

Locally testing a solver with the CoW Protocol orderflow

CoW Protocol infrastructure is a lot of services running together in herd harmony, which is a bit intimidating at the beginning. Before proceeding, it would be advisable to read the architectural overview to get a better understanding of how CoW Protocol works and its entities.

In order to test a solver against CoW Protocol's orderflow, one needs to locally run the following components

- autopilot, which will be configured to point, for example, to the production orderbook and to send the auctions to a local driver.
- driver, which will receive auctions from the autopilot and forward them to the solver engine
- the solver engine that is meant to be tested, run as a local http server able to receive/solve requests from the driver and respond to them.

caution It is assumed you have rust setup correctly with rustup . The repository where all the backend services can be found is this one: <https://github.com/cowprotocol/services> . Here are the main instructions to run the autopilot and the driver.

For the autopilot, we run

```
cargo run --bin autopilot -- --skip-event-sync true --node-url NODE_URL --shadow https://api.cow.fi/mainnet --drivers "mysolver1|http://localhost:11088/mysolver1" where one needs to set the NODE_URL appropriately (e.g., a free Infura endpoint).
```

caution CoW Protocol services infrastructure can be very heavy on RPC resource consumption. Be careful if using with post-paid plans, it's recommended to keep a close eye on RPC resource consumption. For the driver, we run

```
cargo run -p driver -- --config driver.config.toml --ethrpc NODE_URL where one needs to configure driver.config.toml to point to their solver engine. A sample such file can be found here .
```

Once the above are set up and running, one can then start testing their solver engine against one of the following orderbooks:

Orderbook URL Network Environment <https://barn.api.cow.fi/mainnet/api> Mainnet Staging <https://api.cow.fi/mainnet/api>
Mainnet Production <https://barn.api.cow.fi/sepolia/api> Sepolia Staging <https://api.cow.fi/sepolia/api> Sepolia Production
<https://barn.api.cow.fi/xdai/api> Gnosis Chain Staging <https://api.cow.fi/xdai/api> Gnosis Chain Production [Edit this page](#)
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