

Shekel - How to compile the Linux Daemon (NON GRAPHICAL QT WALLET)

Follow the following steps to successfully compile a working Shekel daemon on Linux. This guide will be assuming an Ubuntu 14.04 installation. Other Linux OS's will work, but the packages will be slightly different. For newer versions of Ubuntu, older versions of libboost are necessary, and these guides can be found online.

All of the following will be done from a terminal.

If your PC (VPS) has 1GB of RAM or less, please following the following steps to add swap space. This will be necessary when compiling the wallet. If you have more than 2GB available, please skip to step 5.

Adding Swap Space (If you feel you will need more than 1GB of swap space, then simply replace 1G and 1GB with the number that you wish to add):

1. Enter the following lines one at a time:

```
sudo fallocate -l 1G /mnt/1GB.swap
```

If this first line fails run the following, otherwise skip.

```
sudo dd if=/dev/zero of=/mnt/1GB.swap bs=1024 count=1048576
sudo mkswap /mnt/1GB.swap
sudo swapon /mnt/1GB.swap
```

2. This command will open a text editor in the terminal:

```
nano /etc/fstab
```

Navigate to the bottom of that file, and add the following line:

```
/mnt/1GB.swap none swap sw 0 0
```

Then to save: CTRL + X, Y to accept, then Enter.

3. Now edit the following file:

```
nano /etc/sysctl.conf
```

And add the following line at the very bottom of that file. Increase this number if you are running on an especially low amount of ram. 50 should do for most.

```
vm.swappiness=10
```

4. Check that the swapfile was successfully created:

```
sudo swapon -s
```

If at any point you get an error in the above steps, enter this:

```
chmod 600 /mnt/1GB.swap
```

and try again.

5. Before actually compiling we must install all required dependencies:

```
sudo apt-get update && apt-get upgrade
sudo apt-get install ntp unzip git build-essential libssl-dev libdb-dev libdb++-dev
libboost-all-dev libqrencode-dev aptitude && aptitude install miniupnpc libminiupnpc-
dev
sudo apt-get install dh-autoreconf
sudo apt-get install pkg-config
sudo apt-get install git
```

6. Download the source code from the official GitHub repository only:

```
git clone https://github.com/shekeltechnologies/wallet
```

7. Copy the files to a new folder:

```
mv wallet/ shekel/
```

8. Enter the source code directory, and then the leveled directory:

```
cd shekel/src/leveldb
```

9. Enter the following:

```
chmod +x build_detect_platform
make clean
make libleveldb.a libmemenv.a
```

10. Return to the main shekel directory:

```
cd ../../
```

11. Run:

```
./autogen.sh
```

This will output many lines onto the screen including some warnings, you should be able to ignore these.

12. Run:

```
./configure --with-incompatible-bdb
```

Again ignore warnings.

13. Finally run:

```
make
```

This is the last step to build the wallet, and it will take quite some time depending on your PC specs, and the amount of swap space specified.

14. After this last command the wallet should be successfully compiled and built. Type “ls” and in addition to all of the source files you should see shekeld, shekel-cli, and shekel-tx.

15. OPTIONAL: To make the daemon accessible from every directory do the following. It may not work for all setups, and is not at all necessary. If you do not do this step, just remember that all calls to shekeld and shekel-cli will need to be from within the src folder:

```
cd src
cp shekeld /usr/bin
cp shekel-cli /usr/bin
```

16. From within the src directory run the daemon for the first time:

```
./shekeld -daemon
```

This should print out several lines to the console, including an rpcuser and rpcpassword. Copy these. Make sure the wallet is closed: CTRL + C .

Now paste the lines into the following file:

```
nano ~/.shekel/shekel.conf
```

Remember to also add the official add nodes to the conf file. Add the following line:

```
addnode=shekel.gyservers.com
```

Save: CTRL + X, Y to accept, Enter.

17. You can now rerun the wallet with ./shekeld -daemon . Once this is running all of the roc commands can be accessed using ./shekel-cli . Again if you did not copy the executables to /usr/bin you will need to run the commands from the src directory. All of the conf files (shekel.conf and masternode.conf) can be found in ~/.shekel/Examples:

```
./shekel-cli help
./shekel-cli getinfo
./shekel-cli getaccountaddress 0
```

Sources:

<https://support.rackspace.com/how-to/create-a-linux-swap-file/>

<https://dev.cryptolife.net/compiling-the-daemon-for-your-altcoin-in-ubuntu-linux/>