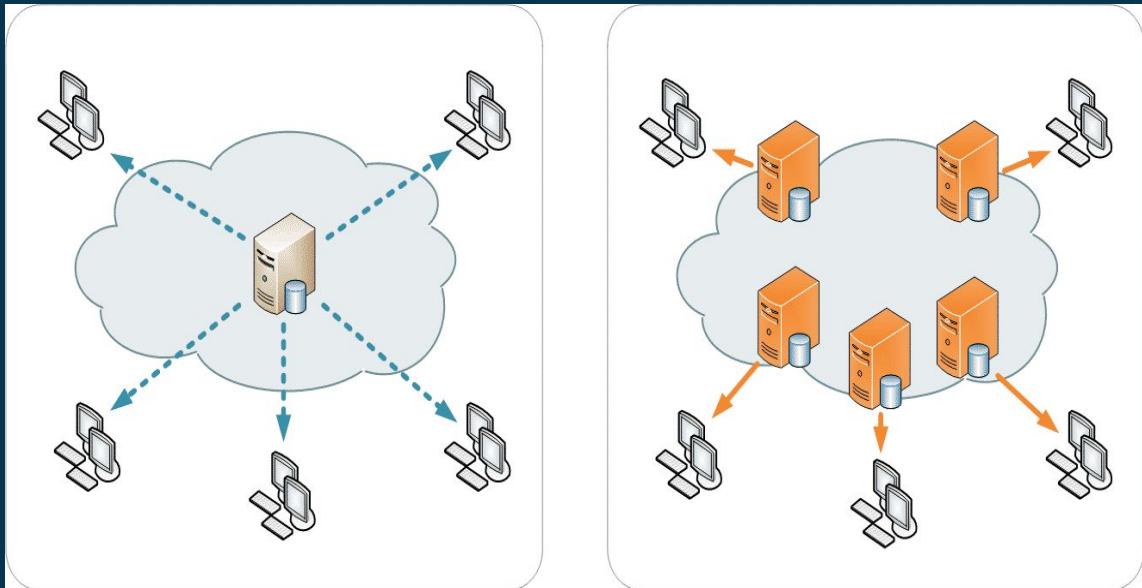
A screenshot of a blockchain developer tool interface. At the top, there are tabs for 'Transactions', 'Internal Txns', 'Erc20 Token Txns', 'Contract' (which is selected), 'Events', 'Analytics', and 'Comments'. Below the tabs, there's a section for 'Contract Source Code Verified (Exact Match)' with the contract name 'swapV3Factory' and version '7.6+commit.7338295f'. To the right, there are sections for 'Optimization Enabled' (set to 'Yes with 800 runs') and 'Other Settings' (set to 'default evmVersion'). On the far right, there are buttons for 'More Options', 'Copy', and 'Edit'. A large portion of the interface is dedicated to the smart contract code, which includes comments like `/// @dev This is a general owner of factory` and `/// @dev This is a Uniswap V3 pool and manages ownership and control over pool protocol fees`.

