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Aim: To perform Port, Service monitoring, and Windows/Linux server monitoring using Nagios.

Theory:

Port and Service Monitoring

Port and service monitoring in Nagios involves checking the availability and responsiveness of network services running on specific ports. This ensures that critical services (like HTTP, FTP, or SSH) are operational. Nagios uses plugins to ping the ports and verify whether services are up and responding as expected, allowing administrators to be alerted in case of outages.

Windows/Linux Server Monitoring

Windows/Linux server monitoring with Nagios entails tracking the performance and health of servers running these operating systems. It includes monitoring metrics such as CPU usage, memory consumption, disk space, and system logs. Nagios employs various plugins to gather data, enabling administrators to ensure optimal performance, identify potential issues, and maintain uptime across their server infrastructure.

Prerequisites:

AWS Academy or Personal account.
Nagios Server running on Amazon Linux Machine. (Refer Experiment No 9)

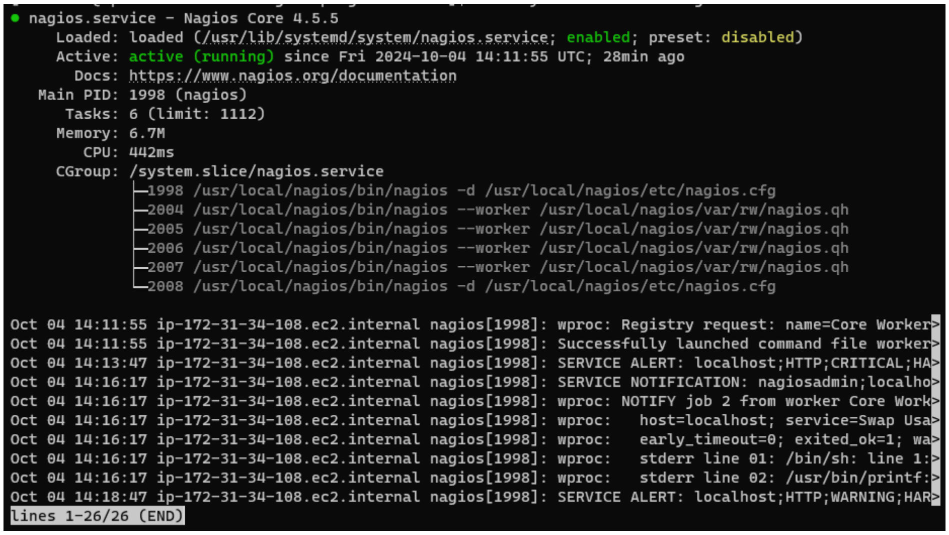
Monitoring Using Nagios:

Step 1: To Confirm Nagios is running on the server side Perform the following command on your Amazon Linux Machine (Nagios-host).

sudo systemctl status nagios

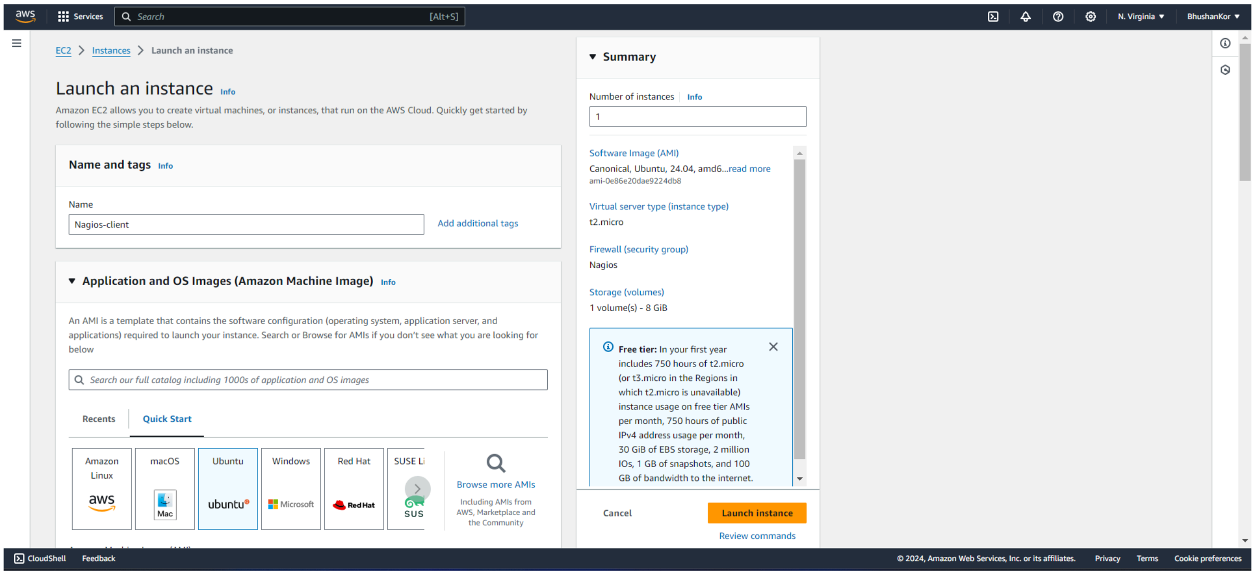
You can now proceed if you get the above message/output.

Step 2: Now Create a new EC2 instance. Name: Nagios-client, AMI: Ubuntu Instance Type: t2.micro.



```
● nagios.service - Nagios Core 4.5.5
     Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
     Active: active (running) since Fri 2024-10-04 14:11:55 UTC; 28min ago
       Docs: https://www.nagios.org/documentation
   Main PID: 1998 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 6.7M
        CPU: 442ms
     CGroup: /system.slice/nagios.service
             ├─1998 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─2004 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─2005 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─2006 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─2007 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─2008 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 04 14:11:55 ip-172-31-34-108.ec2.internal nagios[1998]: wproc: Registry request: name=Core Worker>
Oct 04 14:11:55 ip-172-31-34-108.ec2.internal nagios[1998]: Successfully launched command file worker>
Oct 04 14:13:47 ip-172-31-34-108.ec2.internal nagios[1998]: SERVICE ALERT: localhost;HTTP;CRITICAL;HA>
Oct 04 14:16:17 ip-172-31-34-108.ec2.internal nagios[1998]: SERVICE NOTIFICATION: nagiosadmin;localho>
Oct 04 14:16:17 ip-172-31-34-108.ec2.internal nagios[1998]: wproc: NOTIFY job 2 from worker Core Work>
Oct 04 14:16:17 ip-172-31-34-108.ec2.internal nagios[1998]: wproc:   host=localhost; service=Swap Usa>
Oct 04 14:16:17 ip-172-31-34-108.ec2.internal nagios[1998]: wproc:   early_timeout=0; exited_ok=1; wa>
Oct 04 14:16:17 ip-172-31-34-108.ec2.internal nagios[1998]: wproc:   stderr line 01: /bin/sh: line 1:>
Oct 04 14:16:17 ip-172-31-34-108.ec2.internal nagios[1998]: wproc:   stderr line 02: /usr/bin/printf:>
Oct 04 14:18:47 ip-172-31-34-108.ec2.internal nagios[1998]: SERVICE ALERT: localhost;HTTP;WARNING;HAR>
lines 1-26/26 (END)
```



EC2 > Instances > Launch an instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name: Nagios-client

Add additional tags

▼ Application and OS Images (Amazon Machine Image) Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents | Quick Start

Amazon Linux | macOS | Ubuntu | Windows | Red Hat | SUSE Li

Browse more AMIs
Including AMIs from AWS, Marketplace and the Community

▼ Summary

Number of instances Info: 1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-0e86e20dae9224db8

