

How to Automatically Copy a File During Linux User Creation?

written by sysadmin | 28 February 2025

If you have been a sysadmin in a company for a long time, then you will usually change the Linux server settings according to what you want, for example, you [create a recycle bin in your Linux server](#). If there is a new sysadmin, it will take a long time to explain what you are changing. Therefore, you plan to create a readme.txt file on the Linux server that contains the changes you made on the Linux server and automatically copy a file during Linux user creation.

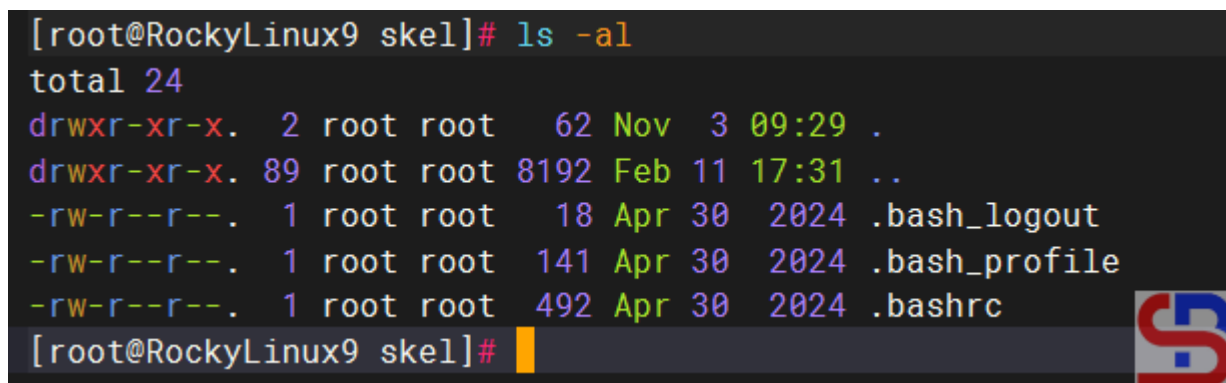
Problem

How to automatically copy a file during Linux user creation?

Solution

Go to the `/etc/skel` folder, which contains files and directories. If a new Linux user is created, all the files and directories in this folder will be copied to the Linux user's folder. Below is an image of the contents of the skel folder in the RockyLinux distro, and the contents of the skel folder can be different in each Linux distro:

```
[root@RockyLinux9 skel]# ls -al
total 24
drwxr-xr-x.  2 root root   62 Nov  3 09:29 .
drwxr-xr-x. 89 root root 8192 Feb 11 17:31 ..
-rw-r--r--.  1 root root   18 Apr 30 2024 .bash_logout
-rw-r--r--.  1 root root  141 Apr 30 2024 .bash_profile
-rw-r--r--.  1 root root  492 Apr 30 2024 .bashrc
```



The skel folder in the RockyLinux distro

If you want to copy a file to each new Linux user, create the file in the /etc/skel folder. For example, you create a readme.txt file like the following command:

```
echo 'This is a readme.txt file' > /etc/skel/readme.txt
```

```
[root@RockyLinux9 skel]# echo "This is a readme.txt file" > /etc/skel/readme.txt
[root@RockyLinux9 skel]#
[root@RockyLinux9 skel]# ls -al
total 28
drwxr-xr-x. 2 root root 80 Feb 11 18:41 .
drwxr-xr-x. 89 root root 8192 Feb 11 17:31 ..
-rw-r--r--. 1 root root 18 Apr 30 2024 .bash_logout
-rw-r--r--. 1 root root 141 Apr 30 2024 .bash_profile
-rw-r--r--. 1 root root 492 Apr 30 2024 .bashrc
-rw-r--r-- 1 root root 26 Feb 11 18:41 readme.txt
[root@RockyLinux9 skel]#
```

Create a readme.txt file

After that, create a new Linux user, for example, bob. Use the command below to create a user named bob on Linux:

```
useradd -m bob
```

The -m option tells useradd to create the user's home directory. Then, check the bob folder if the readme.txt file is in the bob folder by using the command below:

```
ls -l /home/bob
cat /home/bob/readme.txt
```

```
[root@RockyLinux9 skel]# useradd -m bob
[root@RockyLinux9 skel]#
[root@RockyLinux9 skel]# ls -al /home/bob
total 16
drwx----- 2 bob bob 80 Feb 11 18:42 .
drwxr-xr-x. 5 root root 47 Feb 11 18:42 ..
-rw-r--r-- 1 bob bob 18 Apr 30 2024 .bash_logout
-rw-r--r-- 1 bob bob 141 Apr 30 2024 .bash_profile
-rw-r--r-- 1 bob bob 492 Apr 30 2024 .bashrc
-rw-r--r-- 1 bob bob 26 Feb 11 18:41 readme.txt
[root@RockyLinux9 skel]#
[root@RockyLinux9 skel]# cat /home/bob/readme.txt
This is a readme.txt file
[root@RockyLinux9 skel]#
```

Check in the user folder

From the image above, you can see that the `readme.txt` file is already in the `bob` folder automatically. To be more sure, try creating a new Linux user, and the `readme.txt` file should appear in your new user.

Note

Make sure to use the `-m` option when creating a new user in Linux so that the file(s) or folder(s) can be automatically copied from the `skel` folder.

References

[youtube.com](https://www.youtube.com)
[linux.org](https://www.linux.org)

[How to Create a Recycle Bin on Linux CLI?](#)

written by sysadmin | 28 February 2025

By default, as of this writing (February 2025), there is no recycle bin function like in Windows in the Linux CLI. This is very dangerous if you accidentally delete an important file or folder on your Linux CLI; the file or folder will disappear forever. Therefore, you have to create a recycle bin on the Linux CLI.

Problem

How to create a Recycle Bin on Linux CLI?

Solution

You must first determine where the recycle bin is located, and this article uses the **.trash** folder as a recycle bin on the Linux server. Then type the command below to carry out the folder function as a recycle bin (you can change the **.trash** folder to the name of the folder you want):

```
echo "alias rm='mkdir -p "$HOME/.trash" && mv -b -t "$HOME/.trash"' >>
 ~/.bashrc
```

After that, run the command below:

```
source ~/.bashrc
```

```
sysadmin@OpenSUSE15:~> echo "alias rm='mkdir -p "$HOME/.trash" && mv -b -t "$HOME/.trash"' >> ~/.bashrc
sysadmin@OpenSUSE15:~> source ~/.bashrc
```

Run the commands

Info

You have to change the **.bashrc** file in each of your Linux users, so that if there are 3 users on your Linux server, then you must change the three **.bashrc** files so that you can run the Recycle Bin function in each user.

For example, you want to delete the **Linux.gif** file from the folder **/home/sysadmin**, so I use the command below to delete it:

```
rm /home/sysadmin/Linux.gif
```

Info

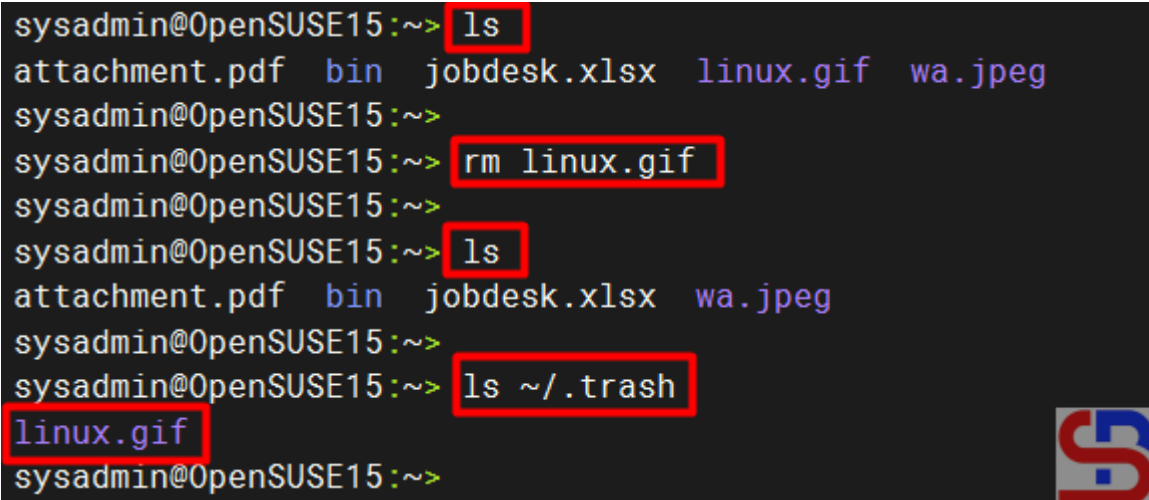
If you want to delete the folder, **use the rm command** only, not use **rm -rf** command..

