

# ETHEREUM DEV BARGELONA

# QUICK EDCON RECAP

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# Just a personal selection

- eWASM
- ENS
- SWARM
- GOVERNANCE
- INTERCHAIN
- ORACLIZE
- DFINITY PoS
- MUST
- QUIZ

### eWASM

- Web Assembly -> VM for the browser. (you still have Js, of course)
- eWASM is a restricted subset of WASM to be used for contracts in Ethereum.
- EVM2.0 will work with eWASM
- LLVM has WASM generator
- https://github.com/ewasm
- https://github.com/ewasm/evm2wasm transcompiler

## ENS

EIP137 Ethereum Name System.
 EIP181 ENS reverse resolution



- The DNS for Ethereum
- Available on testnet, Pi Day (3.14) on MainNet
- Initially only ".eth", min 7 chars
- Blind auction, the highest bidder wins the auction, but pays the price of the second highest bid
- Non-winning bidders will receive a 99.9% refund on the value bid. The remaining 0.1% will be burned.

### ENS

```
NameHash Algorithm for 'mysite.eth'
  node = ' \ 0' * 32
  node = sha3(node + sha3('eth'))
  node = sha3(node + sha3('mysite'))
ENS
  function owner(bytes32 node) constant returns (address);
  function resolver(bytes32 node) constant returns (address);
  function setOwner(bytes32 node, address owner);
  function setResolver(bytes32 node, address resolver);
Resolver
  function addr(bytes32 node) constant returns(address);
```

# ENS

```
contract OwnedByENS {
  ENS ens;
  modifier owned(bytes32 name) {
    if(ens.owner(name) != msg.sender) throw;
  function doSomething() owned(myname) {
   // ...
```

# SWARM

- P2P layer decoupled (to use by other application in swarm nodes)
- Incetivation mechanism in next release (SWAP codename)

#### **How Ethereum sees itself**



**How Bitcoin sees Ethereum** 



**How Ethereum sees Bitcoin** 

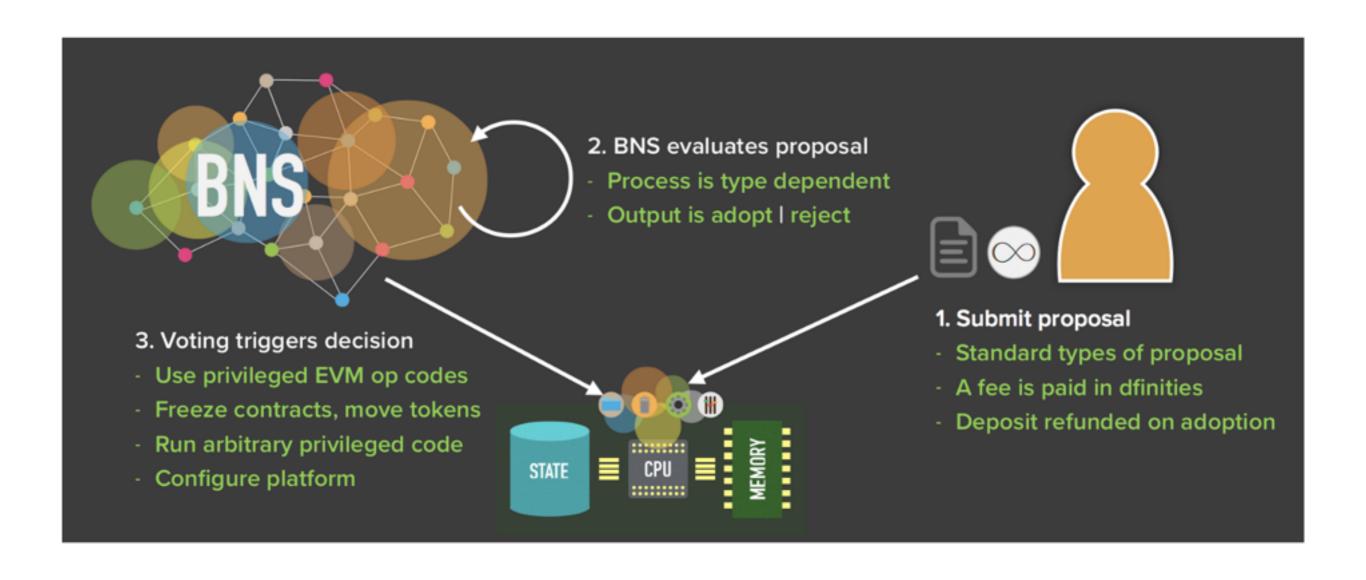


Where Ethereum really is



William Mougayar

# GOVERNANCE



### GOVERNANCE

- Yellow Paper Committee (Wood): Constitutionally-driven DAO charged with only one task: providing an up to date hash of the git branch containing the latest canonical source code for the non-implementation specific specification of the Ethereum protocol.
- EIP 138 (Vitalik) Bomb 2.0: Vote with Ether on a hard fork and make old chain unusable in the process.
- EIP 182 Control Protocol Parameters with on-chain governance protocol constants (mainly opcode pricing) are read from smart contrac Governed by Miners and/or Stakers

### INTERCHAIN

- Cosmos
  - Tendermint PoS on IBC (inter-blockchain communication) compliant blockchains
  - Could transfer tokens from a blockchain to another
  - Ethermint kills web3.js: (<a href="https://github.com/tendermint/ethermint/blob/master/ethereum/backend.go#L163">https://github.com/tendermint/ethermint/blob/master/ethereum/backend.go#L163</a>
- polkadot.io (Wood)

# ORACLIZE

- draft-cavage-http-signatures-06 RFC. Signatures in HTTP headers
- Remix with extra tab : <a href="http://goo.gl/Etv2MT">http://goo.gl/Etv2MT</a>

# DFINITY PoS

- Boneh-Lynn-Shacham Signatures (BLS)
- Distributed generation of n/M threshold deterministic signatures
- A good way to secure a block in concensus environment!
- Get some bits of the last signature, and use them to define the next group of the n signers that can sign the block.



# MUST

- All
  - Introduction to Cryptoeconomics
- Devops
  - The Shanghai Attacks From a technical perspective
  - SecureToken Development and Deployment
  - Battling the blackhats

