Adv DevOps Practical 9

Aim: To Understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor) on Linux Machine.

Theory:

What is Nagios?

Nagios is an open-source software for continuous monitoring of systems, networks, and infrastructures. It runs plugins stored on a server that is connected with a host or another server on your network or the Internet. In case of any failure, Nagios alerts about the issues so that the technical team can perform the recovery process immediately.

Nagios is used for continuous monitoring of systems, applications, service and business processes in a DevOps culture

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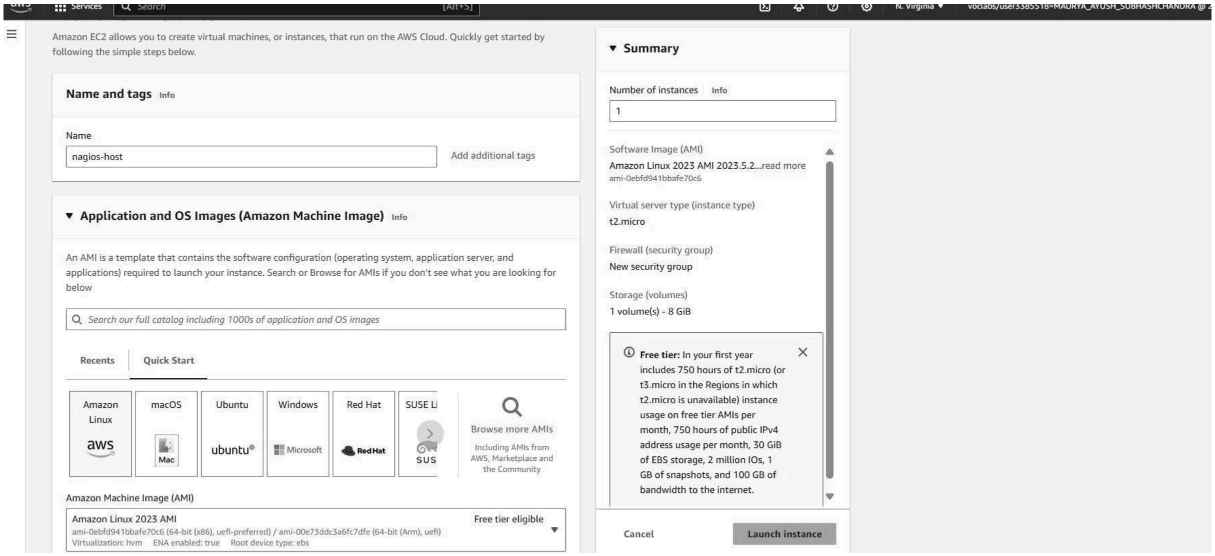
Installation of Nagios

Prerequisites: AWS Free Tier

Steps:

1. Create an Amazon Linux EC2 Instance in AWS and name it - nagios-host



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-host

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

Amazon Machine Image (AMI)

Amazon Linux 2023 AMI — Free tier eligible
ami-0ebfd941bbafe70c6 (64-bit (x86), uefi-preferred) / ami-00e73ddc3a6fc7dfe (64-bit (Arm), uefi)
Virtualization: hvm ENA enabled: true Root device type: ebs

Summary

Number of instances Info: 1

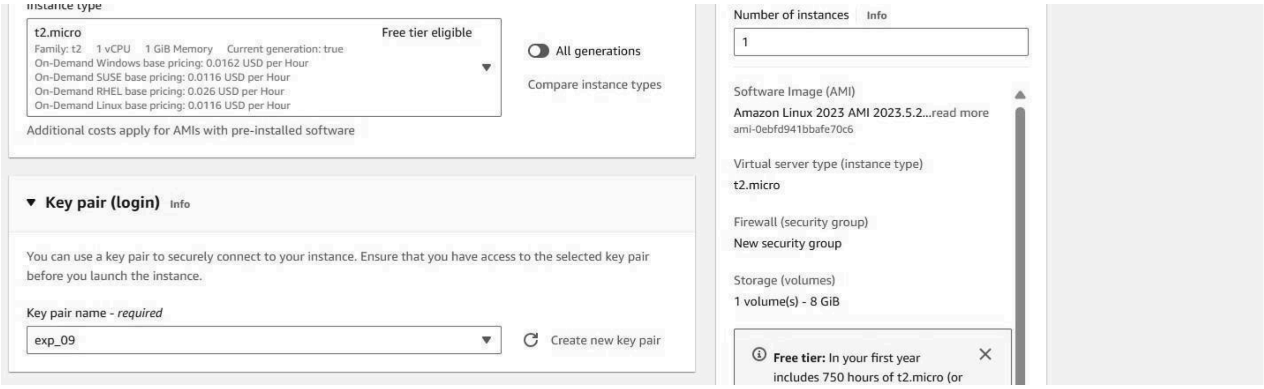
Software Image (AMI): Amazon Linux 2023 AMI 2023.5.2...read more
ami-0ebfd941bbafe70c6

