



Electrum Server in Rust



An efficient re-implementation of Electrum Server, inspired by ElectrumX, Electrum Personal Server and bitcoincore-indexd.

The motivation behind this project is to enable a user to self host an Electrum server, with required hardware resources not much beyond those of a full node. The server indexes the entire Bitcoin blockchain, and the resulting index enables fast queries for any given user wallet, allowing the user to keep real-time track of balances and transaction history using the Electrum wallet. Since it runs on the user's own machine, there is no need for the wallet to communicate with external Electrum servers, thus preserving the privacy of the user's addresses and balances.

Usage

Please prefer to use OUR usage guide!

External guides can be out-of-date and have various problems. At least double-check that the guide you're using is actively maintained. If you can't use our guide, please ask about what you don't understand or consider using automated deployments.

Note that this implementation of Electrum server is optimized for **personal/small-scale (family/friends) usage**. It's a bad idea to run it publicly as it'd expose you to DoS and maybe also other attacks. If you want to run a public server you may be interested in the Blockstream fork of electrs which is better optimized for public usage at the cost of consuming *significantly* more resources.

- Installation from source
- Pre-built binaries (No official binaries available but a beta repository is available for installation)
- Configuration
- Usage
- Monitoring
- Upgrading - **contains information about important changes from older versions**

Features

- Supports Electrum protocol v1.4
- Maintains an index over transaction inputs and outputs, allowing fast balance queries
- Fast synchronization of the Bitcoin blockchain (~6.5 hours for ~504GB @ August 2023) using HDD storage.
- Low index storage overhead (~10%), relying on a local full node for transaction retrieval
- Efficient mempool tracker (allowing better fee estimation)
- Low CPU & memory usage (after initial indexing)
- [txindex](#) is not required for the Bitcoin node
- Uses a single RocksDB database, for better consistency and crash recovery

Altcoins

Altcoins are **not supported**! Forks of Bitcoin codebase that relax the consensus rules (hard forks) are also **not supported**.

You may be able to find a fork of electrs that does support them, look around or make your own, just don't file issues/PRs here.

Index database

The database schema is described [here](#).

Contributing

All contributions to this project are welcome. Please refer to the [Contributing Guidelines](#) for more details.

Logo

Our logo is generously provided by Dominik Průša under the MIT license. Based on the Electrum logo and the Rust language logo.