Centralized Storage 😠

- Where the keys at?
- Who stores your data?
- FRAUD validators

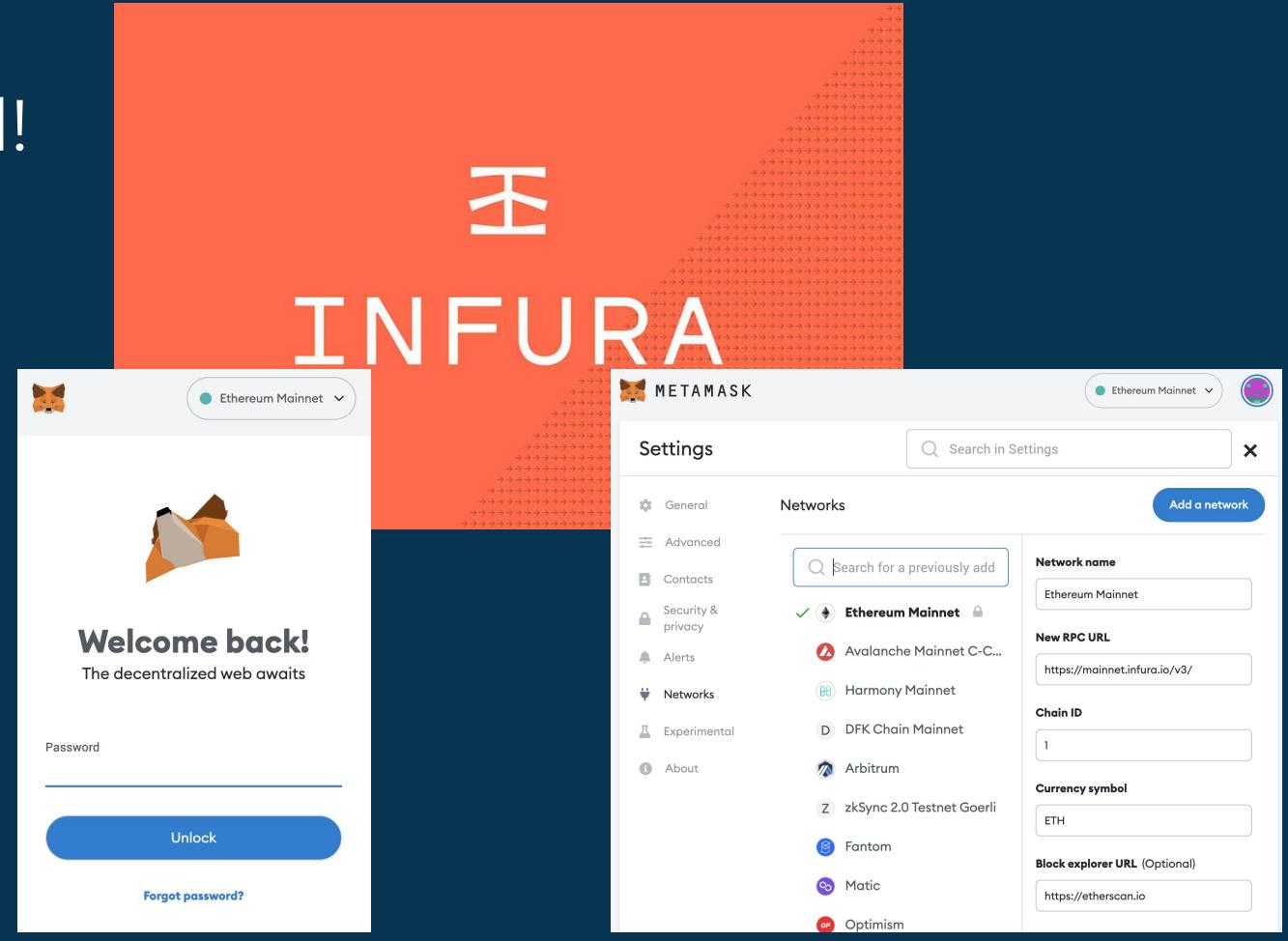


SHITSHOW!!!



How do your keys interact with Dapps?

- Running a node is hard!
 - Browser wallets
 - RPC nodes
-
- Interacting with smart contracts directly?



Tornado Cash

- Government no likey!
- Banned app
- Can interact with contracts directly (at your own peril!)
- Frontend was censored!



Dapp Endgame

Bad parts of dapps

1. Centralized frontend
2. Centralized RPC service

Improvements

1. IPFS? Opensource?
2. Run your own node! In the future, browser clients :)

What Dapps can we use today?

