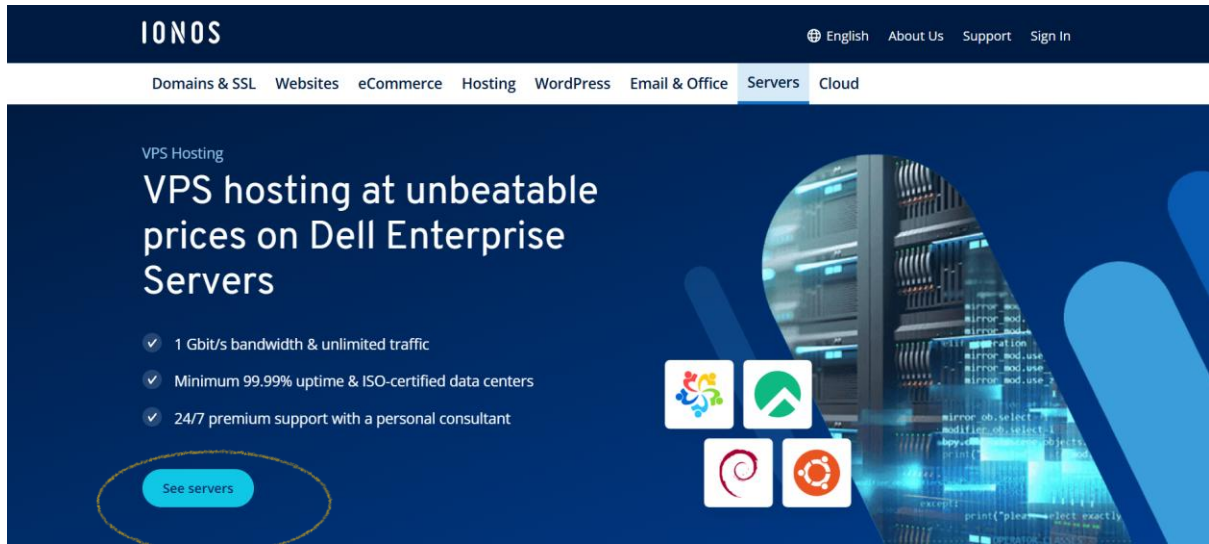


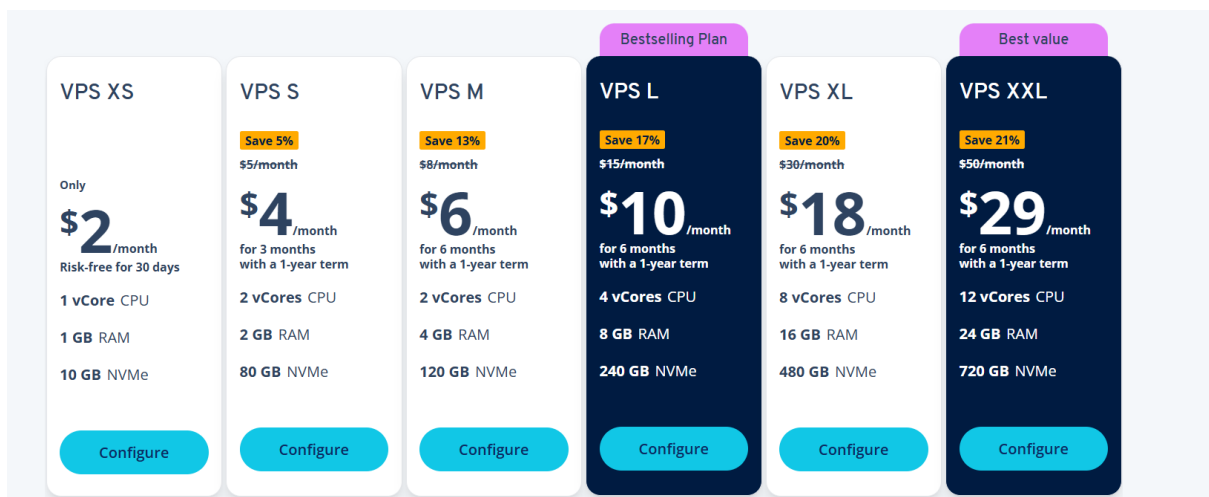
Document to build a node on Ionos

Step 1: Purchasing a plan

Website URL : <https://www.ionos.com/servers/vps>



Click on see servers to see the plans.

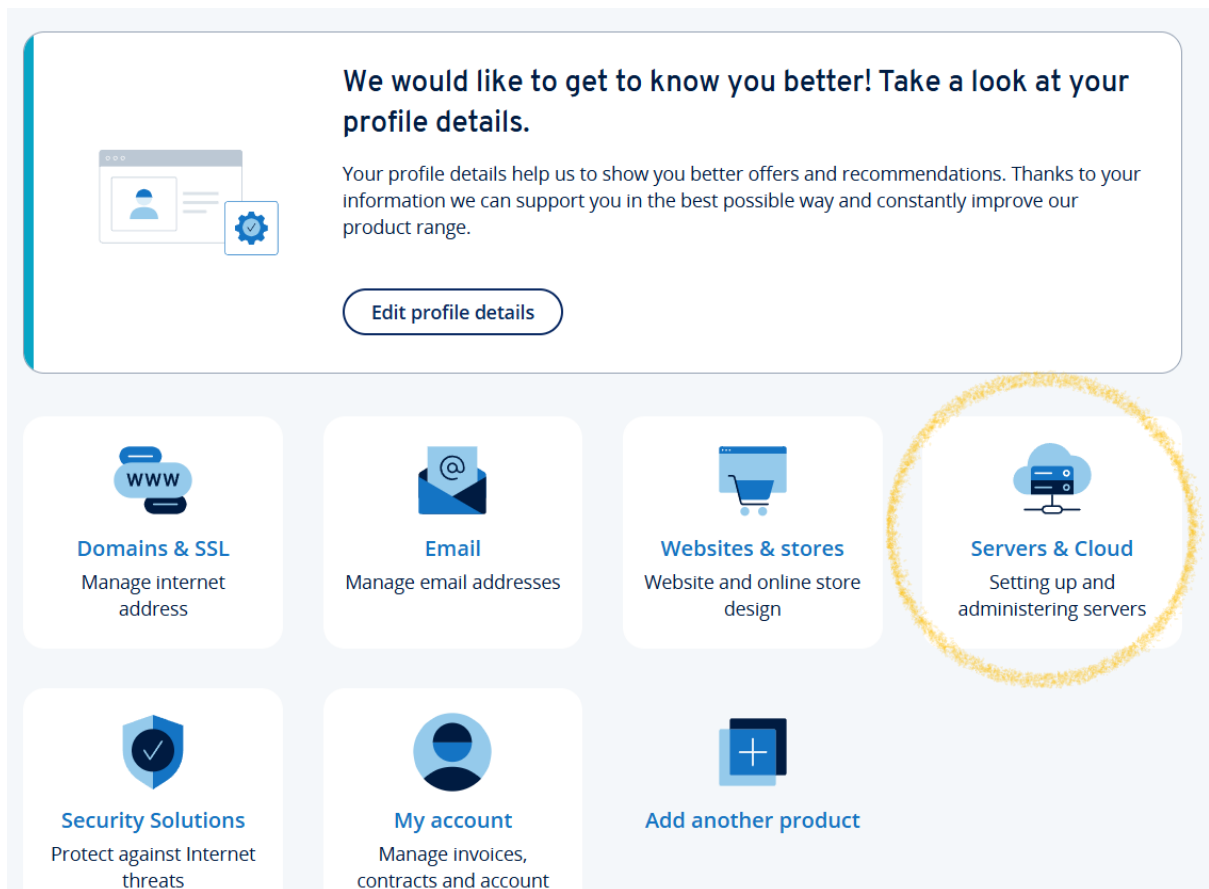


These are the plans available. The specifications for running a \$DAG node is 8 vCores CPU, 16 GB RAM and Disk space varies depending on the snapshots. We have to choose VPS XL here. Once you select this plan, you will be asked to fill in all your personal details and do the payment.

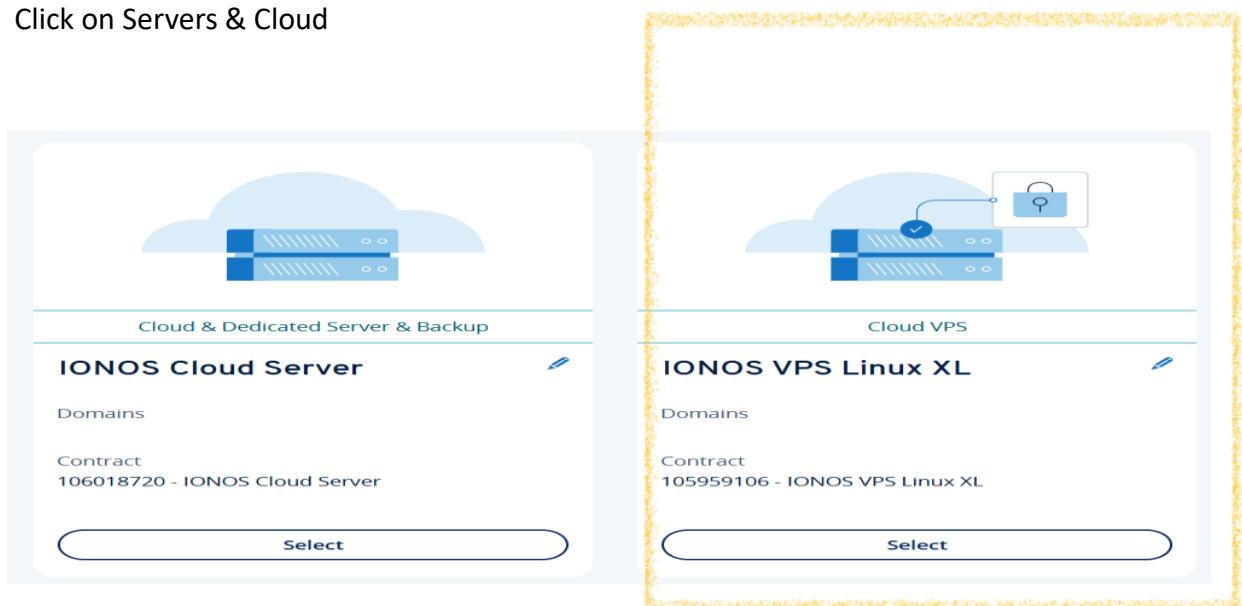
You can also place an order by calling to the customer support. Phone no - +1-484-254-5555
Once the payment is done, you will get the customer id details to your email id.

Step 2: Getting the details of root password

Go to my.ionos.com and give your customer id or email id and password to login to your account. Once you login you will see as below



Click on Servers & Cloud



Select IONOS VPS Linux XL

SS

The screenshot shows the IONOS dashboard. At the top, there's a navigation bar with the IONOS logo, a menu, a search bar, and user icons. The left sidebar contains navigation links for Infrastructure, Servers, Images, Network, Backup, and Management. The main content area is divided into two sections. The top section is 'Object Storage', featuring a cloud icon, text about ISO 27001-certification and REST API access, and a 'Try for free now' button. The bottom section is 'Servers', which includes a table of server instances. A yellow dashed box highlights the 'My VPS' entry in the table. To the right of the main content, there's a 'Recommended help topics' sidebar with links like 'Overview: Server (VPS)', 'VPS: Getting Started', and 'Installing Plesk (VPS Windows and VPS Linux)'.

IONOS MENU

Search for features, domains, and help

Last login: 04/02/2025 19:17:28 from 49.207.223.111 (India)

Object Storage

- ISO 27001-certified and GDPR-compliant
- Access via REST API, 3rd-party SDKs, Clients

Try for free now

Servers

Actions Network

Type	Name	Status	IP	Size	OS	Datacenter
<input checked="" type="radio"/>	My VPS	●	[Redacted]	vps 8 16 480	Ubuntu 24.04	[US Flag]

Filter

Recommended help topics

- Overview: Server (VPS)
- VPS: Getting Started
- Using the Remote Console for Server Access (VPS Linux and VPS Windows)
- Installing Plesk (VPS Windows and VPS Linux)
- Important Security Information for Your Server

You can see your vps here

This screenshot shows the 'My VPS' details page in the IONOS dashboard. At the top, there's a table with server instances, where the 'My VPS' entry is highlighted with a yellow dashed box. Below the table, the 'My VPS' section is displayed. It includes a description field, a green 'On' button, and a 'Features' section. The 'Login Data' subsection is highlighted with a yellow dashed box and contains the following information: Host (65.38.96.90), User (root), and Initial Password (View password). The 'Image' section shows the Source as 'IONOS Images' and the Operating System as 'Ubuntu 24.04'.

