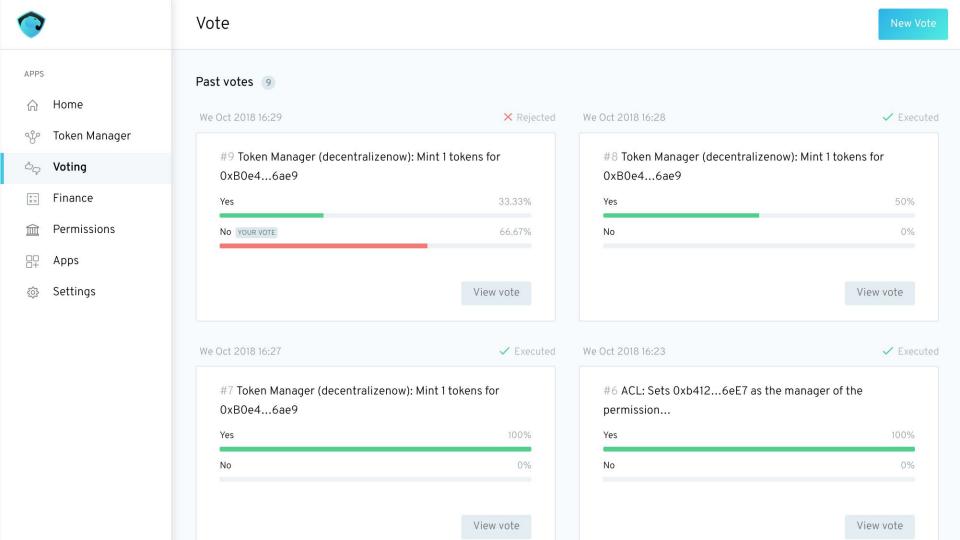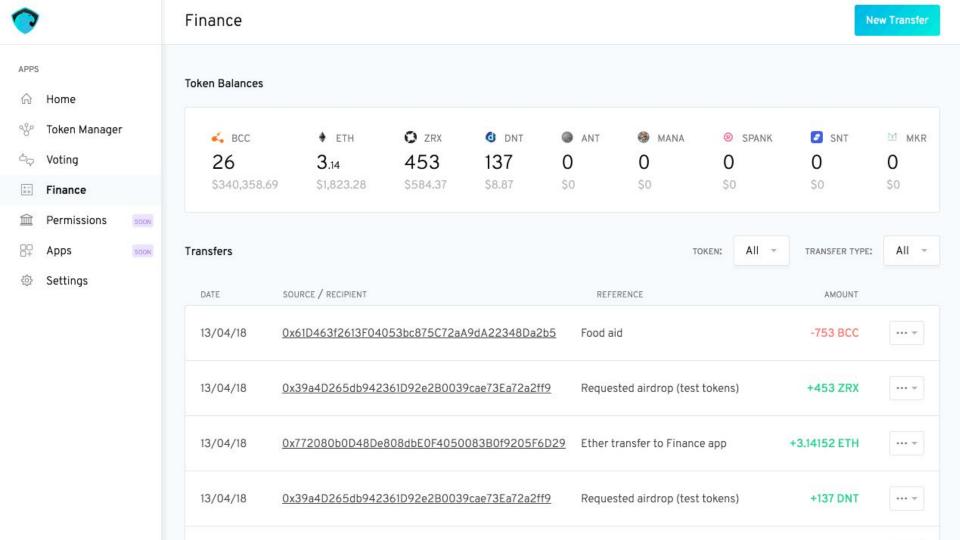Creating truly **decentralized** browser applications

Aragon is a project to **empower freedom** by creating tools for **decentralized governance**