After that, check the **.trash** folder and you will see that the file you deleted is still in the folder.

```

sysadmin@OpenSUSE15:~> ls
attachment.pdf bin jobdesk.xlsx linux.gif wa.jpeg
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> rm linux.gif
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> ls
attachment.pdf bin jobdesk.xlsx wa.jpeg
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> ls ~/.trash
linux.gif
sysadmin@OpenSUSE15:~>

```



Delete the file after creating a recycle bin in Linux

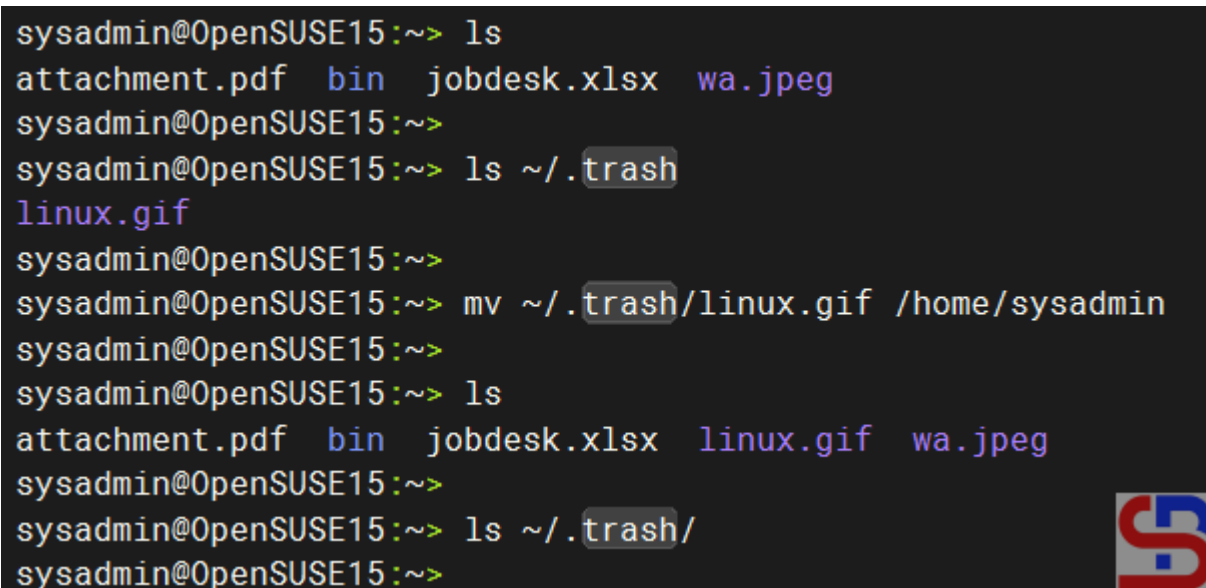
So, now the Recycle Bin function in the Linux server runs normally. If you want to return the file to the previous folder, then type the command below:

```
mv ~/.trash/linux.gif /home/sysadmin
```

```

sysadmin@OpenSUSE15:~> ls
attachment.pdf bin jobdesk.xlsx wa.jpeg
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> ls ~/.trash
linux.gif
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> mv ~/.trash/linux.gif /home/sysadmin
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> ls
attachment.pdf bin jobdesk.xlsx linux.gif wa.jpeg
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> ls ~/.trash/
sysadmin@OpenSUSE15:~>

```



Move the file from the .trash folder

But if you want to delete the file, you must enter the .trash folder, then type the commands below:

```

cd ~/.trash
alias rm='rm -i'
rm -rf Linux.gif
source ~/.bashrc

```

```
sysadmin@OpenSUSE15:~> cd ~/.trash/
sysadmin@OpenSUSE15:~/.trash>
sysadmin@OpenSUSE15:~/.trash> alias rm='rm -i'
sysadmin@OpenSUSE15:~/.trash>
sysadmin@OpenSUSE15:~/.trash> rm linux.gif
rm: remove regular file 'linux.gif'? y
sysadmin@OpenSUSE15:~/.trash>
sysadmin@OpenSUSE15:~/.trash> source ~/.bashrc
sysadmin@OpenSUSE15:~/.trash>
```



Delete the file in the .trash command

If you want to delete all files or folders in the .trash folder, then type the command below:

```
cd ~/.trash
alias rm='rm -i'
rm -rf *
source ~/.bashrc
```

Remember that you must always run the **source ~/.bashrc** command. After you delete the .trash folder, the file or folder you delete will be in the .trash folder. If not, the file or folder will disappear forever from your Linux server.

Note

You must know that if you use sudo to delete a file or folder, the file or folder will disappear forever and will not be stored in the .trash folder as shown below:

```
sysadmin@OpenSUSE15:~> sudo ls /root
attachment.pdf bin inst-sys
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> sudo rm /root/attachment.pdf
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> sudo ls /root
bin inst-sys
sysadmin@OpenSUSE15:~>
sysadmin@OpenSUSE15:~> sudo ls /root/.trash
sysadmin@OpenSUSE15:~>
```

Delete a file using sudo

So, be careful when you delete file(s) or folder(s) using sudo.

References

unix.stackexchange.com

2daygeek.com

blog.desdelinux.net

[How to Change the Timezone on the Linux Server?](#)

written by sysadmin | 28 February 2025

When you install Linux on a server for the first time, you are asked to select the regional zone where the server is located so that Linux will create the date and the time on the server based on that zone. But sometimes you want to change the timezone on your Linux server.

Problem

How to change the timezone on the Linux server?

Solution

To see the timezone currently used on the server, you can use the command:

```
timedatectl
```

```
[root@RockyLinux9 ~]# timedatectl
      Local time: Sat 2025-02-08 02:39:58 EST
      Universal time: Sat 2025-02-08 07:39:58 UTC
      RTC time: Sat 2025-02-08 07:39:58
      Time zone: America/New_York (EST, -0500)
System clock synchronized: yes
      NTP service: active
      RTC in local TZ: no
[root@RockyLinux9 ~]#
```

The `timedatectl` command

From the image above, the server's time zone is in the American region in the New York area. To see the timezone provided by Linux, use the following command:

```
timedatectl list-timezones
```

```
[root@RockyLinux9 ~]# timedatectl list-timezones
Africa/Abidjan
Africa/Accra
Africa/Addis_Ababa
Africa/Algiers
Africa/Asmara
Africa/Asmera
Africa/Bamako
Africa/Bangui
Africa/Banjul
Africa/Bissau
Africa/Blantyre
Africa/Brazzaville
Africa/Bujumbura
Africa/Cairo
Africa/Casablanca
Africa/Ceuta
Africa/Conakry
```


List of timezones

If you want to change the timezone to Singapore, then you can type the command below:

```
timedatectl set-timezone Asia/Singapore
```

Then the time on the server will change to Singapore time, as in the image below:

```
[root@RockyLinux9 ~]# timedatectl set-timezone Asia/Singapore
[root@RockyLinux9 ~]#
[root@RockyLinux9 ~]# timedatectl
          Local time: Sat 2025-02-08 15:42:03 +08
    Universal time: Sat 2025-02-08 07:42:03 UTC
           RTC time: Sat 2025-02-08 07:42:03
        Time zone: Asia/Singapore (+08, +0800)
System clock synchronized: yes
           NTP service: active
        RTC in local TZ: no
[root@RockyLinux9 ~]#
```



After updating the timezone

Note

Apart from using the `timedatectl` command, you can also use the command below:

```
tzselect
```

There is a list of the continents. Select the number that corresponds to the zone you want. For example, I choose Singapore as the timezone on my server, then I will choose number 5 for Asia, and will choose Singapore in the country selection, as in the image below:

```
[root@RockyLinux9 ~]# tzselect
Please identify a location so that time zone rules can be set correctly.
Please select a continent, ocean, "coord", or "TZ".
1) Africa
2) Americas
3) Antarctica
4) Asia
5) Atlantic Ocean
6) Australia
#? 4
Please select a country whose clocks agree with yours.
1) Afghanistan
2) Antarctica
3) Armenia
4) Azerbaijan
5) Bahrain
6) Bangladesh
7) Bhutan
8) Brunei
9) Cambodia
10) China
11) Christmas Island
12) Cocos (Keeling) Islands
13) Cyprus
14) East Timor
15) French S. Terr.
16) Georgia
17) Hong Kong
18) India
19) Indonesia
20) Iran
21) Iraq
22) Israel
23) Japan
24) Jordan
25) Kazakhstan
26) Korea (North)
27) Korea (South)
28) Kuwait
29) Kyrgyzstan
30) Laos
31) Lebanon
32) Macau
33) Malaysia
34) Mongolia
35) Myanmar (Burma)
36) Nepal
37) Oman
38) Pakistan
39) Palestine
40) Philippines
41) Qatar
42) Russia
43) Réunion
44) Saudi Arabia
45) Seychelles
46) Singapore
47) Sri Lanka
48) Syria
49) Taiwan
50) Tajikistan
51) Thailand
52) Turkmenistan
53) United Arab Emirates
54) Uzbekistan
55) Vietnam
56) Yemen
#? 46
The following information has been given:
Singapore
peninsular Malaysia
Therefore TZ='Asia/Singapore' will be used.
Selected time is now: Sat Feb 8 15:44:52 +08 2025.
Universal Time is now: Sat Feb 8 07:44:52 UTC 2025.
Is the above information OK?
1) Yes
2) No
#? 1
You can make this change permanent for yourself by appending the line
TZ='Asia/Singapore'; export TZ
to the file ~/.profile in your home directory; then log out and log in again.
Here is that TZ value again, this time on standard output so that you
can use the /usr/bin/tzselect command in shell scripts:
Asia/Singapore
[root@RockyLinux9 ~]#
```

Alternative to change the timezones

Once finished, the script in the red box must be inserted into the **.profile** or **.bashrc** file (if there is no **.bashrc** file on the server, then create the file manually). After that, use the command:

```
source ~/.bashrc
```

Then the timezone on the server will change.

