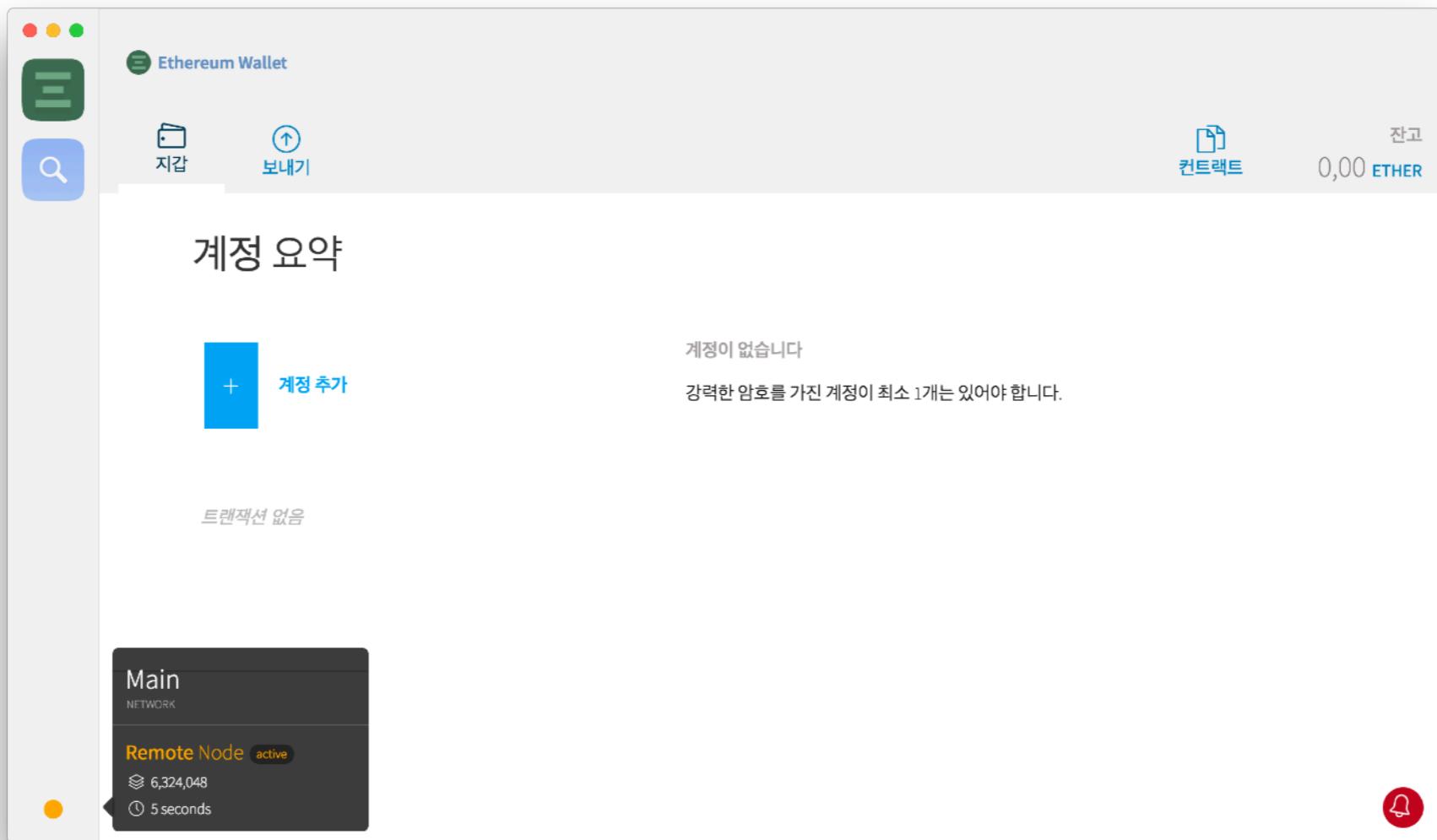


Ethereum Wallet

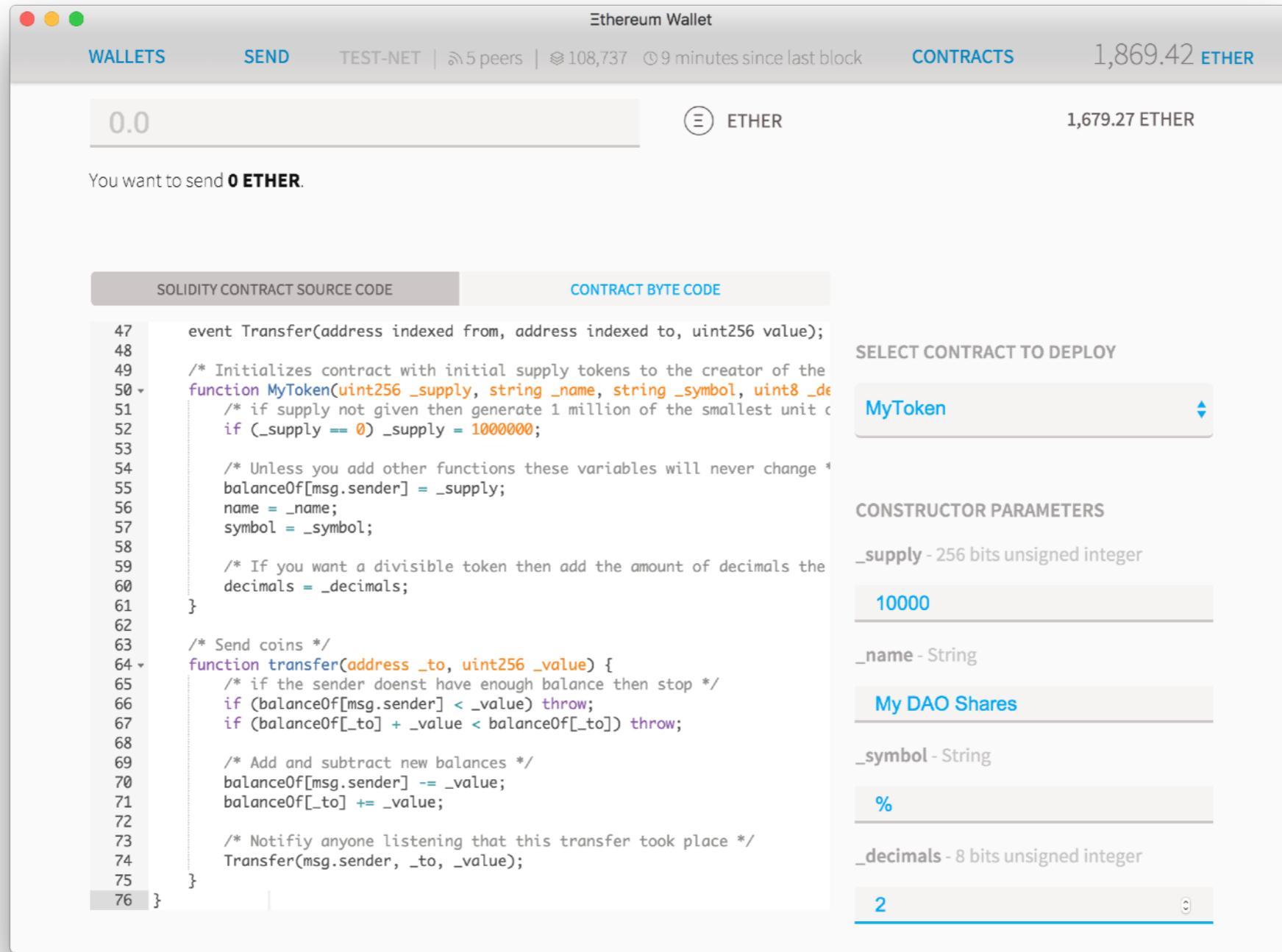
Benchmarking & analysis



Mist

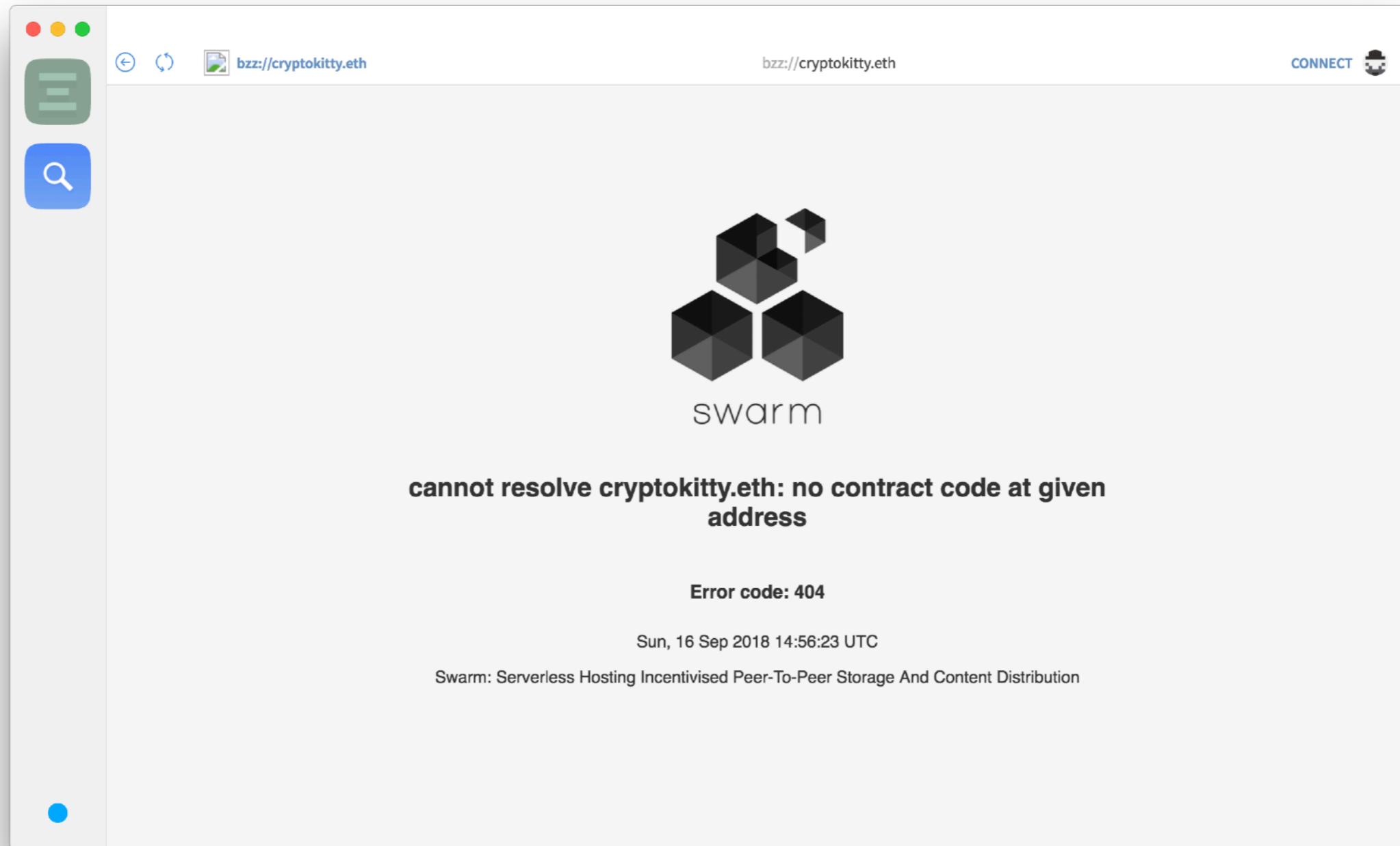
Mist 특징

- Mist = Browser + (>) Ethereum Wallet
 - Full node wallet (Geth included)
- Browser : GUI Ethereum interface (web3.js injected)
 - smart contact deployment / access to Dapps
- Wallet : Meteor-based wallet dapp. (Official)
 - wallet dApp (Wallet.sol=Mist) + Geth node



- Smart Contract Deployment GUI

- non-technical users friendly
- solc.js included



- Swarm Protocol support (bzz://)
 - ENS(.eth) access available

The screenshot shows the MyEtherWallet.com website interface. At the top, the header includes the logo, the URL "MyEtherWallet.com", and a message stating "The network is really full right now. Check Eth Gas Station for gas price to use." Below the header is a navigation bar with links: New Wallet, Send Ether & Tokens (which is underlined), Swap, Send Offline, Contracts, ENS, DomainSale, Check TX Status, View Wallet Info, and Help.

The main content area is titled "+ Send Ether & Tokens". It contains the following fields:

- To Address:** A text input field containing the address `0xDECAF9CD2367cdbb726E904cD6397eDFcAe6068D`.
- Amount to Send:** A dropdown menu with "Amount" and "Send Entire Balance" options, currently set to "ETH".
- Gas Limit:** An input field containing the value `21000`.
- Advanced: Add Data:** A link to add additional transaction data.
- Generate Transaction:** A large blue button.

On the right side, there is a sidebar with the following information:

- Account Address:** `0x8247077d99266b5C0d86e5cA3E842bf3e102c20e`
- Account Balance:** `0 ETH`
- Transaction History:** Links to [ETH \(etherscan.io\)](#) and [Tokens \(Ethplorer.io\)](#).
- Learn more about protecting your funds.** Buttons for **Ledger** and **TREZOR**.