Virtual server type (instance type)
t2.micro

Firewall (security group)
Nagios

Storage (volumes)
1 volume(s) - 8 GiB

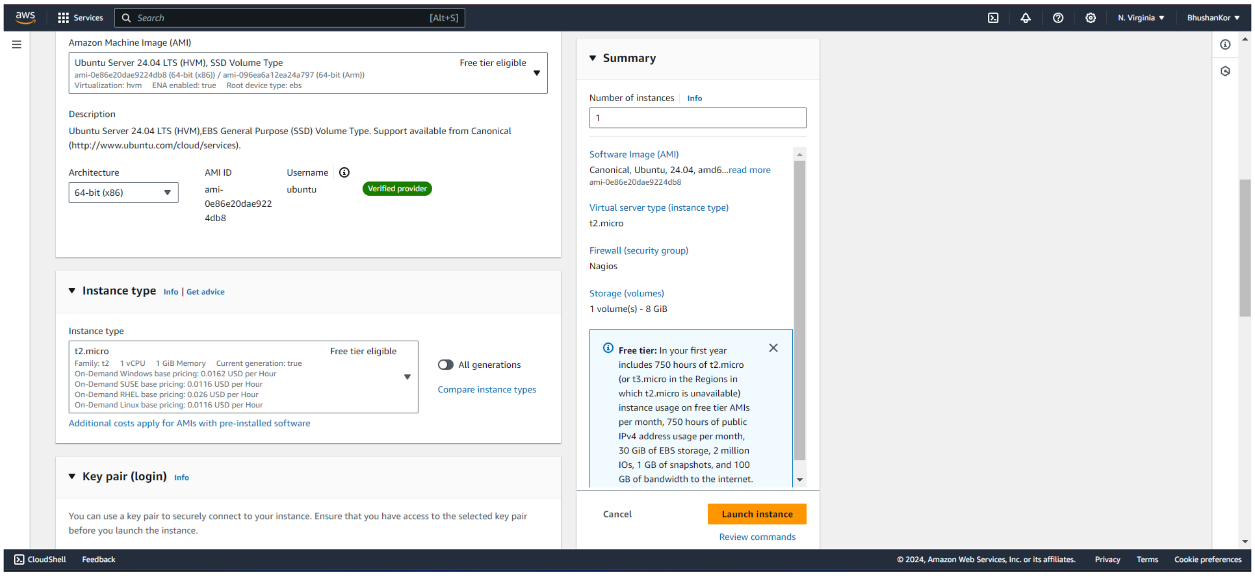
Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

Cancel | Launch instance

Review commands

For Key pair : Click on create key and make key of type RSA with extension .pem . Key will be downloaded to your local machine.

Now select that key in key pair if you already have key with type RSA and extension .pem no need to create new key but you must have that key downloaded.



Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type — Free tier eligible
ami-0e86e20dae9224db8 (64-bit (x86)) / ami-096ea6a12ea24a797 (64-bit (Arm))
Virtualization: hvm ENA enabled: true Root device type: ebs

Description
Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Architecture: 64-bit (x86)
AMI ID: ami-0e86e20dae9224db8
Username: ubuntu
Verified provider

▼ Instance type Info | Get advice

Instance type
t2.micro — Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.026 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

All generations

Compare instance types

Additional costs apply for AMIs with pre-installed software

▼ Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

▼ Summary

Number of instances Info: 1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-0e86e20dae9224db8

Virtual server type (instance type)
t2.micro

Firewall (security group)
Nagios

Storage (volumes)
1 volume(s) - 8 GiB

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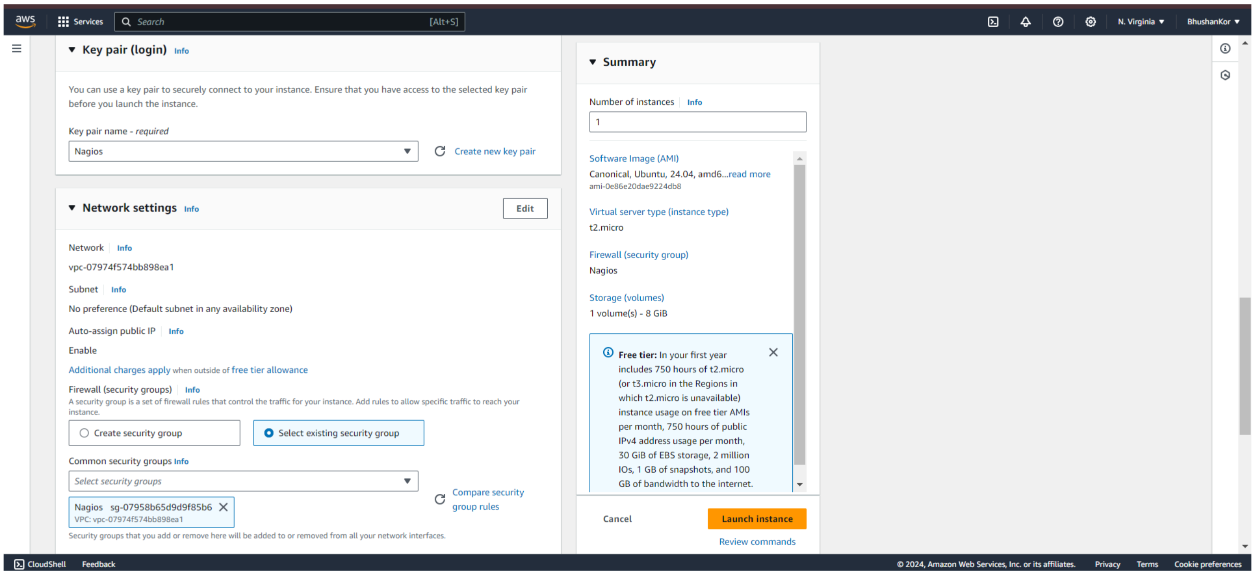
Cancel | Launch instance

Review commands

Select the Existing Security Group and select the Security Group that we have created in Experiment no 9 or the same one you have used for the Nagios server (Nagios-host).



▼ Key pair (login) Info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

Nagios

▼ Network settings Info

Network Info

vpc-07974f574bb898ea1

Subnet Info

No preference (Default subnet in any availability zone)

Auto-assign public IP Info

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups) Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

○ Create security group ● Select existing security group

Common security groups Info

Select security groups

Nagios sg-07958b65d9d9f85b6
VPC: vpc-07974f574bb898ea1

Security groups that you add or remove here will be added to or removed from all your network interfaces.

▼ Summary

Number of instances Info

1

Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-0e86e20dae9224db8

Virtual server type (instance type)
t2.micro

Firewall (security group)
Nagios

Storage (volumes)
1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 750 hours of public IPv4 address usage per month, 30 GiB of EBS storage, 2 million IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

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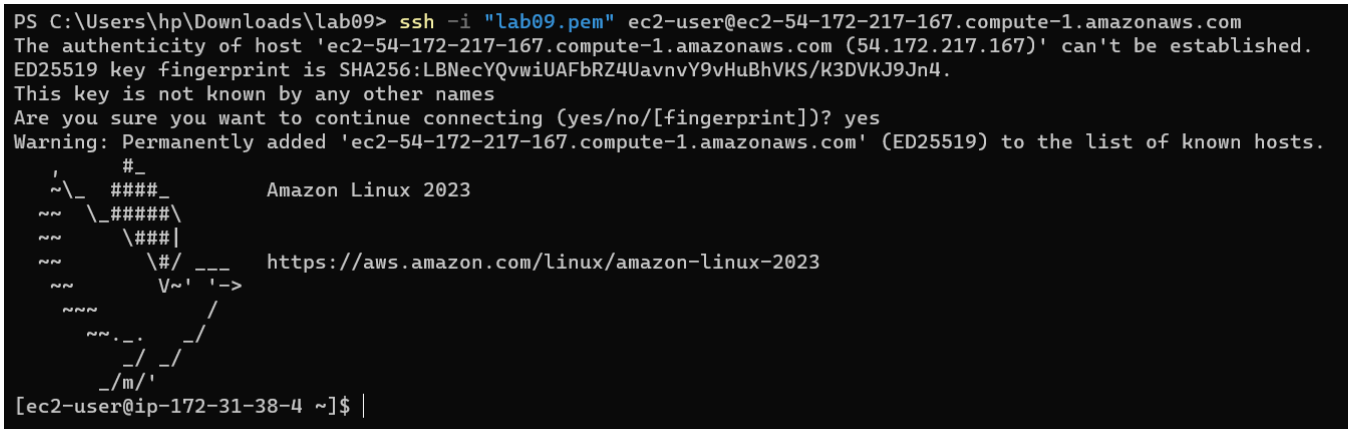
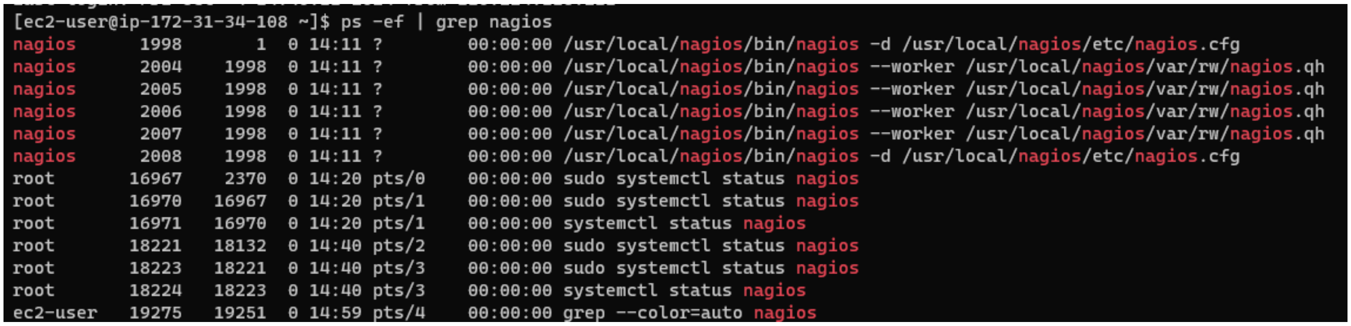
Step 3: Now After creating the EC2 Instance click on connect and then copy the command which is given as example in the SSH Client section .
Now open the terminal in the folder where your key(RSA key with .pem) is located. and paste that copied command.