References

- linuxize.com
- [wikihow.com](https://www.wikihow.com)
- baeldung.com
- askubuntu.com
- superuser.com

How to Remove And Limit Journal Log Size in Linux?

written by sysadmin | 28 February 2025

systemd-journald is a service that collects and stores logging data, creating structured, indexed journals based on the logging information it receives. But sometimes the logs produced are so large that you have to remove and limit the journal log.

Problem

How to remove and limit journal log size in Linux?

Solution

By default, the log journal is in the folder `/var/log/journal` and will retain 4 GB of data. You can limit the log size by using the format below:

```
journalctl --vacuum-size=BYTES
```

If you want to remove the journal log to 100 MB, you can use the command below:

```
journalctl --vacuum-size=100M
```

The journal log size will reduce to around 100 MB, like in the image below, after you execute the above command:

```
sysadmin@ubuntu2404:~$ sudo du -sh /var/log/* | grep journal
154M /var/log/journal
sysadmin@ubuntu2404:~$
sysadmin@ubuntu2404:~$ sudo journalctl --vacuum-size=100M
Vacuuming done, freed 0B of archived journals from /var/log/journal.
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@bc13c4fd59024a358c751fe6d4da7bbb-000000000000fef6-00062c584f266b36.journal (4.3M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@cc5952ea6f674b38957fe90f48f78949-000000000000f458-00062c7f4e2c54fa.journal (4.5M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@8bcbecaf23374a168448a4ae2b0b6d76-000000000000fa40-00062c7f65e9038d.journal (4.3M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/user-1000@8bcbecaf23374a168448a4ae2b0b6d76-000000000000ff09-00062c7f6a96f7b6.journal (3.6M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@8bcbecaf23374a168448a4ae2b0b6d76-000000000000ffa-00062c7f6aaaf46.journal (4.4M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@6e124681eb404b148aed9f69d1df0bdd-00000000000010403-00062ca834262375.journal (4.3M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/user-1000@6e124681eb404b148aed9f69d1df0bdd-000000000000108bb-00062ca83864e3b2.journal (3.7M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@6e124681eb404b148aed9f69d1df0bdd-000000000000108bc-00062ca8386e9ce5.journal (19.6M).
Deleted archived journal /var/log/journal/85c0e32a21c641759079243181fbc47c/system@7aee55235bc044b8a520870112675d3d-0000000000001c50c-00062cbb81c47378.journal (5.0M).
Vacuuming done, freed 54.0M of archived journals from /var/log/journal/85c0e32a21c641759079243181fbc47c.
Vacuuming done, freed 0B of archived journals from /run/log/journal.
sysadmin@ubuntu2404:~$
sysadmin@ubuntu2404:~$ sudo du -sh /var/log/* | grep journal
100M /var/log/journal
sysadmin@ubuntu2404:~$
```

Remove the journal log

You can also make the journal log remain 100 MB without running the command above by configuring it in the **journald.conf** file. But the file is in a different folder in each Linux distro, so you have to search for the file using the following command:

```
find / -name journald.conf
```

After you find the file, for example, you want to limit the journal log to only 100 MB, then change the file so that it looks like the following:

```
[Journal]
SystemMaxUse=100MB
```

After that, restart the journald service using the command below:

```
systemctl restart systemd-journald.service
```

The journal log size should be produced in the folder /var /log, only measuring about 100 MB.

Note

If you want to test to generate lots of logging quickly, you can use the following command:

```
while true; do dd if=/dev/urandom bs=3 count=10000 | base64 | logger; done
```

At the same time, you can execute the following command to display the size of the journal log in another terminal:

```
while true; do du -s /var/log/journal/ ; sleep 5 ;done
```

What you should know is that the journal should not be disabled, especially if you use rsyslogd, because rsyslogd can get its information from journald, and they play very well together this way.

References

reintech.io

sematext.com

andreaskaris.github.io

unix.stackexchange.com

[How to Install Nagios on RockyLinux?](#)

written by sysadmin | 28 February 2025

[The previous article](#) explained how to install the Nagios application on Ubuntu. This article will explain how to install the Nagios application on RockyLinux.

Problem

How to install Nagios on RockyLinux?

Solution

Below are the steps to install Nagios on RockyLinux and work

on RockyLinux 9.5 and below. But I think these steps should apply to installing Nagios on RHEL and its derivatives, such as CentOS, AlmaLinux, and so on.

1. Download the packages

Install the packages needed to install Nagios using the command below:

```
yum install -y httpd php php-devel gcc glibc glibc-common gd gd-devel make net-snmp-* wget zip unzip php-mysqlnd php-mysql*
```

2. Create a user and a group

Create a user and group for Nagios using the commands:

```
useradd nagios
groupadd nagcmd
usermod -G nagcmd nagios
usermod -G nagcmd apache
```

3. Download Nagios

Use the commands below to download Nagios, where at the time of this writing (February 2025), the latest version of Nagios is version 4.5.9:

```
cd /tmp
wget
https://github.com/NagiosEnterprises/nagioscore/archive/refs/heads/master.zip
-O nagios.zip
unzip nagios.zip
cd nagioscore-master/
```

4. Install Nagios

By default, Linux will create a Nagios folder in the /usr/local folder to save Nagios configuration files. So, use the following commands to install Nagios:

```
./configure
```

Info

If you want to save all Nagios files in a non-default folder, for example, in the /data folder, then use the following command: `./configure --prefix=/data/nagios`

After that, run the following commands:

```
make all
make install
make install-init
make install-commandmode
make install-config
make install-webconf
```

5. Create the password

Create a password for the user to access the Nagios application. Usually, nagiosadmin is a popular username for Nagios, but you can create another username.

```
htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
```

```
[root@RockyLinux9 nagioscore-master]# htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
[root@RockyLinux9 nagioscore-master]#
```

Create a password for the nagiosadmin user

Info

If you installed Nagios in a non-default folder, for example, in the /data folder, execute the below command: `htpasswd -c /data/nagios/etc/htpasswd.users nagiosadmin`

6. Download Nagios Plugins

Plugins are compiled executables or scripts (Perl, shell, Python, PHP, Ruby, etc.) that can be run from a command line to check the status of a host or service. Nagios Core uses the results from plugins to determine the current status of hosts and services on your network. As of this writing (February 2025), the latest version of Nagios plugins is

version 2.4.12. You can check the latest version of Nagios plugins on this site. Run the following commands to download Nagios plugins:

```
cd /tmp
wget
https://github.com/nagios-plugins/nagios-plugins/archive/refs/heads/master.zip
p -O nagios-plugins.zip
unzip nagios-plugins.zip
cd nagios-plugins-master/
```

7. Install Nagios Plugins

After that, install Nagios plugins using the following commands:

```
./tools/setup
sudo ./configure --with-nagios-user=nagios --with-nagios-group=nagios
sudo make
sudo make install
```

8. Check the configuration

After installing Nagios and Nagios plugins, run the following command to check the configuration of Nagios:

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

Info

If you installed Nagios in a non-default folder, for example, in the /data folder, execute the below command: /data/nagios/bin/nagios -v /data/nagios/etc/nagios.cfg

and make sure there is no error like in the image below:

```
[root@RockyLinux9 nagios-plugins-master]# sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.5.9
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2024-12-19
License: GPL

Website: https://www.nagios.org
Reading configuration data...
  Read main config file okay...
  Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
  Checked 8 services.
  Checked 1 hosts.
  Checked 1 host groups.
  Checked 0 service groups.
  Checked 1 contacts.
  Checked 1 contact groups.
  Checked 24 commands.
  Checked 5 time periods.
  Checked 0 host escalations.
  Checked 0 service escalations.
Checking for circular paths...
  Checked 1 hosts
  Checked 0 service dependencies
  Checked 0 host dependencies
  Checked 5 timeperiods
Checking global event handlers...
Checking obsessive compulsive processor commands...
Checking misc settings...

Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
[root@RockyLinux9 nagios-plugins-master]#
```