MyEtherWallet

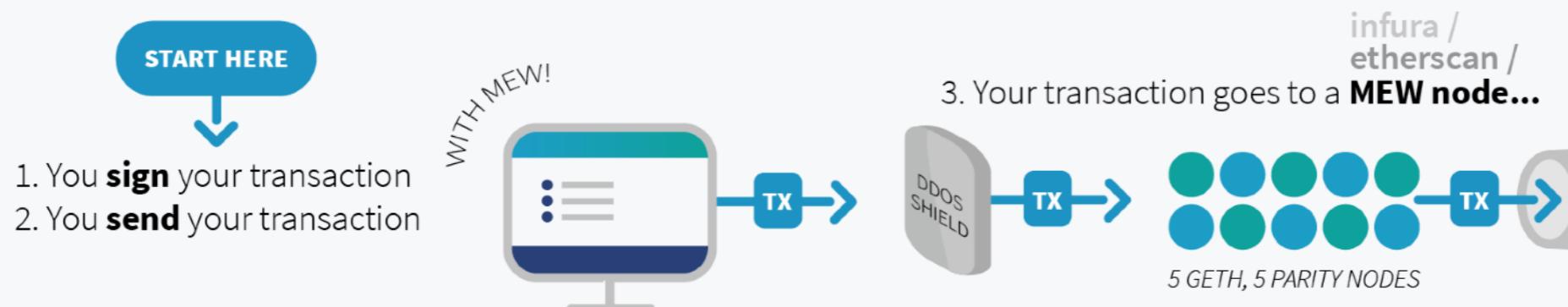
MEW 특징

- NOT Full node wallet
 - Access to MEW's public node infrastructure
 - ONLY Sign on TX, NOT Broadcast
- Private Key NOT in keystore
- Web / Chrome extension / Repository

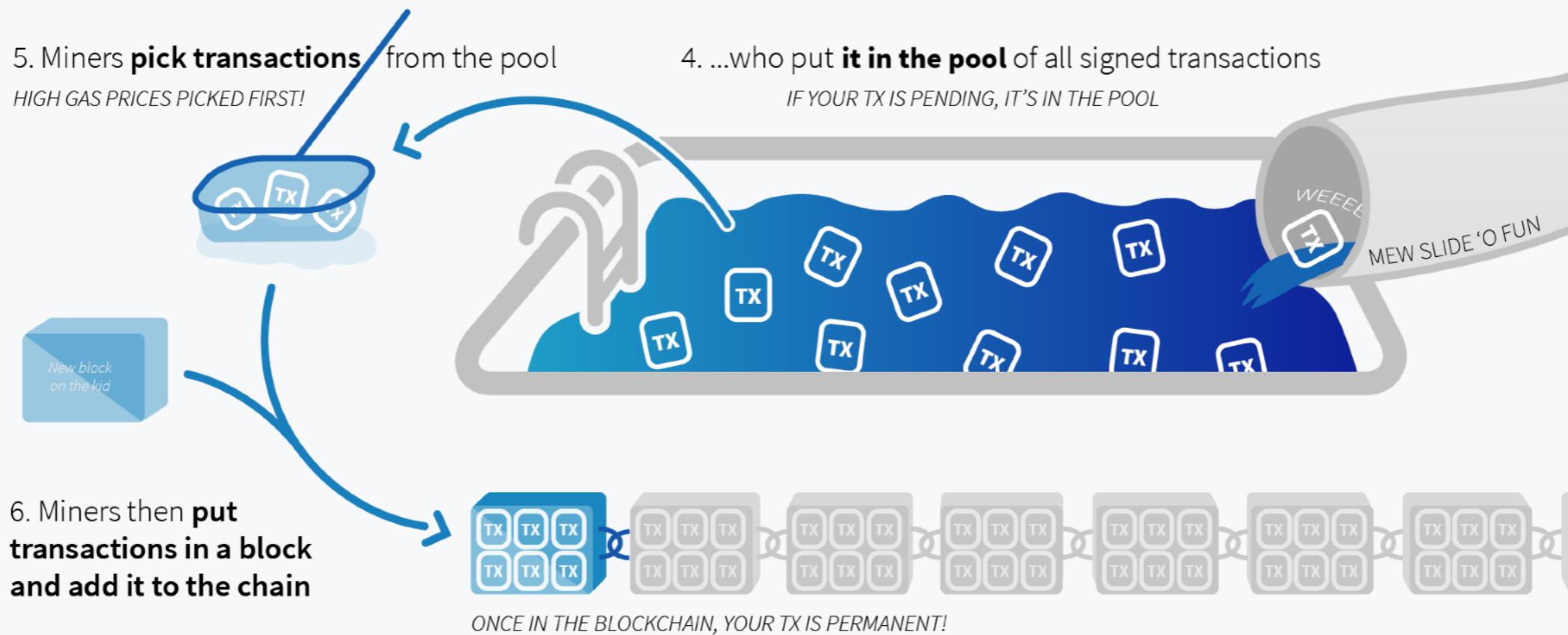


MyEtherWallet Behind-The-Scenes

Made by @veenspace



ABOVE THIS LINE IS WHAT MEW IS RESPONSIBLE FOR
BELLOW IS JUST HOW THE BLOCKCHAIN WORKS.