Type	Name	Status	IP	Size	OS	Datacenter
<input checked="" type="radio"/>	My VPS	●	[Redacted]	vps 8 16 480	Ubuntu 24.04	[US Flag]

My VPS

Enter a description

On

Features

Login Data:

Host: 65.38.96.90

User: root

Initial Password: [View password](#)

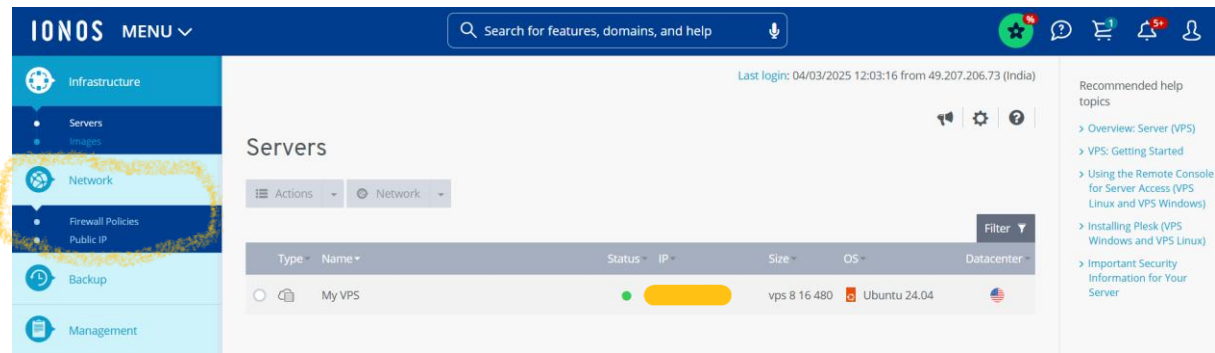
Image:

Source: IONOS Images

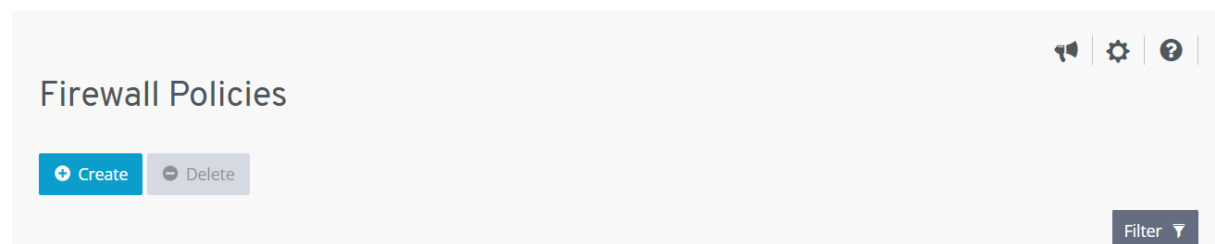
Operating System: Ubuntu 24.04

Click on the Radio button beside My VPS so that you can view User which is root and click on view password for password

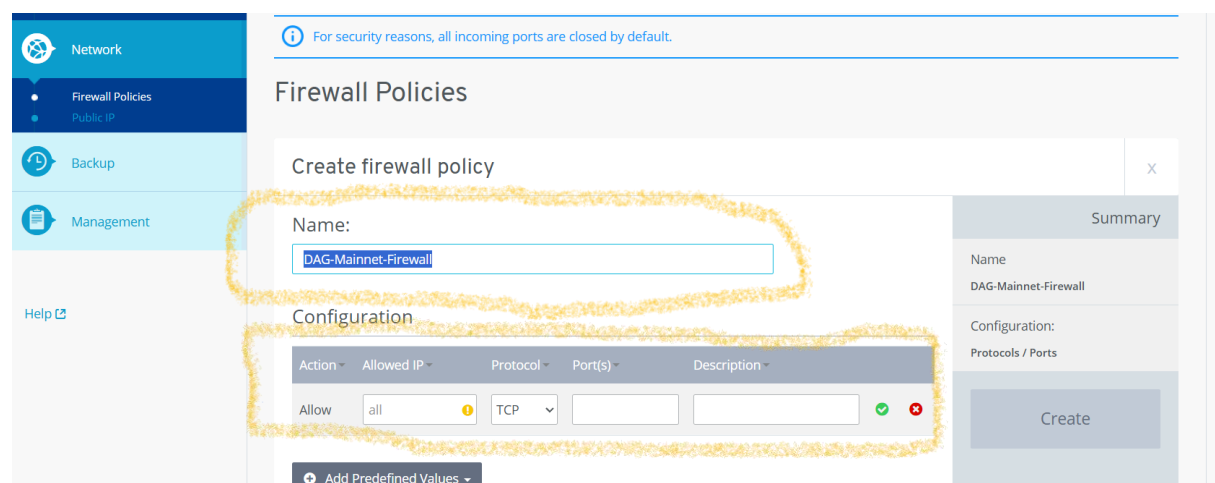
Step3: Create a Firewall



On the left side click on Firewall policies









Click on firewall to create a firewall



Give the name of your choice and add the rules


Configuration

Incoming



Action ▾	Allowed IP ▾	Protocol ▾	Port(s) ▾	Description ▾	
Allow	All	TCP	9000 - 9001		 
Allow	All	TCP	9010 - 9011		 
Allow	49.207.206.73	TCP	22		 


These are the rules to be added. To get your local ip address, go to **whatismyip.com** and paste your ip address

Properties

 Created on: 04/02/2025 13:16:32

Assigned IP

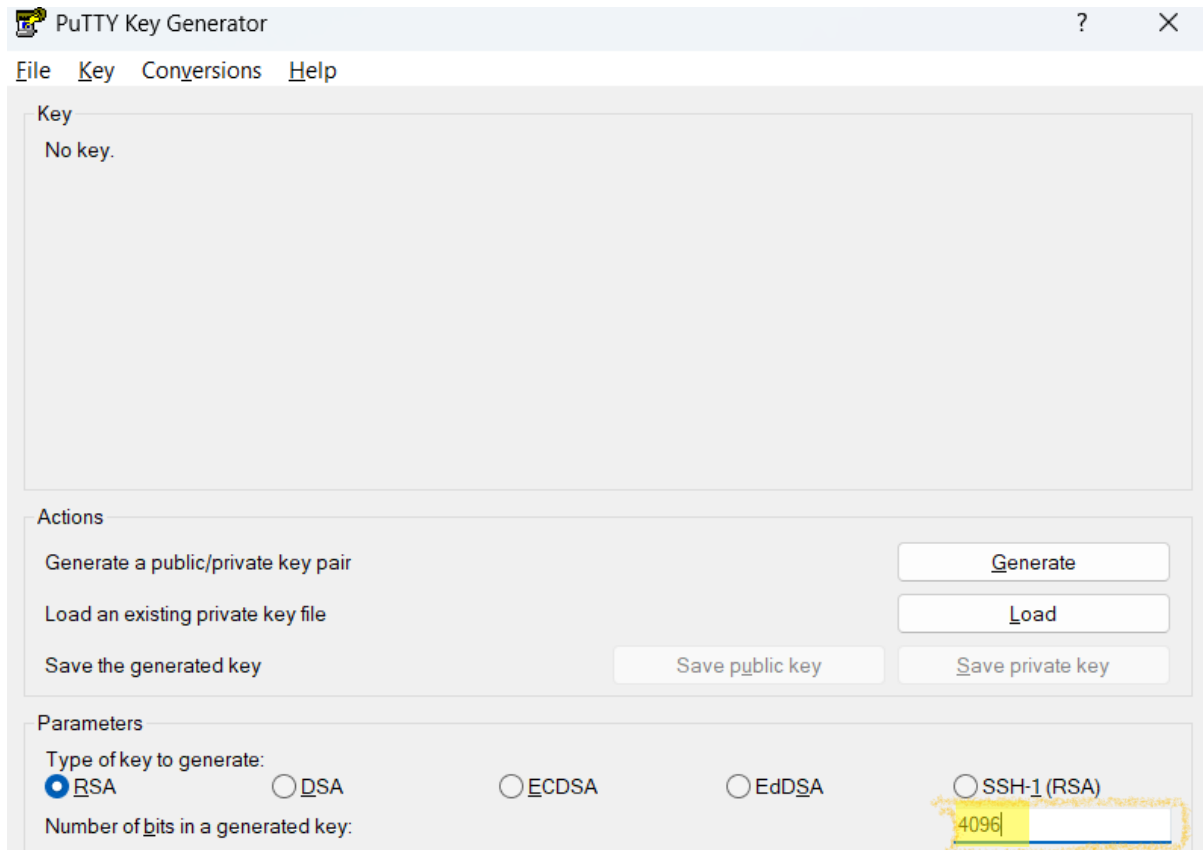
 My VPS 

 Assign

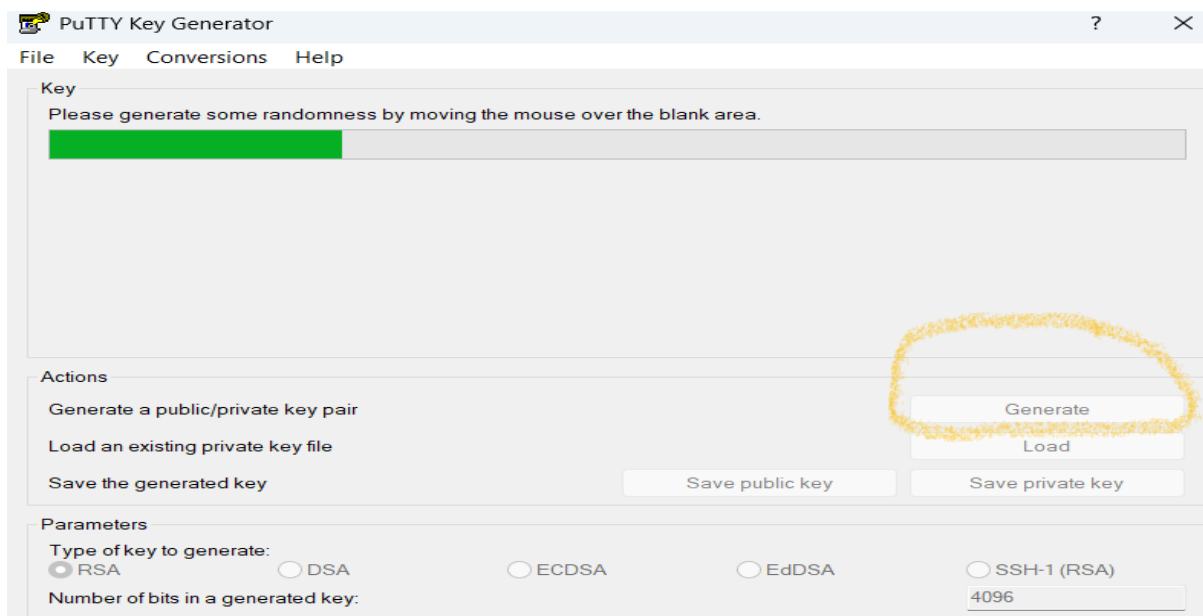
Click on Assign to add firewall to the vps

Step 4: Create an SSH Key pair using PuTTYgen

Open PuTTYgen



By default it will be 2048. Change the Number of bits in a generated key to 4096.



Click on Generate and move the mouse around to complete the process

PuTTY Key Generator

File Key Conversions Help

Key

Public key for pasting into OpenSSH authorized_keys file:

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQACQC9Pd1SLxLM7RIVkeLSEZFAXloLDIdEpHy86uhJAEEn3xkFFUEUxRzBzZnr13m
nvWrrNr4JEDVyu4uCSbcBclCNSsVRnoApLbDHVn2irbS4aDki6029deGTWq7hal/ZJkStN3DeD9/E0AVsW3SIFRhzk5nK7X
4zdO80fKyLfkYPbv4rsvllf/UViKnpjnt4I3CGOgJzShDkWF7P6scEx5gYOaf9I6R0jWhMlw/DauELk93qUZg1VAnrdhmVO18
LbD5M9wdfODbp/GQbZtCglW6+v4+zOaTFBvFJydT2/7vittPM7Yd2I30GYKuGNbWAQfNakOdOdz4b/JMP
```

Key fingerprint: ssh-rsa 4096 SHA256:5V0thHVun/ani7+cZ3hP+OtwE1PBEwmI4E6LGbCfWIE

Key comment: rsa-key-20250403

Key passphrase:

Confirm passphrase:

Actions

Generate a public/private key pair Generate

Load an existing private key file Load

Save the generated key Save public key Save private key

Parameters

Type of key to generate: ☒ RSA ☐ DSA ☐ ECDSA ☐ EdDSA ☐ SSH-1 (RSA)

Number of bits in a generated key: 4096

Give the Key Passphrase of your own choice and Confirm Passphrase. After that save public key with name **id_rsa.pub** and private key with name **id_rsa** to your local computer.

PuTTY Key Generator

File Key Conversions Help

Key

Public key for pasting into OpenSSH authorized_keys file:

```
ssh-rsa
AAAAB3NzaC1yc2EAAAADAQABAAQACQC9Pd1SLxLM7RIVkeLSEZFAXloLDIdEpHy86uhJAEEn3xkFFUEUxRzBzZnr13m
nvWrrNr4JEDVyu4uCSbcBclCNSsVRnoApLbDHVn2irbS4aDki6029deGTWq7hal/ZJkStN3DeD9/E0AVsW3SIFRhzk5nK7X
4zdO80fKyLfkYPbv4rsvllf/UViKnpjnt4I3CGOgJzShDkWF7P6scEx5gYOaf9I6R0jWhMlw/DauELk93qUZg1VAnrdhmVO18
LbD5M9wdfODbp/GQbZtCglW6+v4+zOaTFBvFJydT2/7vittPM7Yd2I30GYKuGNbWAQfNakOdOdz4b/JMP
```

Key fingerprint: ssh-rsa 4096 SHA256:5V0thHVun/ani7+cZ3hP+OtwE1PBEwmI4E6LGbCfWIE

Key comment: rsa-key-20250403

Key passphrase:

Confirm passphrase:

Actions

Generate a public/private key pair Generate

Load an existing private key file Load

Save the generated key Save public key Save private key

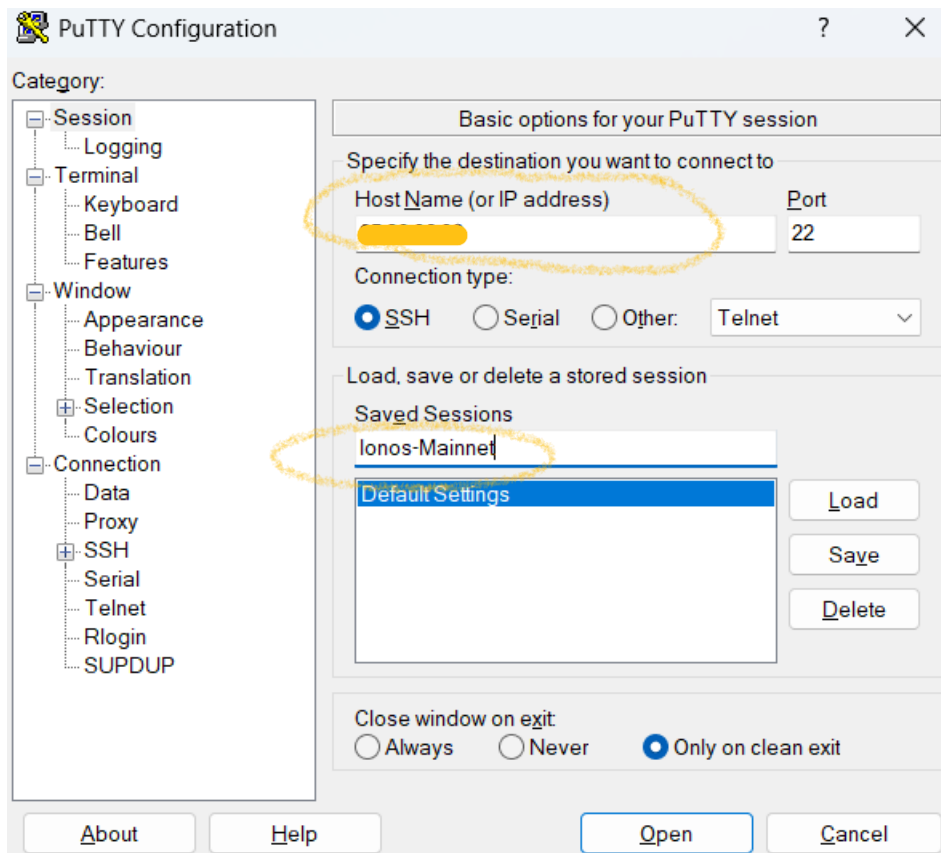
Parameters

Type of key to generate: ☒ RSA ☐ DSA ☐ ECDSA ☐ EdDSA ☐ SSH-1 (RSA)

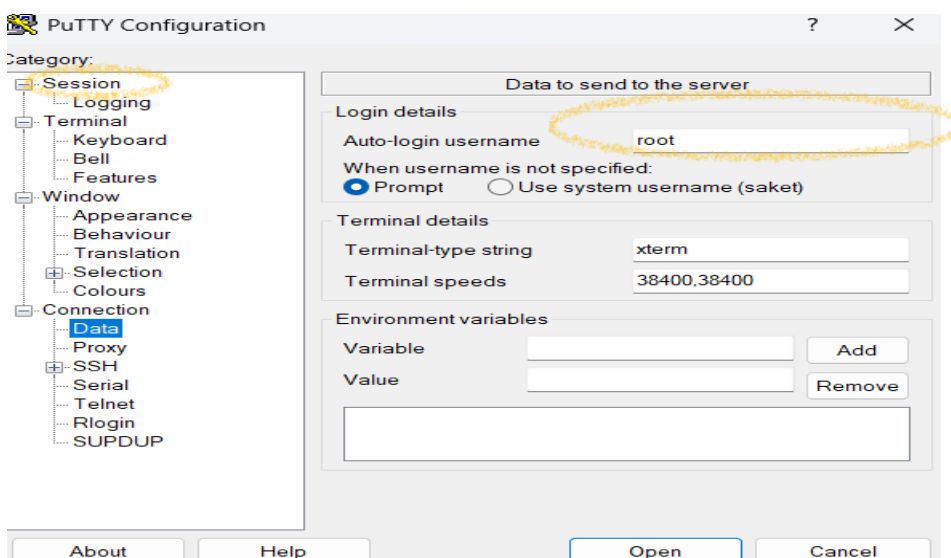
Number of bits in a generated key: 4096

Copy the Public key to paste it in the authorized_keys file in your vps server

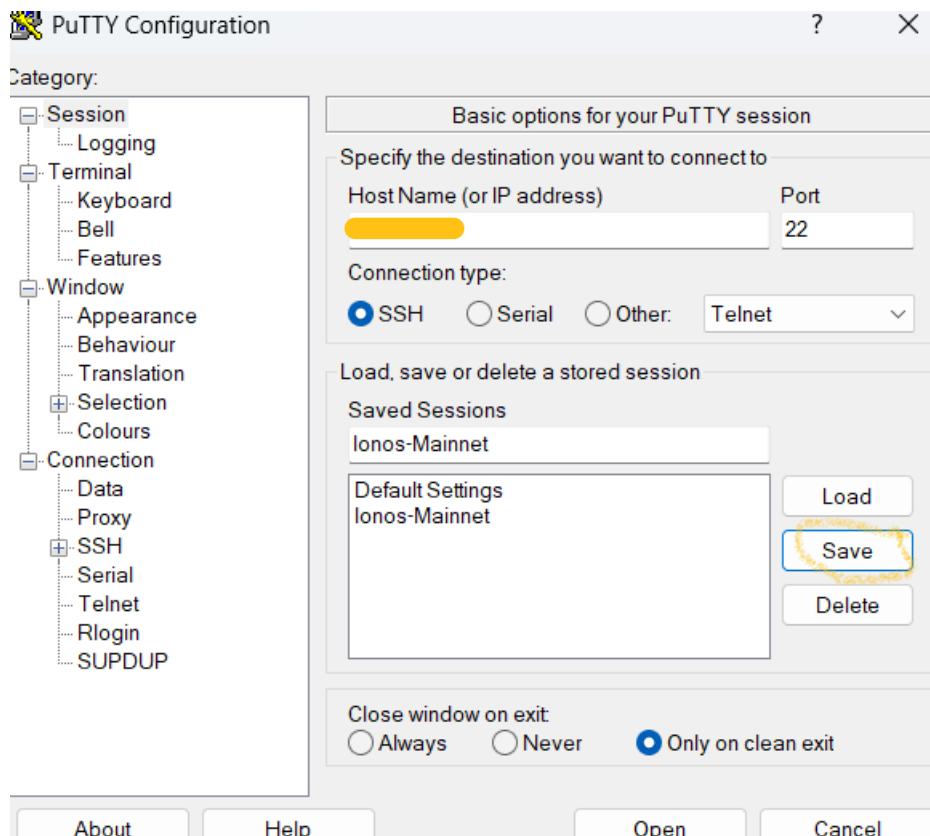
Step 5: Log-in to vps from root user and root password and paste the public key in authorized keys file



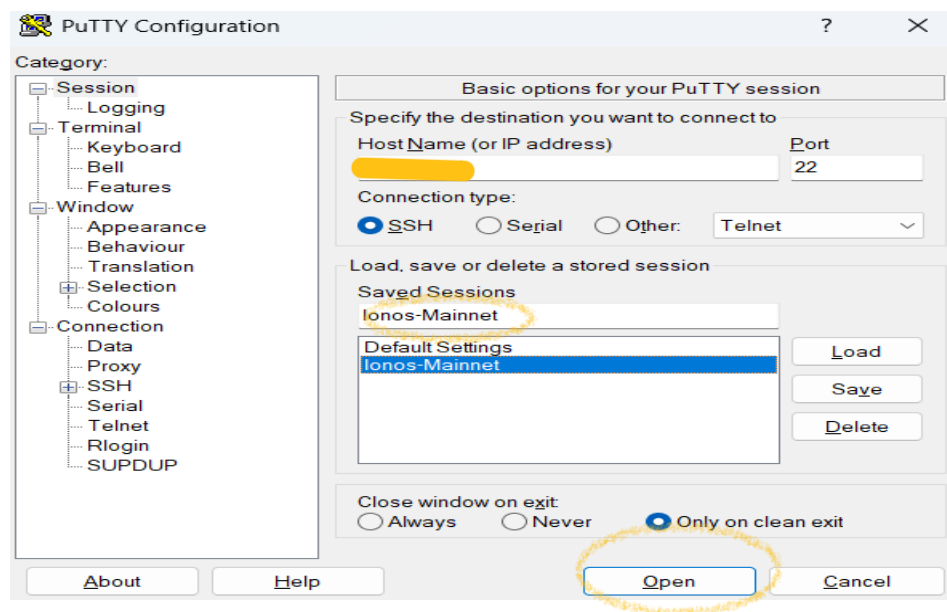
Give the ip address and name, save it



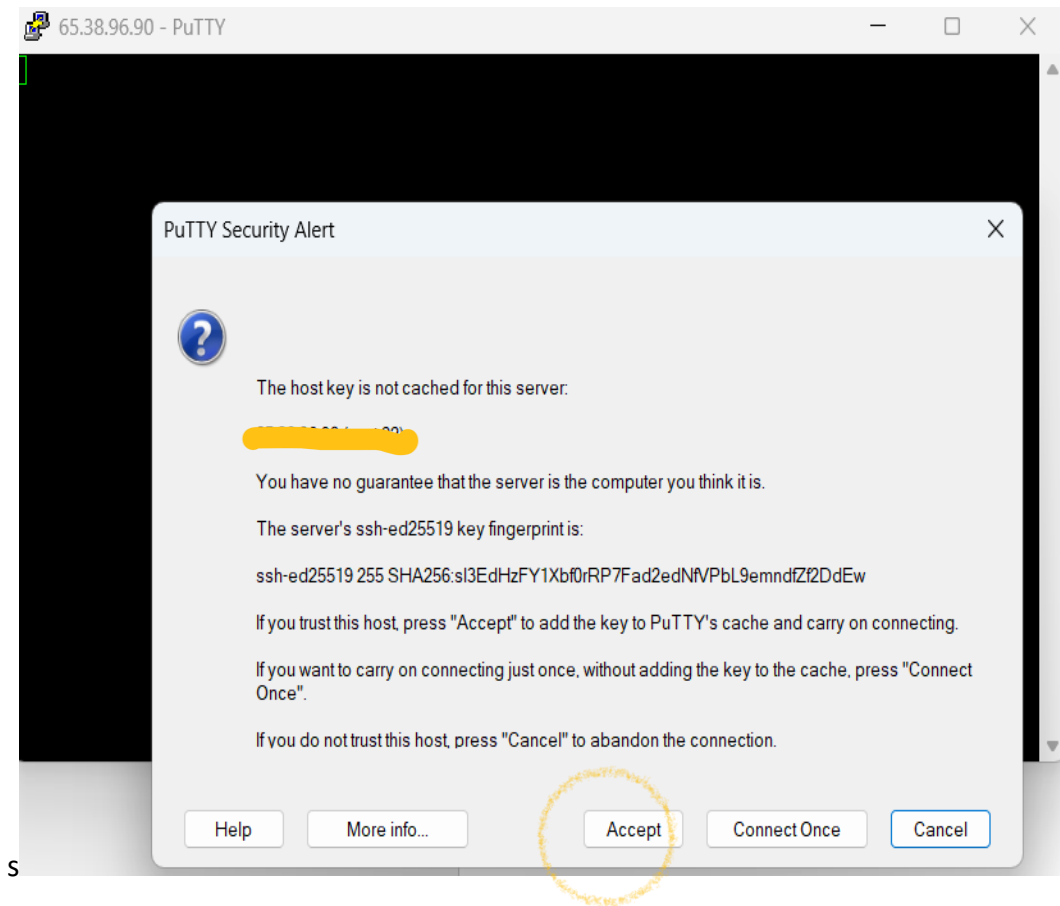
Go to Connection->Data and give Auto-login username as root. After that click on session



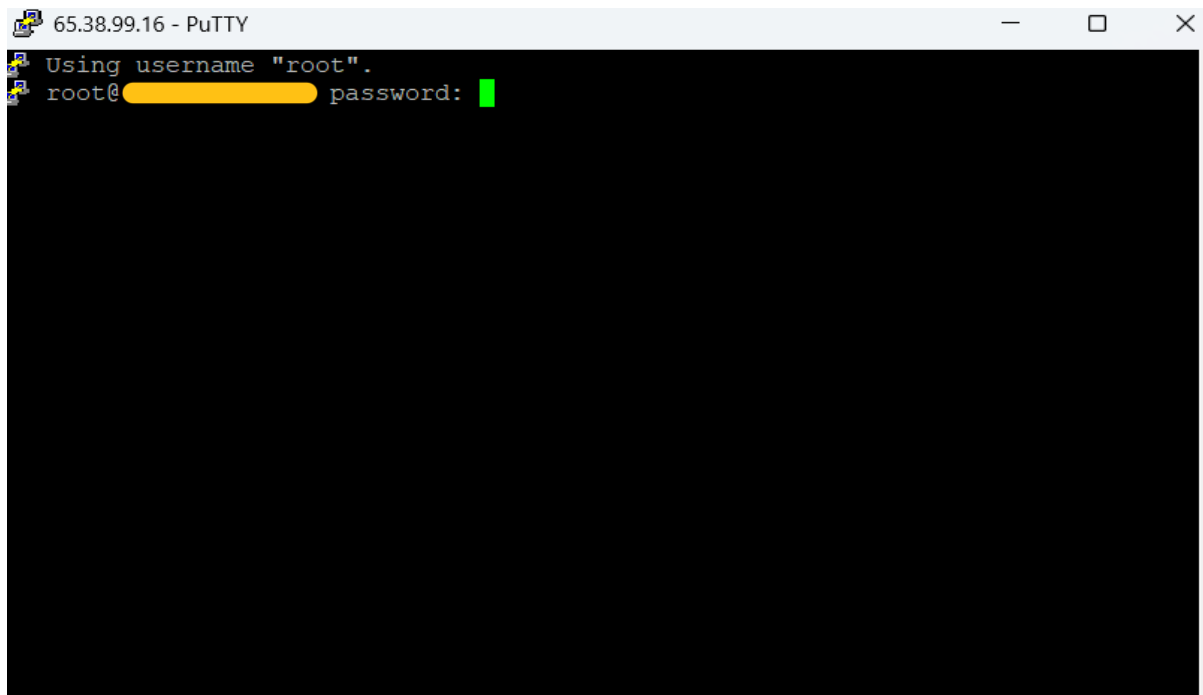
Now click on save



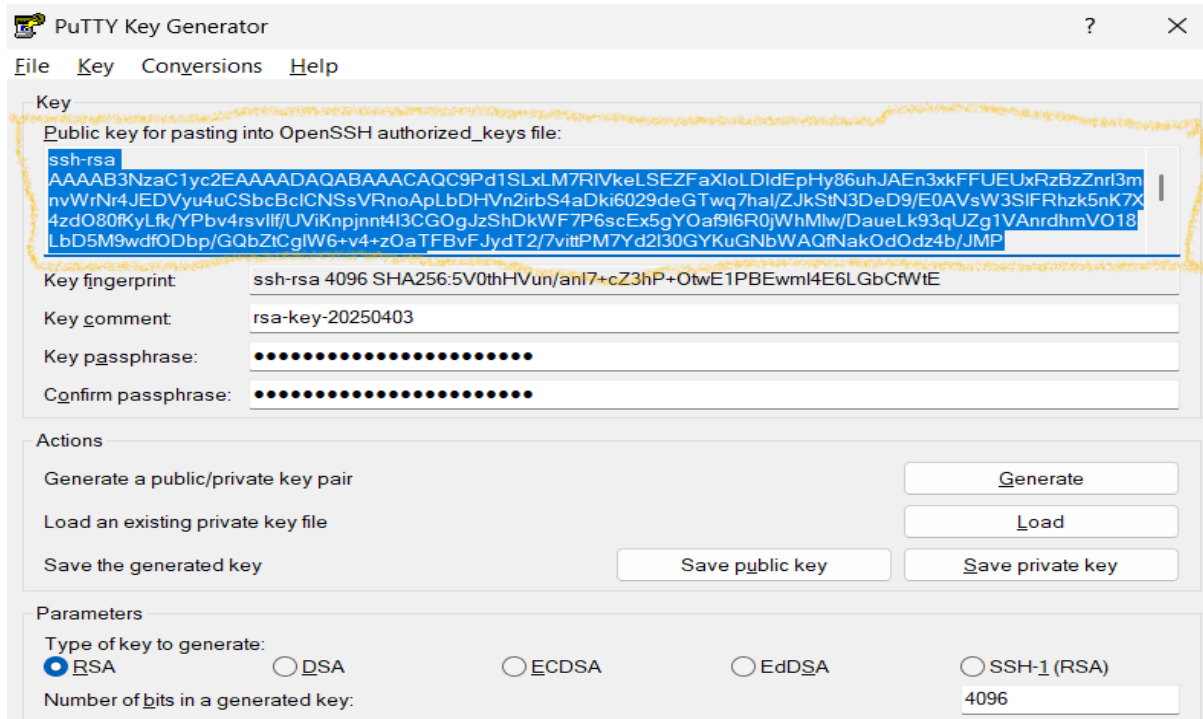
Now Select Ionos-Mainnet and open it



Click on Accept



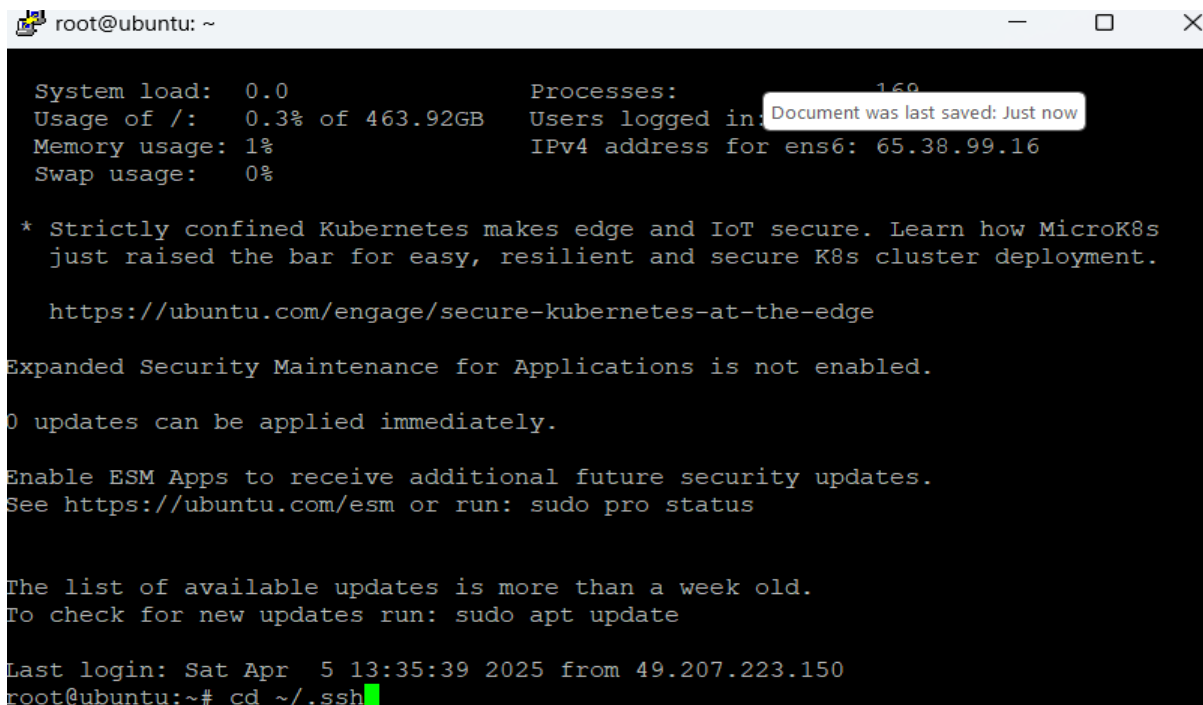
Give the root password which is in the Ionos My VPS section. Please refer Step 2 to get the password



Copy the public key from PuttyGen and paste it in the authorized_keys file on the VPS

How to access authorized_keys file and paste the ssh public key

On putty, go to the directory .ssh



Command: `cd ~/.ssh`

After that open the authorized_keys file

