

Manual Deployment (backend + old UI)

General deployment instructions for a hardware or cloud services environment

This method uses the deprecated UI and is not recommended. Please use the [Manual Deployment Guide](#) to deploy a new version of Blockscout.

Prepare Environment

Check your environment is prepared with [General Requirements](#) and [Database Storage Requirements](#).

BlockScout requires a full archive node in order to import every state change for every address on the target network. For client specific settings related to a node running Erigon/Geth/Nethermind, please see [Client Settings](#).

For testing purposes, instead of an archive node, a test Ethereum client can be used. For instance [ganache-cli](#)

Deployment Steps

1) git clone https://github.com/blockscout/blockscout

2) cd blockscout

3) Provide DB URL: export DATABASE_URL=postgresql://user:password@localhost:5432/blockscout

- Linux:
- Update the database username and password configuration
- Mac:
- Use logged-in user name and empty password
- Optional:
- Change credentials in apps/explorer/config/test.exs
- for test env

Example usage: Changing the default Postgres port from localhost:5432 if [Boxen](#) is installed. 4) Install Mix dependencies and compile them mix do deps.get, local.rebar --force, deps.compile

5) Generate a new secret_key_base for the DB by setting a corresponding ENV var: export SECRET_KEY_BASE=VTIB3uHDNbvY0+60ZWgUoUBKDn9ppLR8MI4CpRz4/qLyEFs54ktJfaNT6Z221No

In order to generate a new secret_key_base run mix phx.gen.secret 6) If you have deployed previously, remove static assets from the previous build mix phx.digest.clean.

7) Set [environment variables](#) as needed.

CLI Example:

...

```
Copy export ETHEREUM_JSONRPC_VARIANT=nethermind export
ETHEREUM_JSONRPC_HTTP_URL=http://localhost:8545 export DATABASE_URL=postgresql://... export COIN=DAI
export MIX_ENV=prod export ...
```

...

It is important to set the variable MIX_ENV=prod during deployment. The current default is MIX_ENV=dev which is a slower and less secure setting. The ETHEREUM_JSONRPC_VARIANT will vary depending on your client (nethermind, geth etc). [More information on client settings](#). 8) Install and start the [smart contract verification microservice](#). You can [use docker](#), [build from source](#), or use cargo directly (example below). If you experience issues, see the extensive [smart contract verifier readme](#).

1. Using docker:
2.
 - docker run -p 8050:8050 ghcr.io/blockscout/smart-contract-verifier:latest
3. *
4. Or install [rust](#)
5. and build from sources:
6.
 - cargo install --locked --git https://github.com/blockscout/blockscout-rs smart-contract-verifier-server
7.
 - Then run the binary as smart-contract-verifier-server
8. *

9. Set ENV variables in CLI to enable the rust microservice for Blockscout (these can also be set at runtime).
- 10.

...

```
Copy export MICROSERVICE_SC_VERIFIER_ENABLED=true export  
MICROSERVICE_SC_VERIFIER_URL=http://0.0.0.0:8050/
```

...

9) Compile the application: `mix compile`

10) If not already running, start Postgres: `pg_ctl -D /usr/local/var/postgres start`

To check [postgres status](#): `pg_isready` 11) Create and migrate database: `mix do ecto.create, ecto.migrate`

If you are in dev environment and have run the application previously with a different blockchain, drop the previous database: `mix do ecto.drop, ecto.create, ecto.migrate` Be careful since it will delete all data from the DB. Don't execute it on production if you don't want to lose all the data! 12) Install Node.js dependencies

Optional: If preferred, use `npm ci` rather than `npm install` to strictly follow all package versions in `package-lock.json`. * `cd apps/block_scout_web/assets; npm install && node_modules/webpack/bin/webpack.js --mode production; cd -` * `cd apps/explorer && npm install; cd -` *

13) Build static assets for deployment: `mix phx.digest`

14) Enable HTTPS in development. The Phoenix server only runs with HTTPS.

- `cd apps/block_scout_web; mix phx.gen.cert blockscout blockscout.local; cd -`
- Add blockscout and blockscout.local to your `/etc/hosts`
-

...

```
Copy 127.0.0.1 localhost blockscout blockscout.local
```

```
255.255.255.255 broadcasthost
```

```
:::1 localhost blockscout blockscout.local
```

...

If using Chrome, Enable `chrome://flags/#allow-insecure-localhost` 15) Return to the root directory and start the Phoenix Server: `mix phx.server`

16) Check the [Frontend Migration section](#) if you would like to connect the enhanced frontend UI to the manually installed backend.

Last updated 10 months ago