Virtual server type (instance type): t2.micro

Firewall (security group): New security group

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.



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

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.

Key pair name - *required*
exp_09

Number of instances Info
1

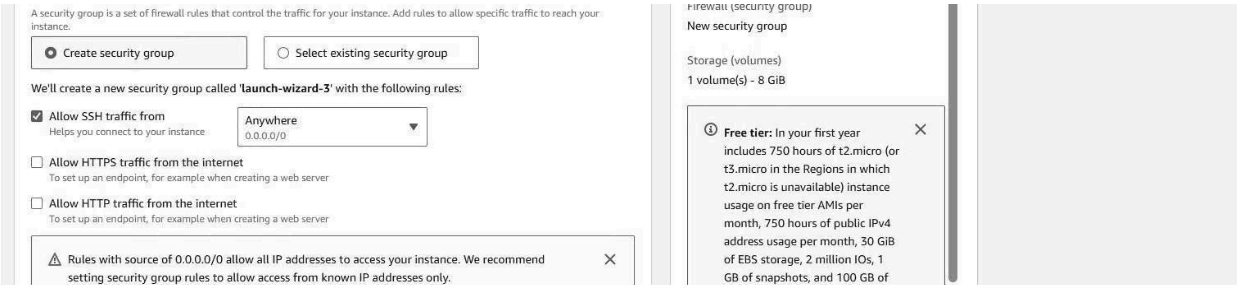
Software Image (AMI)
Amazon Linux 2023 AMI 2023.5.2...read more
ami-0ebfd941bbafe70c6

Virtual server type (instance type)
t2.micro

Firewall (security group)
New security group

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

Free tier: In your first year includes 750 hours of t2.micro (or



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

We'll create a new security group called '**launch-wizard-3**' with the following rules:

☑ Allow SSH traffic from — Anywhere 0.0.0.0/0
Helps you connect to your instance

□ Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

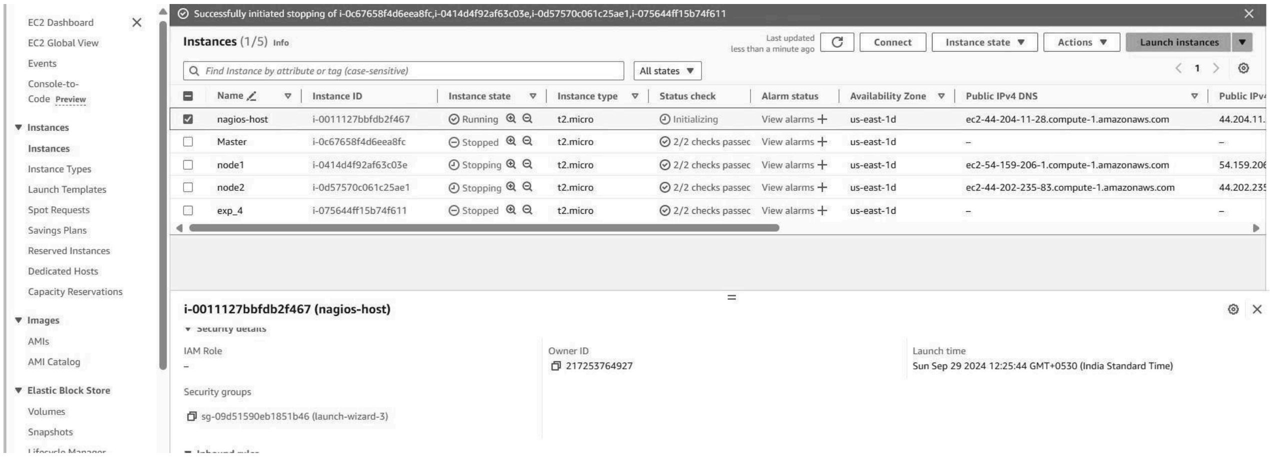
□ Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