```
root@ubuntu: ~/.ssh
root@ubuntu:~/.ssh# cd ~/.ssh
root@ubuntu:~/.ssh# nano authorized_keys
```

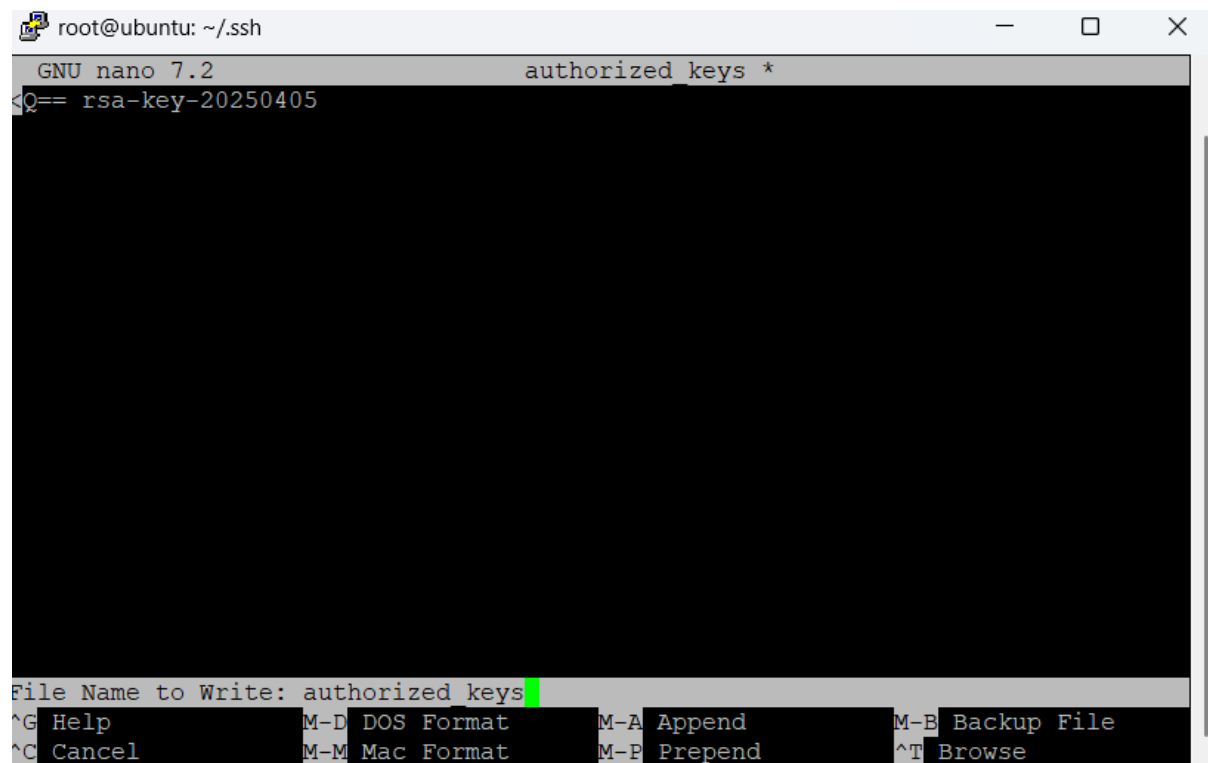
Command: **nano authorized_keys** and press <ENTER>