Network ETH (myetherwallet.com)
ETH (myetherwallet.com)
ETH (etherscan.io)
ETH (infura.io)
ETH (giveth.io)
ETC (Ethereum Commonwealth Geth)
ETC (Ethereum Commonwealth Parity)
ETC (ETC Cooperative)
ETC (GasTracker)
ETC (epool.io)
Ropsten (myetherwallet.com)
Ropsten (infura.io)
Kovan (etherscan.io)
Kovan (infura.io)
Rinkeby (etherscan.io)
Rinkeby (infura.io)
EXP (expanse.tech)
UBQ (ubiqscan.io)
POA (poa.infura.io)
TOMO (testnet.tomochain.com)
ELLA (ellaism.org)
ETSC (ethereumsocial.kr)
EGEM (egem.io)
CLO (Callisto.network)
MUSIC (musicoin.org)

Set Up Your Custom Node

Instructions can be found [here](#)

Your node must be HTTPS in order to connect to it via MyEtherWallet.com. You can [download the MyEtherWallet repo & run it locally](#) to connect to any node. Or, get free SSL certificate via [LetsEncrypt](#)

Node Name

My ETH Node

URL

`http://127.0.0.1`

Port

8545

HTTP Basic access authentication

ETH ETC Ropsten Kovan Rinkeby Custom

Cancel

Save & Use Custom Node

<https://github.com/MyEtherWallet/MyEtherWallet/tree/master/src/networks>

Send Ether & Tokens

To Address
0x9b6BC7117C20c373c788BE27b4D1E7A3D2e3aecC

Amount to Send
0.1 ETH ▾

Gas Limit
21000

+Advanced: Add Data

Generate Transaction

Raw Transaction

```
{"nonce": "0x00", "gasPrice": "0x098bca5a00", "gasLimit": "0x5208", "to": "0x9b6BC7117C20c373c788BE27b4D1E7A3D2e3aecC", "value": "0x016345785d8a0"}  
Signed Transaction  


```
88016345785d8a00008025a0f3b79c597f07dba4faefb011118a8ac44dedbf048d43db2f3acf380f0526c68aa01222b99b555feccbc992471fd1fb1f8fbe834a133c873e02e784f0000e4ce9152
```


```

Send Transaction

Account Address
0x9b6BC7117C20c373c788BE27b4D1E7A3D2e3aecC

Account Balance
0 ETH

Transaction History
ETH (<https://etherscan.io>)
Tokens ([Ethplorer.io](https://ethplorer.io))

Learn more about protecting your funds.
Ledger TREZOR

Token Balances
How to See Your Tokens
You can also view your Balances on <https://etherscan.io> or ethplorer.io

