Run SUAVE Locally

You can usesuave-geth to start a local SUAVE devnet.

There are two ways to work withsuave-geth :

1. ⚡Install the latest release binary
2. ♀Build from source

Latest release binary

curl

-L https://suaveup.flashbots.net |

bash Start your local devnet with:

suave-geth --suave.dev

Building from source

info We recommend that you use Golang v1.21 or newer. Clone thesuave-geth repository:

git clone git@github.com:flashbots/suave-geth.git cd suave-geth Build the binary:

make suave Now you have asuave binary in./build/bin/ :

./build/bin/suave-geth --version Start the local devnet with:

./build/bin/suave-geth --suave.dev Missing packages If you have set up a new machine to run through this, you'll also need to install Make and Go:sudo apt install make golang-go

Testing the devnet

Compile the example contracts:

What is Forge? forge is a part of the smart contract development toolchain we use in our examples, which you can learn more about in ournext tutorial . If you do not have it installed, you can do so quickly with:curl -Lhttps://foundry.paradigm.xyz | bash cd suave && forge build Create a few example transactions:

go run devenv/cmd/main.go Execute a RPC request with curl like this:

curl

'http://localhost:8545'

--header

'Content-Type: application/json'

--data

'{ "jsonrpc":"2.0", "method":"eth_blockNumber", "params":[], "id":83 }'

If you built from source (but not if you're running Docker), you can attach to the usual Geth javascript console to get any interactive data you need with:

./build/bin/suave-geth attach /tmp/geth.ipc IPC not found It may be the case, especially if you have a custom GOPATH, that the geth.ipc is somewhere else. You can either force the path using the--ipcpath flag when starting SUAVE, or find the path in the logs (it could look something like/System/Volumes/Data/private/var/folders/rt/gq5bhvy17wz5z5dl32_x83dw0000gp/T/geth.ipc , for instance). From within the console, you can run:

eth.accounts [0] This should return"0xb5feafbdd752ad52afb7e1bd2e40432a485bbb7f" - the default funded account for local development.

eth.getBalance (eth.accounts [0]) Should return a really large number1.1579...e+77 . If you tryeth.getBalance('') instead, you should see0 .

If you try:

web3.eth.blockNumber It should tell you the block height of your local network.

What am I actually running?

The main actor in the SUAVE protocol is called a "Kettle". Kettles house all components necessary to perform confidential compute.

Here is the architecture of a Kettle on the Rigil Testnet. When you start a local SUAVE devnet, you're running all the stuff in the purple square (but not the domain specific services, i.e. nodes connected to other chains from/to which you wish to receive or send bundles).

You can read more about exactly what a Kettle contains in architecture section of the Technical Specs. Edit this page

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