Vote
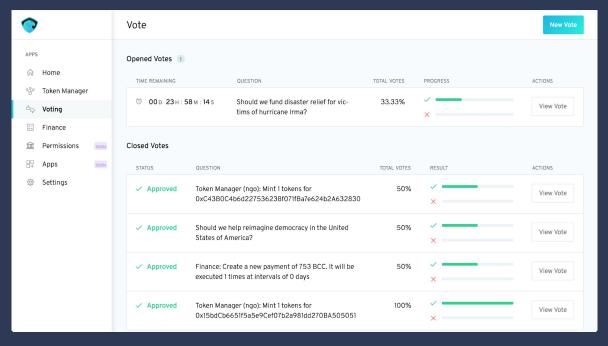
APPS

- Home
- Token Manager
- **Voting**
- Finance
- Permissions
- Apps
- Settings

Past votes 9

We Oct 2018 16:29   ✕ Rejected

#9 Token Manager (decentralizenow): Mint 1 tokens for 0xB0e4...6ae9

Yes   33.33%

No **YOUR VOTE**   66.67%

View vote

We Oct 2018 16:28   ✓ Executed

#8 Token Manager (decentralizenow): Mint 1 tokens for 0xB0e4...6ae9

Yes   50%

No   0%

View vote

We Oct 2018 16:27   ✓ Executed

#7 Token Manager (decentralizenow): Mint 1 tokens for 0xB0e4...6ae9

Yes   100%

No   0%

View vote

We Oct 2018 16:23   ✓ Executed

#6 ACL: Sets 0xb412...6eE7 as the manager of the permission...

Yes   100%

No   0%

View vote

Finance

New Transfer

APPS

- Home
- Token Manager
- Voting
- **Finance**
- Permissions `SOON`
- Apps `SOON`
- Settings

Token Balances

BCC	ETH	ZRX	DNT	ANT	MANA	SPANK	SNT	MKR
26	3.14	453	137	0	0	0	0	0
$340,358.69	$1,823.28	$584.37	$8.87	$0	$0	$0	$0	$0

Transfers

TOKEN: **All**   TRANSFER TYPE: **All**

DATE	SOURCE / RECIPIENT	REFERENCE	AMOUNT	
13/04/18	0x61D463f2613F04053bc875C72aA9dA22348Da2b5	Food aid	-753 BCC	•••
13/04/18	0x39a4D265db942361D92e2B0039cae73Ea72a2ff9	Requested airdrop (test tokens)	+453 ZRX	•••
13/04/18	0x772080b0D48De808dbE0F4050083B0f9205F6D29	Ether transfer to Finance app	+3.14152 ETH	•••
13/04/18	0x39a4D265db942361D92e2B0039cae73Ea72a2ff9	Requested airdrop (test tokens)	+137 DNT	•••

Ethereum

```solidity
pragma solidity 0.4.24;

contract Counter {
    // Events
    event Increment(address entity);
    event Decrement(address entity);

    // State
    int public value;

    function increment() external {
        value += 1;
        Increment(msg.sender);
    }

    function decrement() external {
        value -= 1;
        Decrement(msg.sender);
    }
}
```

"opcodes": "PUSH1 0x80 PUSH1 0x40 MSTOR
0x10 JUMPI PUSH1 0x0 DUP1 REVERT JUMPDE
0x20 PUSH1 0x0 CODECOPY PUSH1 0x0 RETUR
MSTORE PUSH1 0x4 CALLDATASIZE LT PUSH2
CALLDATALOAD PUSH29
0x100000000000000000000000000000000000
PUSH4 0xFFFFFFFF AND DUP1 PUSH4 0x2BAEC
PUSH4 0x3FA4F245 EQ PUSH2 0x73 JUMPI DU
0x9E JUMPI JUMPDEST PUSH1 0x0 DUP1 REVE
ISZERO PUSH2 0x68 JUMPI PUSH1 0x0 DUP1
PUSH2 0xB5 JUMP JUMPDEST STOP JUMPDEST
0x7F JUMPI PUSH1 0x0 DUP1 REVERT JUMPDE
JUMP JUMPDEST PUSH1 0x40 MLOAD DUP1 DUP
SWAP2 POP POP PUSH1 0x40 MLOAD DUP1 SWA
CALLVALUE DUP1 ISZERO PUSH2 0xAA JUMPI
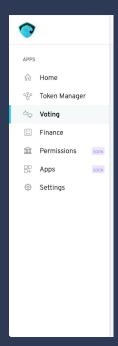POP PUSH2 0xB3 PUSH2 0x130 JUMP JUMPDES
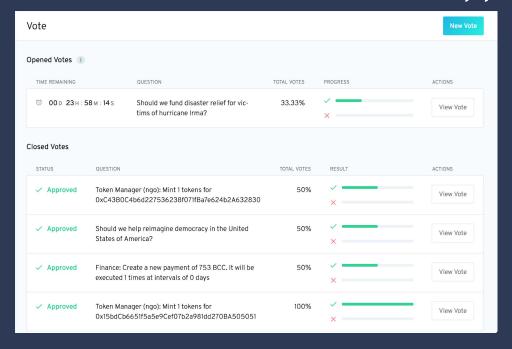0x0 DUP1 DUP3 DUP3 SLOAD SUB SWAP3 POP
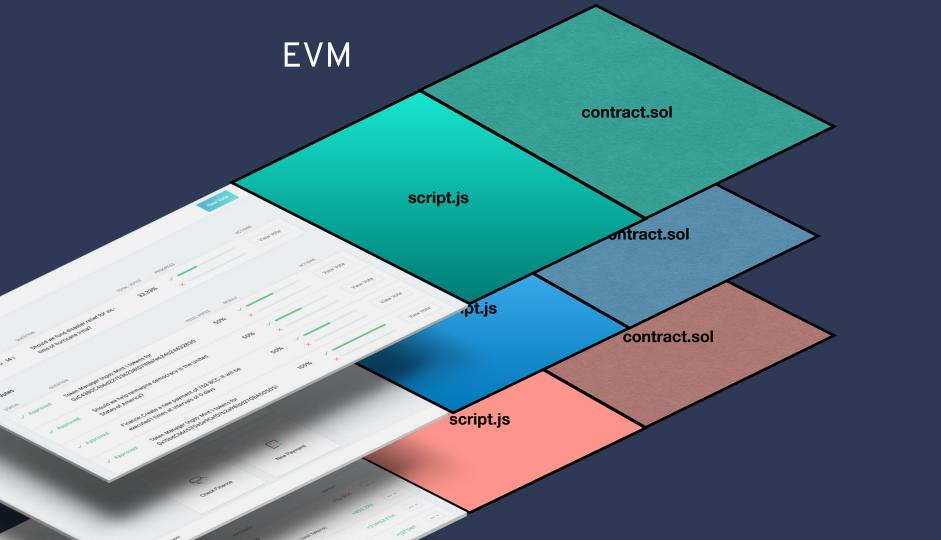
Architecture