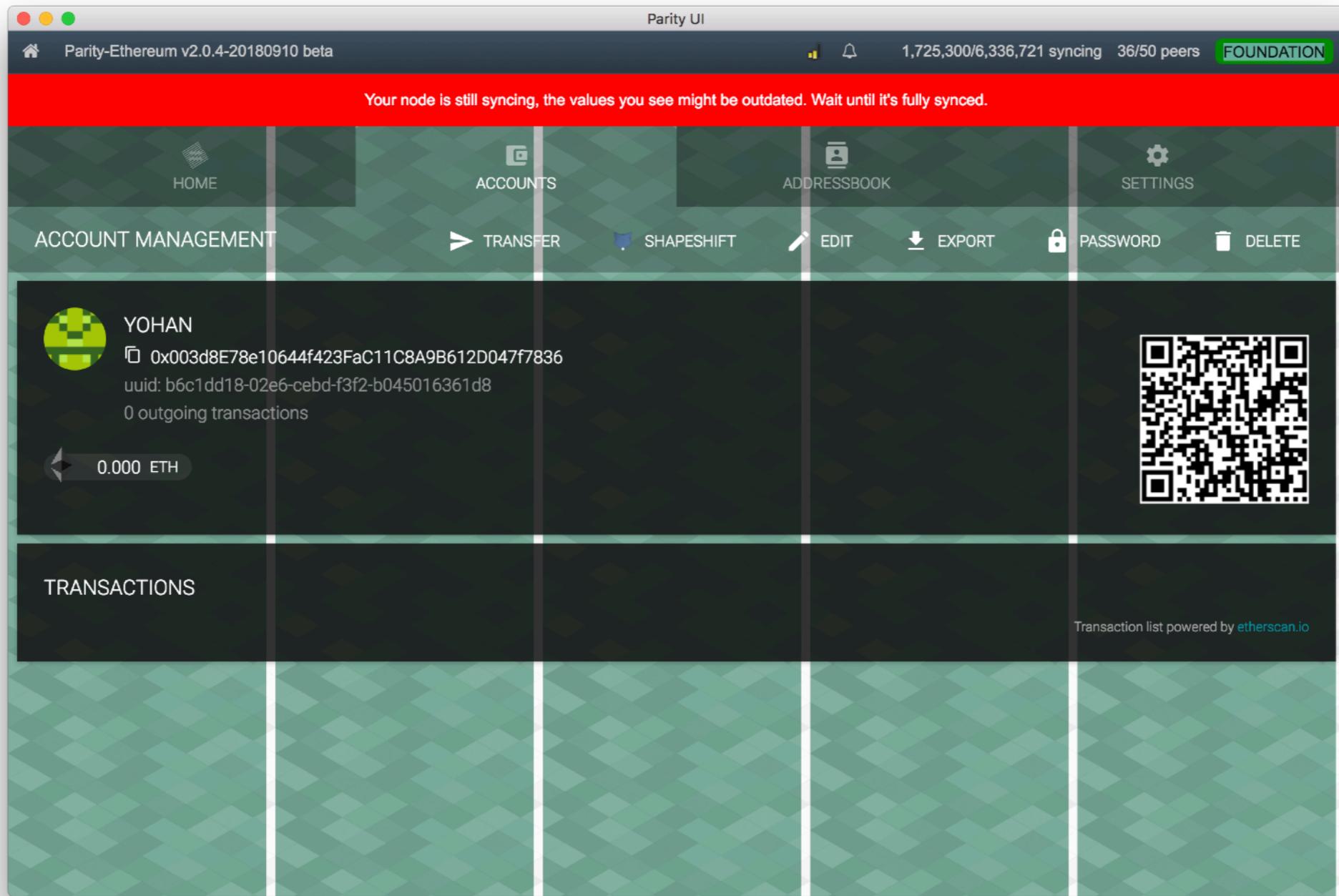
Show All Tokens Add Custom Token

- Transaction Signing (Offline available)
- Org : ethereumjs-wallet/tx/util.js

(<https://github.com/MyEtherWallet/MyEtherWallet/blob/master/src/wallets/software/basicWallet.js>)

- Repo : etherwallet-master.js

(<https://github.com/kvhnuke/etherwallet/blob/mercury/dist/js/etherwallet-master.js>)



Parity

Parity 특징

- Rust-based Ethereum Client
 - Second largest Ethereum Network (Geth 1/2)
 - Full node wallet
- JavaScript Console Not included (Web3 available)

- Clean, modular codebase for easy customisation
- Advanced CLI-based client
- Minimal memory and storage footprint
- Synchronise in hours, not days with Warp Sync
- Modular for light integration into your service or product

Parity Ethereum toolchain

In addition to the Parity Ethereum client, there are additional tools in this repository available:

- [evmbin](#) - EVM implementation for Parity Ethereum.
- [ethabi](#) - Parity Ethereum function calls encoding.
- [ethstore](#) - Parity Ethereum key management.
- [ethkey](#) - Parity Ethereum keys generator.
- [whisper](#) - Implementation of Whisper-v2 PoC.

Enabled APIs (default)

As documented in the options, available under `parity --help` not all API's are exposed by default.

However you can simply enable them by running parity with the flag: `--jsonrpc-apis APIS`

Specify the APIs available through the JSONRPC interface. APIS is a comma-delimited list of API name. Possible name are all, safe, web3, eth, net, personal, parity, parity_set, traces, rpc, parity_accounts, signer. You can also disable a specific API by putting '-' in the front: all,-personal.

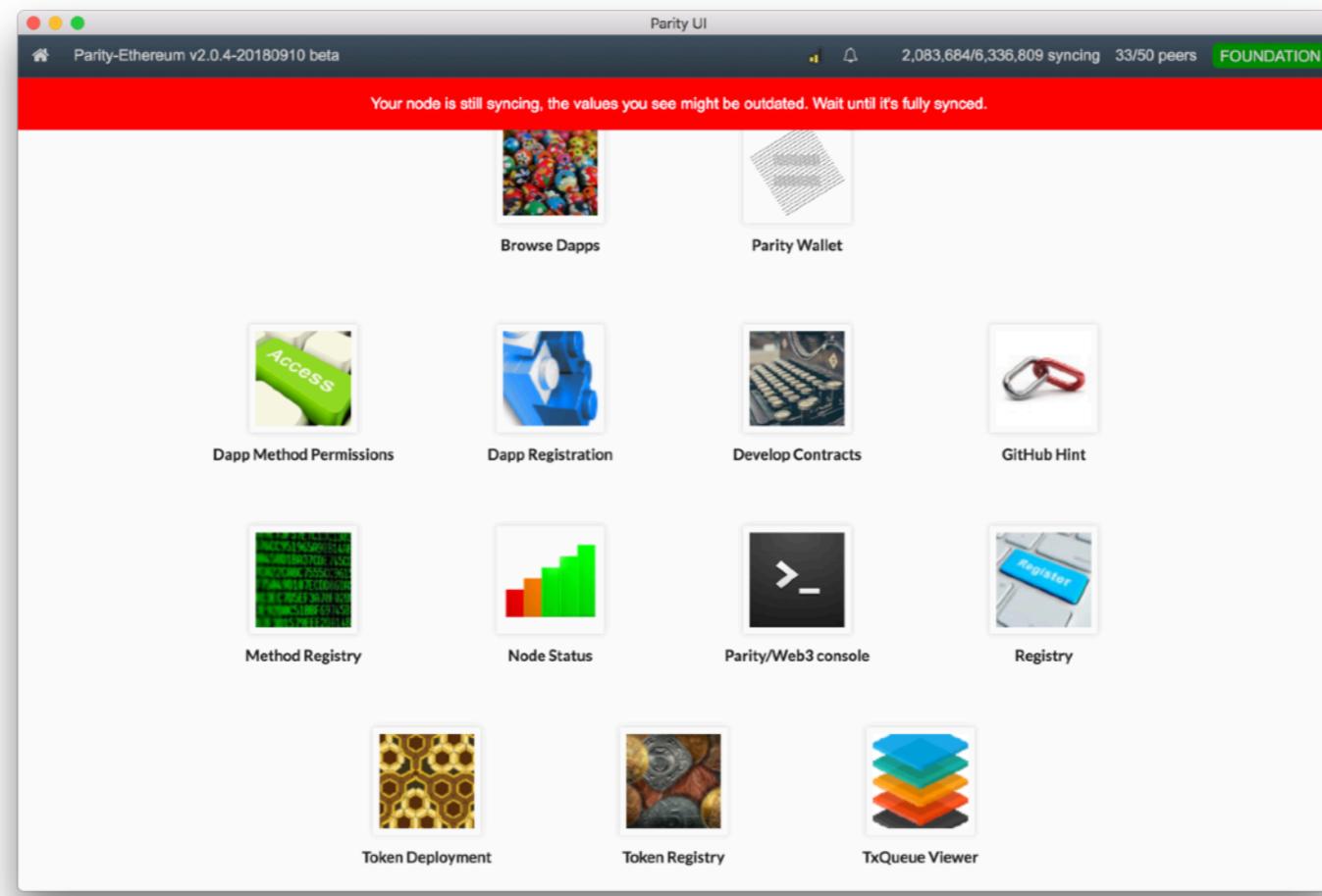
default: web3,eth,pubsub,net,parity,parity_pubsub,traces,rpc,secretstore.

