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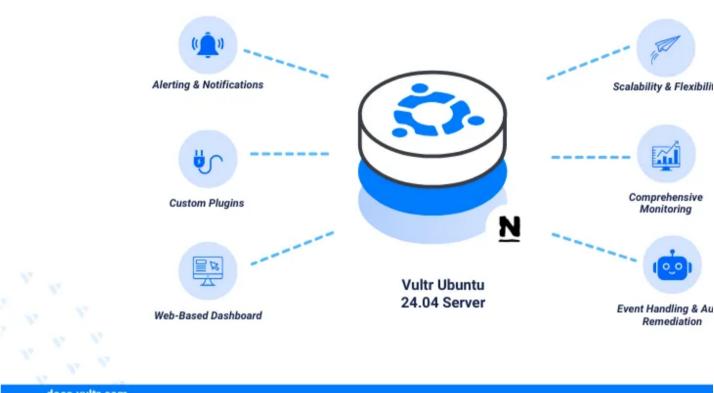


How to Install Nagios on Ubuntu 24.04

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Learn how to install and configure Nagios on Ubuntu 24.04 to monitor networks, services, and applications efficiently.





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To install Nagios on Ubuntu 24.04, you gain access to Nagios Core, an open-source tool that monitors networks, services, and applical Plugin Executor (NRPE). The NRPE agent utilizes a server/agent architecture to communicate with remote hosts and monitor metrics ϵ and network activities. Nagios periodically tracks the resources of remote hosts and displays detailed reports on a web dashboard.

This article explains how to install Nagios on Ubuntu 24.04. You'll also configure Nagios to monitor a remote host.

Prerequisites

Before you begin, you need:

• At least two <u>Ubuntu 24.04</u> instances to use as the Nagios server, and remote host respectively.

Compile and Install Nagios Core from Source

Nagios is not available in the default package repositories on Ubuntu 24.04. Follow the steps below to compile and install the Nagios C

- 1. Ensure you've established an SSH connection on the Nagios server.
- 2. Install all required dependency packages.

CONSOLE

\$ sudo apt install -y autoconf gcc libc6 make wget unzip apache2 php libapache2-mod-php libgd-dev openssl li

3. Switch to the user's home directory.

CONSOLE

\$ cd

4. Create a new nagios-core project directory to store the Nagios Core files.

CONSOLE

\$ mkdir nagios-core

5. Switch to the nagios-core directory.

CONSOLE

\$ cd nagios-core

6. Visit the Nagios Core repository and download the latest Nagios Core source code.

\$ wget -0 nagioscore.tar.gz https://github.com/NagiosEnterprises/nagioscore/archive/nagios-4.5.7.tar.gz

7. Extract files from the downloaded archive.

\$ tar xzf nagioscore.tar.gz

8. List the files in your working directory.

CONSOLE

\$ ls

Ensure a new nagioscore-nagios... directory exists.

nagioscore.tar.gz nagioscore-nagios-4.5.7

9. Switch to the nagioscore-nagios... directory depending on your version.

\$ cd nagioscore-nagios-4.5.7/

10. Run the Nagios Core configuration script to create a new Nagios virtual host for Apache.

\$ sudo ./configure --with-httpd-conf=/etc/apache2/sites-enabled

11. Compile Nagios Core.

CONSOLE

\$ sudo make all

12. Compile and install a new nagios group and user.

\$ sudo make install-groups-users

13. Add the www-data user to the Nagios group to allow Apache to serve the web monitoring dashboard.

CONSOLE

\$ sudo usermod -a -G nagios www-data

Install Nagios on Ubuntu 24.04

Follow the steps below to install Nagios on the Nagios server with all necessary components including Apache modules and create use Nagios web monitoring dashboard.

1. Install Nagios.

CONSOLE

\$ sudo make install

2. Initialize all required configuration scripts and the Nagios daemon.

CONSOLE

\$ sudo make install-daemoninit

3. Install the Nagios command mode package to allow access to external web-based commands.

CONSOLE

\$ sudo make install-commandmode

4. Install all Nagios configuration files.

- \$ sudo make install-config
- 5. Install all Apache configuration files.

CONSOLE

\$ sudo make install-webconf

6. Enable the Apache rewrite module.

CONSOLE

\$ sudo a2enmod rewrite

7. Enable the Apache CGI module.

CONSOLE

\$ sudo a2enmod cgi

8. Create a new nagiosadmin basic authentication user to access the Nagios web monitoring dashboard and set a strong passw

\$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin

9. Restart Apache to apply the configuration changes.

\$ sudo systemctl restart apache2

Install Nagios Plugins

Follow the steps below to install Nagios plugins to monitor your Nagios server as a localhost.

1. Install all required dependency packages for Nagios plugins.

CONSOLE

\$ sudo apt install -y autoconf gcc libc6 libmcrypt-dev make libssl-dev wget bc gawk dc build-essential snmp

2. Switch to the user's home directory.

CONSOLE

\$ cd

3. Visit the Nagios plugins releases page to download the latest Nagios plugins package.

\$ wget --no-check-certificate -O nagios-plugins.tar.gz https://github.com/nagios-plugins/nagios-plugins/arch

4. Extract files from the downloaded archive.

\$ tar zxf nagios-plugins.tar.gz

5. Switch to the extracted plugins directory.

console
s cd nagios-plugins-release-2.4.12

6. Run the plugins setup script.

\$ sudo ./tools/setup

7. Configure the plugins to run on your server.

CONSOLE

\$ sudo ./configure

8. Compile the plugins.

CONSOLE

\$ sudo make

9. Install the compiled plugins.

CONSOLE

\$ sudo make install

10. Test the Nagios configuration for errors.

\$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Output:

Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check

11. Enable Nagios to start at boot.

\$ sudo systemctl enable nagios

12. Start the Nagios service.

CONSOLE

\$ sudo systemctl start nagios

Access the Nagios Web Monitoring dashboard

Follow the steps below to access the Nagios web monitoring dashboard using your Nagios server's public IP address.