Check the Nagios configuration

9. Turn on the services

Turn on the services using the commands below:

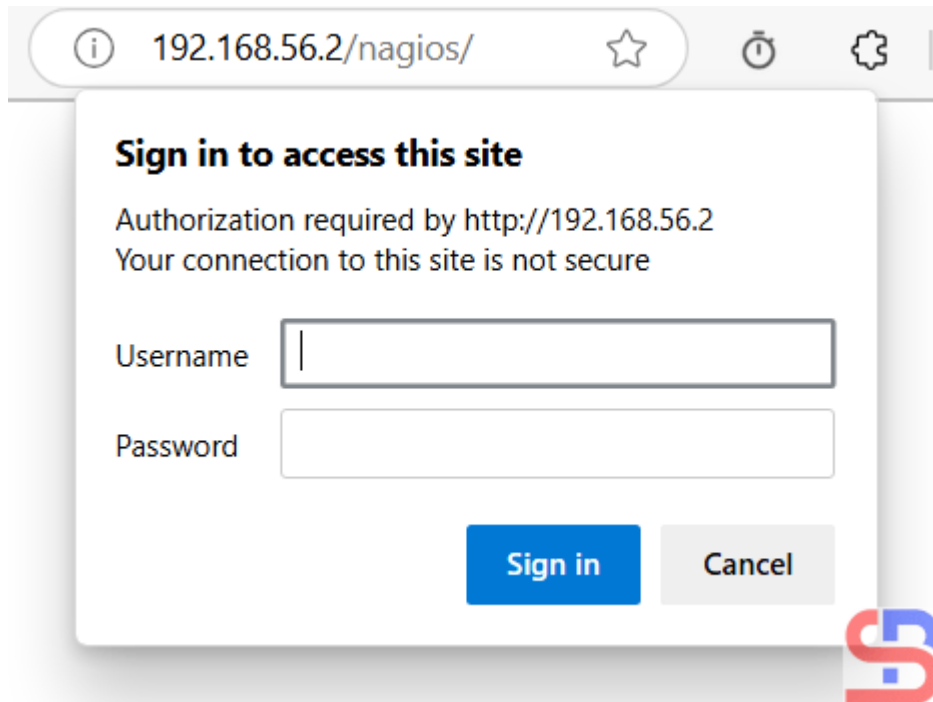
```
cp /lib/systemd/system/nagios.service /etc/systemd/system/
systemctl start httpd
systemctl start nagios
systemctl enable httpd
systemctl enable nagios
```

10. Check the application

Open your browser, and type in your browser:

```
http://your_ip_address_server/nagios
```

And there should be a display like the image below:

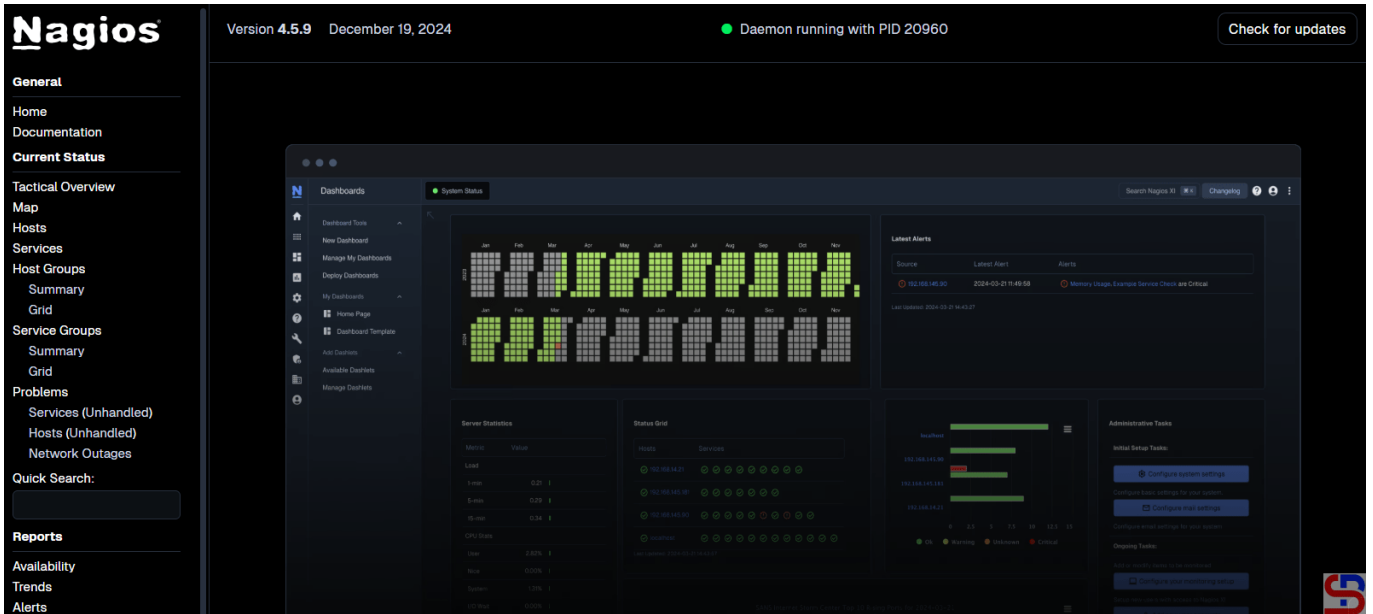


Open the Nagios application

If you don't see the image like the above image in your browser, maybe the Firewall/IPTables is still on in your server. Run the following commands:

```
firewall-cmd --zone=public --add-port=80/tcp --permanent
firewall-cmd --reload
sed -i 's/SELINUX=.* /SELINUX=disabled/g' /etc/selinux/config
setenforce 0
```

Back to your browser again, and it should work now. Insert the username (**nagiosadmin**) and the password for Nagios. If the username and the password are right, the Nagios application will appear like this:



Open the Nagios application

If you want to know which hosts are being monitored by Nagios, click **Hosts**. Nagios will display the hosts that are being monitored:

Current Network Status
 Last Updated: Thu Feb 6 09:42:31 EST 2025
 Updated every 90 seconds
 Nagios® Core™ 4.5.9 - www.nagios.org
 Logged in as nagiosadmin

Host Status Totals

Up	Down	Unreachable	Pending
1	0	0	0

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
2	1	0	0	5

Host Status Details For All Host Groups

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	02-06-2025 09:41:57	0d 0h 2m 21s	PING OK - Packet loss = 0%, RTA = 0.08 ms

Results 1 - 1 of 1 Matching Hosts

Hosts monitored by Nagios

From the picture above, it can be seen that currently, Nagios is only monitoring the Nagios server or localhost. If you want to know which services are being monitored by Nagios, click **Services**. Nagios will display the services that are being monitored:

Nagios

Current Network Status
 Last Updated: Thu Feb 6 09:46:10 EST 2025
 Updated every 90 seconds
 Nagios® Core™ 4.5.9 - www.nagios.org
 Logged in as nagiosadmin

Host Status Totals
 Up: 1, Down: 0, Unreachable: 0, Pending: 0
 All Problems: 0, All Types: 1

Service Status Totals
 Ok: 7, Warning: 1, Unknown: 0, Critical: 0, Pending: 0
 All Problems: 1, All Types: 8

Service Status Details For All Hosts

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	02-06-2025 09:45:42	0d 0h 5m 28s	1/4	OK - load average: 0.00, 0.26, 0.35
	Current Users	OK	02-06-2025 09:41:20	0d 0h 6m 6s+	1/4	USERS OK - 1 users currently logged in
	HTTP	WARNING	02-06-2025 09:44:57	0d 0h 1m 13s	4/4	HTTP WARNING: HTTP/1.1 403 Forbidden - 7897 bytes in 0.001 second response time
	PING	OK	02-06-2025 09:42:35	0d 0h 6m 6s+	1/4	PING OK - Packet loss = 0%, RTA = 0.11 ms
	Root Partition	OK	02-06-2025 09:43:12	0d 0h 6m 6s+	1/4	DISK OK - free space: / 15158 MiB (87.15% inode=99%):
	SSH	OK	02-06-2025 09:43:50	0d 0h 6m 6s+	1/4	SSH OK - OpenSSH_8.7 (protocol 2.0)
	Swap Usage	OK	02-06-2025 09:44:27	0d 0h 6m 6s+	1/4	SWAP OK - 100% free (2047 MB out of 2047 MB)
	Total Processes	OK	02-06-2025 09:45:05	0d 0h 6m 6s+	1/4	PROCS OK: 35 processes with STATE = RSZDT

Results 1 - 8 of 8 Matching Services

Services monitored by Nagios

From the picture above, you can see that Nagios monitored 8 services for the Nagios server or localhost.

