## PROJECT - 10 Server Monitoring Tool

#### <u>Description</u>

- 1. install and check the functioning of server monitoring tools like
- 1.Nagios
- 2.Zabbix
- 2. Deeply study the commands used to monitor the server as well as the services.

#### **Install Nagios**

 $Step\ 1$  - Install essential packages like GCC (compiler), glibc (C library), Perl, Apache HTTP server, PHP, wget (for downloading files), and GD (graphics library) needed for building and running Nagios

```
|rootigh=172-31-0-165 || dif (initil) |-y gcc glibc glibc-common perl httpd php wget gd gd-devel
Updating Subscription Management repositories.

Updating Subscription Management repositories.

Unable to read Consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Last metadata expiration check: 0:03:17 ago on Fri 28 Mar 2025 04:42:14 AM UTC.

Package gc-11.5.0-5.elug-5.x86_64 is already installed.

Package glibc-2.34-15.elug-5.x86_64 is already installed.

Package glibc-2.34-15.elug-5.x86_64 is already installed.

Package pc-1.64.0-2.elug-5.z.x86_64 is already installed.

Package wget-1.21.1-15.elug-4.x86_64 is already installed.

Package wget-1.21.1-15.elug-4.x86_64 is already installed.

Package gd-devel-2.32-3-elug-8.66 is already installed.

Package pc-devel-2.32-3-elug-8.66 is already installed.

Package pc-dev
```

Step 2 - Install OpenSSL development libraries required for secure communication in Nagios.

yum install openssl-devel



Step 3 - Ensure all system packages are up-to-date. dnf update -y

```
[rootgip-172-31-9-165 -]# dnf update -y
```

## Step 4 - **Navigate to the /tmp directory**:

cd /tmp

This is a temporary directory for downloading and building files.

4. Download the latest Nagios Core source code:

```
bash
wget --output-document="nagioscore.tar.gz" $(wget -q -0 -
https://api.github.com/repos/NagiosEnterprises/nagioscore/releases/latest |
grep '"browser_download_url":' | grep -o 'https://[^"]*')
```

Fetches the latest release of Nagios Core from GitHub.

	-172-31-0-165 tmp]# cd /tmp -172-31-0-165 tmp]# wgetoutput-document="nagioscore.tar.gz" \$(wget -q -0 - https://api.github.com/repos/NagiosEnterprises/nagioscore/releases/latest   grep				
'"browser	T12 30 100 migral mgte oodpet ooderente migrosofeten g2 3(mgte q 0 metp3://oprjgetabs.com//reps/migrosofeten/fetedse3/datest   grep ro 'https://f^m]*') 3-28 04:53:14 https://github.com/NagiosEnterprises/nagioscore/releases/download/nagios-4.5.9/nagios-4.5.9.tar.gz				
Resolving Connectir	g github.com (github.com) 20.207.73.82 ng to github.com (github.com) 20.207.73.82 :443 connected.				
Location:	uest sent, awaiting response 302 Found  https://objects.githubusercontent.com/github-production-release-asset-2e65be/16119670/8e2b7eda-021e-49ea-9cac-eb6b7b241e23?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-				
beba98d92	ential=releaseassetproduction%ZF20250328%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Date=20250328T045314Z&X-Amz-Expires=300&X-Amz-5ignature=8540f46927d0dfa93c3486db7 2023800ad2af177cd8d5596c52b3c78&X-Amz-SignedHeaders=host&response-content-disposition=attachment%38%20filename%3Dnagios-4.5.9.tar.gz&response-content-type=appli Foctet-stream [following]				
2025-03 -HMAC-SHA d0dfa93c3	3-28 04:53:14 https://objects.githubusercontent.com/github-production-release-asset-2e65be/16119670/8e2Dreda-021e-490a-9cac-eb6b7b24le23?X-Amz-Algorithm=AWS4 M256&X-Amz-Credential=releaseassetproduction%2F20250328%2Fus-east-1%2F3%2Faws4_request&X-Amz-Date=20250328T045314Z&X-Amz-Expires=300&X-Amz-Signature=8540f46927 3486db7beba8d92023806adZaf177cd8d5596c52b3c7&XX-Amz-SignedHeaders=host&response-content-disposition=attachment%38%20filename%3Dnagios-4.5.9.tar.gz&response-con				
Resolving	e=application%2Foctet-stream g objects.githubusercontent.com (objects.githubusercontent.com) 185.199.109.133, 185.199.110.133, 185.199.111.133, ng to objects.githubusercontent.com (objects.githubusercontent.com)[185.199.109.133]:443 connected.				
	uest sent, awaiting response				
Step -5 Extract the downloaded tarball					
	tar xzf nagioscore.tar.gz				
	Extracts the Nagios Core source files.				



