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## LocalSecret - Devnet docker

A local, instant, zero-config Secret Network blockchain.

What Is LocalSecret?

LocalSecret is a complete Secret Network testnet and ecosystem containerized with Docker. It simplifies the way secret contract developers test their contracts in a sandbox before they deploy them on a testnet or mainnet.

LocalSecret comes preconfigured with opinionated, sensible defaults for standard testing environments. If other projects mention testing on LocalSecret, they are referring to the settings defined in this repo.

Advantages Of LocalSecret Vs. A Public Testnet

1. Easily modifiable world states
2. Quick to reset for rapid iterations
3. Simple simulations of different scenarios
4. Controllable validator behavior

Prerequisites

- [Docker](#)
- Supported known architectures: x86\_64, amd64

Install LocalSecret

```

Copy [dockerpullghcr.io/secretlabs/localsecret](https://github.com/secretlabs/docker-secret-network)

```

Start LocalSecret

x86 (Intel/AMD) ARM (Mac M1) ```

Copy `docker run -it -p 9091:9091 -p 26657:26657 -p 1317:1317 -p 5000:5000 \ --name localsecret ghcr.io/secretlabs/localsecret`

``` Unfortunately, even LocalSecret inside a docker cannot be run on an M1 Mac. This is due to requiring SGX which can only work on x86 processors. As a workaround, we recommend using a LocalSecret instance in a Gitpod environment.

This environment is set up in such a way that can be accessed remotely as well.

To get started, simply click [here](#) .

To connect, prepend the port number with the Gitpod URL. e.g., if my workspace is at <https://secretlabs-gitpoddev-env-shqyv12iyrv.ws-eu54.gitpod.io> then I would be able to connect to the RPC service at <https://26657-secretlabs-gitpoddev-env-shqyv12iyrv.ws-eu54.gitpod.io>

In order to follow the guide, simply replace the localhost endpoint with your own.

e.g., Instead of `http://localhost:26657` you will be using `https://26657-scrtlabs-gitpoddevenv-shqyv12iyrv.ws-eu54.gitpod.io`

In addition, the chain-id for this LocalSecret instance will be `secret-testnet-1` and `notsecretdev-1`. You've now officially created a local Secret Network testnet with chain-id `secretdev-1`.

Your environment now contains:

Protocol Endpoint Usage RPC `http://localhost:26657 secretcli`, Keplr, cosmjsgRPC-web `http://localhost:9091 secretjs@v1.4` (deprecated) SCRT Faucet `http://localhost:5000` To get SCRT LCD `http://localhost:1317 secretjs`, Keplr, `secretjs@v0.17.5` (deprecated) You can also use `docker run --rm` to launch LocalSecret. This will delete the container once you exit the terminal, but it also means that you can't edit the node's config as stopping the container automatically deletes it.

## Usage

Here are some examples of how to use LocalSecret with `secretcli`, `secret.js`, and Keplr.

### Access And Configure Secretcli

To access `secretcli` from inside the docker container:

```
...
```

```
Copy dockerexec-itlocalsecretsecretcli[command]
```

```
...
```

To configure & test your local `secretcli` binary:

```
...
```

```
Copy secretcli config chain-id secretdev-1 secretcli config node http://localhost:26657 secretcli config output json
```

```
SGX_MODE=SW secretcli status
```

```
...
```

The environment variable `SGX_MODE=SW` must be applied when using a local `secretcli` binary.

### Faucet (AKA Getting SCRT)

To send some SCRT to the example secret address `secret1e6mqxtwgaps7vz3qfa3fcekhh7a02hvfjvtqpt` we have two options:

#### Using The Faucet On Port 5000

```
...
```

```
Copy ADDRESS="secret1e6mqxtwgaps7vz3qfa3fcekhh7a02hvfjvtqpt"
```

```
curl "http://localhost:5000/faucet?address={ADDRESS}"
```

```
...
```

The faucet drips 1000 SCRT at a time.

#### Using A Genesis Account

Inside the docker container there are accounts `a`, `b`, `c` & `d` that are pre-seeded with SCRT and can be used to send some to your address.