Firewall (security group)
New security group

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



Successfully initiated stopping of i-0c67658f4d6eea8fc,i-0414d4f92af63c03e,i-0d57570c061c25ae1,i-075644ff15b74f611

Instances (1/5) Info

Last updated less than a minute ago
Connect
Instance state ▼
Actions ▼
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states ▼

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv
☑	nagios-host	i-0011127bbfdb2f467	Running	t2.micro	Initializing	View alarms +	us-east-1d	ec2-44-204-11-28.compute-1.amazonaws.com	44.204.11.
□	Master	i-0c67658f4d6eea8fc	Stopped	t2.micro	2/2 checks passec	View alarms +	us-east-1d	–	–
□	node1	i-0414d4f92af63c03e	Stopping	t2.micro	2/2 checks passec	View alarms +	us-east-1d	ec2-54-159-206-1.compute-1.amazonaws.com	54.159.206
□	node2	i-0d57570c061c25ae1	Stopping	t2.micro	2/2 checks passec	View alarms +	us-east-1d	ec2-44-202-235-83.compute-1.amazonaws.com	44.202.235
□	exp_4	i-075644ff15b74f611	Stopped	t2.micro	2/2 checks passec	View alarms +	us-east-1d	–	–

i-0011127bbfdb2f467 (nagios-host)

▼ Security details

IAM Role
–

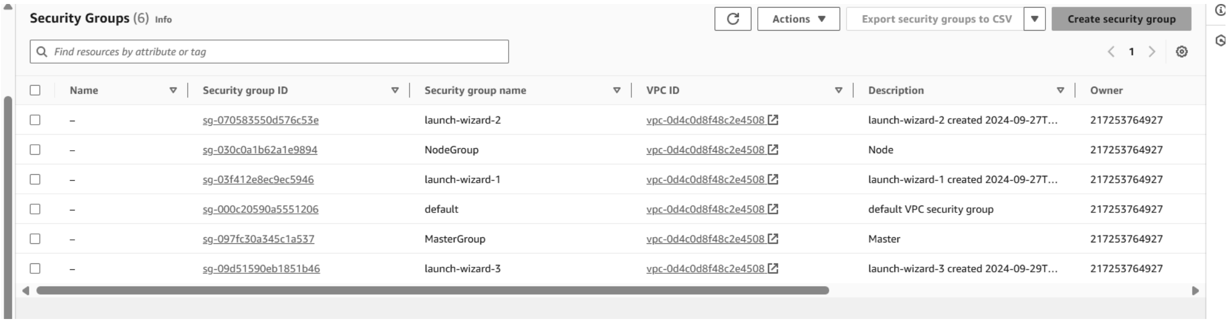
Owner ID
217253764927

Launch time
Sun Sep 29 2024 12:25:44 GMT+0530 (India Standard Time)

Security groups
sg-09d51590eb1851b46 (launch-wizard-3)