cd /tmp/nagios-\*

```
[rootetp-172-31-9-165 maglos-4.5.9]  

[rootetp-172-31-9-
```

# **Step 7 - Configure the build environment**:

./configure

Prepares the source code for compilation by checking dependencies and configuring settings.

```
drecking for a SBD-compatible install.../bin/install -c
checking boild system type...x86.64-pc-linux-gnu
checking host system type...x86.64-pc-linux-gnu
checking whether the core of the
```

# Step - 8 Compile the source code:

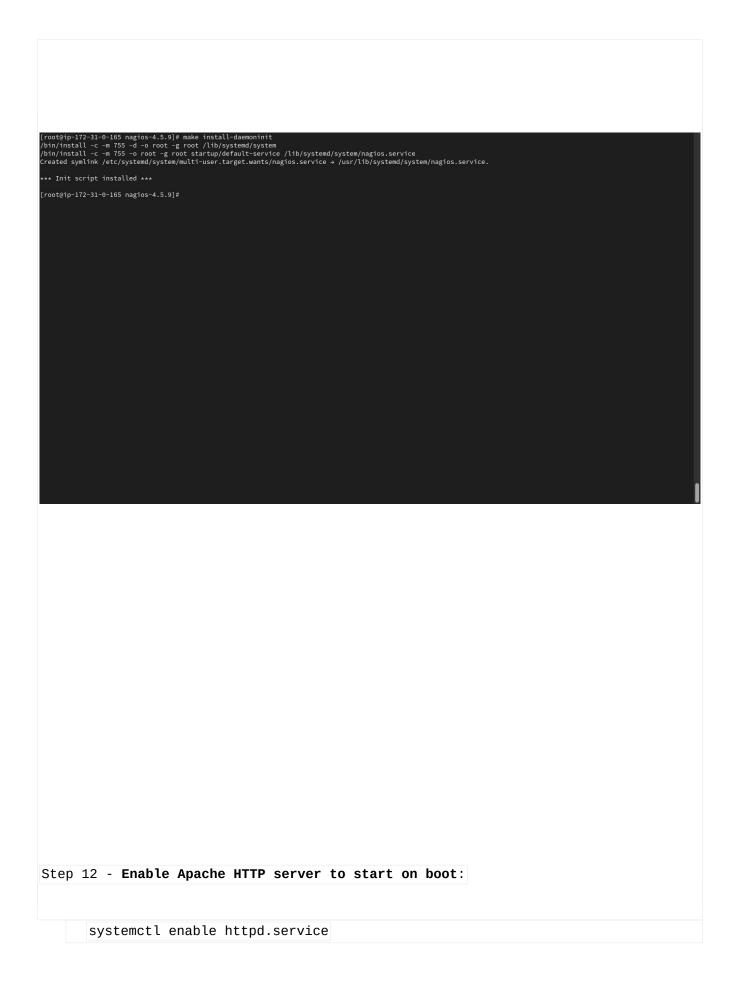
make all

```
ca./Jase &w make
https://doi.org/like/instructory '/tmp/nagios-4.5.9/base'
https://doi.org/like/instructory '/tmp/nagios-4.5.9/base'
https://doi.org/like/instructory//tmp/nagios.c
https://doi.org/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructory/like/instructo
Step - 9 Create user groups and accounts for Nagios:
                                                          make install-groups-users
                                                          Adds a nagios user and group, along with adding apache to
                                                          the nagios group.
```

Frontin 172 21 0 165 parior 4 5 018 make install groups users		
[root@ip-172-31-0-165 nagios-4.5.9]# make install-groups-users groupadd -r nagios useradd -g nagios nagios [root@ip-172-31-0-165 nagios-4.5.9]#		
		J
Step 10 - Install Nagios binaries:		
make install		

```
Step 11 - Set up daemon/service initialization scripts:
```

make install-daemoninit



[root@ip-172-31-0-165 nagios-4.5.9]# systemctl enable httpd.service Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service. [root@ip-172-31-0-165 nagios-4.5.9]#
Ston 12 Configure outcomel command overwhich mode.
Step – 13 Configure external command execution mode:
make install-commandmode

