## #

Local Testnet

For testing or developing purpose, you may want to setup a local testnet.

### #

Single Node Testnet

Requirements:

• Install iris

TIP

We use the defaulthome directory for all the following examples

#### #

iris init

Initialize the genesis.json file that will help you to bootstrap the network

iris init testing --chain-id= testing

#### #

create a key

Create a key to hold your validator account

iris keysadd MyValidator

#### #

iris add-genesis-account

Add that key into the genesis.app\_state.accounts array in the genesis file

TIP

this command lets you set the number of coins. Make sure this account has some uiris which is the only staking coin on IRIShub iris add-genesis-account( iris keys show MyValidator--address ) 150000000uiris

#### #

iris gentx

Generate the transaction that creates your validator. The gentxs are stored in~/.iris/config/gentx/

iris gentx MyValidator 10000000uiris --chain-id= testing

#### #

iris collect-gentxs

Add the generated staking transactions to the genesis file

iris collect-gentxs

#### #

iris start

Change the default token denom touiris

sed -i 's/stake/uiris/g' HOME /.iris/config/genesis.json Now it's ready to startiris

iris start

#

iris unsafe-reset-all

You can use this command to reset your node, including the local blockchain database, address book file, and resets priv\_validator.json to the genesis state.

This is useful when your local blockchain database somehow breaks and you are not able to sync or participate in the consensus.

iris unsafe-reset-all

#

iris tendermint

Query the unique node id which can be used in p2p connection, e.g. theseeds and persistent\_peers in the onlig.toml are formatted as@ip:26656.

The node id is stored in the node key. json.

iris tendermint show-node-id Query the Tendermint Pubkey which is used to identify your validator, and the corresponding private key will be used to sign the Pre-vote/Pre-commit in the consensus.

The Tendermint Key is stored in the priv\_validator.json which is required to be backed up once you become a validator.

iris tendermint show-validator Query the bech32 prefixed validator address

iris tendermint show-address

#

iris export

Please refer to Export Blockchain State

#

Multiple Nodes Testnet

Requirements:

- Install iris
- Install jgopen in new window
- Install dockeropen in new window
- Install docker-composeopen in new window

#

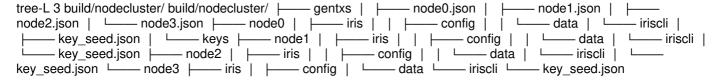
**Build and Init** 

# Work from the irishub repo

cd [ your-irishub-repo]

## Build the linux binary in ./build

make build-linux# Quick init a 4-node testnet configs make testnet-init Themake testnet-init generates config files for a 4-node testnet in the./build/nodecluster directory by calling theiris testnet command:



### <u>#</u>

Start

make testnet-start This command creates a 4-node network using the ubuntu:16.04 docker image. The ports for each node are found in this table:

Node P2P Port RPC Port irisnode0 26656 26657 irisnode1 26659 26660 irisnode2 26661 26662 irisnode3 26663 26664 To update the binary, just rebuild it and restart the nodes:

make build-linux testnet-start



Stop

To stop all the running nodes:

make testnet-stop

#

Clean

To stop all the running nodes and delete all the files in thebuild/ directory:

make testnet-clean