```
GNU nano 7.2 authorized_keys *
Q== rsa-key-20250405
```

^G Help	^O Write Out	^W Where Is	^K Cut	^T Execute	^C Location
^X Exit	^R Read File	^_ Replace	^U Paste	^J Justify	^/ Go To Line

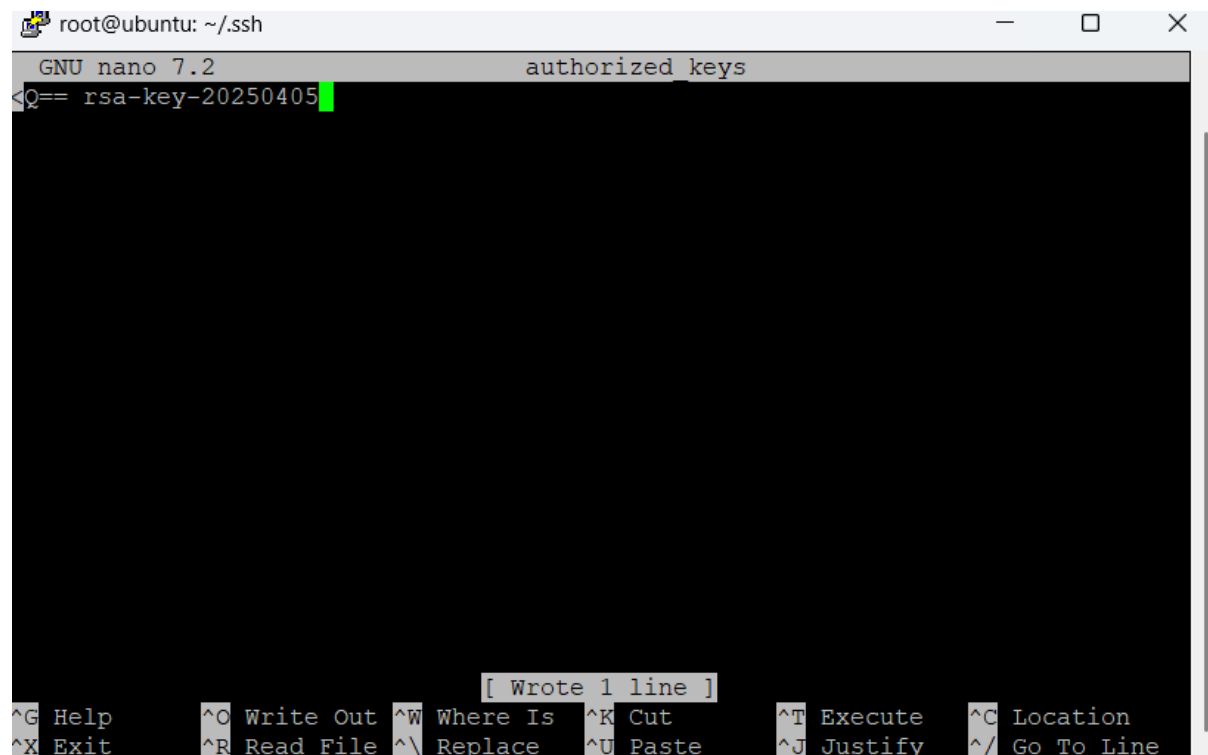
Now right click on the mouse to paste the public key which is already copied previously, so that it will be pasted in the `authorized_keys` file

Command to save and Exit from the Nano Editor:



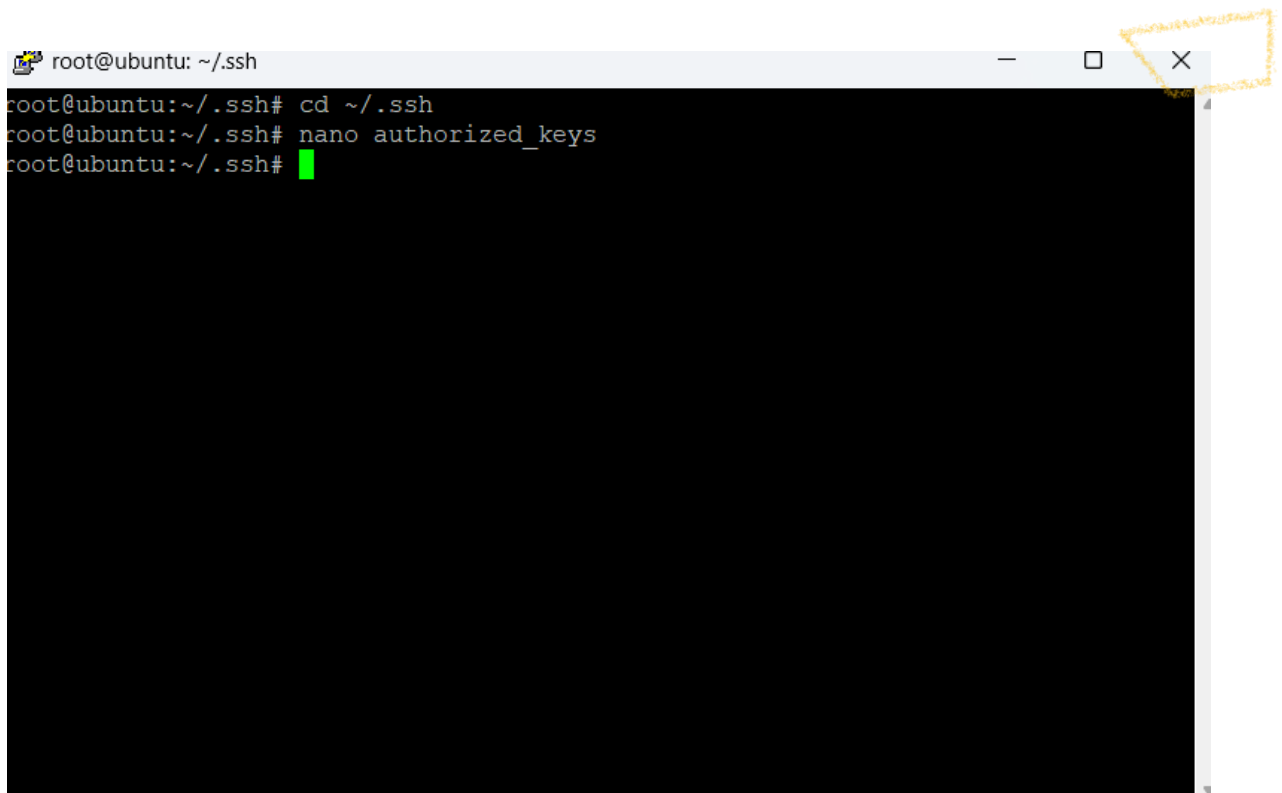
The screenshot shows a terminal window titled 'root@ubuntu: ~/.ssh'. Inside, the GNU nano 7.2 editor is open, editing the file 'authorized_keys'. The file contains the text 'rsa-key-20250405'. The bottom of the screen displays the Nano editor's help menu, which includes options like Help, Cancel, DOS Format, Mac Format, Append, Prepend, Backup File, and Browse.

Command to Save: **Ctrl+O**



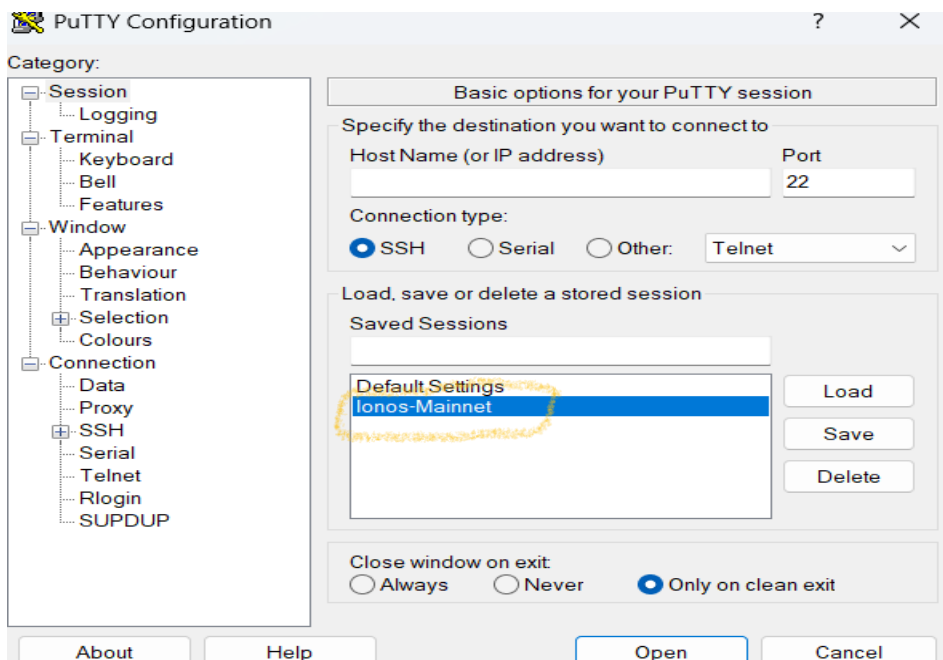
This screenshot shows the same Nano editor window after saving the file. The text 'rsa-key-20250405' is now followed by a green cursor. A confirmation message '[Wrote 1 line]' appears above the bottom help menu. The help menu now includes additional options such as Write Out, Where Is, Cut, Execute, Location, Exit, Read File, Replace, Paste, Justify, and Go To Line.

Press <ENTER>

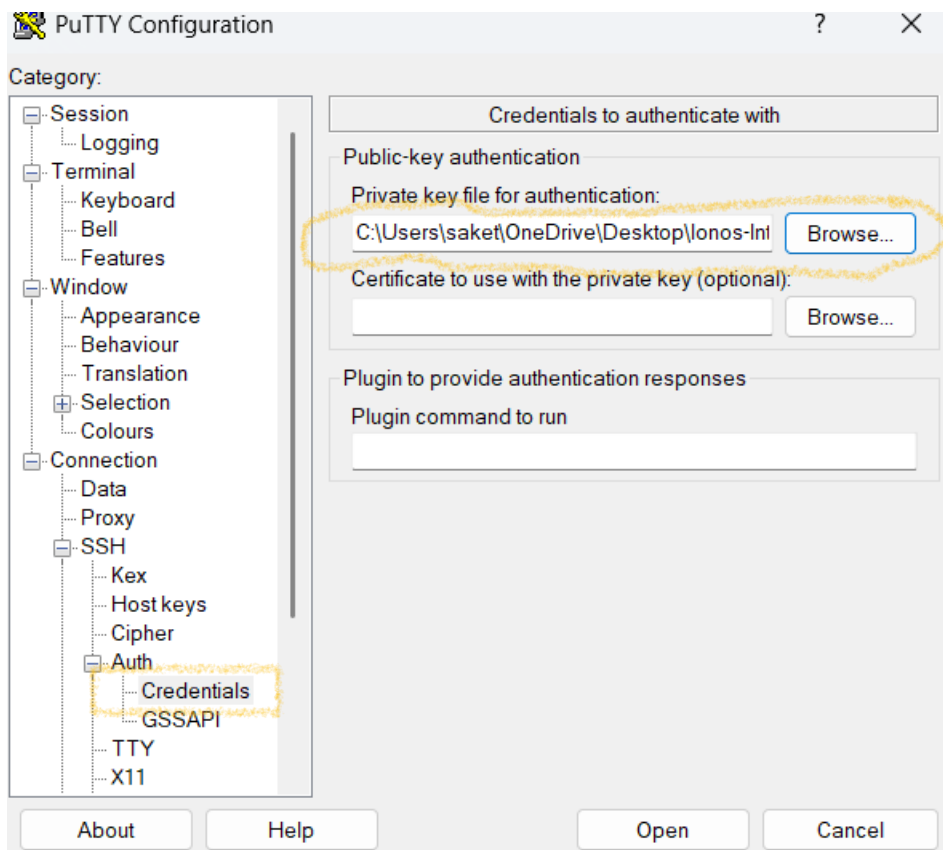


Ctrl+X will bring back the screen to the terminal. Please close this session.

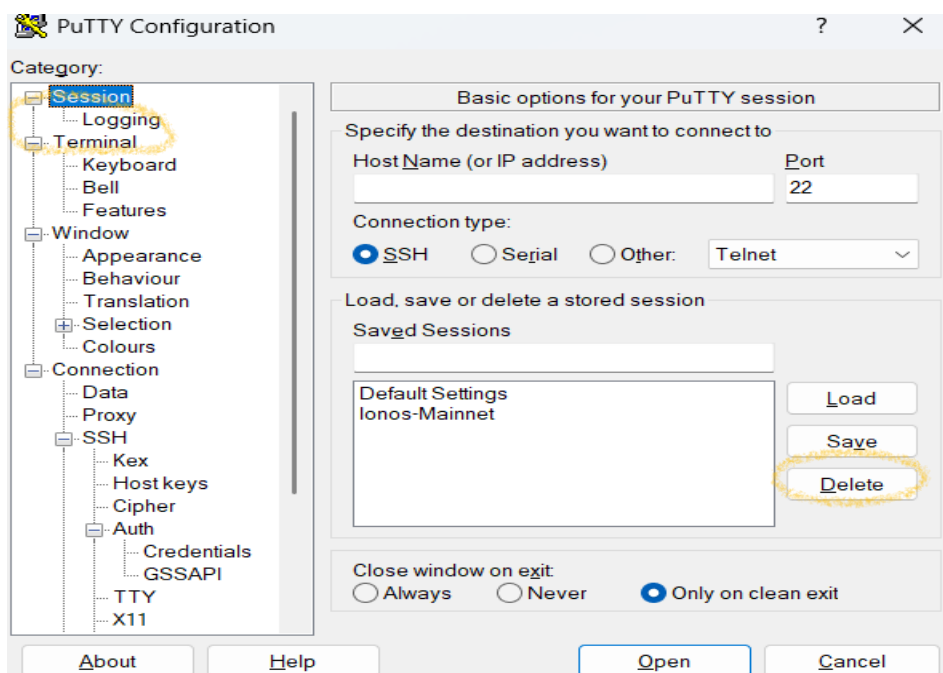
Step 6: Access the node from putty with ssh keys



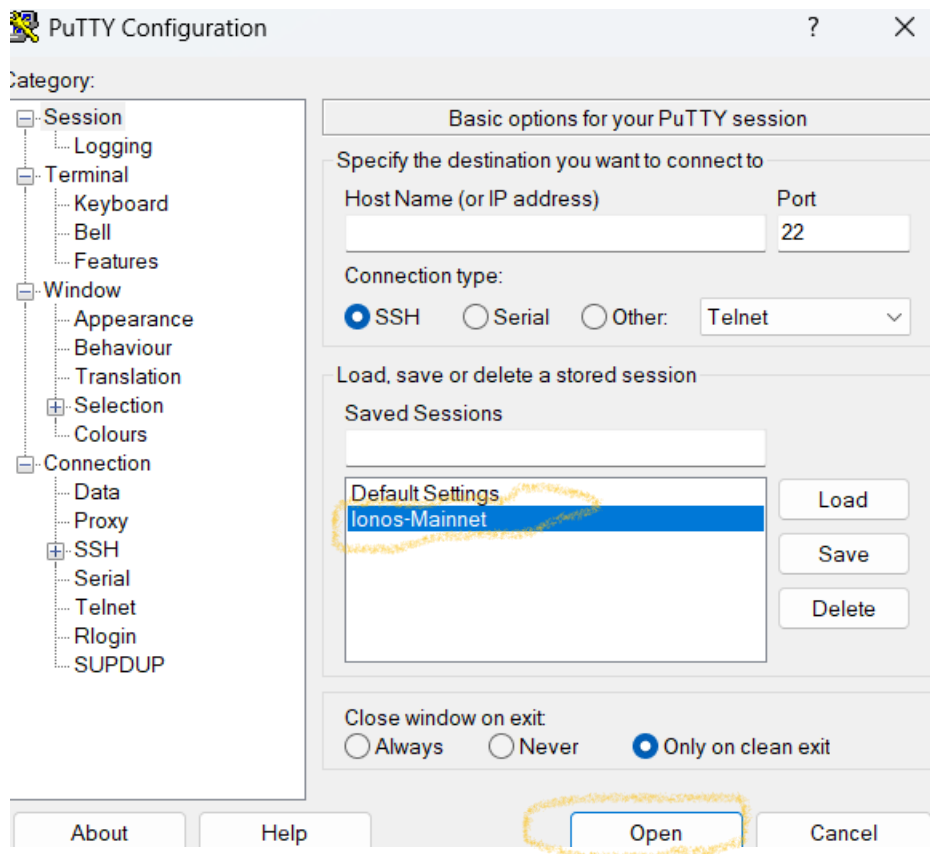
Click on lonos-Mainnet



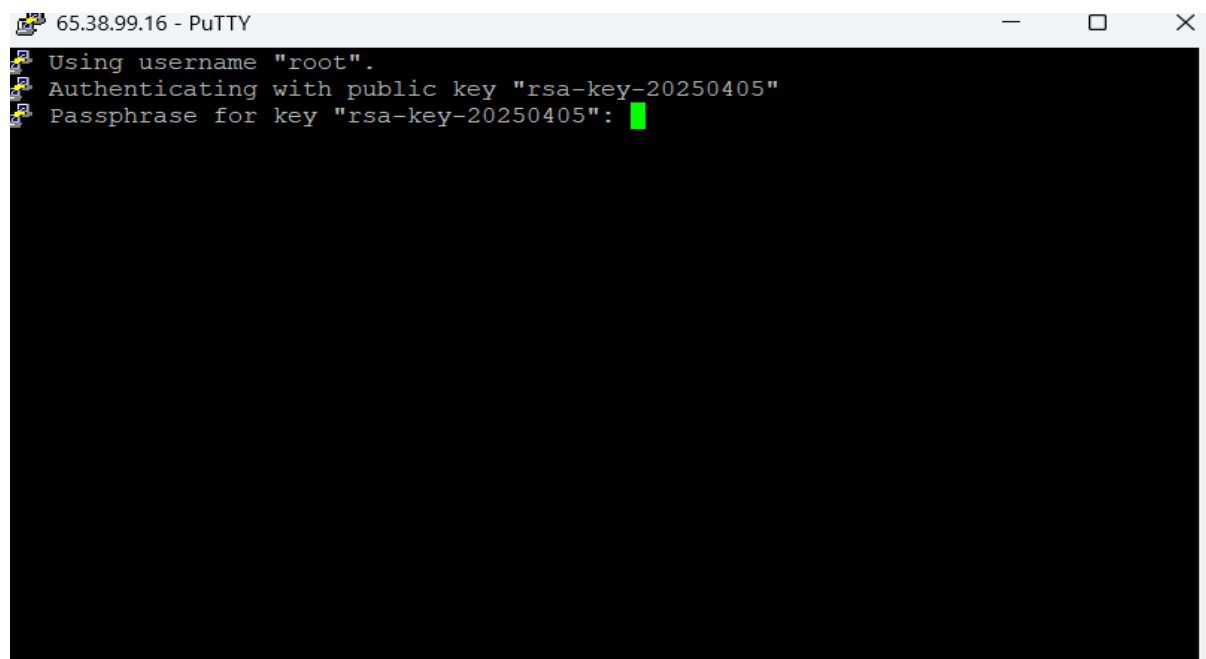