Note

If you have a domain/subdomain and want to use that domain/subdomain for the Nagios application, create a virtual host on your web server. For example, I have the domain sysadminpedia.com and want to use the subdomain nagios.sysadminpedia.com for the Nagios application. So, I created the script below in the file

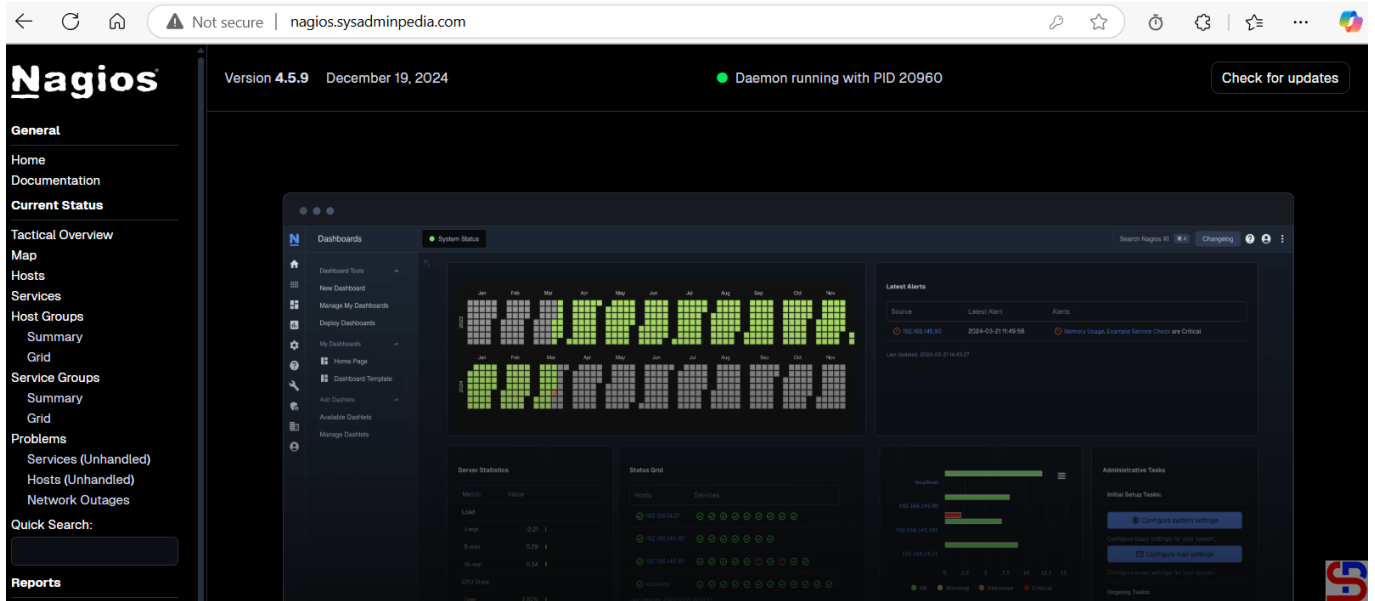
/etc/httpd/conf.d/nagios.sysadminpedia.com.conf:

```
<VirtualHost *:80>
  ServerName nagios.sysadminpedia.com
  ServerAdmin sysadmin@nagios.sysadminpedia.com
  DocumentRoot /usr/local/nagios/share
  <Directory /usr/local/nagios/share>
    Options -Indexes +FollowSymLinks
    AllowOverride All
  </Directory>

  ErrorLog /var/log/httpd/nagios.sysadminpedia.com-error.log
  CustomLog /var/log/httpd/nagios.sysadminpedia.com-access.log combined
</VirtualHost>
```

Restart the web server, open your browser, and type your domain/subdomain for Nagios, and it should be like the image

below:



Using a domain or a subdomain for the Nagios application

Info

If you installed Nagios in a non-default folder, for example, in the /data folder, you can copy the script above, but you must change the word /usr/local to /data.

References

- support.nagios.com
- tecmint.com
- statusengine.org

[How to Display a File Without the Hashtag Sign on Linux?](#)

written by sysadmin | 28 February 2025

If you open the configuration file on the Linux Server, you will usually find many comments used in the file, which are started by a hashtag sign (#). This aims to explain a configuration that is under comment. But sometimes you want to see the configuration without having to look at the

explanation of the configuration.

Problem

How to display a file without the hashtag sign on Linux?

Solution

For example, I want to see the default configuration file for the fstab file, which is located at `/etc/fstab`, and by default, it will look like the image below:

```
[root@RockyLinux9 etc]# cat fstab
#
# /etc/fstab
# Created by anaconda on Thu Sep 19 07:29:32 2024
#
# Accessible filesystems, by reference, are maintained under '/dev/disk/'.
# See man pages fstab(5), findfs(8), mount(8) and/or blkid(8) for more info.
#
# After editing this file, run 'systemctl daemon-reload' to update systemd
# units generated from this file.
#
/dev/mapper/rl_rockylinux9-root /          xfs     defaults        0 0
UUID=066eb699-fd9c-45ae-bba8-6c220e767ed7 /boot  xfs     defaults        0 0
/dev/mapper/rl_rockylinux9-swap none    swap     defaults        0 0
[root@RockyLinux9 etc]#
```

The fstab file

As far as I know, there are 3 methods to display the file without the hash sign:

1. Using the grep command

To use the grep command, you can use the format below:

```
grep -v '#' filename
```

In this case, type the command below:

```
grep -v '#' /etc/fstab
```

And it will look like the image below:

```
[root@RockyLinux9 etc]# grep -v '#' /etc/fstab
```

```
/dev/mapper/r1_rockylinux9-root /          xfs     defaults      0 0
UUID=066eb699-fd9c-45ae-bba8-6c220e767ed7 /boot      xfs     defaults      0 0
/dev/mapper/r1_rockylinux9-swap none       swap    defaults      0 0
[root@RockyLinux9 etc]#
```

Using the grep command

2. Using the sed command

To use the sed command, you can use the format below:

```
sed '/#/d' filename
```

In this case, type the command below:

```
sed '/#/d' /etc/fstab
```

And it will look like the image below:

```
[root@RockyLinux9 etc]# sed '/#/d' /etc/fstab
```

```
/dev/mapper/r1_rockylinux9-root /          xfs     defaults      0 0
UUID=066eb699-fd9c-45ae-bba8-6c220e767ed7 /boot      xfs     defaults      0 0
/dev/mapper/r1_rockylinux9-swap none       swap    defaults      0 0
[root@RockyLinux9 etc]#
```

Using the sed command

3. Using the awk command

To use the awk command, you can use the format below:

```
awk '! /#/' filename
```

In this case, type the command below:

```
awk '! /#/' /etc/fstab
```

And it will look like the image below:

```
[root@RockyLinux9 etc]# awk '! /#/' /etc/fstab
```

```
/dev/mapper/r1_rockylinux9-root /          xfs     defaults      0 0
UUID=066eb699-fd9c-45ae-bba8-6c220e767ed7 /boot      xfs     defaults      0 0
/dev/mapper/r1_rockylinux9-swap none       swap    defaults      0 0
[root@RockyLinux9 etc]#
```

Using the awk command

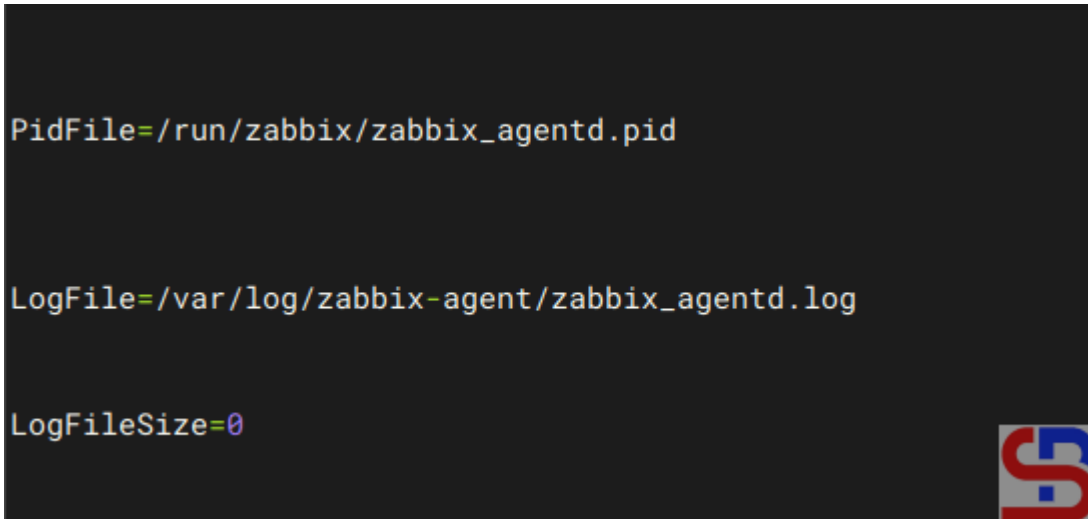
Note

Usually, when you use either of the three commands above to display a sentence that does not start with a hash mark in a Linux file, the result may be a lot of empty spaces, for example, in the `zabbix_agentd.conf` file, as shown in the image below:

```
PidFile=/run/zabbix/zabbix_agentd.pid

LogFile=/var/log/zabbix-agent/zabbix_agentd.log

LogFileSize=0
```

A terminal window with a dark background showing the output of a command. The output consists of three lines of text: 'PidFile=/run/zabbix/zabbix_agentd.pid', 'LogFile=/var/log/zabbix-agent/zabbix_agentd.log', and 'LogFileSize=0'. There are significant blank lines between each line of output. A small red and blue logo is visible in the bottom right corner of the terminal window.