▼ Inbound rules

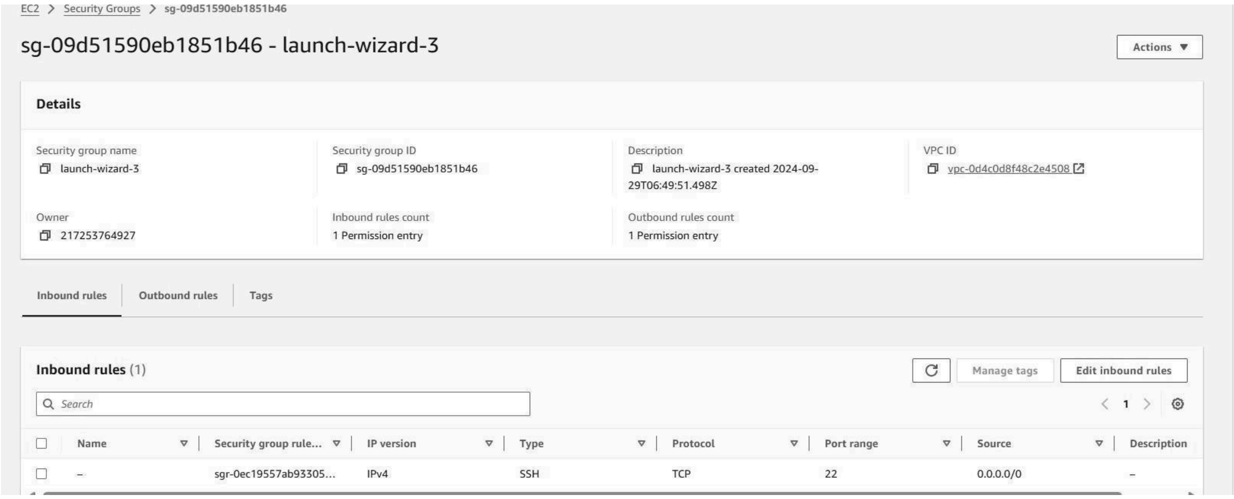
2. Under Security Group, make sure HTTP, HTTPS, SSH, ICMP are open from everywhere.



Security Groups (6) Info

Actions ▼
Export security groups to CSV
Create security group
Find resources by attribute or tag

	Name	Security group ID	Security group name	VPC ID	Description	Owner
□	–	sg-070583550d576c53e	launch-wizard-2	vpc-0d4c0d8f48c2e4508	launch-wizard-2 created 2024-09-27T...	217253764927
□	–	sg-030c0a1b62a1e9894	NodeGroup	vpc-0d4c0d8f48c2e4508	Node	217253764927
□	–	sg-03f412e8ec9ec5946	launch-wizard-1	vpc-0d4c0d8f48c2e4508	launch-wizard-1 created 2024-09-27T...	217253764927
□	–	sg-000c20590a5551206	default	vpc-0d4c0d8f48c2e4508	default VPC security group	217253764927
□	–	sg-097fc30a345c1a537	MasterGroup	vpc-0d4c0d8f48c2e4508	Master	217253764927
□	–	sg-09d51590eb1851b46	launch-wizard-3	vpc-0d4c0d8f48c2e4508	launch-wizard-3 created 2024-09-29T...	217253764927