Go to Connection->SSH->Auth->Credentials and Browse the ssh private key file(id_rsa) which is stored in your local computer



Click on Session and Save.



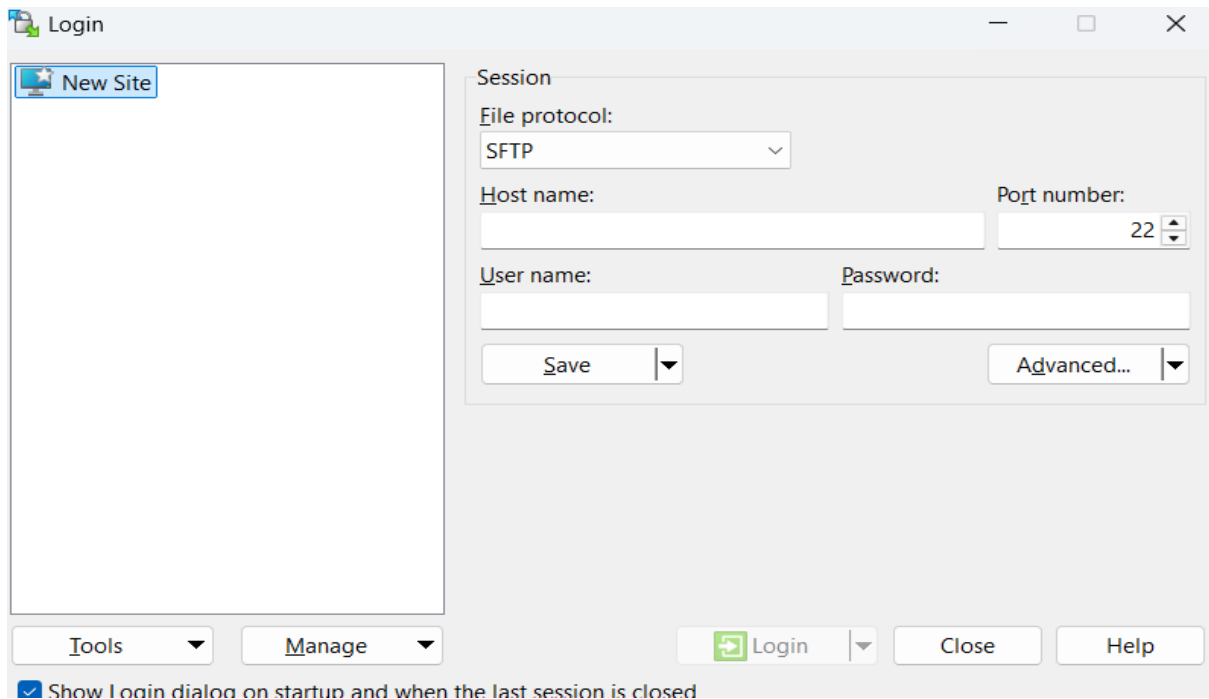
Click on lonos-Mainnet and click on Open



Give the passphrase and login

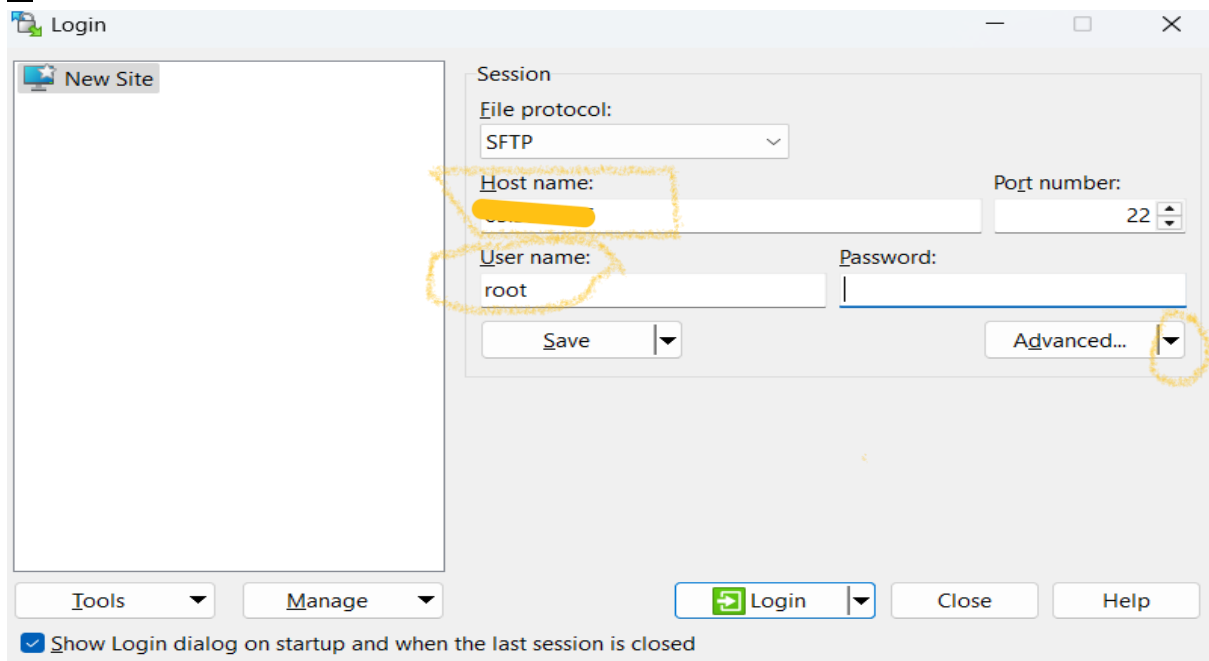
NOTE: No need of Step 7, if you are building a node first time as you don't have p12 file

Step 7: Configuring WinSCP and copying the p12 file to VPS

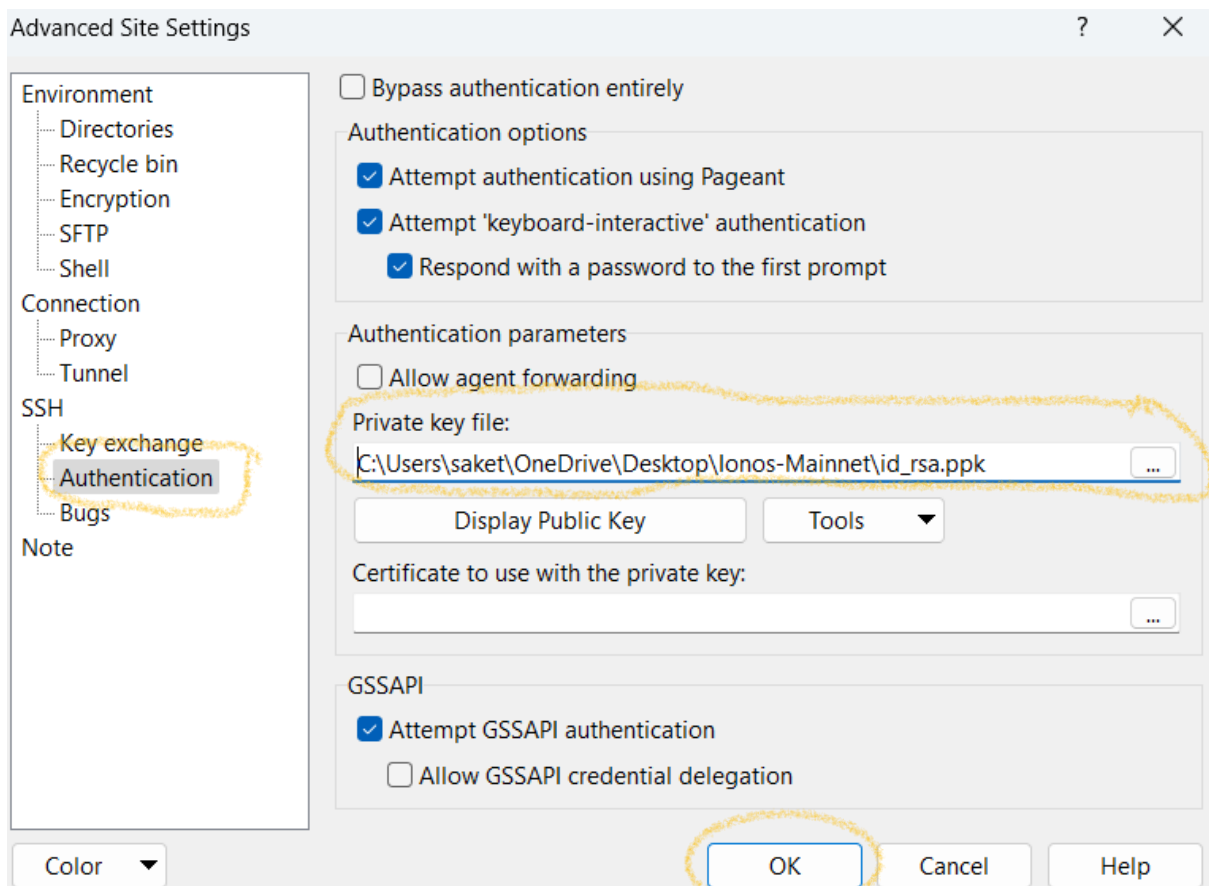


Open Winscp

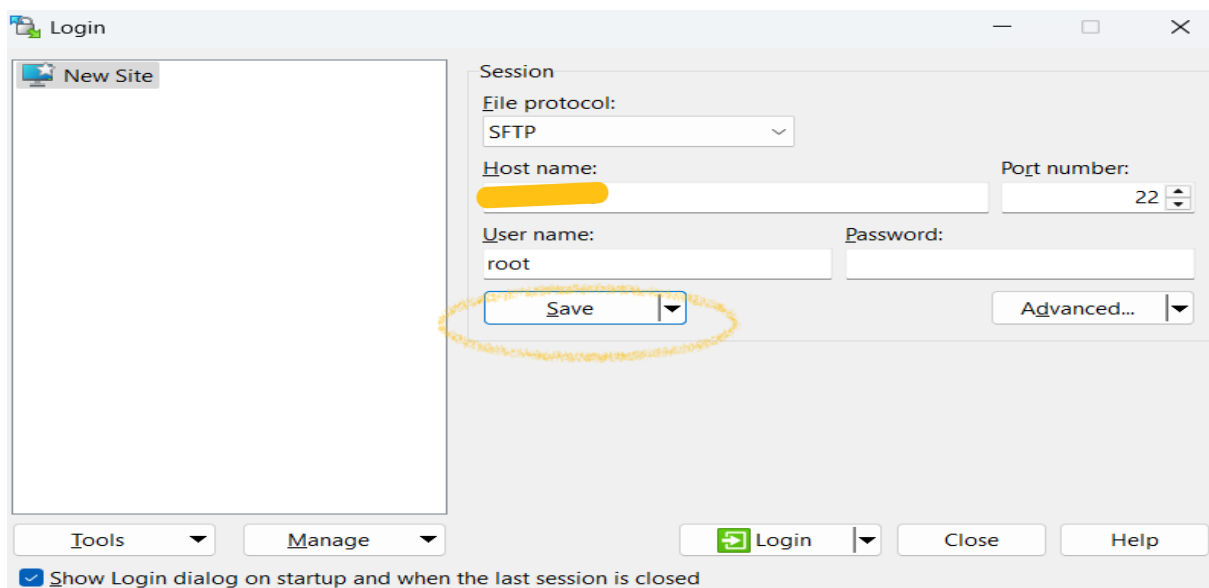
SS



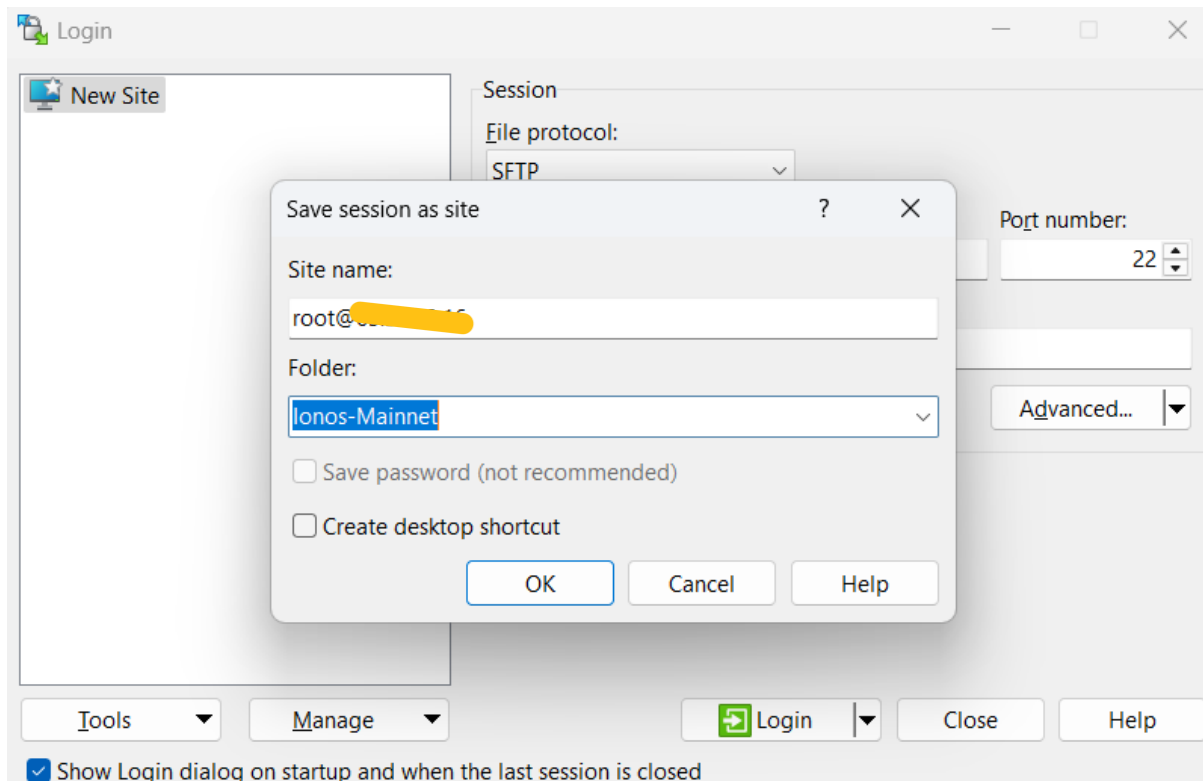
Give your VPS ip address in Host name and User name as root and click on Advanced drop down symbol



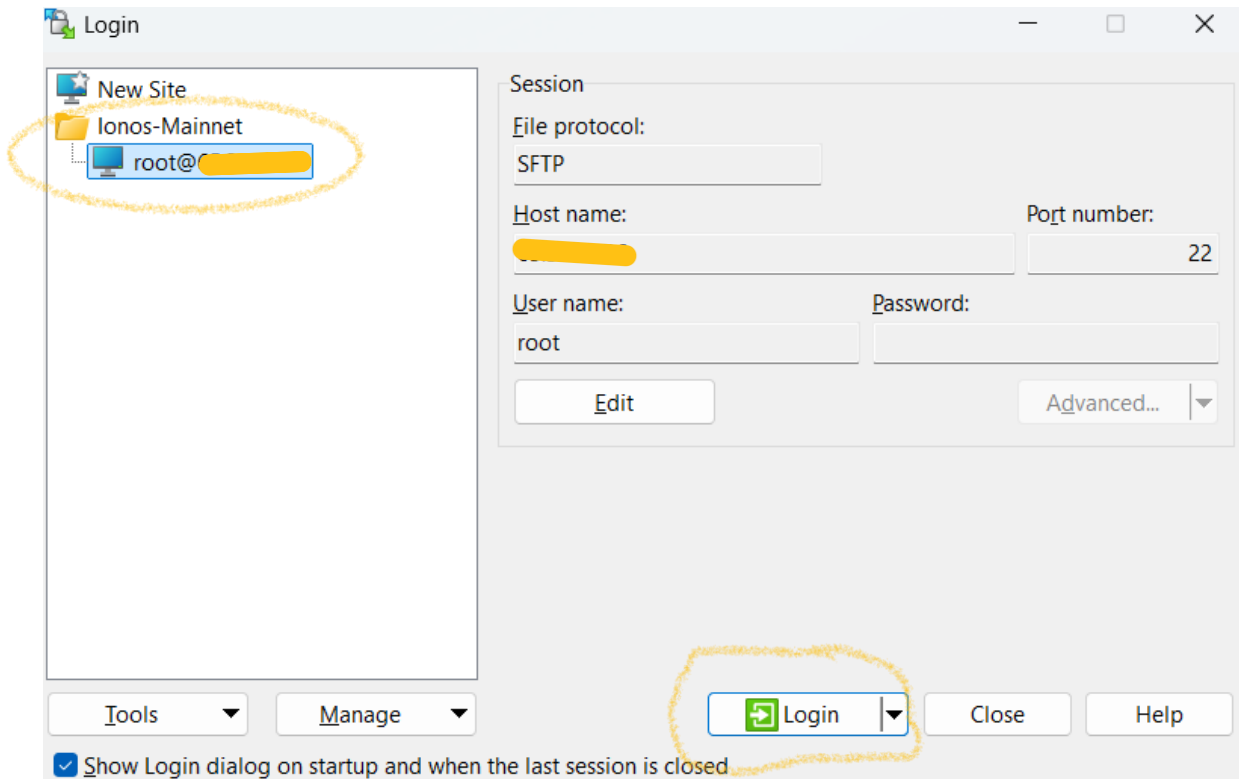
Click on Authentication and browse the private key file(id_rsa) which is saved in your local computer and click on OK



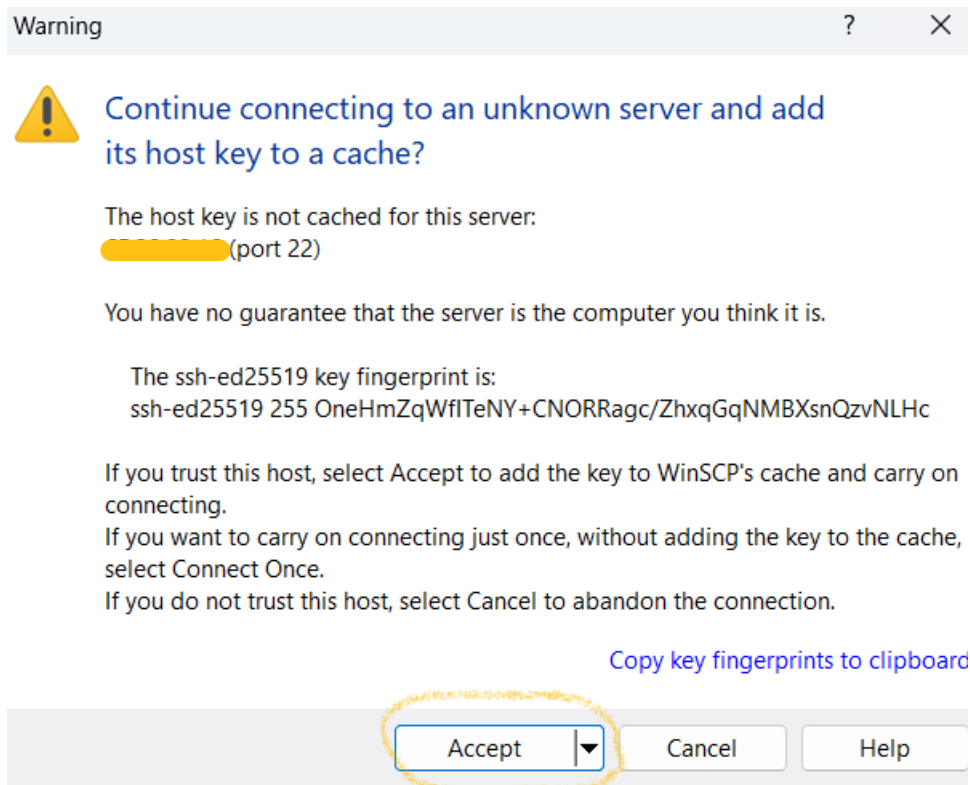
Click on Save



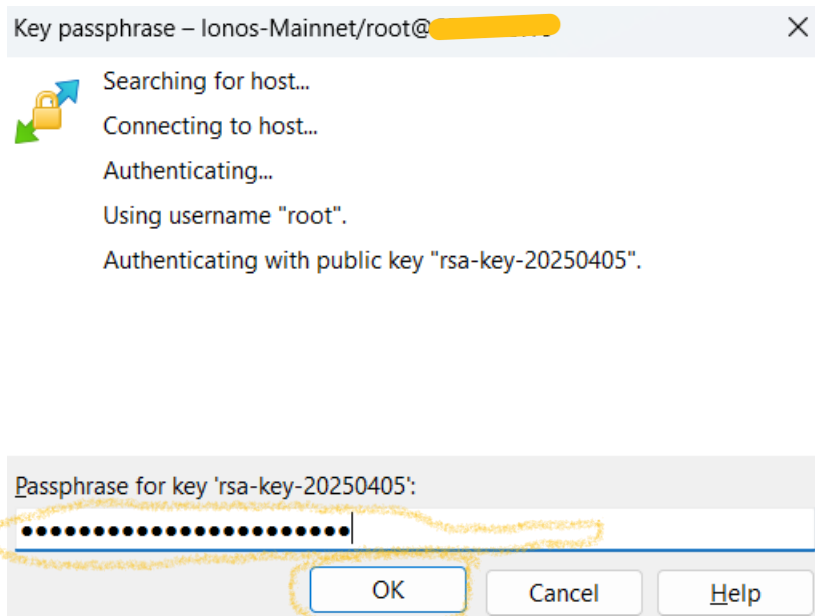
Give folder name of your choice. I have given lonos-Mainnet



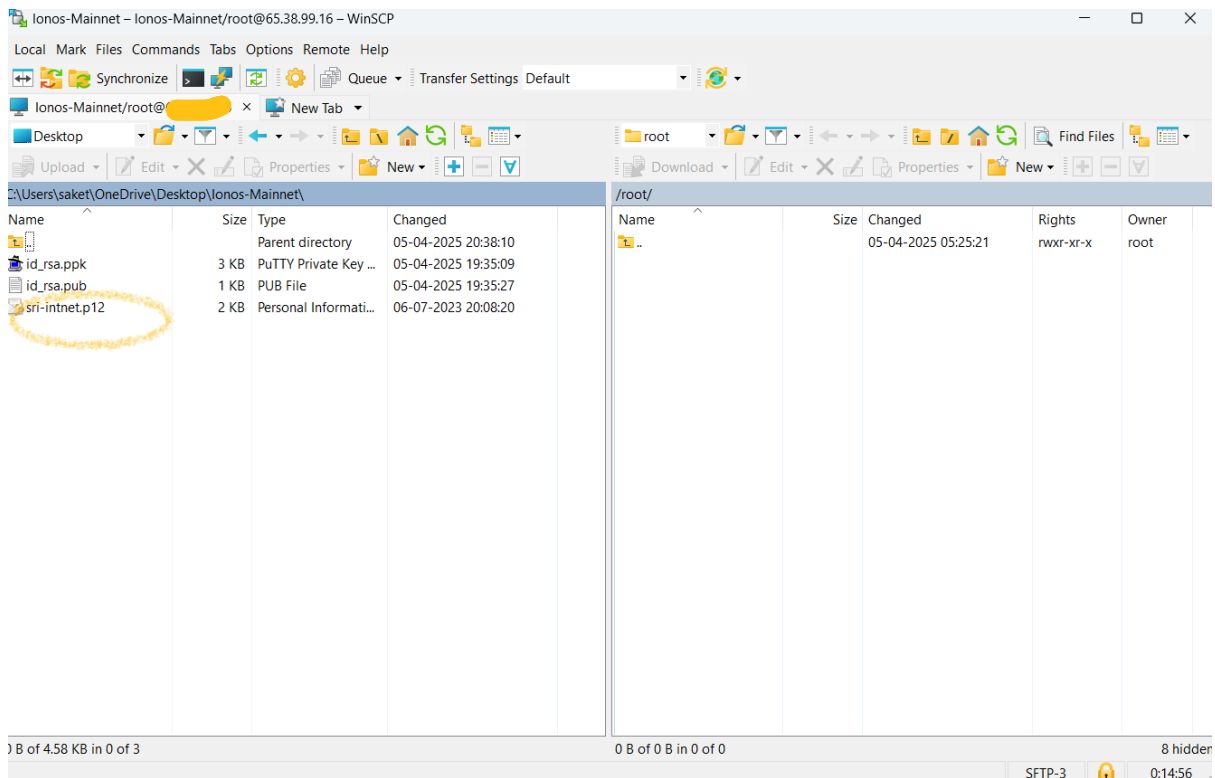
You can see in the left as above. Now click on Login



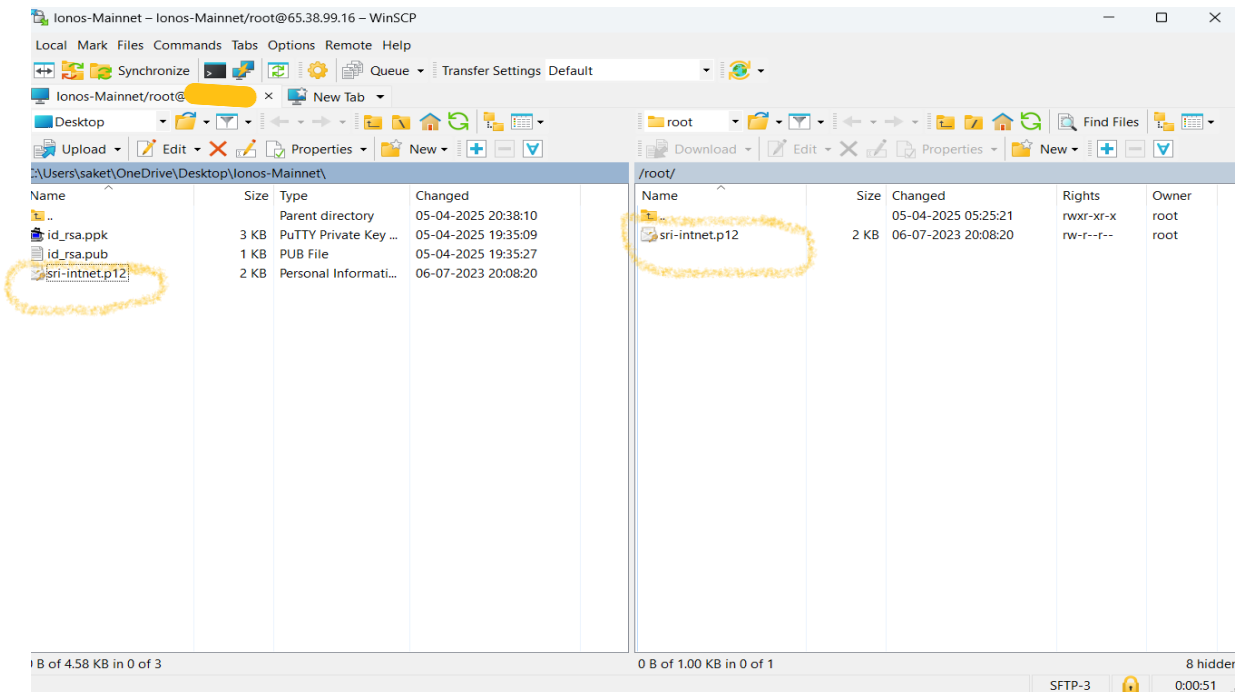
Click on Accept



Give Passphrase and click OK



Left side pane shows folders of your local computer, right side shows the directories of your VPS. Drag and drop your p12 file if you are rebuilding your node with existing p12 file.



Copied p12 file from local computer to `/root/` directory on VPS

Step 8: Install nodectl

You can get the latest release of nodedctl from <https://github.com/StardustCollective/nodedctl/releases>