Client

Sandboxed app

Vote

New Vote

Opened Votes 1

TIME REMAINING	QUESTION	TOTAL VOTES	PROGRESS	ACTIONS
00D 23H : 58M : 14S	Should we fund disaster relief for victims of hurricane Irma?	33.33%	✓ ✗	View Vote

Closed Votes

STATUS	QUESTION	TOTAL VOTES	RESULT	ACTIONS
✓ Approved	Token Manager (ngo): Mint 1 tokens for 0xC43B0C4b6d227536238f071fBa7e624b2A632830	50%	✓ ✗	View Vote
✓ Approved	Should we help reimagine democracy in the United States of America?	50%	✓ ✗	View Vote
✓ Approved	Finance: Create a new payment of 753 BCC. It will be executed 1 times at intervals of 0 days	50%	✓ ✗	View Vote
✓ Approved	Token Manager (ngo): Mint 1 tokens for 0x15bdCb6651f5a5e9Cef07b2a981dd270BA505051	100%	✓ ✗	View Vote

APPS

Home
Token Manager
Voting
Finance
Permissions SOON
Apps SOON
Settings

Web worker

script.js

script.js

script.js

EVM

contract.sol

script.js

contract.sol

script.js

contract.sol

script.js

DOM

Client UI

App UI

JS

UI Framework
aragon.js server

Cache

Msg handler

Web3

Messenger

UI Framework
aragon.js client

Messenger

Script
aragon.js client

Messenger

EVM

Kernel

ACL

EVM Scripts

App 1

App 2

App 3

CHAPTER TWO
Package management

aragonPM

Apps and manifests