Full API Documentation

- [web3](#)
- [net](#)
- [eth](#)
- [eth_pubsub](#)
- [personal](#)
- [parity](#)
- [parity_accounts](#)
- [parity_set](#)
- [pubsub](#)
- [signer](#)
- [trace](#)
- [shh](#)
- [secretstore](#)

Parity Component

- Parity UI : User Interface desktop application for Parity
- Parity Fether : wallet connected to light client node
- Parity Signer : offline mobile wallet



DEVELOP

New Solidity Contract

```

1 pragma solidity ^0.4.16;
2
3 contract owned {
4     address public owner;
5
6     function owned() public {
7         owner = msg.sender;
8     }
9
10    modifier onlyOwner {
11        require(msg.sender == owner);
12        _
13    }
14
15    function transferOwnership(address newOwner) onlyOwner public {
16        owner = newOwner;
17    }
18
19
20    contract tokenRecipient {
21        event receivedEther(address sender, uint amount);
22        event receivedTokens(address _from, uint256 _value, address _token, bytes _extraData);
23
24        function receiveApproval(address _from, uint256 _value, address _token, bytes _extraData)
25            Token t = Token(_token);
26            require(t.transferFrom(_from, this, _value));
27            emit receivedTokens(_from, _value, _token, _extraData);
28        }
29
30        function () payable public {
31            emit receivedEther(msg.sender, msg.value);
32        }
33    }
34
35    interface Token {
36        function transferFrom(address _from, address _to, uint256 _value) external returns (bool);
37    }

