NetBox Community v4.1.11 Installation Guide

NetBox is an open-source IP address management (IPAM) and data center management (DCIM) platform. It provides a web-based interface for managing networks, IP addresses, devices, and other related infrastructure components. NetBox is widely used for network automation, infrastructure management, and visualizing network topology.

This guide provides detailed instructions for installing **NetBox Community v4.1.11** on an **Ubuntu 24.04.2** server, covering system preparation, software installation, database configuration, and how to set up **NetBox** as a service using **systemd**.

System Requirements:

- **Ubuntu 24.04.2 Server**
- **4 GB RAM**
- **25 GB HDD**
- **8 Processor Cores**

Before proceeding, ensure that your system meets the minimum requirements and that you have access to the internet to download the necessary packages.

Step 1: Update and Install Dependencies

Start by updating the package lists and installing the necessary dependencies for NetBox:

```
$ sudo apt update -y
```

$ sudo apt upgrade -y

$ sudo apt install -y git nano apache2 postgresql postgresql-common libpq-dev redis-server git python3 python3-pip python3-venv python3-dev build-essential libxml2-dev libxslt1-dev libffi-dev libssl-dev zlib1g-dev

Check the status of Apache, PostgreSQL, and Redis services:

$ sudo systemctl status apache2

$ sudo systemctl status postgresql

$ sudo systemctl status redis

Ensure PostgreSQL version is 12 or later:

$ psql -V

Step 2: Configure PostgreSQL Database

To create the **netbox** user and database in PostgreSQL:

$ sudo -u postgres psql

> CREATE USER netbox LOGIN CREATEDB PASSWORD 'yourpassword';

> CREATE DATABASE netboxdb OWNER netbox;

> \l

> \du

> \q

Then, connect to the database using the **netbox** user:

$ sudo -u postgres psql --username netbox --password --host localhost netboxdb

Enter the password when prompted and verify the connection:

> \conninfo

> \q

Step 3: Configure Redis

Next, configure Redis by updating the **redis.conf** file:

$ sudo nano /etc/redis/redis.conf

Search for 'requirepass' and update it as follows:

requirepass yourpassword

Restart the Redis service:

$ sudo systemctl restart redis

$ sudo systemctl status redis

Test Redis connectivity:

```
$ redis-cli
> AUTH yourpassword
> PING
> exit
```

Step 4: Install NetBox

Create a new user for NetBox and clone the NetBox repository:

```
$ sudo useradd -r -d /opt/netbox -s /usr/sbin/nologin netbox
$ cd /opt; sudo git clone -b main --depth 1 https://github.com/netbox-community/netbox.git
```

Change the ownership of the directory to the netbox user:

```
$ sudo chown -R netbox:netbox /opt/netbox
```

Navigate to the NetBox directory:

```
$ cd /opt/netbox/netbox/netbox
```

Generate a secret key for NetBox:

```
$ sudo -u netbox python3 ../generate_secret_key.py
```

Copy the example configuration file:

$ sudo -u netbox cp configuration_example.py configuration.py

Now, edit the **configuration.py** file:

$ sudo -u netbox nano configuration.py

Step 5: Configure NetBox and Create Superuser

In the **configuration.py** file, update the following settings:

- ALLOWED_HOSTS = ['*']
- Set the database connection settings to match your PostgreSQL configuration.
- Set the Redis password for both task and caching sections.

Once the configuration file is updated, run the upgrade script:

$ sudo -u netbox /opt/netbox/upgrade.sh

Create a superuser for NetBox:

$ source /opt/netbox/venv/bin/activate
$ python3 /opt/netbox/netbox/manage.py createsuperuser
> Username: yourusername
> Email address: youremail@domain.com
> Password: yourpassword

Run the development server:

```
$ python3 /opt/netbox/netbox/manage.py runserver 0.0.0.0:8000 --insecure
```

Access the NetBox interface via your browser at http://IP:8000.

Step 6: Configure NetBox as a Systemd Service

To ensure NetBox runs as a service and starts automatically on boot, create a systemd service:

```
$ sudo nano /etc/systemd/system/netbox.service
```

Add the following content to the file:

```
[Unit]
Description=NetBox
After=network.target

[Service]
User=netbox
Group=netbox
WorkingDirectory=/opt/netbox/netbox
ExecStart=/opt/netbox/venv/bin/python3 /opt/netbox/netbox/manage.py runserver 0.0.0.0:8000
--insecure
Restart=always
Environment="DJANGO_SETTINGS_MODULE=netbox.settings"
```

```
TimeoutSec=300

[Install]
WantedBy=multi-user.target
```

Save and close the file.

Reload systemd to recognize the new service:

```
$ sudo systemctl daemon-reload
```

Enable the service to start on boot:

```
$ sudo systemctl enable netbox.service
```

Start the service:

```
$ sudo systemctl start netbox.service
```

Check the service logs:

```
$ sudo journalctl -u netbox.service
```