```

root@ubuntu: ~
Memory usage: 1%
Swap usage: 0%
address for ens6: 65.38.99.16

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Sat Apr 5 14:23:13 2025 from 49.207.223.150
root@ubuntu:~# sudo nodedctl auto_restart disable; sudo wget -N https://github.com/stardustcollective/nodedctl/releases/download/v2.16.0/nodedctl\_x86\_64\_2404 -P /usr/local/bin -O /usr/local/bin/nodedctl; sudo chmod +x /usr/local/bin/nodedctl; su
do nodedctl -v

```

Copy the latest nodectl from the above link and run on putty

```

root@ubuntu: ~
release-asset-2e65be/611343043/cc56ae7d-6fe7-4991-86fd-536c62b24452?X-Amz-Algor
thm=AWS4-HMAC-SHA256&X-Amz-Credential=releaseassetproduction%2F20250405%2Fus-ea
st-1%2Fs3%2Faws4_request&X-Amz-Date=20250405T142659Z&X-Amz-Expires=300&X-Amz-Sig
nature=f5cab4df15cb4b3950f2e242b2dadee7a5a643012c6fff8970c83685fb5348f8c&X-Amz-Si
gnedHeaders=host&response-content-disposition=attachment%3B%20filename%3Dnodectl
_x86_64_2404&response-content-type=application%2Foctet-stream
Resolving objects.githubusercontent.com (objects.githubusercontent.com)... 185.1
99.110.133, 185.199.109.133, 185.199.108.133, ...
Connecting to objects.githubusercontent.com (objects.githubusercontent.com)|185.
199.110.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
length: 30067312 (29M) [application/octet-stream]
Saving to: '/usr/local/bin/nodectl'

nodectl          100%[=====>]  28.67M  52.6MB/s   in 0.5s

2025-04-05 14:27:00 (52.6 MB/s) - '/usr/local/bin/nodectl' saved [30067312/30067
312]

No installation found or log path not found.
Creating log directory for nodectl
VERSION    MAJOR    MINOR    PATCH    CONFIG
v2.16.0    2        16       0        v2.1.1
root@ubuntu: ~#

```

Nodectl installed

Step 9: Install tessellation

Command to install tessellation: **sudo nodectl install**

```
root@ubuntu: ~  
12]  
  
No installation found or log path not found.  
Creating log directory for nodectl  
VERSION      MAJOR      MINOR      PATCH      CONFIG  
v2.16.0      2          16         0          v2.1.1  
oot@ubuntu:~# sudo nodectl install  
  
Before we begin the installation process, let's  
verify our VPS meets the necessary requirements.  
  
=====
```

CONSTELLATION	NETWORK	HYPERGRAPH
VERIFY	NODECTL	SPECS
PRE-INSTALLATION	TOOL	

```
=====
```

Code Name: Princess Warrior

Please choose node type to test:
H)ybrid Dual Layer
D)or Validator
Q)uit

KEY PRESS an option

Select node type

```
root@ubuntu: ~  
the <enter> key to accept said value.  
  
n stands for no  
y stands for yes  
  
IMPORTANT nodectl was designed to run on a  
terminal session with a black background setting.  
Default terminal emulators with a white background may  
experience some 'hard to see' contrasts. It is recommended to  
change the preferences on your terminal [of choice] to run with a  
black background.  
  
QUICK INSTALL nodectl's installer provides a  
quick install option that utilizes all the  
recommended default settings. This allows for a  
streamlined process, requiring minimal input from the future Node  
Operator.  
  
Alternatively, you can choose a customization mode, step-  
by-step installation, where nodectl will ask you questions and provide  
explanations for the necessary elements to customize the  
installation of your node.  
  