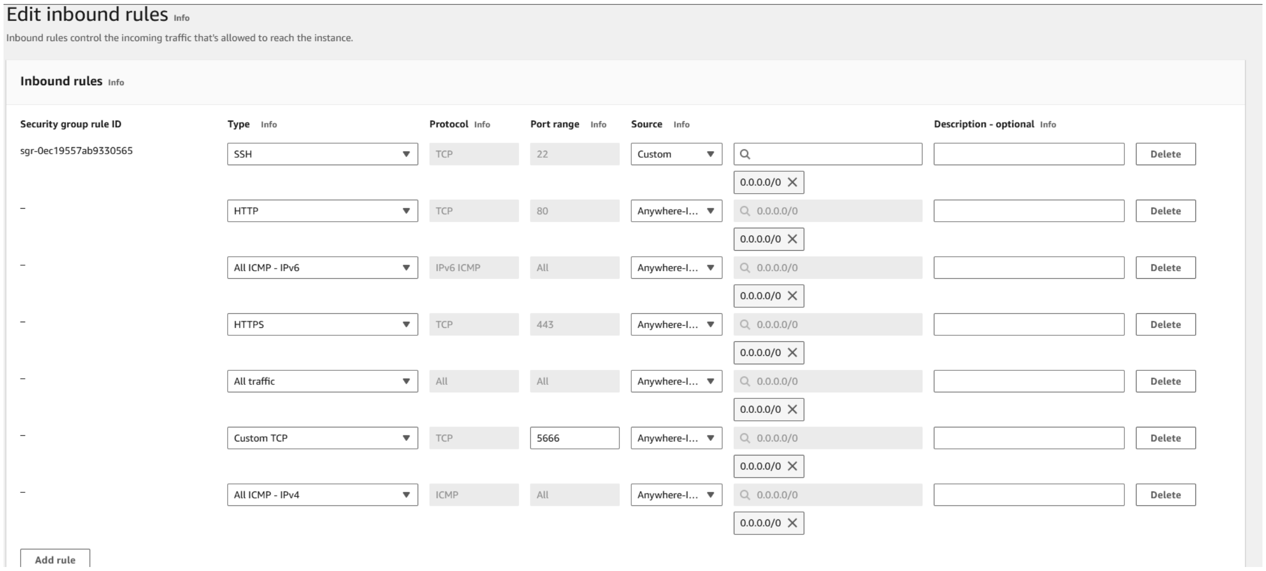
sg-09d51590eb1851b46 - launch-wizard-3

Details

Security group name launch-wizard-3	Security group ID sg-09d51590eb1851b46	Description launch-wizard-3 created 2024-09-29T06:49:51.498Z	VPC ID vpc-0d4c0d8f48c2e4508
Owner 217253764927	Inbound rules count 1 Permission entry	Outbound rules count 1 Permission entry	

Inbound rules (1)

□	Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
□	–	sgr-0ec19557ab93305...	IPv4	SSH	TCP	22	0.0.0.0/0	–

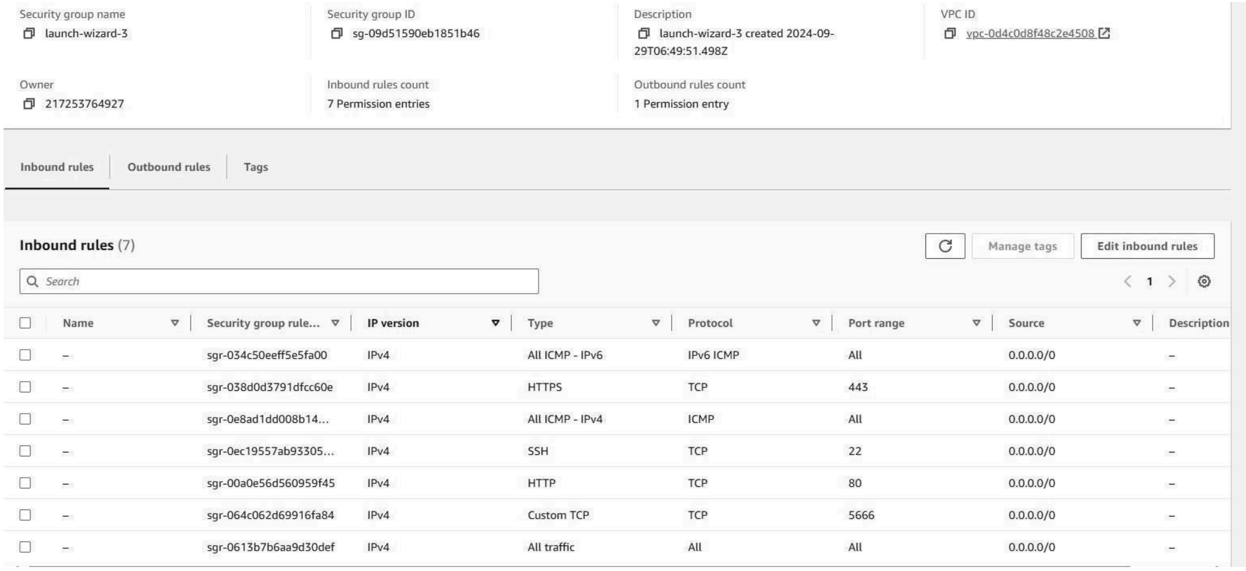


Edit inbound rules Info

Inbound rules control the incoming traffic that's allowed to reach the instance.