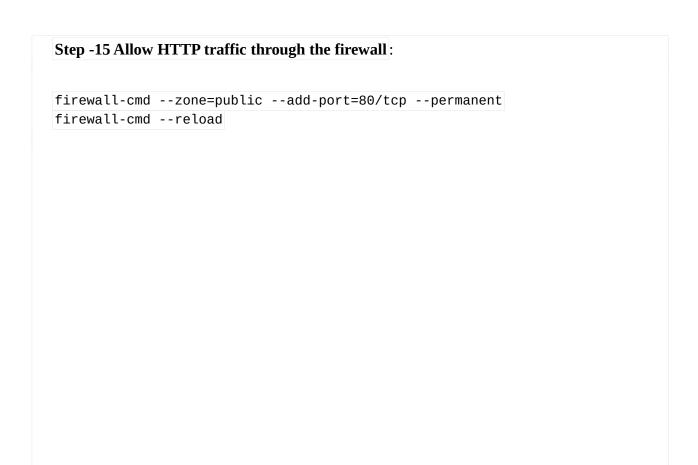
[root@jp-172-31-0-165 nagios-4.5.9]# make install-commandmode	
/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/rw chmod g+s /usr/local/nagios/var/rw	
*** External command directory configured ***	
[root@ip-172-31-0-165 nagios-4.5.9]#	
	1
Step -14 Install sample configuration files:	
Step 14 mistan sample configuration mes.	

#### make install-config

make install-webconf

```
[root@ip-172-31-0-165 nagios-4.5.9]# make install-webconf
/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios.conf
if [0 -eq 1]; then \text{then}
in -s /etc/httpd/conf.d/nagios.conf /etc/apache2/sites-enabled/nagios.conf; \text{figures}
[root@ip-172-31-0-165 nagios-4.5.9]#
```