Successfully connected to the instance.



```
PS C:\Users\hp\Downloads\lab09> ssh -i "lab09.pem" ec2-user@ec2-54-172-217-167.compute-1.amazonaws.com
The authenticity of host 'ec2-54-172-217-167.compute-1.amazonaws.com (54.172.217.167)' can't be established.
ED25519 key fingerprint is SHA256:LBNecYQvwiUAFbRZ4UavnvY9vHuBhVKS/K3DVKJ9Jn4.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-54-172-217-167.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
[ec2-user@ip-172-31-38-4 ~]$
```

Now perform all the commands on the Nagios-host till step 10
Step 4: Now on the server Nagios-host run the following command.
ps -ef | grep nagios



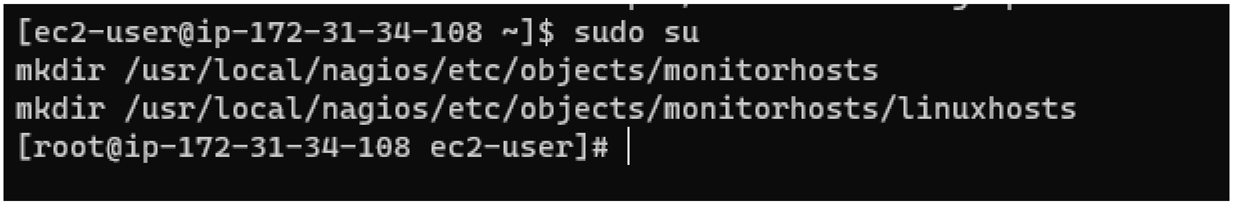
```
[ec2-user@ip-172-31-34-108 ~]$ ps -ef | grep nagios
nagios      1998       1  0 14:11 ?        00:00:00 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
nagios      2004    1998  0 14:11 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios      2005    1998  0 14:11 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios      2006    1998  0 14:11 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios      2007    1998  0 14:11 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios      2008    1998  0 14:11 ?        00:00:00 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
root       16967    2370  0 14:20 pts/0    00:00:00 sudo systemctl status nagios
root       16970   16967  0 14:20 pts/1    00:00:00 sudo systemctl status nagios
root       16971   16970  0 14:20 pts/1    00:00:00 systemctl status nagios
root       18221   18132  0 14:40 pts/2    00:00:00 sudo systemctl status nagios
root       18223   18221  0 14:40 pts/3    00:00:00 sudo systemctl status nagios
root       18224   18223  0 14:40 pts/3    00:00:00 systemctl status nagios
ec2-user   19275   19251  0 14:59 pts/4    00:00:00 grep --color=auto nagios
```

Step 5: Now Become root user and create root directories.

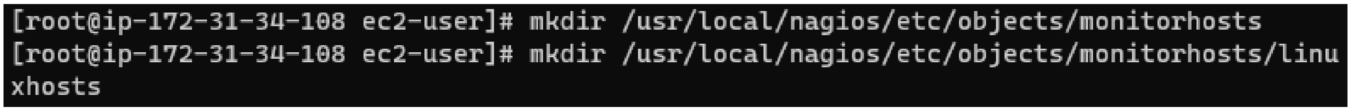
sudo su

mkdir /usr/local/nagios/etc/objects/monitorhosts

mkdir /usr/local/nagios/etc/objects/monitorhosts/linuxhosts



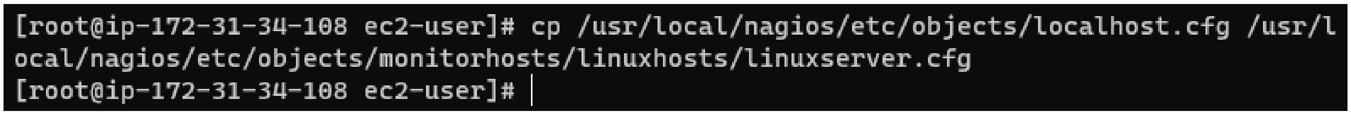
```
[ec2-user@ip-172-31-34-108 ~]$ sudo su
mkdir /usr/local/nagios/etc/objects/monitorhosts
mkdir /usr/local/nagios/etc/objects/monitorhosts/linuxhosts
[root@ip-172-31-34-108 ec2-user]#
```



```
[root@ip-172-31-34-108 ec2-user]# mkdir /usr/local/nagios/etc/objects/monitorhosts
[root@ip-172-31-34-108 ec2-user]# mkdir /usr/local/nagios/etc/objects/monitorhosts/linu
xhosts
```

Step 6: Copy the sample localhost.cfg to linuxhost.cfg by running the following command.(Below command should come in one line see screenshot below)

cp /usr/local/nagios/etc/objects/localhost.cfg /usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg



```
[root@ip-172-31-34-108 ec2-user]# cp /usr/local/nagios/etc/objects/localhost.cfg /usr/l
ocal/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg
[root@ip-172-31-34-108 ec2-user]#
```

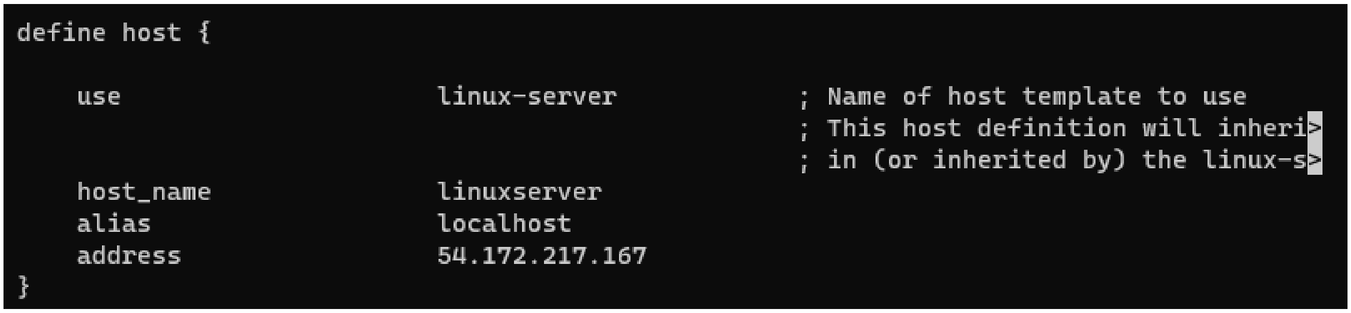
Step 7: Open linuxserver.cfg using nano and make the following changes in all positions?everywhere in file.

Change `hostname` to **linuxserver**.