Today:

- Low compute apps, blockspace/compute too expensive for anything cool!
- Defi
- NFTs

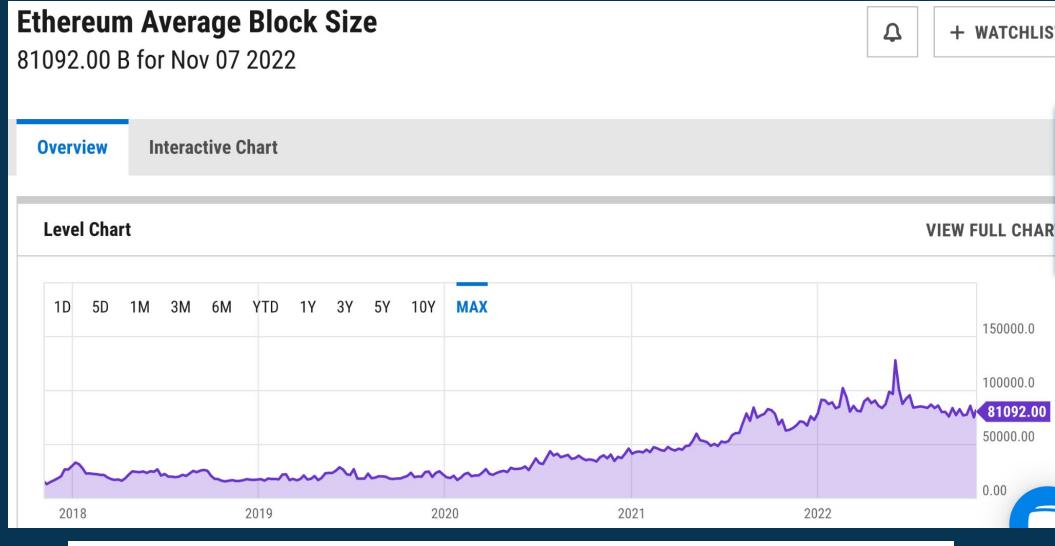


Future

- Ethereum working very hard to make compute cheaper!
- Video Games
- Social Media
- More interactive and immersive dapps!

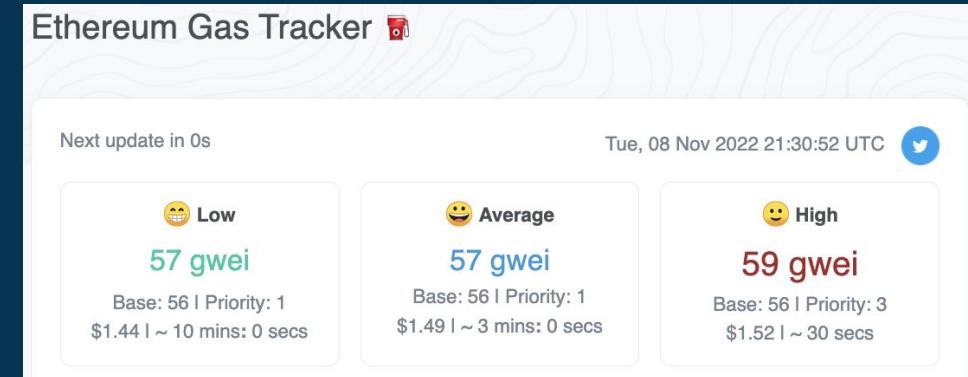


Blockspace Example



Information	
Seller	Size
Instagram, Inc.	237.7 MB
Compatibility	Languages
iPhone Requires iOS 12.4 or later.	English, Croatian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hindi, Hungarian, more
iPod touch Requires iOS 12.4 or later.	
Copyright	Price
© 2018 Instagram, LLC.	Free

- Ethereum block size changes!
- $237.7 / .081092 = 2,931$
- $2,931 * (15,000,000 * 1.49) = \65 million



Onboarding Checklist

-  Week 1: Introductions
 -  Week 2: What blockchains solve
 -  Week 3: How a blockchain works
 -  Week 4: How to use a blockchain
- Week 5: Social layer (why blockchains!)



1. Make a browser wallet
2. Store private keys
3. Use Uniswap or something from the OBG fund!