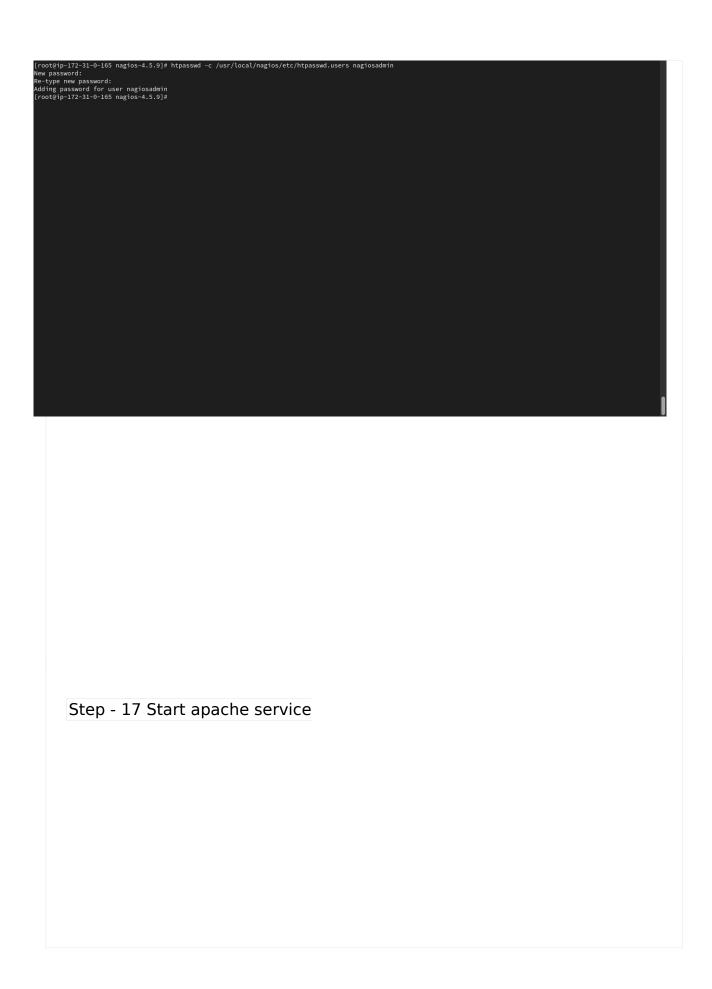
Firewall Configuration

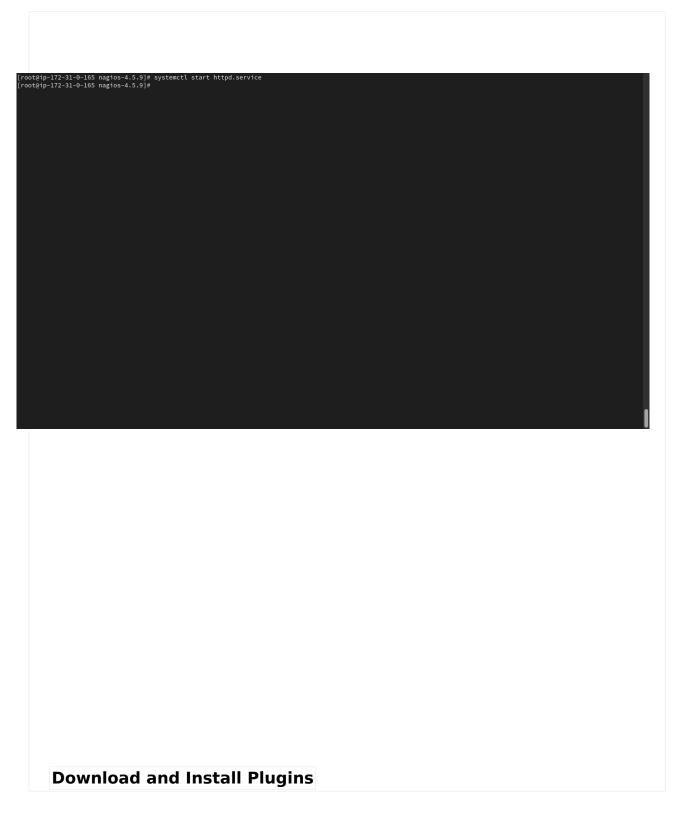


root@ip-172-31-0-165 nagios-4.5.9]# sudo yum install firewalld pdating Subscription Management repositories. nable to read consumer identity	
his system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.	
ast metadata expiration check: 0:01:37 ago on Fri 28 Mar 2025 04:57:23 AM UTC.	

(root@ip-172-31-0-165 nagios-4.5.9)# firewall-cnd --zone=public --add-port=80/tcp
firewall-cnd --zone=public --add-port=80/tcp
state --zone=public --add-port=80/tcp
state --add-port=80/tcp
stat

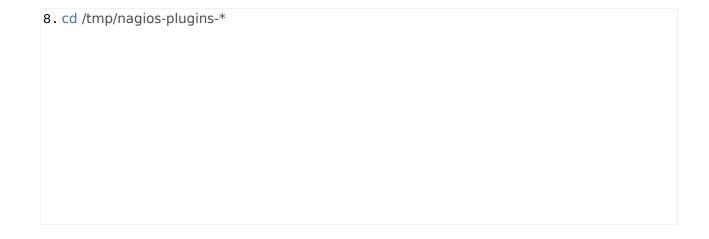






**Step 18 - Download Nagios Plugins source code & Extract the plugins tarball:** 

Step -19 Navigate to the extracted plugins directory





Step - 20 Configure, compile, and install plugins:



compile

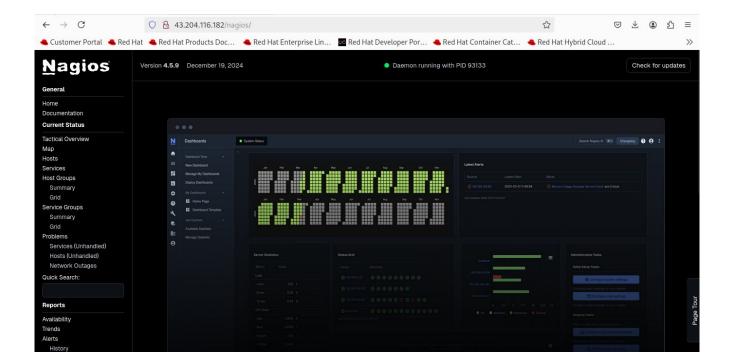


## Step - 21 **Start Nagios Service**

25.**Start Nagios service**systemctl start nagios.service

```
[root@ip-172-31-0-105 nagios-plugins-2.4.12]# systemctl start nagios.service
[root@ip-172-31-0-105 nagios-plugins-2.4.12]#
```

## Launched Nagios monitoring service



Thank you