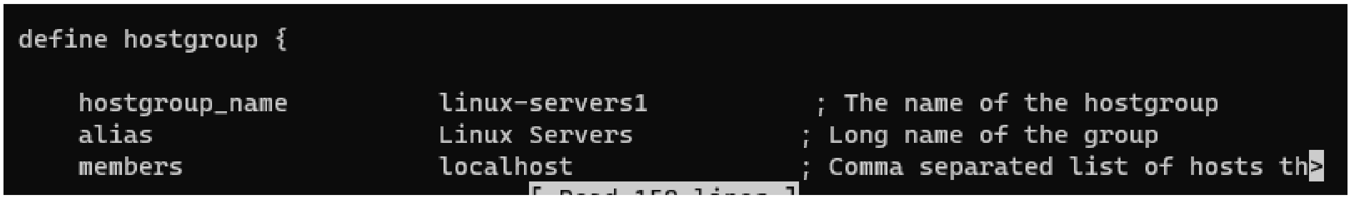
Change `address` to the public IP of your Linux client.

Set `hostgroup_name` to **linux-servers1**.

nano /usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg



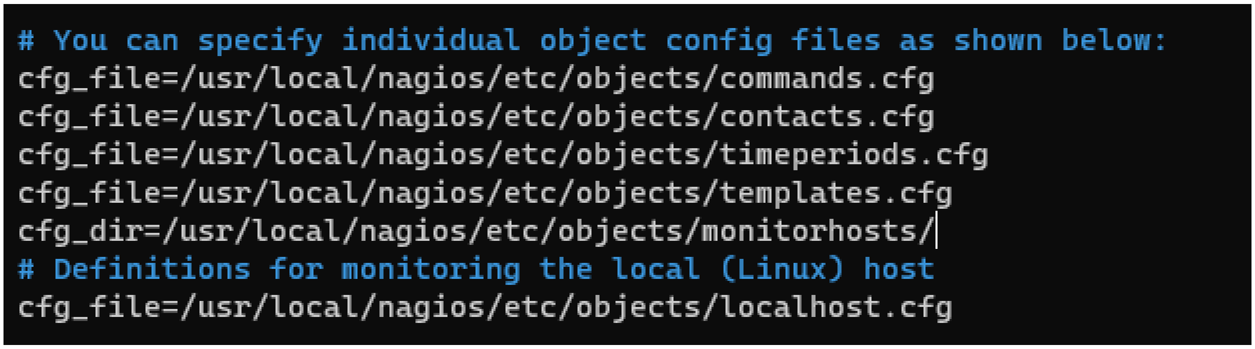
```
define host {

    use                     linux-server            ; Name of host template to use
                                                    ; This host definition will inheri>
                                                    ; in (or inherited by) the linux-s>

    host_name               linuxserver
    alias                   localhost
    address                 54.172.217.167
}
```



```
define hostgroup {

    hostgroup_name          linux-servers1           ; The name of the hostgroup
    alias                   Linux Servers           ; Long name of the group
    members                 localhost               ; Comma separated list of hosts th>
```

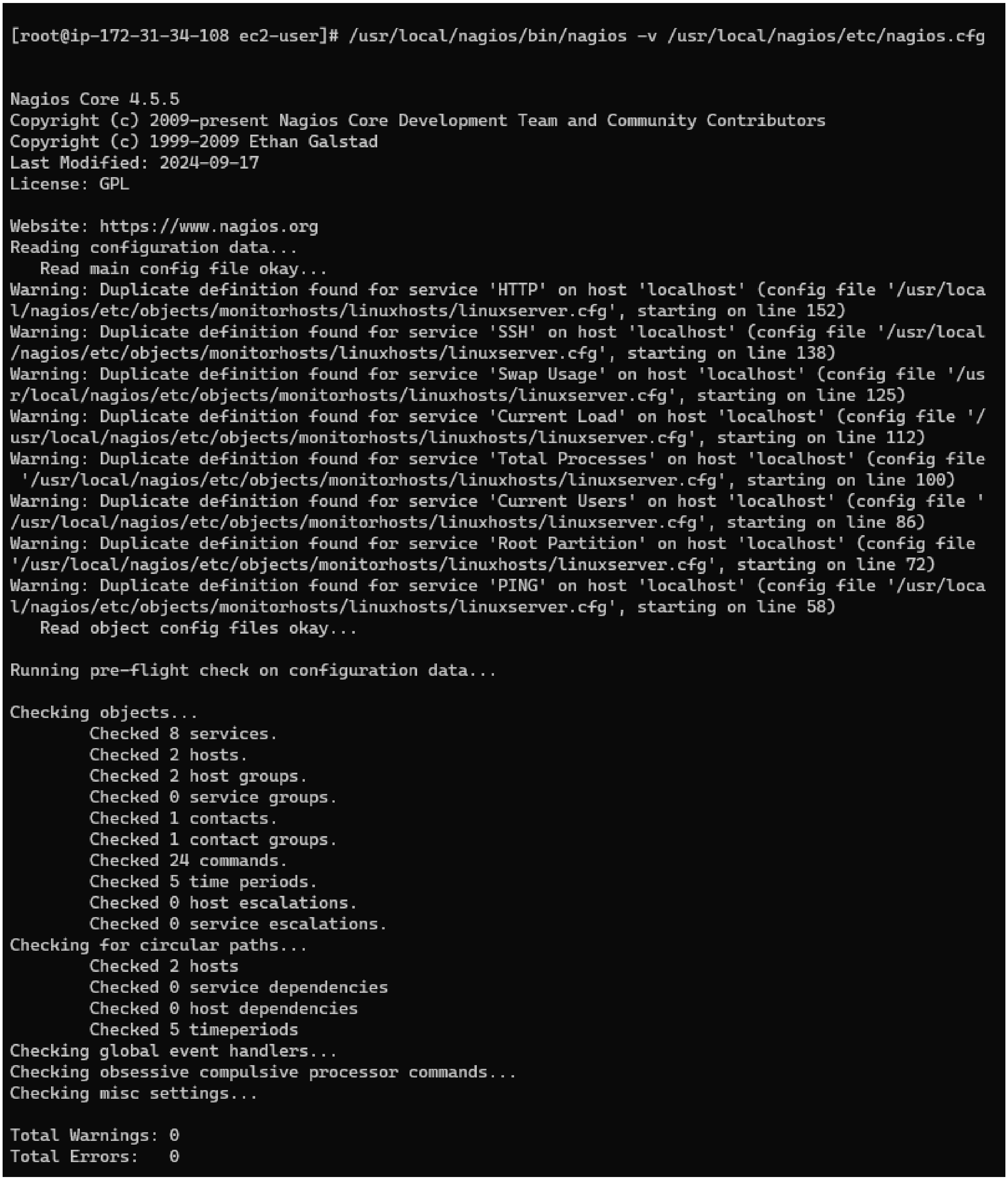
Step 8: Now update the Nagios config file .Add the following line in the file.

Line to add : cfg_dir=/usr/local/nagios/etc/objects/monitorhosts/
Run the command : **nano /usr/local/nagios/etc/nagios.cfg**



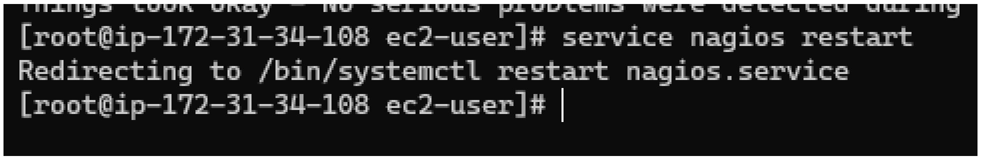
```
# You can specify individual object config files as shown below:
cfg_file=/usr/local/nagios/etc/objects/commands.cfg
cfg_file=/usr/local/nagios/etc/objects/contacts.cfg
cfg_file=/usr/local/nagios/etc/objects/timeperiods.cfg
cfg_file=/usr/local/nagios/etc/objects/templates.cfg
cfg_dir=/usr/local/nagios/etc/objects/monitorhosts/
# Definitions for monitoring the local (Linux) host
cfg_file=/usr/local/nagios/etc/objects/localhost.cfg
```