Inbound rules Info

Security group rule ID	Type	Protocol	Port range	Source		Description - optional	
sgr-0ec19557ab9330565	SSH	TCP	22	Custom	0.0.0.0/0 ✕		Delete
–	HTTP	TCP	80	Anywhere-I...	0.0.0.0/0 0.0.0.0/0 ✕		Delete
–	All ICMP - IPv6	IPv6 ICMP	All	Anywhere-I...	0.0.0.0/0 0.0.0.0/0 ✕		Delete
–	HTTPS	TCP	443	Anywhere-I...	0.0.0.0/0 0.0.0.0/0 ✕		Delete
–	All traffic	All	All	Anywhere-I...	0.0.0.0/0 0.0.0.0/0 ✕		Delete
–	Custom TCP	TCP	5666	Anywhere-I...	0.0.0.0/0 0.0.0.0/0 ✕		Delete
–	All ICMP - IPv4	ICMP	All	Anywhere-I...	0.0.0.0/0 0.0.0.0/0 ✕		Delete



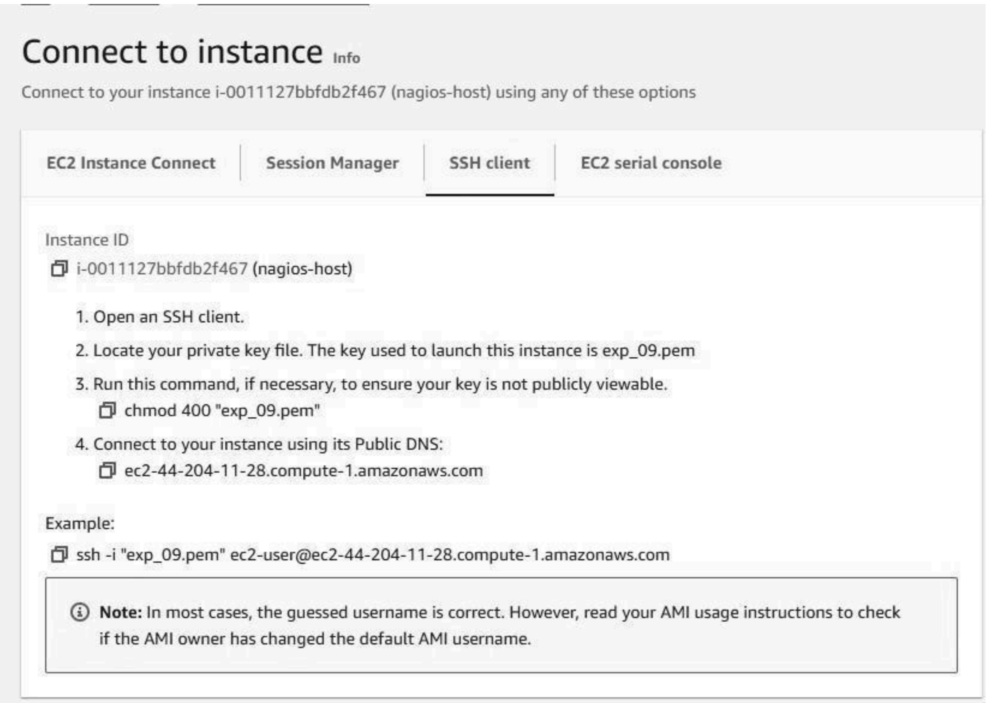
Security group name launch-wizard-3	Security group ID sg-09d51590eb1851b46	Description launch-wizard-3 created 2024-09-29T06:49:51.498Z	VPC ID vpc-0d4c0d8f48c2e4508
Owner 217253764927	Inbound rules count 7 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules (7)

□	Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
□	–	sgr-034c50eeff5e5fa00	IPv4	All ICMP - IPv6	IPv6 ICMP	All	0.0.0.0/0	–
□	–	sgr-038d0d3791dfcc60e	IPv4	HTTPS	TCP	443	0.0.0.0/0	–
□	–	sgr-0e8ad1dd008b14...	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0	–
□	–	sgr-0ec19557ab93305...	IPv4	SSH	TCP	22	0.0.0.0/0	–
□	–	sgr-00a0e56d560959f45	IPv4	HTTP	TCP	80	0.0.0.0/0	–
□	–	sgr-064c062d69916fa84	IPv4	Custom TCP	TCP	5666	0.0.0.0/0	–
□	–	sgr-0613b7b6aa9d30def	IPv4	All traffic	All	All	0.0.0.0/0	–

You have to edit the inbound rules of the specified Security Group for this.

