**1. Renting Server**

There are plenty of options to choose from to rent a server. Google Cloud, Amazon AWS, Oracle, vultr.com etc. In this guide, we are going to work with Google Cloud because it gives free credits for all new users. In order to start, you should go to console.cloud.google.com on your browser.

Please follow the “compute engine > vm instances > create instance” to create the server for the node setup.

On the next screen, you will choose the options according to the requirement specs to run a node on Concordium.

**2. Required Specs of the Server**

You can write anything on the server name, it will not be visible to anyone on the node dashboard or anywhere else.

Click on the boot disk and choose Ubuntu 20.04 LTS and 40 GB SSD options.

Then, e2 medium-4 GB memory on the machine type tab.

As for the server location, choosing the closest option to where you are located is advised.

Required specs might be altered according to your usage needs and duration. Therefore, it is advised to consult Concordium Team for the required specs.

**3. Updating Ubuntu and Creating a non-root User**

After creating the server, it should be visible on the VM Instances page. Click on SSH in order to open the terminal. The first things to do are updating the server and creating a non-root user.

Copy the codes line by line unless you are warned to do otherwise. There will be 2 groups of codes you will see on the following steps that you need to copy them as a group to the terminal screen.

Please write a username you choose on the command line where you see “username” without quotation marks. Repeat the same throughout this guide.

* *sudo apt update && sudo apt upgrade*
* *sudo su -*
* *sudo adduser "username"*
* *sudo apt update*

**4. Installing Docker**

Copy and paste the commands written below and write the username you chose on the previous step without the quotation marks.

Note: Copy and paste the following commands between the \* symbol as a group, not line by line.

\*

* *sudo apt-get install \*

*apt-transport-https \*

*ca-certificates \*

*curl \*

*gnupg-agent \*

*software-properties-common*

\*

* *curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -*
* *sudo apt-key fingerprint 0EBFCD88*

Note: Copy and paste the following commands between the \*\* symbols as a group, not line by line.

\*\*

* sudo add-apt-repository \

"deb [arch=amd64] https://download.docker.com/linux/ubuntu \

$(lsb\_release -cs) \

stable"

\*\*

* *sudo apt-get update*
* *sudo apt-get install docker-ce docker-ce-cli containerd.io*
* *sudo usermod -aG docker "username"*
* *newgrp docker*
* *exit*
* *sudo su -*
* *sudo usermod -aG sudo "username"*
* *sudo su "username"*
* *docker run hello-world*

**5. Installing Concordium**

Firstly, we need to get back to the folder named after our username.

* cd

By using “wget” command a zip file will be downloaded and by using “tar” command that zip file will be extracted.

* *wget https://client-distribution-testnet.concordium.com/concordium-software-linux\_0.4.8-0.tar.gz*
* *tar -xf concordium-software-linux\_0.4.8-0.tar.gz*

After using “ls” command 2 file names with different colors should appear. One is the downloaded .rar file and the other is the extraction of it.

* *ls*
* *cd ..*
* *sudo mkdir Documents*
* *cd “username”*

Use “mv” command in order to move the file.

* *mv concordium-software /home/Documents*

Following command are used to open the ports.

* *sudo ufw allow 8089*
* *sudo ufw allow 8888*
* *sudo ufw allow 8082*
* *sudo ufw allow 1000*

**6. Installing Tmux**

Since we are not using a system interface, tmux should be installed in order to do multiple tasks at the same time.

* *sudo apt install tmux*
* *cd /home/Documents/concordium-software*

By using the following command, a new tmux session will be created.

* *tmux new -s concordium-node*

On the next step we will run our node on this tmux session we just created.

**7. Running the Node**

On the tmux session we created, use the command written below and initiate the node. This will take couple of seconds and you will be asked to create another username and password. This username will be the name of your node. So do not forget this username and password. Answer the appearing question with “y” and your node should be running right now.

* *./concordium-node --listen-node-port 8888*

This command will run the node on port 8888. If you receive any error regarding a port, try using the command below.

* *./concordium-node*

**8. Checking the Node on the Concordium Dashboard**

Go to dashboard.testnet.concordium.com/ on your web browser to check your node’s current situation. Change the uptime filter to see the newly set up nodes first. If your node is running, the username you just pick for your node should appear at the top of the list.

**9. Leaving Tmux Session**

In order to leave or get back to the session use the commands below.

In order to leave the session:

* *ctrl+b d (press ctrl and b at the same time, release and then press d immediately)*

In order to get back to the session:

* *tmux attach-session -t concordium-node*