Step 9: Now Verify the configuration files by running the following commands.
/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg



```
[root@ip-172-31-34-108 ec2-user]# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg


Nagios Core 4.5.5
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2024-09-17
License: GPL

Website: https://www.nagios.org
Reading configuration data...
   Read main config file okay...
Warning: Duplicate definition found for service 'HTTP' on host 'localhost' (config file '/usr/loca
l/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 152)
Warning: Duplicate definition found for service 'SSH' on host 'localhost' (config file '/usr/local
/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 138)
Warning: Duplicate definition found for service 'Swap Usage' on host 'localhost' (config file '/us
r/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 125)
Warning: Duplicate definition found for service 'Current Load' on host 'localhost' (config file '/
usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 112)
Warning: Duplicate definition found for service 'Total Processes' on host 'localhost' (config file
 '/usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 100)
Warning: Duplicate definition found for service 'Current Users' on host 'localhost' (config file '
/usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 86)
Warning: Duplicate definition found for service 'Root Partition' on host 'localhost' (config file
'/usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 72)
Warning: Duplicate definition found for service 'PING' on host 'localhost' (config file '/usr/loca
l/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg', starting on line 58)
   Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
        Checked 8 services.
        Checked 2 hosts.
        Checked 2 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 2 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
```

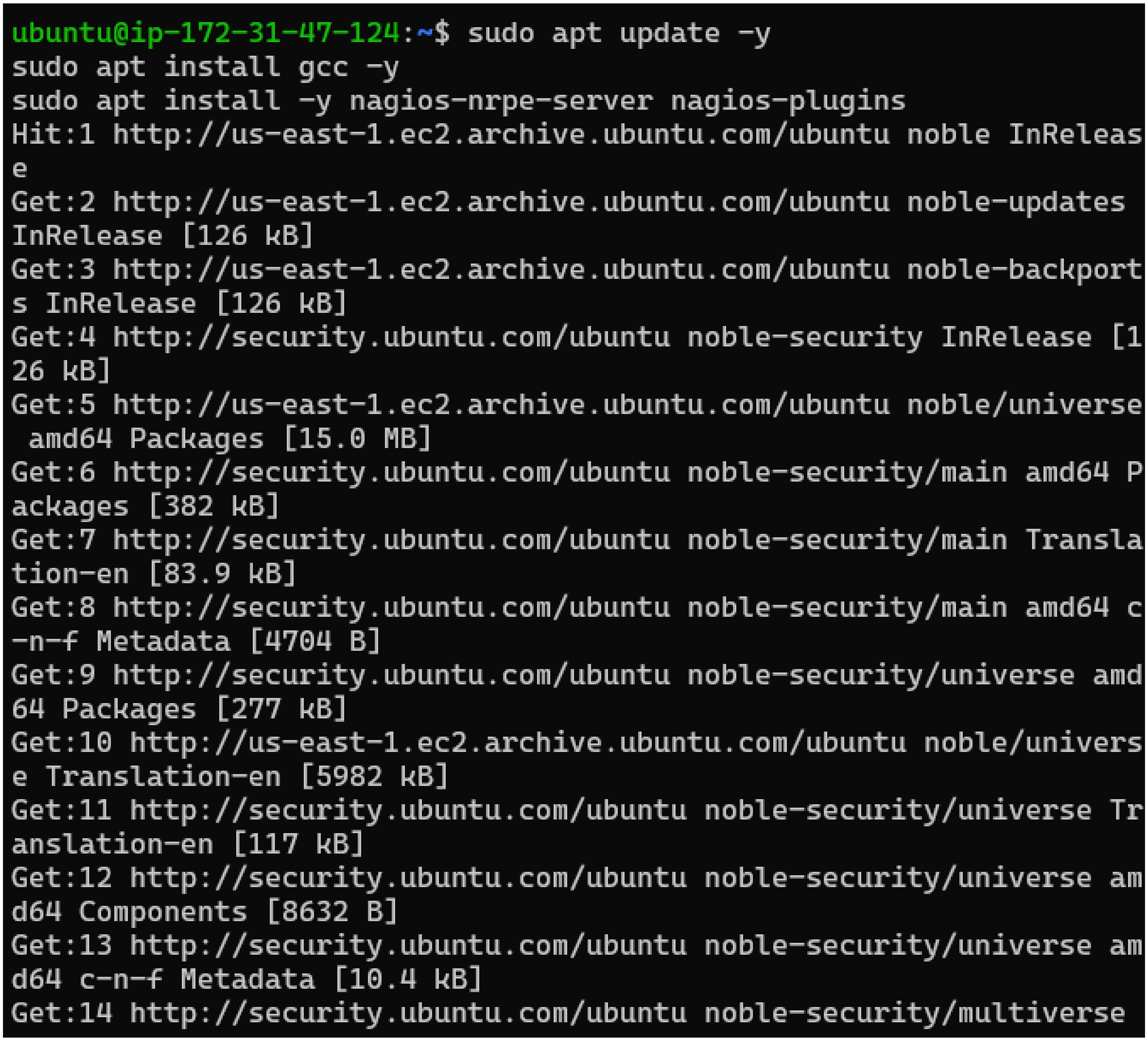
Step 10: Now restart the services of nagios by running the following command.
service nagios restart



```
Things look okay - No serious problems were detected during
[root@ip-172-31-34-108 ec2-user]# service nagios restart
Redirecting to /bin/systemctl restart nagios.service
[root@ip-172-31-34-108 ec2-user]# |
```

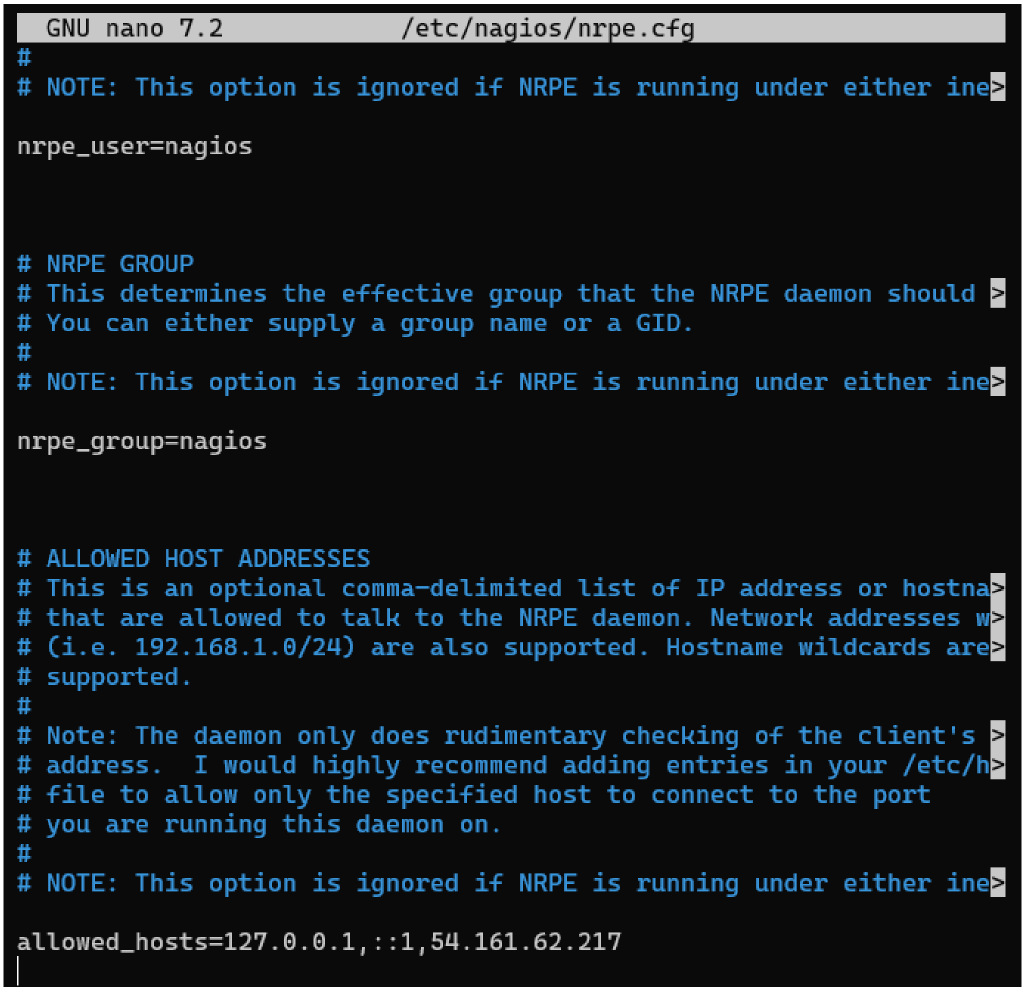
Step 11: Now Go to the Nagios-client ssh terminal and update and install the packages by running the following command.

