Deploy an OP Stack devnet to Celestia

In order to deploy a devnet to Celestia, you will need to have a modified version ofoptimism-bedrock . Refer to thesteps to install dependencies and the modified version of OP Stack for your environment setup.

Pick your deployment type

Using Celestia and OP stack, you have the option to either run a light node of your own or alocal-celestia-devnet , both of which will give you a local devnet to test things out with.

Using a local devnet

If you'd like to use thelocal-celestia-devnet , you're in luck! This is the default for the OP Stack + Celestia repository. Head to theprevious page to get started.

Using a light node

This is abeta integration and we are working on resolvingopen issues .

In order to allow your light node to post and retrieve data without errors, you will need to changeUseShareExchange tofalse in:

Mainnet Beta

Mocha

Arabica bash HOME/.celestia-light/config.toml HOME/.celestia-light/config.toml bash HOME/.celestia-light-mocha-4/config.toml HOME/.celestia-light-mocha-4/config.toml bash HOME/.celestia-light-arabica-11/config.toml HOME/.celestia-light-arabica-11/config.toml If you choose to use your own node store, the light node must befully synced andfunded for you to be able to submit and retrievePayForBlobs to a Celestia network.

If it is not synced, you will run intoerrors similar to this .

Visit theArabica orMocha pages to to visit their faucets.

In order to mount existing data, you must have a node store that is in this directory:

Mainnet Beta

Mocha

Arabica bash HOME/.celestia-light HOME/.celestia-light bash HOME/.celestia-light-mocha-4 HOME/.celestia-light-mocha-4 bash HOME/.celestia-light-arabica-11 HOME/.celestia-light-arabica-11 This is the default location of the node store when you initialize and run a new Celestia node.

By default, the node will run with the account namedmy_celes_key .

If you have your own setup you'd like to try, you can always editoptimism/ops-bedrock/docker-compose.yml to work with your setup.

Using a RaaS provider

If you'd like to use a Rollups as a Service (RaaS) provider, you can do so by going to the RaaS category in the menu.

Build the devnet

Build TypeScript definitions for TS dependencies:

bash cd HOME cd

optimism make cd HOME cd

optimism make Set environment variables to start network:

bash export SEQUENCER_BATCH_INBOX_ADDRESS = 0xff00000000000000000000000000000000000000 export L2OO_ADDRESS = 0x70997970C51812dc3A010C7d01b50e0d17dc79C8 export SEQUENCER_BATCH_INBOX_ADDRESS = 0xff00000000000000000000000000000000000000 export L2OO_ADDRESS = 0x70997970C51812dc3A010C7d01b50e0d17dc79C8

Start the devnet

First, make sure your light node is synced and funded. It must not be running for this example to work.

This example is for Mainnet Beta. You can modify theda: section of yourHOME/optimism/ops-bedrock/docker-compose.yml for your specific use, similarly to the example below:

This setup will usecelestia-da , which iscelestia-node with a DA server on port 26650.

For theP2P_NETWORK variable, you'll need to supply the network of choice, eithercelestia ,mocha , orarabica . Usingcelestia , the volume path will be just.celestia-light instead of.celestia-light- . You will also need to provide a core.ip RPC URL for the network you are using.

yaml da : image : ghcr.io/rollkit/local-celestia-devnet:v0.12.1 image : ghcr.io/rollkit/celestia-da:v0.12.9 command :

> celestia-da light start --p2p.network= --da.grpc.namespace=000008e5f679bf7116cb --da.grpc.listen=0.0.0.0:26650 --core.ip --gateway environment : - NODE_TYPE=light - P2P_NETWORK= ports : - "26650:26650" - "26658:26658" - "26659:26659" volumes : - HOME/.celestia-light-/:/home/celestia/.celestia-light-/ healthcheck : test : ["CMD" , "curl" , "-f" , "http://localhost:26659/header/1"] interval : 10s timeout : 5s retries : 5 start_period : 30s da : image : ghcr.io/rollkit/local-celestia-devnet:v0.12.1 image : ghcr.io/rollkit/celestia-da:v0.12.9 command :
>
> celestia-da light start --p2p.network= --da.grpc.namespace=000008e5f679bf7116cb --da.grpc.listen=0.0.0.0:26650 --core.ip --gateway environment : - NODE_TYPE=light - P2P_NETWORK= ports : - "26650:26650" - "26658:26658" - "26659:26659" volumes : - HOME/.celestia-light-/:/home/celestia/.celestia-light-/ healthcheck : test : ["CMD" , "curl" , "-f" , "http://localhost:26659/header/1"] interval : 10s timeout : 5s retries : 5 start_period : 30s Now start the devnet:

bash make

devnet-up make

devnet-up

View the logs of the devnet

If you'd like to view the logs of the devnet, run the following command from the root of the Optimism directory:

bash make

devnet-logs make

devnet-logs

Stop the devnet

To safely stop the devnet, run the following command:

bash make

devnet-down make

devnet-down

Clean the devnet

To remove all data from the devnet, run the following command:

bash make

devnet-clean make

devnet-clean

Deploying to an L1 (or L2)

If you'd like to deploy to an EVM L1 or L2, reference theOP stack deployment guide . [][Edit this page on GitHub] Last updated: Previous page Deploy an OP Stack devnet Next page Rollkit []