manifest.json
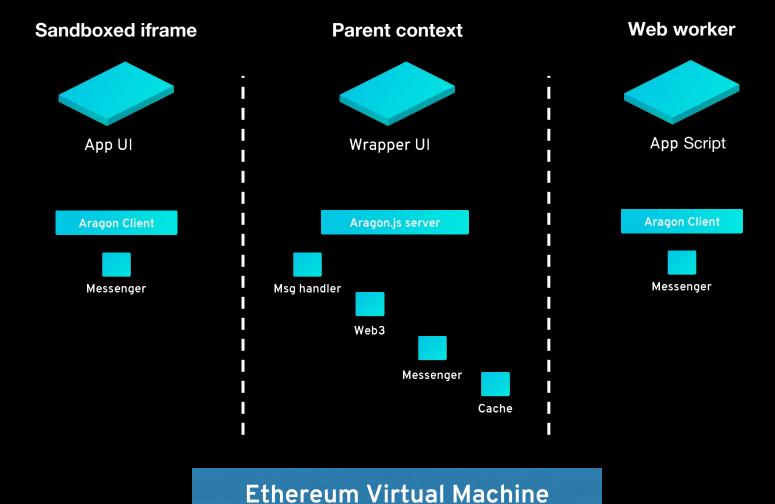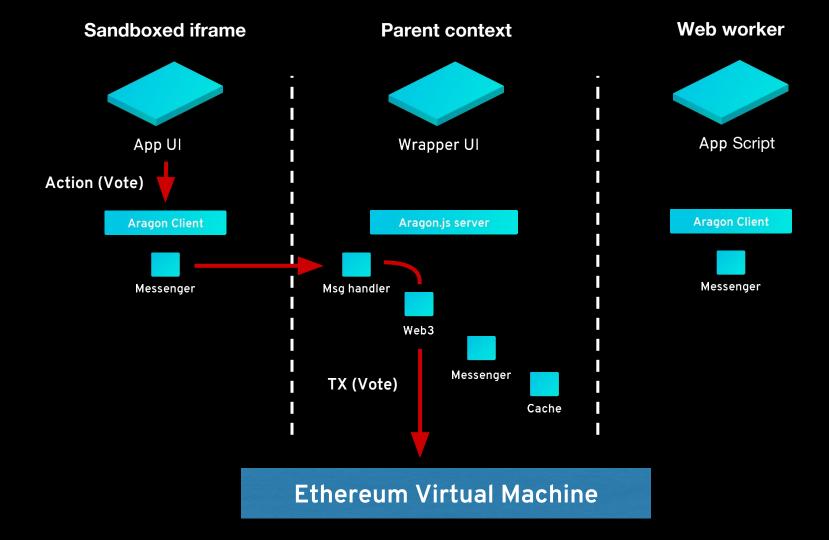
```json
{
  "name": "Finance",
  "description": "Manage organization assets: budget spending
  and record financial transactions",
  "icons": [{
    "src": "images/icon.png",
    "sizes": "192x192"
  }],
  "script": "/script.js",
  "start_url": "/index.html"
}
```
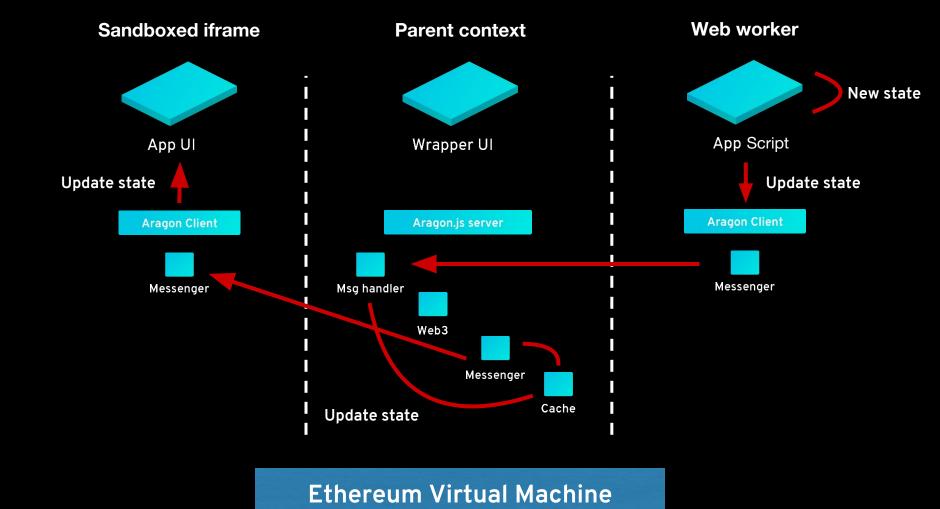
arapp.json
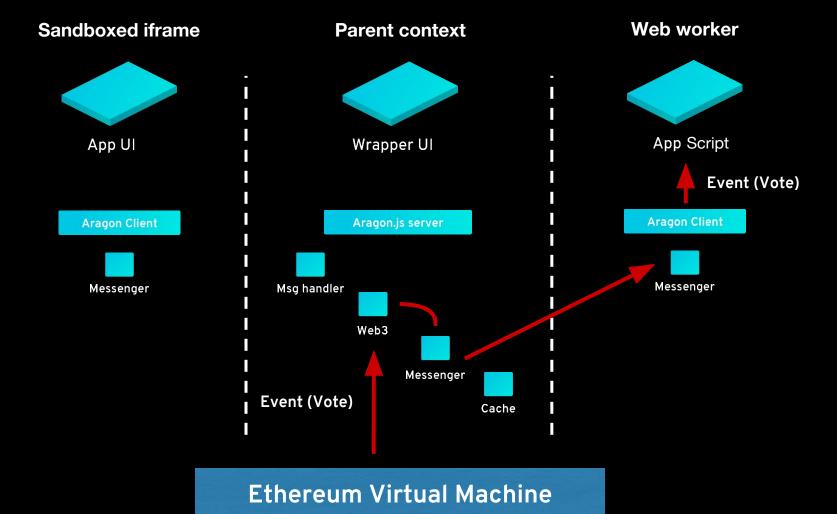
```json
{
  "environments": {
    "mainnet": {
      "registry": "0x314159265dd8dbb310642f98f50c066173c1259b",
      "appName": "finance.aragonpm.eth",
      "network": "mainnet"
    }
  },
  "dependencies": [{
    "appName": "vault.aragonpm.eth",
    "version": "^4.0.0",
    "initParam": "_vault",
    "state": "vault",
    "requiredPermissions": [{
    "name": "TRANSFER_ROLE",
    "params": "*"
    }]
  }],
  "roles": [{
    "name": "Create new payments",
    "id": "CREATE_PAYMENTS_ROLE",
    "params": [
      "Token address",
      "Receiver address",
      "Token amount",
      "Payment interval",
      "Max repeats"
    ]
  }],
  "path": "contracts/Finance.sol"
}
```
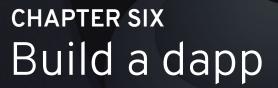
CHAPTER FOUR