sudo apt update -y
sudo apt install gcc -y
sudo apt install -y nagios-nrpe-server nagios-plugins



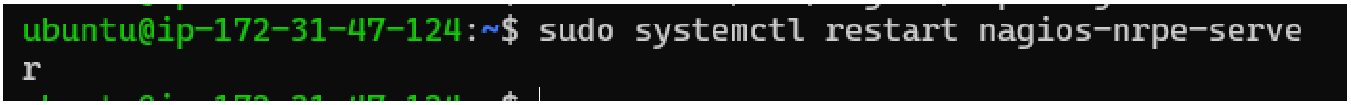
```
ubuntu@ip-172-31-47-124:~$ sudo apt update -y
sudo apt install gcc -y
sudo apt install -y nagios-nrpe-server nagios-plugins
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InReleas
e
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates
InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backport
s InRelease [126 kB]
Get:4 http://security.ubuntu.com/ubuntu noble-security InRelease [1
26 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/universe
 amd64 Packages [15.0 MB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/main amd64 P
ackages [382 kB]
Get:7 http://security.ubuntu.com/ubuntu noble-security/main Transla
tion-en [83.9 kB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 c
-n-f Metadata [4704 B]
Get:9 http://security.ubuntu.com/ubuntu noble-security/universe amd
64 Packages [277 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble/univers
e Translation-en [5982 kB]
Get:11 http://security.ubuntu.com/ubuntu noble-security/universe Tr
anslation-en [117 kB]
Get:12 http://security.ubuntu.com/ubuntu noble-security/universe am
d64 Components [8632 B]
Get:13 http://security.ubuntu.com/ubuntu noble-security/universe am
d64 c-n-f Metadata [10.4 kB]
Get:14 http://security.ubuntu.com/ubuntu noble-security/multiverse
```

Step 12: Open nrpe.cfg file to make changes.Under allowed_hosts, add your nagios host IP address.
sudo sudo nano /etc/nagios/nrpe.cfg



```
  GNU nano 7.2              /etc/nagios/nrpe.cfg
#
# NOTE: This option is ignored if NRPE is running under either ine>

nrpe_user=nagios



# NRPE GROUP
# This determines the effective group that the NRPE daemon should >
# You can either supply a group name or a GID.
#
# NOTE: This option is ignored if NRPE is running under either ine>

nrpe_group=nagios



# ALLOWED HOST ADDRESSES
# This is an optional comma-delimited list of IP address or hostna>
# that are allowed to talk to the NRPE daemon. Network addresses w>
# (i.e. 192.168.1.0/24) are also supported. Hostname wildcards are>
# supported.
#
# Note: The daemon only does rudimentary checking of the client's >
# address.  I would highly recommend adding entries in your /etc/h>
# file to allow only the specified host to connect to the port
# you are running this daemon on.
#
# NOTE: This option is ignored if NRPE is running under either ine>

allowed_hosts=127.0.0.1,::1,54.161.62.217
```

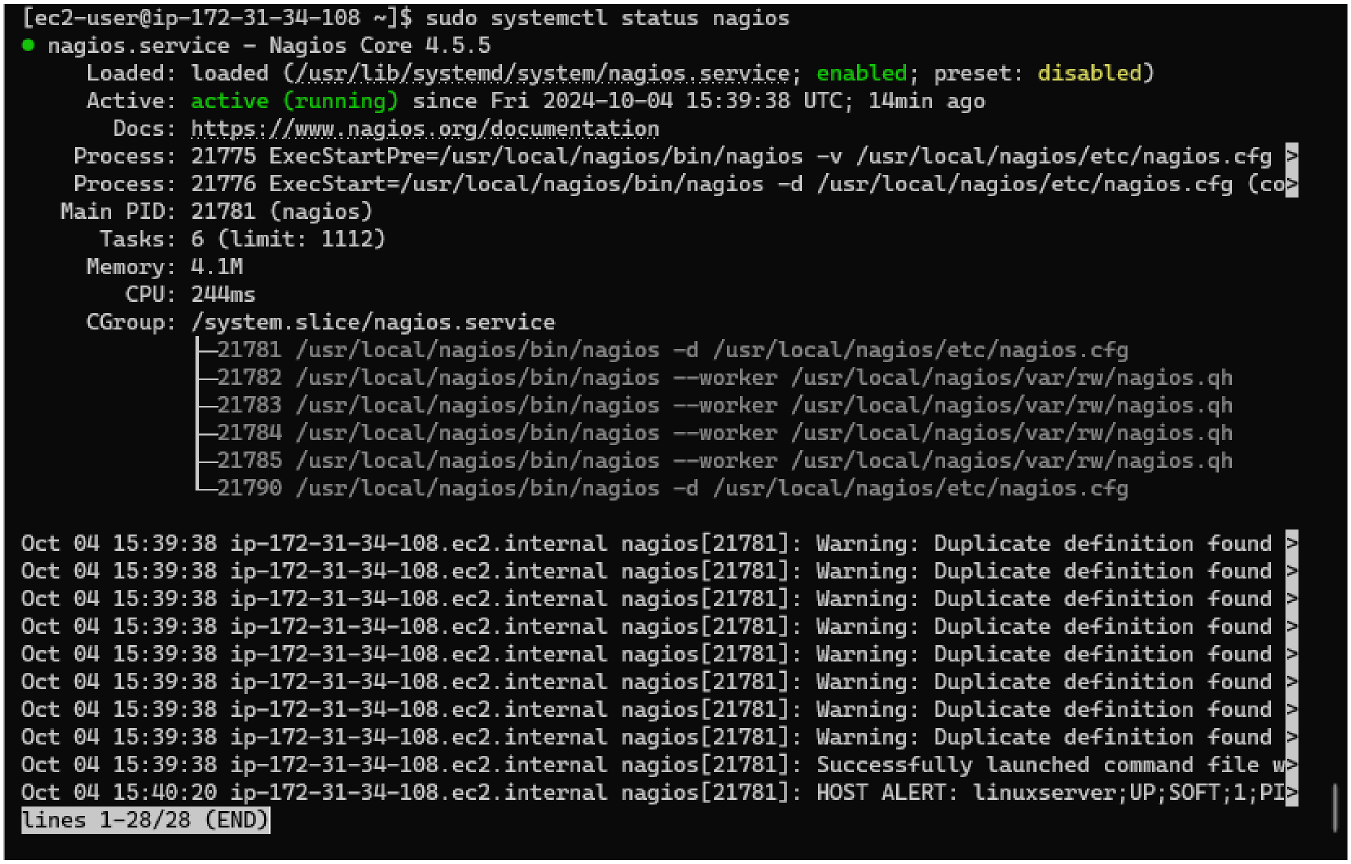
Step 13: Now restart the NRPE server by this command.
sudo systemctl restart nagios-nrpe-server



```
ubuntu@ip-172-31-47-124:~$ sudo systemctl restart nagios-nrpe-serve
r
```