Install using quick install option? [y]:
```

Give y

```
root@ubuntu: ~  
=====   
= CONSTITUTION NETWORK HYPERGRAPH =   
= INSTALLATION REQUEST =   
= TESSELLATION VALIDATOR NODE =   
=====   
Code Name: Princess Warrior   
  
[NOTE]   
  
Default options will be enclosed in [] (brackets). If you want to use the value defined in the brackets, simply hit the <enter> key to accept said value.   
  
n stands for [no]   
y stands for [yes]   
  
IMPORTANT nodectl was designed to run on a terminal session with a black background setting. Default terminal emulators with a   
  
[QUICK INSTALL REQUESTED]   
  
[WARNING]   
Even though this is the recommended options, nodectl will use all recommended settings without prompting for confirmations, be sure this is acceptable before continuing with this setting.   
  
*****   
This includes removal of existing Tessellation and nodectl service, p2p, and other configuration files if present.   
*****   
  
A few mandatory entries may be necessary; hence, nodectl will now prompt a series of questions before proceeding with the installation. If these options were already entered through the command line interface (CLI), the corresponding questions will be skipped.   
  
nodectl quick install will not offer detailed explanation for various prompt requests, please use the normal installation or read the documentation.   
https://docs.constellationnetwork.io/validate/   
[WARNING] You about to turn this VPS or Server into a Constellation Network validator node   
Are you sure you want to continue this installation? [y]:
```

Give y

```
root@ubuntu: ~  
=====   
= CONSTITUTION NETWORK HYPERGRAPH =   
= INSTALLATION REQUEST =   
= TESSELLATION VALIDATOR NODE =   
=====   
Code Name: Princess Warrior   
  
nodectl installing [ preparing ]   
Obtain Install Parameters ..... preparing   
  
Please choose which Hypergraph or metagraph you would like to install on this server:   
  
HYPERGRAPH or METAGRAPH   
predefined choices   
-----   
1) mainnet [HyperGraph]   
2) integrationnet [HyperGraph]   
3) testnet [HyperGraph]   
4) dor-metagraph-mainnet [metagraph]   
  
Q)uit   
[ ] KEY PRESS an option
```

Select your choice

```
root@ubuntu: ~  
=====   
=   CONSTELLATION NETWORK HYPERGRAPH   =   
=   INSTALLATION REQUEST               =   
=   TESSELLATION VALIDATOR NODE       =   
=====   
Code Name: Princess Warrior   
  
nodectl installing [ preparing ]   
Obtain Install Parameters ..... preparing   
  
Please choose which Hypergraph or metagraph you would like to install on this server:   
  
HYPERGRAPH or METAGRAPH   
predefined choices   
-----   
1) mainnet [HyperGraph]   
2) integrationnet [HyperGraph]   
3) testnet [HyperGraph]   
4) dor-metagraph-mainnet [metagraph]   
  
Q)uit   
  
KEY PRESS an option   
  
Chosen hypergraph/metagraph ..... integrationnet   
Generated Admin user ..... nodeadmin   
Are you migrating an existing p12 private key to this node? [n]: █
```

If you are building your node for first time, it should be n, else y

```
Chosen hypergraph/metagraph ..... integrationnet   
Generated Admin user ..... nodeadmin   
  
1) /root/sri-intnet.p12   
2) input manual entry   
  
█ KEY PRESS an option
```

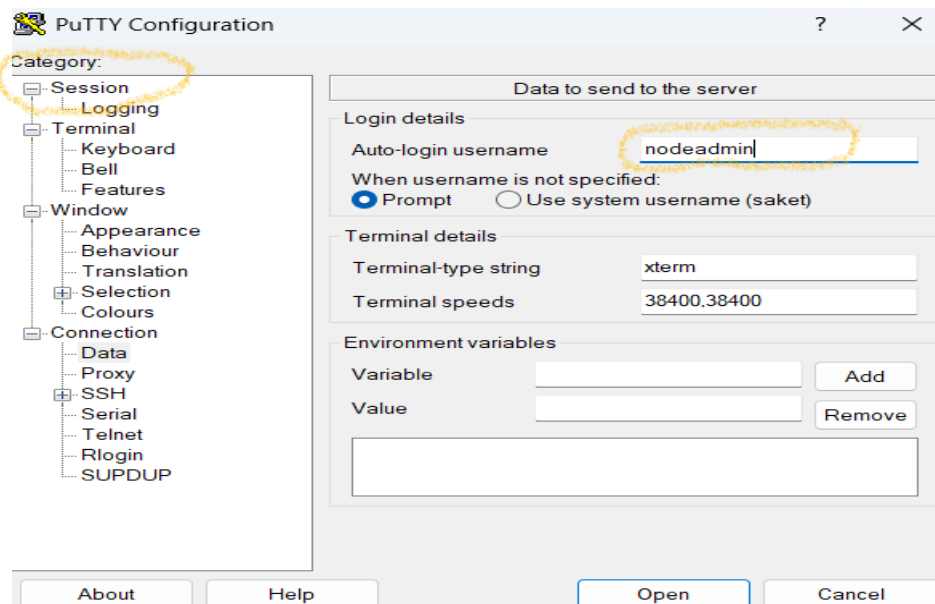
If you are rebuilding your node with existing p12 file, It will show as above. Else this is not shown

```
1) /root/sri-intnet.p12   
2) input manual entry   
  
KEY PRESS an option   
  
We need to create a password for nodeadmin user:   
>> Please enter a 10 character minimum   
>> password for nodeadmin: █
```

Enter nodeadmin password of your choice with minimum 10 characters

Step 10: Accessing the server after installation of tessellation

After installation of tessellation, root access will be disabled. We can access the node only with **nodeadmin**



Got to putty and change the Auto-login username to nodeadmin, Click on session and save it. Login to the server.

```
65.38.99.16 - PuTTY
Using username "nodeadmin".
Authenticating with public key "rsa-key-20250405"
Passphrase for key "rsa-key-20250405":
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-51-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Mon Apr  7 05:31:09 UTC 2025

System load:  0.14           Processes:           186
Usage of /:   2.4% of 463.92GB Users logged in:       1
Memory usage: 2%            IPv4 address for ens6: 65.38.99.16
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

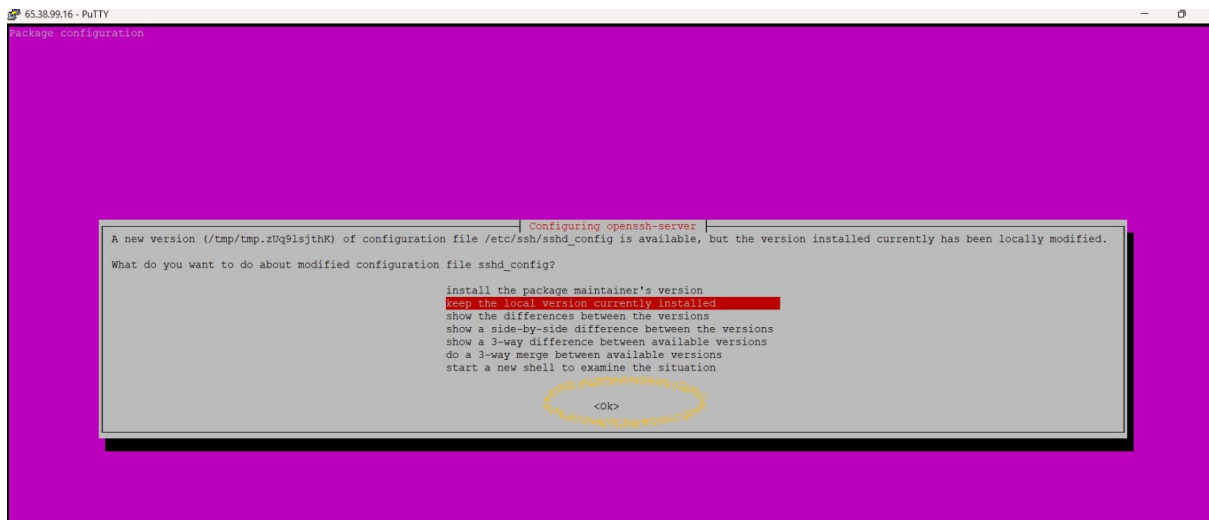
160 updates can be applied immediately.
60 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

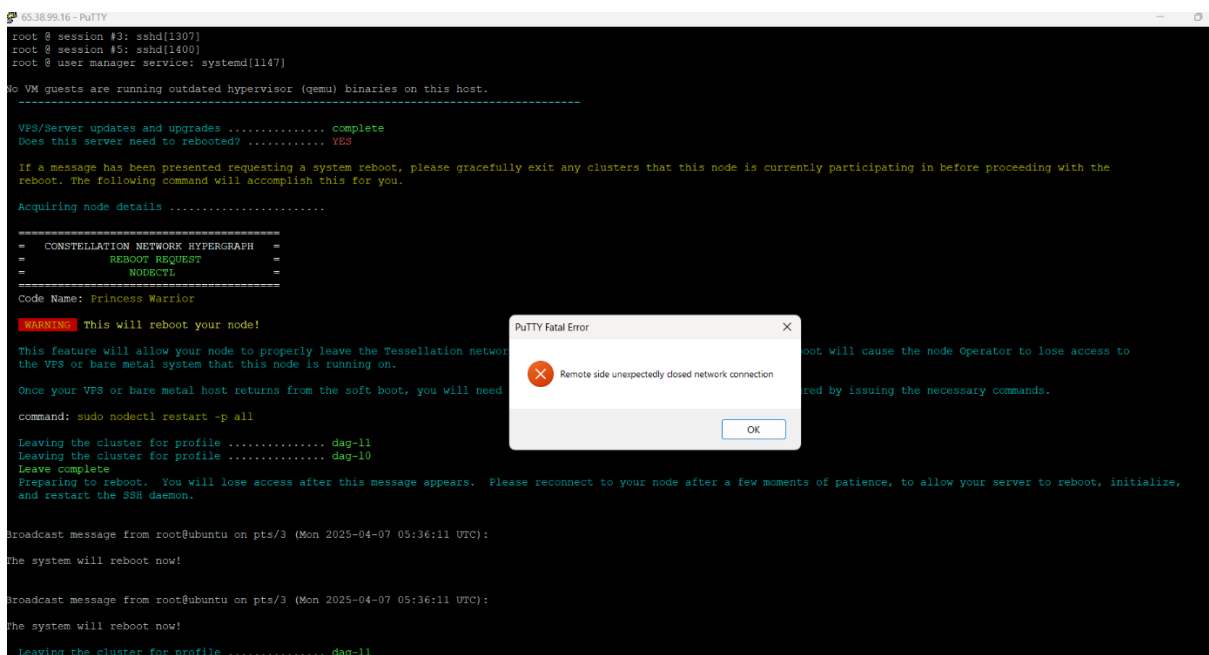
Last login: Mon Apr  7 05:31:10 2025 from 49.207.232.241
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

nodeadmin@ubuntu:~$ sudo nodectl upgrade_vps --ni
```

After logging in to the server, do security updates with the nodectl command “**sudo nodectl upgrade_vps -ni**”



While the security updates are running, if this screen pops up, then press <Tab> key on your laptop, so that <Ok> will be highlighted on the screen, then press <ENTER>



When security updates complete, sometimes it will reboot the server if needed. You can see this screen. The session gets disconnected. Wait for 2-3 mins and login back using Putty.

Step 11: Run Starchiver script to download all the snapshots and do a restart to join the cluster

Login back to the server from putty

```
65.38.99.16 - PuTTY
Using username "nodeadmin".
Authenticating with public key "rsa-key-20250405"
Passphrase for key "rsa-key-20250405":
Welcome to Ubuntu 24.04.2 LTS (GNU/Linux 6.8.0-57-generic x86_64)

* Documentation:  https://help.ubuntu.com
* Management:    https://landscape.canonical.com
* Support:        https://ubuntu.com/pro

System information as of Mon Apr  7 05:38:55 UTC 2025

System load:  0.38               Processes:    188
Usage of /:   2.4% of 463.92GB   Users logged in: 0
Memory usage: 2%                IPv4 address for ens6: 65.38.99.16
Swap usage:   0%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

Last login: Mon Apr  7 05:38:56 2025 from 49.207.232.241
nodeadmin@ubuntu:~$ sudo nodedctl execute_starchiver -p dag-l0 --restart
```

Command: **sudo nodedctl execute_starchiver -p dag-l0 --restart**

- The session should be connected until the execution of this script completes
- After execution of the above script, all the snapshots will be downloaded and the node gets restarted to join the cluster. L0 will initially go to DownloadInProgress state followed by Ready state on L0 and L1
- Check the status after few mins using the command **sudo nodedctl status** , the node should show Ready/Ready state

```
PROFILE          SERVICE          JOIN STATE
dag-l0           active           Ready
PUBLIC API TCP   P2P API TCP     CLI API TCP
9000             9001             9002
LATEST ORDINAL   LAST DLed       BLK EXP ORDINAL
4131556          4125632         4131556
CURRENT SESSION   FOUND SESSION   ON NETWORK
1743461557432    1743461557432   True
CLUSTER START     NODE START      SYSTEM START
2025-03-31-22:52:37Z 2025-04-02-13:58:16Z 2025-04-02 13:34:13
CLUSTER UPTIME    NODE UPTIME     SYSTEM UPTIME:
~3D 13H 40M 23S    ~1D 22H 34M 44S  ~1D 22H 58M 47S
NODE ID           IN CONSENSUS
6ab81cdb...426251a8 True

PROFILE          SERVICE          JOIN STATE
dag-l1           active           Ready
PUBLIC API TCP   P2P API TCP     CLI API TCP
9010             9011             9012
LATEST ORDINAL   LAST DLed       BLK EXP ORDINAL
1743461587682    1743461587682   1743461587682
CURRENT SESSION   FOUND SESSION   ON NETWORK
1743461587682    1743461587682   True
CLUSTER START     NODE START      SYSTEM START
2025-03-31-22:53:07Z 2025-04-02-14:31:36Z 2025-04-02 13:34:13
CLUSTER UPTIME    NODE UPTIME     SYSTEM UPTIME:
~3D 13H 39M 58S    ~1D 22H 1M 29S   ~1D 22H 58M 52S
NODE ID           IN CONSENSUS
6ab81cdb...426251a8 True
```

If L1 is in ReadytoJoin state, issue the command **sudo nodedctl join -p dag-l1** on the terminal

Congratulations!!!

You can always refer the constellation docs for granular level information on running a node created by our one and only great Netmet

<https://docs.constellationnetwork.io/run-a-node>