

Instructions on installing Rubix on Cloud VM – Ubuntu (or other flavours of Linux)

Welcome to Rubix Community. Please follow the instructions at this [link](#) for installation of Rubix wallet in a VM.

This document gives you the next steps for setting up of your VM to make it ready to start transactions.

Please note that the IPV6 is not fully compatible with Rubix Wallet. If your node is running on pure IPV6 network, please consider additionally enabling the IPV4 mode also.

Connections using IPFS:

Rubix uses IPFS for communication with Peers. The peer id is the key identifying each node. IPFS uses several ports for its communication. The ports necessary for IPFS are 4001 and 5001. To check if these ports are open, please refer to this [section](#)

Running the Rubix Jar

You need the java 11.0.10 2021-01-19 LTS for running Rubix Wallet. Please don't use Open JDK since this is not fully tested with Rubix Wallet and there may be some compatibility issues. We are working on testing the Rubix Wallet on Open JDK. Once tested, a new JAR file will be released.

Rubix Wallet needs the following ports to be opened.

15010, 15011, 15030, 15031, 15032, 15033, 15034, 15035, 15036, 15040, 15080, 15081, 15091

To check if these ports are open, please refer to this [section](#)

Adding Bootstrap nodes:

Rubix wallet is designed to run on nodes that have Public Ips as well as nodes that have only Private IPs. If your node is having a Public IP then no further configuration is needed. The system will automatically be able to connect to the IPFS network.

If your node is running on Private IP then you need to connect with another Rubix node running on Public IP

By default, Rubix comes configured with 2 IPFS bootstrap nodes.

To list the bootstrap nodes already configured, please give the command:

```
curl http://localhost:1898/bootstrap
```

To add a bootstrap node, please give the following command:

```
curl --header "Content-Type: application/json" --request POST http://localhost:1898/bootstrap?id=/ip4/115.124.117.37/tcp/4001/p2p/QmWXELAoKJsCMFoW3j6pFmXEhouwKgWiK7wN6uLyuX6ULV
```

To add new bootstrap nodes to the system, give the following commands:

```
curl --header "Content-Type: application/json" --request POST http://localhost:1898/bootstrap?id="/ip4/115.124.117.37/tcp/4001/p2p/QmWXELAoKJsCMFoW3j6pFmXEhouwKgWiK7wN6uLyuX6ULV"
```

To check whether the bootstrap node is configured correctly, you can check the connection by giving the following command:

```
ipfs ping QmWXELAoKJsCMFoW3j6pFmXEhouwKgWiK7wN6uLyuX6ULV
```

Checking the ports

Rubix wallets need specific ports to be opened for communication (both inbound and outbound). The ports necessary for each component is given in that section. To see if the specific port is opened or not, follow these steps:

Open a new terminal window:

Give the command

```
lsof -i -n -P | grep {Port number}
```

For example if you need to check if port 4001 is opened, then the command will be

```
lsof -i -n -P | grep 4001
```

If you get an output for the above command giving the list of processes using the port, then Congratulations!!! The port is opened and the operation is successful.

If you don't get any output for this command, then it is very likely that the firewall need to be configured to allow this.

Caveat: Giving the sudo ufw command to open the port on the node may not work if the node is