Sandboxing

Sandboxed iframe

Parent context

Web worker

App UI

Wrapper UI

App Script

New state

Update state

Update state

Aragon Client

Aragon.js server

Aragon Client

Messenger

Msg handler

Messenger

Web3

Messenger

Update state

Cache

Ethereum Virtual Machine

CHAPTER FIVE
Background scripts

```javascript
/**
 * Fetch the given script and create a local URL for it
 *
 * @param {string} scriptUrl Real world location of the script
 * @returns {Promise<string>} Local url for the script
 */
export async function getBlobUrl(scriptUrl) {
  // In the future, we might support IPFS protocols in addition to http
  const text = await fetchUrl(scriptUrl)
  const blob = new Blob([text], { type: 'application/javascript' })
  return URL.createObjectURL(blob)
}

export class WorkerSubscriptionPool {
  workers = new Map()
  addWorker = ({ app, subscription, worker }) => {
    this.workers.set(app.proxyAddress, { app, subscription, worker })
  }
  hasWorker = proxyAddress => {
    return this.workers.has(proxyAddress)
  }
  unsubscribe = () => {
    this.workers.forEach(({ subscription, worker }) => {
      worker.terminate()
      subscription.unsubscribe()
    })
  }
}
```

CHAPTER SIX

Build a dapp

```
[li@linux test]$
```

```
osarrouy@macbook:test2 ➜ pando init
[initialized][/Users/osarrouy/test2]
osarrouy@macbook:test2 ➜ pando config
? IPFS node URL:  http://localhost:5001
? Ethereum node URL:  http://localhost:8545
? Account type Unlocked account
? Account:  0xB8B6ccf6DbF56a51f04Ceee5c88ba7F0eBF783bB
[updated]
osarrouy@macbook:test2 ➜ pando remote add origin 0x623c73ebcf1fededea302f728989d8631feccf76
[added]
osarrouy@macbook:test2 ➜ pando pull origin master
[pulled]
osarrouy@macbook:test2 ➜ ls
test.md
osarrouy@macbook:test2 ➜ nano test.md
osarrouy@macbook:test2 ➜ pando stage test.md
[staged]
osarrouy@macbook:test2 ➜ pando commit -m 'Modifications here'
[snapshot][zdq6yFZ5Ehe511y51r4Jd9WRtVYj5D47mPLUHogbSCV97Jf1D]
osarrouy@macbook:test2 ➜ pando push origin master
[error][You do not own PUSH role over remote 'origin']
osarrouy@macbook:test2 ➜ █
```

Aragon 0.6 Alba

ARACON

aracon.one

Experiment with governance at the speed of software

hack.aragon.org