

### vvnat is it:

ethermint will be an implementation of the EVM that runs on top of tendermint consensus, a Proof of Stake system. This project has as its primary goals:

- Hard Spoon enablement: This is the ability to take a token from the Ethereum mainnet and "spoon" (shift) the
  balances over to another network. This feature is intended to make it easy for applications that require more
  transactions than the Ethereum main chain can provide to move their code over to a compatible chain with much
  more capacity.
- Web3 Compatibility: In order enable applications to be moved over to an ethermint chain existing tooling (i.e. web3 compatible clients) need to be able to interact with ethermint.

# Implementation

# Completed

- Have a working implementation that can parse and validate the existing ETH Chain and persist it in a Tendermint store
- · Implement Ethereum transactions in the CosmosSDK

#### **Current Work**

- Implement web3 compatible API layer
- Implement the EVM as a CosmosSDK module
- Allow the Ethermint EVM to interact with other Cosmos SDK modules

#### Next Steps

- Hard spoon enablement: The ability to export state from geth and import token balances into Ethermint
- Ethermint is a functioning Cosmos SDK application and can be deployed as its own zone
- Full web3 compatibility will enable existing Ethereum applications to use Ethermint

### **Building Ethermint**

To build, execute the following commands:

```
# To build the binary and put the resulting binary in ./build
$ make tools deps build
# To build the project and install it in $GOBIN
$ make tools deps install
```

# Tests

Integration tests are invoked via:

```
$ make test
```

To run CLI tests, execute:

```
$ make test-cli
```

### **Ethereum Mainnet Import**

There is an included Ethereum mainnet exported blockchain file in importer/blockchain that includes blocks up to height 97638. To execute and test a full import of these blocks using the EVM module, execute:

```
$ make test-import
```

You may also provide a custom blockchain export file to test importing more blocks via the --blockchain flag. See TestImportBlocks for further documentation.

# Community

The following chat channels and forums are a great spot to ask questions about Ethermint:

- Cosmos Riot Chat Channel
- Cosmos Forum discourse online

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