```
...
```

```
Copy ADDRESS="secret1e6mqxtwgaps7vz3qfa3fcekhh7a02hvfjvtqpt"
```

```
dockerexec-itlocalsecretsecretcltxbanksenda{ADDRESS}1000000000uscrt-y
```

```
...
```

### Connect To LocalSecret With secret.js

Connect to the chain through LocalSecret's LCD endpoint.

npm i secretjs or yarn add secretjs , then:

...

```
Copy import{ SecretNetworkClient }from"secretjs";
```

```
constsecretjs=newSecretNetworkClient({ chainId:"secretdev-1", url:"http://localhost:1317", });
```

...

[Read the full secret.js docs here.](#)

Keplr

To add a custom chain to Keplr, use this code:

...

```
Copy awaitwindow.keplr.experimentalSuggestChain({ chainId:"secretdev-1", chainName:"LocalSecret",
rpc:"http://localhost:26657", rest:"http://localhost:1317", bip44:{ coinType:529, }, bech32Config:{
  bech32PrefixAccAddr:"secret", bech32PrefixAccPub:"secretpub", bech32PrefixValAddr:"secretvaloper",
  bech32PrefixValPub:"secretvaloperpub", bech32PrefixConsAddr:"secretvalcons",
  bech32PrefixConsPub:"secretvalconspub", }, currencies:[ { coinDenom:"SCRT", coinMinimalDenom:"uscrt", coinDecimals:6,
  coinGeckold:"secret", }, ], feeCurrencies:[ { coinDenom:"SCRT", coinMinimalDenom:"uscrt", coinDecimals:6,
  coinGeckold:"secret", }, ], stakeCurrency:{ coinDenom:"SCRT", coinMinimalDenom:"uscrt", coinDecimals:6,
  coinGeckold:"secret", }, coinType:529, gasPriceStep:{ low:0.1, average:0.25, high:1, }, features:
  ["secretwasm","stargate","ibc-transfer","ibc-go"], });
```

...

Different instances of LocalSecret need to be re-added to Keplr, so you need to first delete the old LocalSecret from Keplr and then re-run this^ code to add the current LocalSecret. [Learn how to connect Keplr with secret.js.](#)

Configure LocalSecret

Modifying Node Configuration

You can modify the node configuration of your validator in the~/.secretd/config/config.toml and~/.secretd/config/app.toml files inside the container.

To enter the docker container to access them, run:

...

```
Copy dockerexec-itlocalsecretbash
```

...

You can then use commands likesed &perl to edit these files, or install text editors likevim &nano usingapt install -y vim nano .

Applying The Changes

To apply changes that are made to the config file, restart LocalSecret by running:

...

```
Copy dockerstoplocalsecret dockerstart-alocalsecret
```

...

Speed Up Block Time

LocalSecret is often used alongside a script written with the secret.js as a convenient way to do integration tests. You can greatly improve the experience by speeding up the block time.

To decrease block times, run LocalSecret with theFAST\_BLOCKS=true environment variable:

...

```
Copy docker run -it -e FAST_BLOCKS=true -p 9091:9091 -p 26657:26657 -p 1317:1317 -p 5000:5000 \ --name localsecret
ghcr.io/scrtlabs/localsecret
```

...

To complement this, when testing with secret.js you can lower broadcastCheckIntervalMs to 100 from the default of 6000 ([example](#)).

## Accounts

LocalSecret is pre-configured with one validator and 4 accounts with SCRT balances. You can import them into your own testing environment for easier prototyping.

Account Address Mnemonic a secret1ap26qrlp8mcq2pg6r47w43l0y8zkqm8a450s03 grant rice replace explain federal release fix clever romance raise often wild taxi quarter soccer fiber love must tape steak together observe swap guitar b secret1fc3fzy78ttp0lwuujw7e52rhspxn8uj52zfyne jelly shadow frog dirt dragon use armed praise universe win jungle close inmate rain oil canvas beauty pioneer chef soccer icon dizzy thunder meadow c secret1ajz54hz8azwuy34qwy9fkjnfcrvf0dzswy0lqq chair love bleak wonder skirt permit say assist aunt credit roast size obtain minute throw sand usual age smart exact enough room shadow charge d secret1ldjxljw7v4vk6zhyduywh04hpj0jdwxsmlatf word twist toast cloth movie predict advance crumble escape whale sail such angry muffin balcony keen move employ cook valve hurt glimpse breeze brick [Previous Shade.Js](#) [Next Smart contract - Tools/Utils](#) Last updated 10 months ago