

Running a Filecoin RPC Node

Requirements

Before getting started, Filecoin node setup requires many dependencies to setup correctly. These dependencies are commonly already installed on most modern linux machines, but include the following:

mesa-opengl-icd ocl-icd-opengl-dev gcc git bzr jq pkg-config curl clang build-essential hwloc libhwloc-dev wget The list above is specific to Debian/Ubuntu-based OSes. For a different configuration, check out [Lotus docs](#).

info Note that you will also need [Go v1.19.7](#) or higher for a successful install.

Install Lotus Filecoin Node

Filecoin is a diverse ecosystem with different node implementations. Each node implementation has different ways to generate and manage authentication tokens. This guide uses [Lotus Filecoin](#), which is the reference node implementation for the Filecoin network.

Get Lotus

To get started, input the following into the terminal:

```
git clone https://github.com/filecoin-project/lotus.git cd lotus/ git checkout releases
```

Decide Mainnet or Testnet

join mainnet

```
make clean all
```

Or to join a testnet or devnet:

```
make clean calibnet
```

Calibration with min 32GiB sectors

Compile Lotus

Finalize the install by inputting `sudo make install` in the terminal. You can run `lotus --version` to ensure that this process completed successfully.

tip Specific CPU architectures may require additional configuration. Consult the [Lotus Filecoin documentation](#) for additional details if you encounter any errors.

Start your RPC Server

Configure your RPC node

1. Download & Import a Snapshot:

```
aria2c -x5 https://snapshots.mainnet.filops.net/minimal/latest.zst
```

Replace the based on the snapshot you downloaded.

```
lotus daemon --import-snapshot < snapshot-filename
```

```
--halt-after-import 1. Edit the configuration file ./lotus/config.toml 2. to run RPC. 3. You can do this by finding EnableEthRPC 4. and ensuring it's set to true 5. :
```

EnableEthRPC enables eth_rpc, and enables storing a

mapping of eth transaction hashes to filecoin message Cids.

This will also enable the RealTimeFilterAPI and HistoricFilterAPI by default, but they can be disabled by config options above.

type: bool

env var: LOTUS_FEVM_ENABLEETHRPC

EnableEthRPC

true

Launch

Run the following command:

```
nohup lotus daemon
```

```
~/lotus.log 2
```

```
&1
```

& Log messages can be found at ~/lotus.log - it will take a moment for your node to get the latest blocks! After that, you should be ready to serve RPC!

Apply to our Provider Incubation Program

In our current state of Testnet, there is an additional stage to pass through before you can become a provider on the Lava Network. Please fill out the [application form](#) for our Provider Incubation Program. Feel free to drop a line in our [Discord](#) once you've completed this step!

Setup your Provider on Lava Network

Once you've been accepted - to set up your provider on the Lava Network, you can refer to the [provider setup documentation](#) available elsewhere in our docs. This should provide you with the necessary information to configure and operate your provider node. [Edit this page](#) [Previous Getting Filecoin RPC](#) [Next juno x Lava](#)