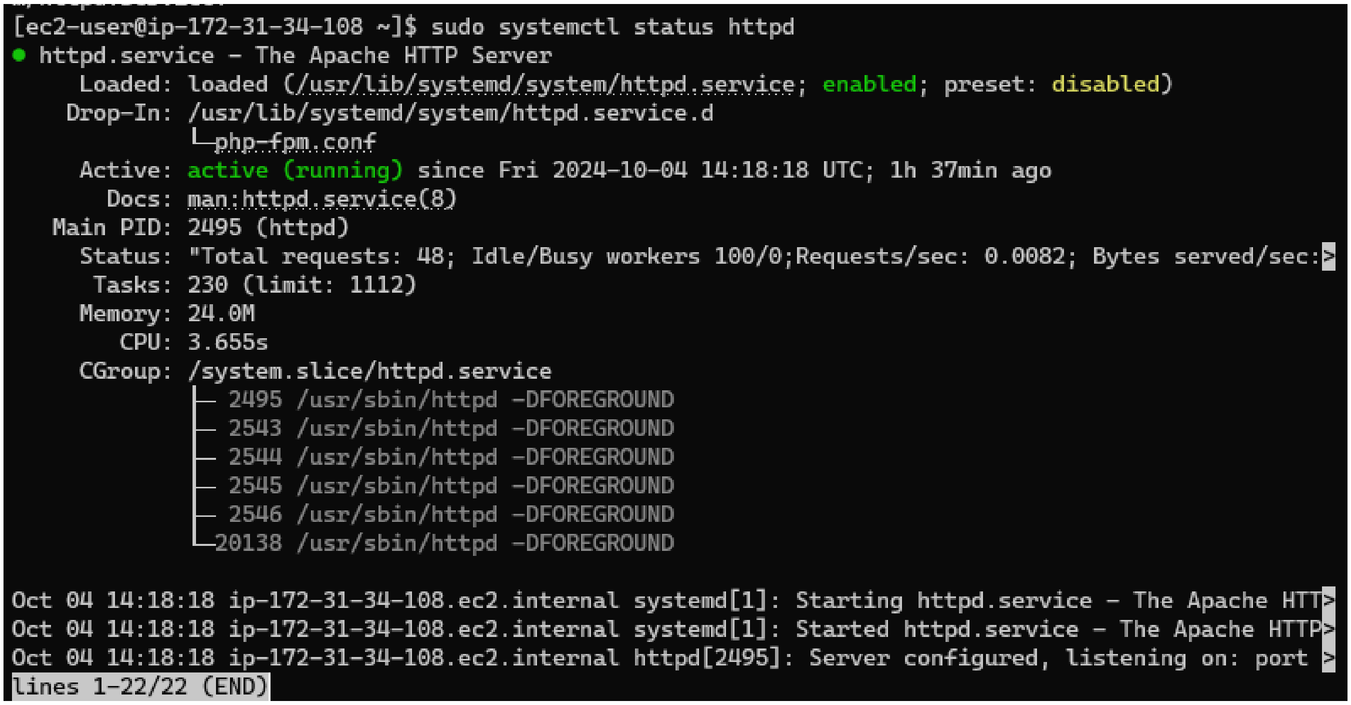
Step 14: Now again check the status of Nagios by running this command on Nagios-host and also check httpd is active and run the command to active it.

sudo systemctl status nagios



```
[ec2-user@ip-172-31-34-108 ~]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.5.5
     Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
     Active: active (running) since Fri 2024-10-04 15:39:38 UTC; 14min ago
       Docs: https://www.nagios.org/documentation
    Process: 21775 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg >
    Process: 21776 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (co>
   Main PID: 21781 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 4.1M
        CPU: 244ms
     CGroup: /system.slice/nagios.service
             ├─21781 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─21782 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─21783 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─21784 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─21785 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─21790 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Warning: Duplicate definition found >
Oct 04 15:39:38 ip-172-31-34-108.ec2.internal nagios[21781]: Successfully launched command file w>
Oct 04 15:40:20 ip-172-31-34-108.ec2.internal nagios[21781]: HOST ALERT: linuxserver;UP;SOFT;1;PI>
lines 1-28/28 (END)
```

sudo systemctl status httpd

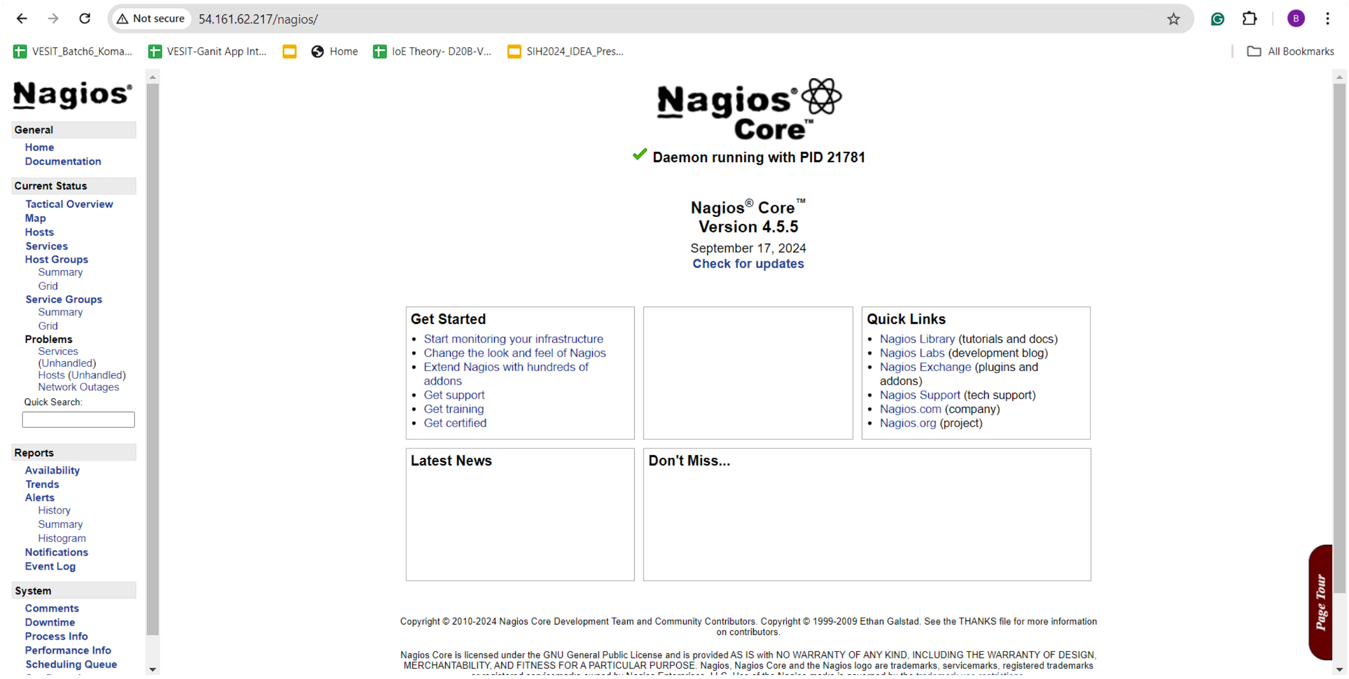


```
[ec2-user@ip-172-31-34-108 ~]$ sudo systemctl status httpd
● httpd.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
    Drop-In: /usr/lib/systemd/system/httpd.service.d
             └─php-fpm.conf
     Active: active (running) since Fri 2024-10-04 14:18:18 UTC; 1h 37min ago
       Docs: man:httpd.service(8)
   Main PID: 2495 (httpd)
     Status: "Total requests: 48; Idle/Busy workers 100/0;Requests/sec: 0.0082; Bytes served/sec:>
      Tasks: 230 (limit: 1112)
     Memory: 24.0M
        CPU: 3.655s
     CGroup: /system.slice/httpd.service
             ├─ 2495 /usr/sbin/httpd -DFOREGROUND
             ├─ 2543 /usr/sbin/httpd -DFOREGROUND
             ├─ 2544 /usr/sbin/httpd -DFOREGROUND
             ├─ 2545 /usr/sbin/httpd -DFOREGROUND
             ├─ 2546 /usr/sbin/httpd -DFOREGROUND
             └─20138 /usr/sbin/httpd -DFOREGROUND

Oct 04 14:18:18 ip-172-31-34-108.ec2.internal systemd[1]: Starting httpd.service - The Apache HTT>
Oct 04 14:18:18 ip-172-31-34-108.ec2.internal systemd[1]: Started httpd.service - The Apache HTTP>
Oct 04 14:18:18 ip-172-31-34-108.ec2.internal httpd[2495]: Server configured, listening on: port >
lines 1-22/22 (END)
```

sudo systemctl start httpd

sudo systemctl enable httpd

Step 15: Now to check Nagios dashboard go to http://<Nagios-host ip>/nagios .