1. View the <u>UFW status</u> and verify that the firewall is active.

CONSOLE

\$ sudo ufw status

If the status is inactive, allow SSH connections to the server and start UFW.

CONSOLE

\$ sudo ufw allow ssh && sudo ufw enable

2. Allow the HTTP port 80 through the firewall.

CONSOLE

\$ sudo ufw allow 80/tcp

3. Reload UFW to apply the changes.

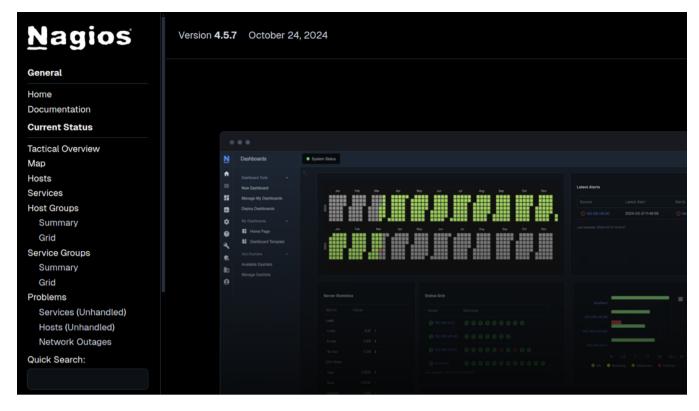
CONSOLE

\$ sudo ufw reload

4. Enter your server's public IP address in a web browser to access the Nagios dashboard.

http://SERVER-IP/nagios

5. Log in to the Nagios dashboard using the nagiosadmin username and the password you set earlier when installing Nagios.



6. Navigate to Hosts on the left navigation menu.



By default, the Nagios dashboard shows status information for the localhost. In the next sections, you'll install Nagios plugin configure Nagios server to monitor the remote host.

Install Nagios Plugins on a Remote Host

Nagios monitors remote hosts using an NRPE agent. NRPE listens for connection requests from a Nagios server to monitor a remote histall NRPE and the required plugins on a separate Ubuntu 24.04 remote host.

- 1. Establish an SSH connection to the remote host.
- 2. Install all required Nagios plugins and the NRPE package.

```
$ sudo apt install nagios-plugins nagios-nrpe-server -y
```

3. Enable the NRPE service.

```
$ sudo systemctl enable --now nagios-nrpe-server
```

4. Open the main NRPE configuration file to modify the list of allowed hosts and executable plugins.

```
$ sudo nano /etc/nagios/nrpe.cfg
```

5. Modify the allowed_hosts directive and include your Nagios server's public IP address.

```
allowed_hosts=127.0.0.1,::1, nagios_server_IP
```

6. Restart the NRPE service to apply the configuration changes.

```
$ sudo systemctl restart nagios-nrpe-server
```

The above remote host's settings allow the Nagios server to connect to the remote host and collect metrics.

Configure the Nagios Server to Monitor Remote Hosts

After adding the NRPE service to a remote host, you should also make some changes to the Nagios server to allow the server to comn Follow the steps below to configure the Nagios server.

- 1. Ensure you're connected to the Nagios server through SSH.
- 2. Create a new servers directory.

```
$ sudo mkdir -p /usr/local/nagios/etc/servers/
```

3. Create a new /usr/local/nagios/etc/servers/host.cfg configuration file to store remote hosts' information.

```
$ sudo nano /usr/local/nagios/etc/servers/host.cfg
```

4. Add the following configurations to the file. Replace Vultr with your remote hostname and remote-host-ip with the remote

```
INI
define host {
                                         linux-server
        use
        host_name
                                         Vultr
        alias
                                         First Remote Host
        address
                                         remote-host-ip
        max_check_attempts
                                         24x7
        check_period
        notification_interval
                                         30
        notification_period
                                         24x7
}
```

Save and close the file.

In the above configuration:

max_check_attempts: Sets the maximum number of retries before marking the host as down.

- check_period: Sets the period to perform host checks.
- notification_interval : Sets the interval (in minutes) between consecutive notifications.
- notification_period : Sets the period to send notifications in the Nagios dashboard.
- 5. Open the main Nagios configuration file to enable the remote host configuration.

```
$ sudo nano /usr/local/nagios/etc/nagios.cfg
```

6. Add the following directive at the end of the file.

```
cfg_dir=/usr/local/nagios/etc/servers
```

Save and close the file.

7. Restart the Nagios service to apply the configuration changes.

```
CONSOLE

$ sudo systemctl restart nagios
```

8. Test the Nagios configuration for errors.

```
$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
```

Output:

```
Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
```

9. Restart Nagios to apply the configuration changes.

```
CONSOLE

$ sudo systemctl restart nagios
```

10. Access the Nagios web monitoring dashboard.

```
http://SERVER-IP/nagios
```

11. Navigate to the Hosts section. You should now see your remote host in the list in addition to the localhost.



Conclusion

You have successfully completed the process to install Nagios on Ubuntu 24.04. Nagios monitors local and remote hosts, providing del web-based dashboard. To monitor additional remote hosts, you can install the Nagios NRPE package on those hosts and configure the Nagios server. For more information and advanced configuration options, please visit the Nagios documentation.