```

Parameters

COMPILER MESSAGES

Node Health

NOT SYNC
CHAIN NOT SYNCHRONIZED

37/50
CONNECTED PEERS

OK
TIME SYNCHRONIZED

OVERALL

Mining Settings

Mining Author
0x003d8E78e10644f423FaC11C8A9B612D047f7836

Extra Data
Parity-Ethereum/2.0.4/1.28.0/ma

Minimum Gas Price
21,738,892

Gas Floor Target
4,700,000

Network Settings

Chain
foundation

RPC Enabled
Yes

Network Port
30303

RPC Interface
127.0.0.1

RPC Port
8545

Enode
enode://7bba98000c2fad9b707aa172ffa0241e01527d1

#2,305,101
Best Block, at Thu Sep 22 2016 16:46:42

0 H/S
Hash Rate

3/37/50
Active/Connected/Max Peers

Accounts +

-  Account 1
0x0999...991
-  Account 2
0x0999...992
-  Account 3
0x0999...993

● Synced

← Account 1
0x099902bdcC3C7dbFfd943136107E70B82702991

-  Ethereum 1.69 ETH
-  THIBCoin 499986571.00 TIB

● Synced Add tokens

X Send Ether

◆ Ethereum 1.690008 ETH

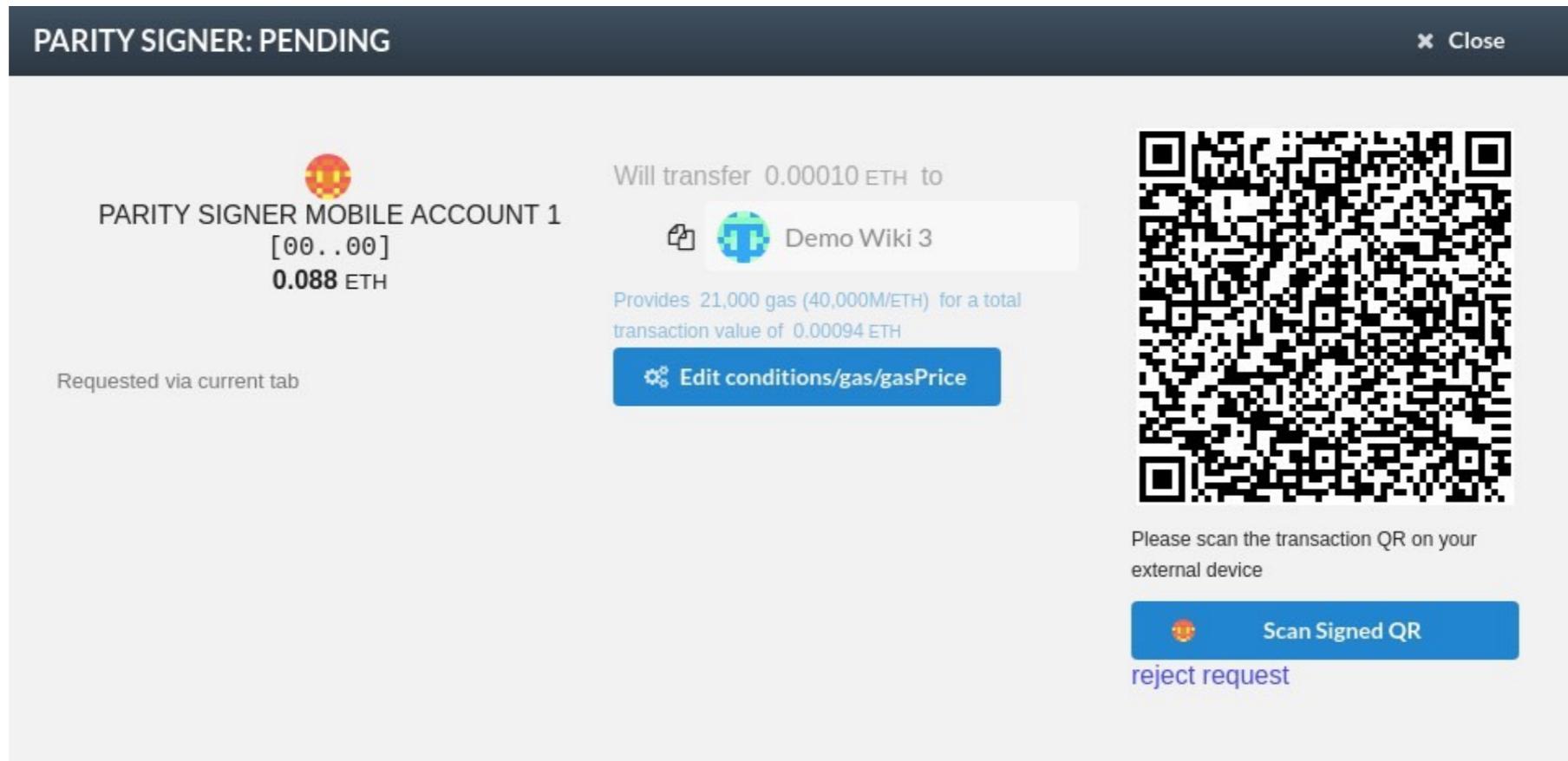
Amount 0.00

To 0x...

Transaction Fee

SLOW 4 GWEI FAST

SEND



Scan Transaction QR Back Transaction Details Back Enter PIN Back Signature QR Done

recipient address
Unknown
0x00a2084f84ce3760b7f4e97033a604ceb3ea65ea

amount to transfer (in ETH)
0.1

nonce
12

gas
21000

gasPrice
20000000000

data
-

[NEXT](#)

Enter PIN

Scan Transaction QR		Accounts		
1	2	3		
4	5	6		
7	8	9		
	0		→	

Scan Transaction QR Accounts

Scan Transaction QR Accounts

Scan Transaction QR Accounts

Others

Features

- NOT Full Node
- Multi Coin
- Mobile support
- Atomic Swap (Shapeshift)
- Authentication (TouchID)



Infinito Wallet



Citowise



waves⁺

Waves Wallet



Jaxx Wallet



imToken Wallet



Issues

- 접근성 : Synchronization => 속도, 무게
- 사용성 : Payment (Exchange) / Development
- 보안성 : Private Key + Offline + etc

감사합니다.