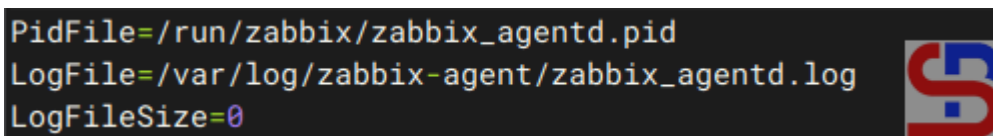
The initial output

So if you want to only display the results without any blank spaces, then use the command below:

```
grep -v '^#' /etc/zabbix/zabbix_agentd.conf | grep -v '^$'
```

and the result will be as shown in the image below:

```
PidFile=/run/zabbix/zabbix_agentd.pid
LogFile=/var/log/zabbix-agent/zabbix_agentd.log
LogFileSize=0
```

A terminal window with a dark background showing the output of the same command as above. The output consists of three lines of text: 'PidFile=/run/zabbix/zabbix_agentd.pid', 'LogFile=/var/log/zabbix-agent/zabbix_agentd.log', and 'LogFileSize=0'. There are no blank lines between the lines of output. A small red and blue logo is visible in the bottom right corner of the terminal window.

The expected result

If the file comments do not use a hashtag sign, for example, use a semicolon (;), replace the hashtag sign with a semicolon sign in one of the commands above, and it should display a configuration that does not start with the semicolon sign:

```

root@ubuntu2404:~# cat /etc/apache2/sites-available/000-default.conf
<VirtualHost *:80>
    ; The ServerName directive sets the request scheme, hostname and port that
    ; the server uses to identify itself. This is used when creating
    ; redirection URLs. In the context of virtual hosts, the ServerName
    ; specifies what hostname must appear in the request's Host: header to
    ; match this virtual host. For the default virtual host (this file) this
    ; value is not decisive as it is used as a last resort host regardless.
    ; However, you must set it for any further virtual host explicitly.
    ;ServerName www.example.com

    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/html

    ; Available loglevels: trace8, ..., tracel, debug, info, notice, warn,
    ; error, crit, alert, emerg.
    ; It is also possible to configure the loglevel for particular
    ; modules, e.g.
    ;LogLevel info ssl:warn

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

    ; For most configuration files from conf-available/, which are
    ; enabled or disabled at a global level, it is possible to
    ; include a line for only one particular virtual host. For example the
    ; following line enables the CGI configuration for this host only
    ; after it has been globally disabled with "a2disconf".
    ;Include conf-available/serve-cgi-bin.conf
</VirtualHost>
root@ubuntu2404:~#
root@ubuntu2404:~#
root@ubuntu2404:~# grep -v ";" /etc/apache2/sites-available/000-default.conf
<VirtualHost *:80>

    ServerAdmin webmaster@localhost
    DocumentRoot /var/www/html

    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined

</VirtualHost>
root@ubuntu2404:~#

```

Using the semicolon sign

References

unix.com

unix.stackexchange.com



How to Install Nagios on Ubuntu?

written by sysadmin | 28 February 2025

Nagios is an event monitoring system created by Ethan Galstad and first released in 2002, which offers monitoring and alerting services for servers, switches, applications, and services. It alerts users when things go wrong and alerts them again when the problem has been resolved. There are [2 types of Nagios](#): Nagios XI for the enterprise version and Nagios Core for the free version. This article will explain how to install Nagios Core on Ubuntu.

Problem

How to install Nagios on Ubuntu?

Solution

Here are the steps to install Nagios on Ubuntu, and these steps work on Ubuntu 24.04 and below and I think it should also work on Debian.

1. Download the packages

Install the packages needed to install Nagios using the command below:

```
sudo apt-get install autoconf gcc libc6 make wget unzip apache2 php  
libapache2-mod-php libgd-dev libssl-dev
```

2. Create a user and a group

After that, create a user and group for Nagios using the commands:

```
sudo useradd nagios  
sudo groupadd nagcmd  
sudo usermod -a -G nagcmd nagios  
sudo usermod -a -G nagcmd www-data
```

3. Download Nagios

Use the commands below to download Nagios, where at the time of this writing (February 2025), the latest version of Nagios is version 4.5.9:

```
cd /tmp
wget
https://github.com/NagiosEnterprises/nagioscore/archive/refs/heads/master.zip
-O nagios.zip
unzip nagios.zip
cd nagioscore-master/
```

4. Install Nagios

By default, Linux will create a Nagios folder in the /usr/local folder to save Nagios configuration files. So, use the following commands to install Nagios:

```
sudo ./configure --with-command-group=nagcmd --with-httpd-
conf=/etc/apache2/sites-enabled
```

Info

If you want to save all Nagios files in a non-default folder, for example, in the /data folder, then use the following command: **sudo ./configure --prefix=/data/nagios --with-command-group=nagcmd --with-httpd-conf=/etc/apache2/sites-enabled**

After that, run the following commands:

```
sudo make all
sudo make install
sudo make install-init
sudo make install-daemoninit
sudo make install-config
sudo make install-commandmode
sudo make install-webconf
sudo a2enmod rewrite
sudo a2enmod cgi
```

5. Create the password

Create a password for the user Nagios to access the Nagios application. Nagiosadmin is usually a popular username for Nagios, but you can create another.

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

```
sysadmin@ubuntu2404:/tmp/nagioscore-master$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
sysadmin@ubuntu2404:/tmp/nagioscore-master$
```

Create the password

Info

If you installed Nagios in a non-default folder, for example, in the /data folder, execute the below command: **sudo htpasswd -c /data/nagios/etc/htpasswd.users nagiosadmin**

6. Download Nagios Plugins

Plugins are compiled executables or scripts (Perl, shell, Python, PHP, Ruby, etc.) that can be run from a command line to check the status of a host or service. Nagios Core uses the results from plugins to determine the current status of hosts and services on your network. As of this writing (February 2025), the latest version of Nagios plugins is version 2.4.12. You can check the latest version of Nagios plugins on this site. Run the following commands to download Nagios plugins:

```
cd /tmp
wget
https://github.com/nagios-plugins/nagios-plugins/archive/refs/heads/master.zip
p -O nagios-plugins.zip
unzip nagios-plugins.zip
cd nagios-plugins-master/
```

7. Install Nagios Plugins

After that, install Nagios plugins using the following commands:

```
./tools/setup
sudo ./configure --with-nagios-user=nagios --with-nagios-group=nagios
sudo make
sudo make install
```

8. Check the configuration

After installing Nagios and Nagios plugins, run the following command to check the configuration of Nagios:

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

Info

If you installed Nagios in a non-default folder, for example, in the /data folder, execute the below command: **sudo /data/nagios/bin/nagios -v /data/nagios/etc/nagios.cfg**

and make sure there is no error like in the image below:

```
sysadmin@ubuntu2404:/tmp/nagios-plugins-master$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.5.9
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2024-12-19
License: GPL

Website: https://www.nagios.org
Reading configuration data...
  Read main config file okay...
  Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
  Checked 8 services.
  Checked 1 hosts.
  Checked 1 host groups.
  Checked 0 service groups.
  Checked 1 contacts.
  Checked 1 contact groups.
  Checked 24 commands.
  Checked 5 time periods.
  Checked 0 host escalations.
  Checked 0 service escalations.
Checking for circular paths...
  Checked 1 hosts
  Checked 0 service dependencies
  Checked 0 host dependencies
  Checked 5 timeperiods
Checking global event handlers...
Checking obsessive compulsive processor commands...
Checking misc settings...

Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
sysadmin@ubuntu2404:/tmp/nagios-plugins-master$
```

Check the Nagios configuration



9. Turn on the services

Turn on the services using the commands below:

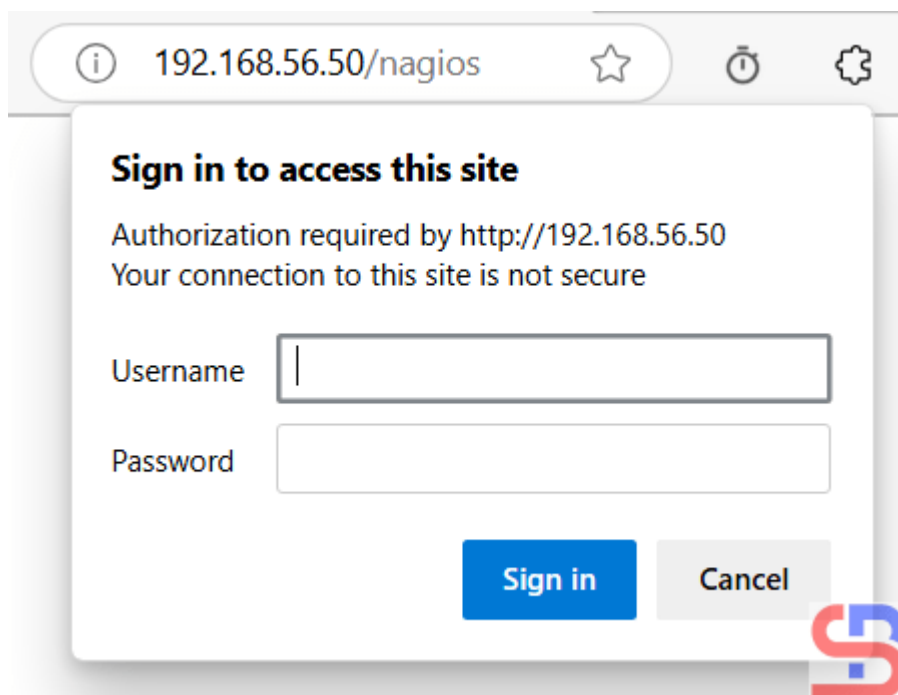
```
sudo systemctl start nagios.service
sudo systemctl enable nagios
sudo systemctl restart apache2.service
```

10. Check the application

Open your browser, and type in your browser:

```
http://your_ip_address_server/nagios
```

And there should be a display like the image below:

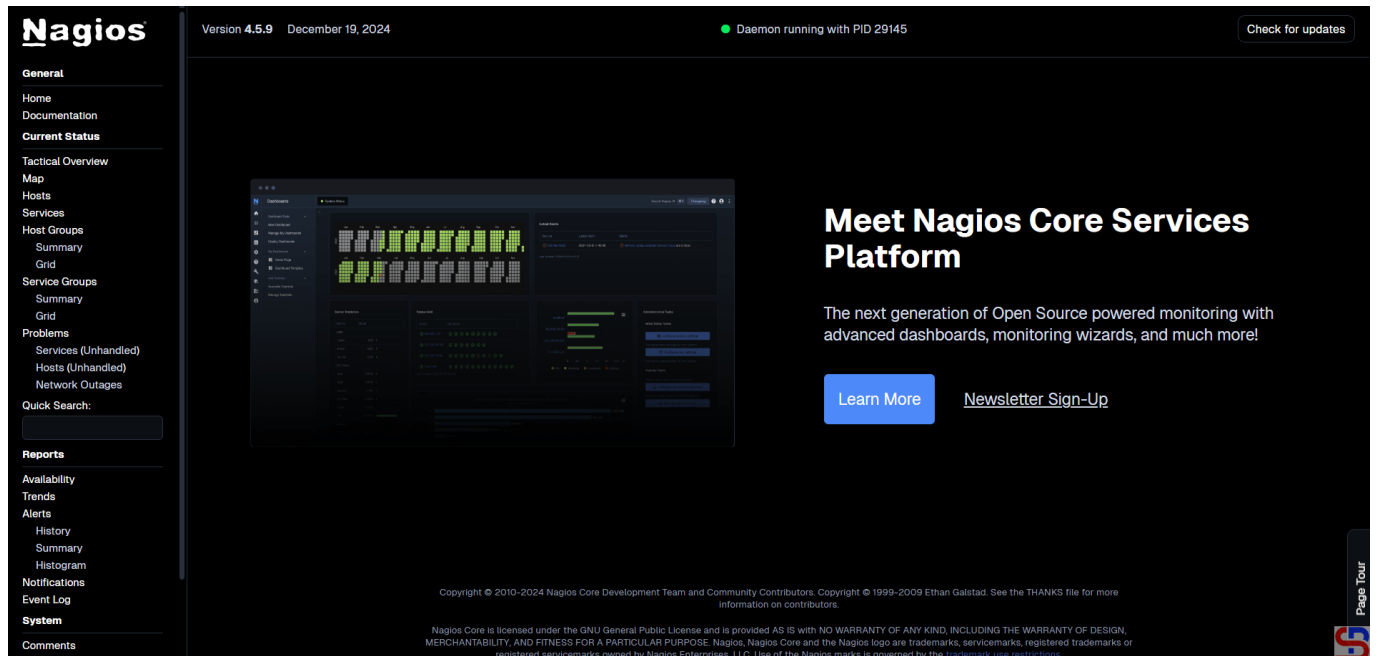


Open Nagios in the browser

If you don't see the image like the above image in your browser, maybe the Firewall/IPTables is still on your server. Run the following commands:

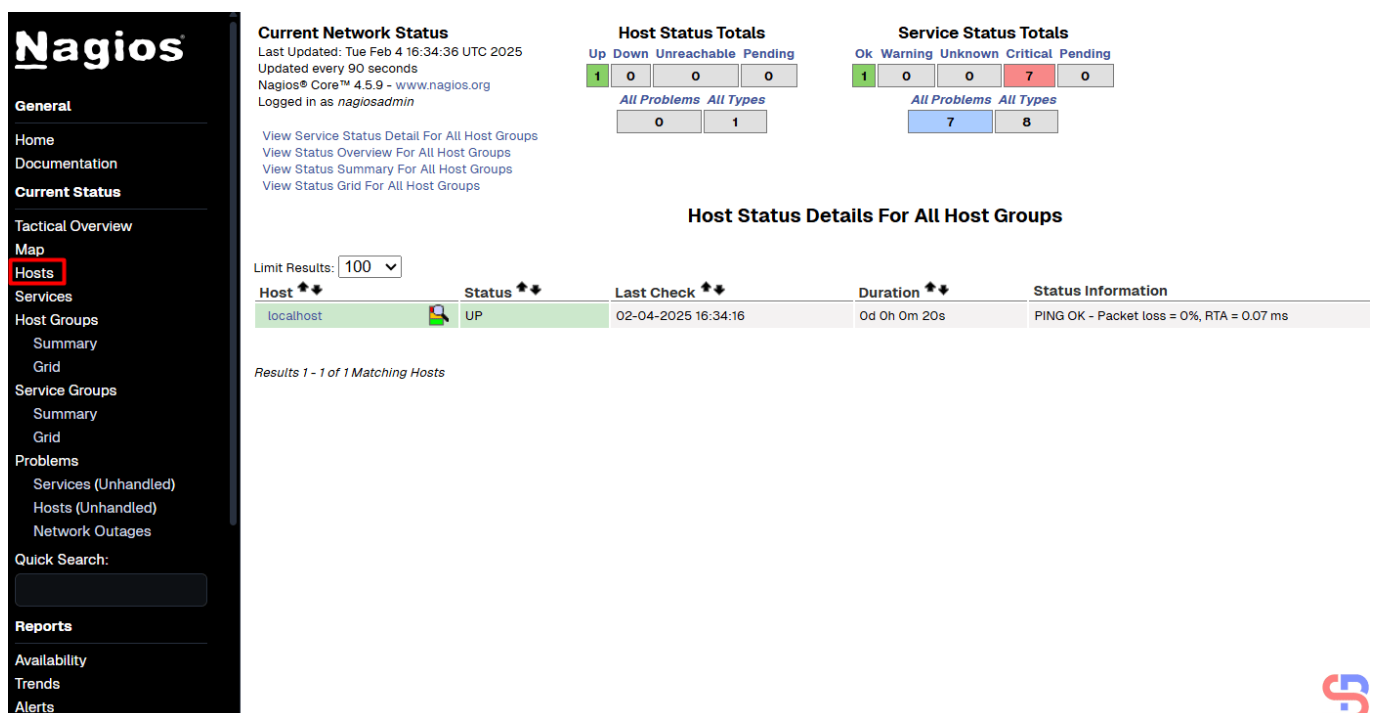
```
sudo ufw allow Apache
sudo ufw reload
```

Back to your browser again, and it should work now. Insert the username (**nagiosadmin**) and the password for Nagios. If the username and the password are right, the Nagios application will appear like this:



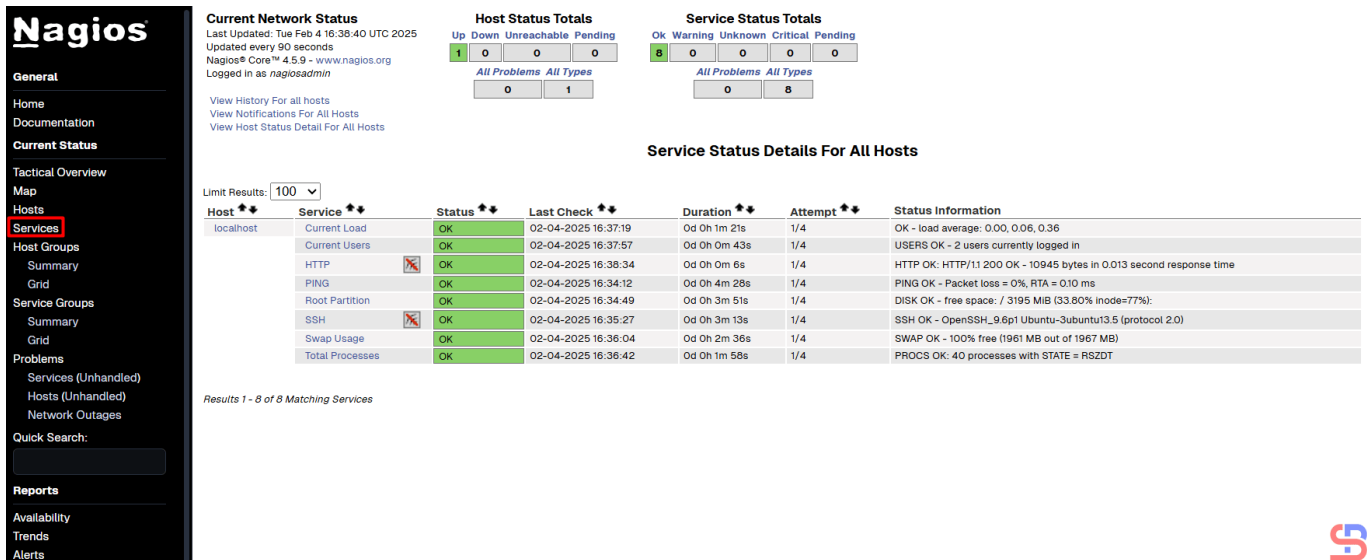
Nagios application

If you want to know which hosts are being monitored by Nagios, click **Hosts**, and Nagios will display the hosts that are being monitored:



Hosts monitored by Nagios

You can see from the picture above, Nagios only monitors the Nagios server or localhost. If you want to know which services are being monitored by Nagios, click **Services** then Nagios will display the services that are being monitored:



The screenshot shows the Nagios web interface. On the left is a navigation menu with 'Services' highlighted. The main content area displays 'Current Network Status', 'Host Status Totals', and 'Service Status Totals'. Below these is a table titled 'Service Status Details For All Hosts' showing 8 services for the localhost host. The table columns are Host, Service, Status, Last Check, Duration, Attempt, and Status Information.

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	02-04-2025 16:37:19	0d 0h 1m 21s	1/4	OK - load average: 0.00, 0.06, 0.36
localhost	Current Users	OK	02-04-2025 16:37:57	0d 0h 0m 43s	1/4	USERS OK - 2 users currently logged in
localhost	HTTP	OK	02-04-2025 16:38:34	0d 0h 0m 6s	1/4	HTTP OK: HTTP/1.1 200 OK - 10945 bytes in 0.013 second response time
localhost	PING	OK	02-04-2025 16:34:12	0d 0h 4m 28s	1/4	PING OK - Packet loss = 0%, RTA = 0.10 ms
localhost	Root Partition	OK	02-04-2025 16:34:49	0d 0h 3m 51s	1/4	DISK OK - free space: / 3195 MIB (33.80% inode=77%)
localhost	SSH	OK	02-04-2025 16:35:27	0d 0h 3m 13s	1/4	SSH OK - OpenSSH_9.6p1 Ubuntu-3ubuntu13.5 (protocol 2.0)
localhost	Swap Usage	OK	02-04-2025 16:36:04	0d 0h 2m 36s	1/4	SWAP OK - 100% free (1961 MB out of 1967 MB)
localhost	Total Processes	OK	02-04-2025 16:36:42	0d 0h 1m 58s	1/4	PROCS OK: 40 processes with STATE = RSZDT

Services monitored by Nagios

From the picture above, Nagios monitors 8 services for the Nagios server or localhost.

Note

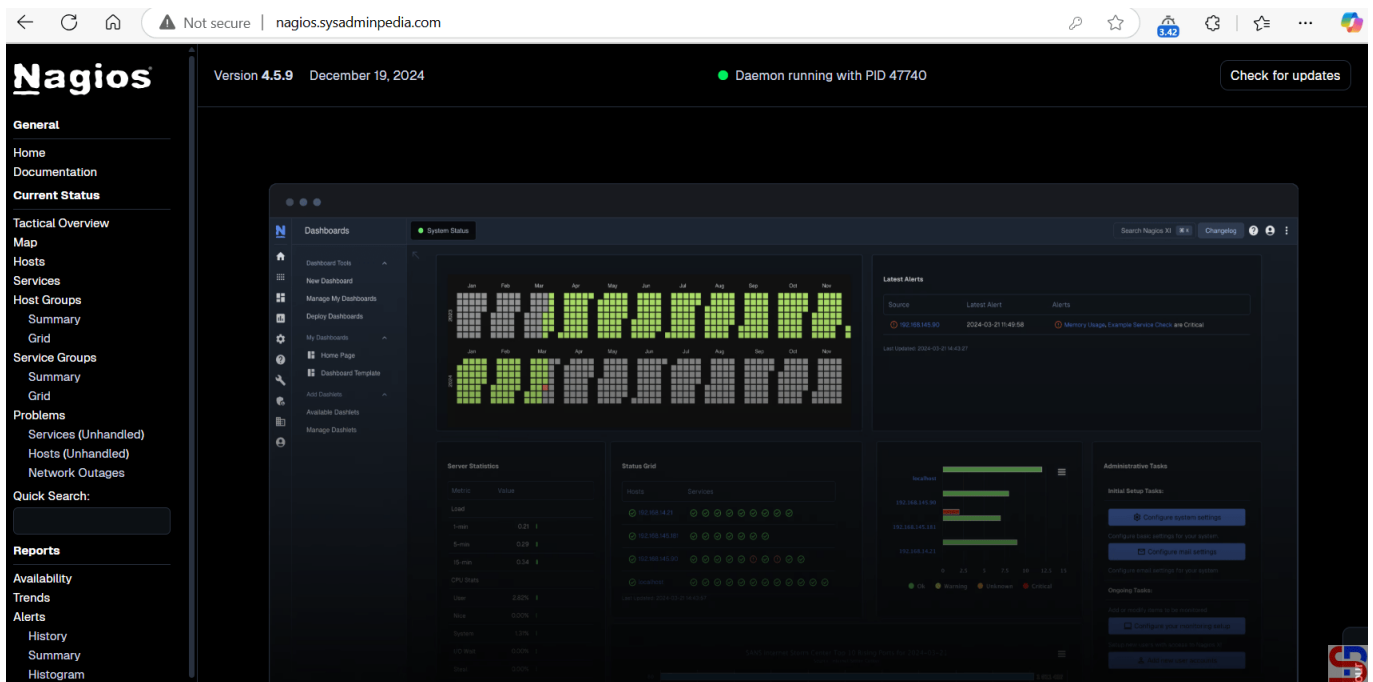
If you have a domain/subdomain and want to use that domain/subdomain for the Nagios application, create a virtual host on your web server. For example, I have the domain sysadminpedia.com and want to use the subdomain nagios.sysadminpedia.com for the Nagios application. So, I created the script below in the file `/etc/apache2/sites-enabled/nagios.sysadminpedia.com.conf`:

```
<VirtualHost *:80>
    ServerName nagios.sysadminpedia.com
    ServerAdmin sysadmin@nagios.sysadminpedia.com
    DocumentRoot /usr/local/nagios/share
    <Directory /usr/local/nagios/share>
        Options -Indexes +FollowSymLinks
```

```
AllowOverride All
</Directory>
```

```
ErrorLog /var/log/apache2/nagios.sysadminpedia.com-error.log
CustomLog /var/log/apache2/nagios.sysadminpedia.com-access.log combined
</VirtualHost>
```

Restart the webserver, open your browser, and type your domain/subdomain for Nagios, and it should be like the image below:



Using a domain/subdomain for the Nagios application

Info

If you installed Nagios in a non-default folder, for example, in the /data folder, you can copy the script above, but you must change the word /usr/local to /data

References

- en.wikipedia.org
- assets.nagios.com
- techoverflow.net