✓ Daemon running with PID 21781

Nagios® Core™
Version 4.5.5
September 17, 2024
Check for updates

Get Started

- Start monitoring your infrastructure
- Change the look and feel of Nagios
- Extend Nagios with hundreds of addons
- Get support
- Get training
- Get certified

Quick Links

- Nagios Library (tutorials and docs)
- Nagios Labs (development blog)
- Nagios Exchange (plugins and addons)
- Nagios Support (tech support)
- Nagios.com (company)
- Nagios.org (project)

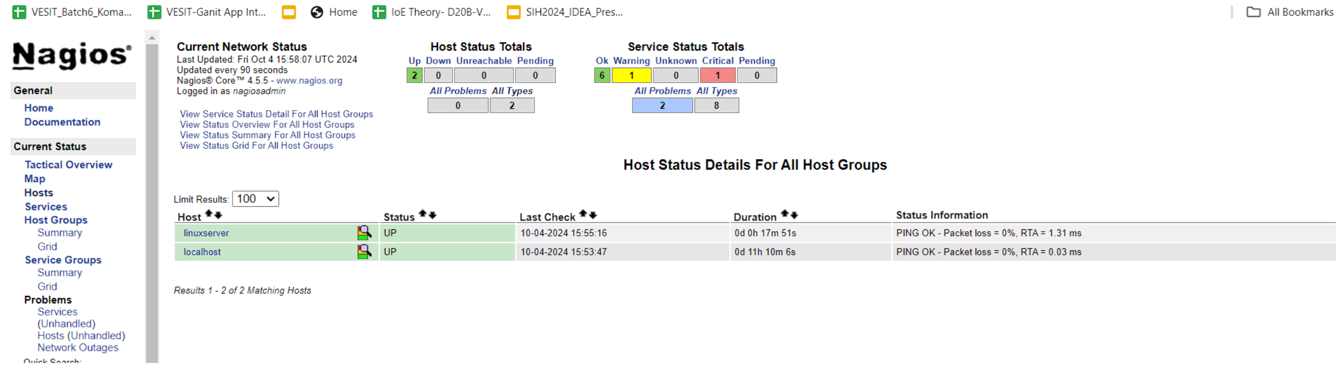
Latest News

Don't Miss...

Now Click on Hosts from left side panel

We can see our linuxserver now click on it we can see the host information.

Current Network Status



Current Network Status
Last Updated: Fri Oct 4 15:58:07 UTC 2024
Updated every 90 seconds
Nagios® Core™ 4.5.5 - www.nagios.org
Logged in as *nagiosadmin*

View Service Status Detail For All Host Groups
View Status Overview For All Host Groups
View Status Summary For All Host Groups
View Status Grid For All Host Groups

Host Status Totals

Up	Down	Unreachable	Pending
2	0	0	0

All Problems	*All Types*
0	2

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
6	1	0	1	0

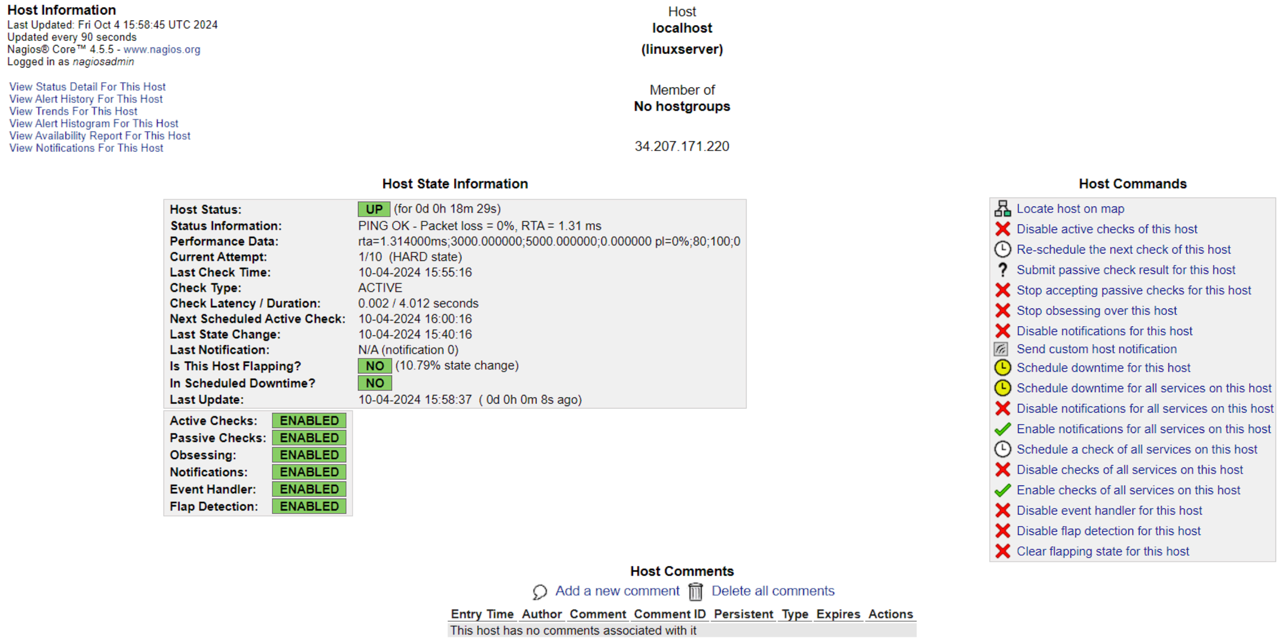
All Problems	*All Types*
2	8

Host Status Details For All Host Groups

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
linuxserver	UP	10-04-2024 15:55:16	0d 0h 17m 51s	PING OK - Packet loss = 0%, RTA = 1.31 ms
localhost	UP	10-04-2024 15:53:47	0d 11h 10m 6s	PING OK - Packet loss = 0%, RTA = 0.03 ms

Results 1 - 2 of 2 Matching Hosts



Host Information
Last Updated: Fri Oct 4 15:58:45 UTC 2024
Updated every 90 seconds
Nagios® Core™ 4.5.5 - www.nagios.org
Logged in as *nagiosadmin*

View Status Detail For This Host
View Alert History For This Host
View Trends For This Host
View Alert Histogram For This Host
View Availability Report For This Host
View Notifications For This Host

Host
localhost
(linuxserver)

Member of
No hostgroups

34.207.171.220

Host State Information

Host Status:	UP (for 0d 0h 18m 29s)
Status Information:	PING OK - Packet loss = 0%, RTA = 1.31 ms
Performance Data:	rta=1.314000ms;3000.000000;5000.000000;0.000000 pl=0%;80;100;0
Current Attempt:	1/10 (HARD state)
Last Check Time:	10-04-2024 15:55:16
Check Type:	ACTIVE
Check Latency / Duration:	0.002 / 4.012 seconds
Next Scheduled Active Check:	10-04-2024 16:00:16
Last State Change:	10-04-2024 15:40:16
Last Notification:	N/A (notification 0)
Is This Host Flapping?	NO (10.79% state change)
In Scheduled Downtime?	NO
Last Update:	10-04-2024 15:58:37 (0d 0h 0m 8s ago)

Active Checks:	ENABLED
Passive Checks:	ENABLED
Obsessing:	ENABLED
Notifications:	ENABLED
Event Handler:	ENABLED
Flap Detection:	ENABLED

Host Commands

Locate host on map
✗ Disable active checks of this host
Re-schedule the next check of this host
? Submit passive check result for this host
✗ Stop accepting passive checks for this host
✗ Stop obsessing over this host
✗ Disable notifications for this host
Send custom host notification
Schedule downtime for this host
Schedule downtime for all services on this host
✗ Disable notifications for all services on this host
✓ Enable notifications for all services on this host
Schedule a check of all services on this host
✗ Disable checks of all services on this host
✓ Enable checks of all services on this host
✗ Disable event handler for this host
✗ Disable flap detection for this host
✗ Clear flapping state for this host

Host Comments

Add a new comment Delete all comments

Entry Time	Author	Comment	Comment ID	Persistent	Type	Expires	Actions
This host has no comments associated with it							

Conclusion: In conclusion, the experiment focused on monitoring ports, services, and a Linux server using Nagios. Through the step-by-step process, we successfully configured Nagios to monitor essential network services on the Linux server. By setting up both the Nagios host and client, we were able to track system performance, ensure service availability, and monitor key metrics like CPU and memory usage.