3. SSH into Your EC2 instance or simply use EC2 Instance Connect from the browser.



Connect to instance

Connect to your instance i-0011127bbfdb2f467 (nagios-host) using any of these options

Instance ID

i-0011127bbfdb2f467 (nagios-host)

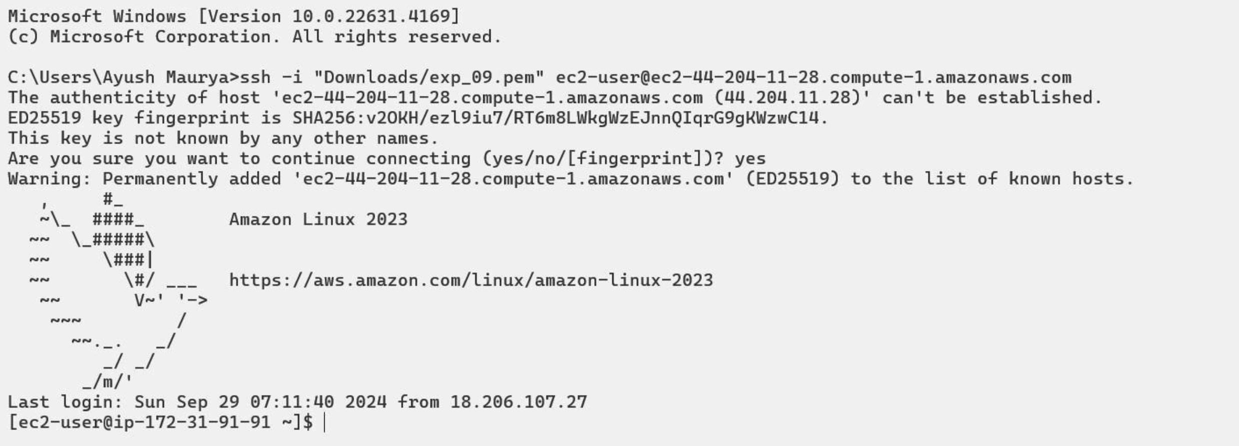
1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is exp_09.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.
   chmod 400 "exp_09.pem"
4. Connect to your instance using its Public DNS:
   ec2-44-204-11-28.compute-1.amazonaws.com

Example:

ssh -i "exp_09.pem" ec2-user@ec2-44-204-11-28.compute-1.amazonaws.com

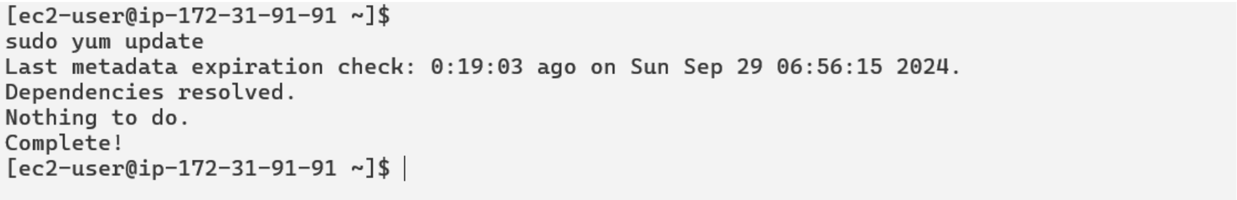
Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Or open command prompt and paste ssh command.



```
Microsoft Windows [Version 10.0.22631.4169]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Ayush Maurya>ssh -i "Downloads/exp_09.pem" ec2-user@ec2-44-204-11-28.compute-1.amazonaws.com
The authenticity of host 'ec2-44-204-11-28.compute-1.amazonaws.com (44.204.11.28)' can't be established.
ED25519 key fingerprint is SHA256:v2OKH/ezl9iu7/RT6m8LWkgWzEJnnQIqrG9gKWzwC14.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-44-204-11-28.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
   ,     #_
   ~\_  ####_        Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___   https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
       _/m/'
Last login: Sun Sep 29 07:11:40 2024 from 18.206.107.27
[ec2-user@ip-172-31-91-91 ~]$ |
```

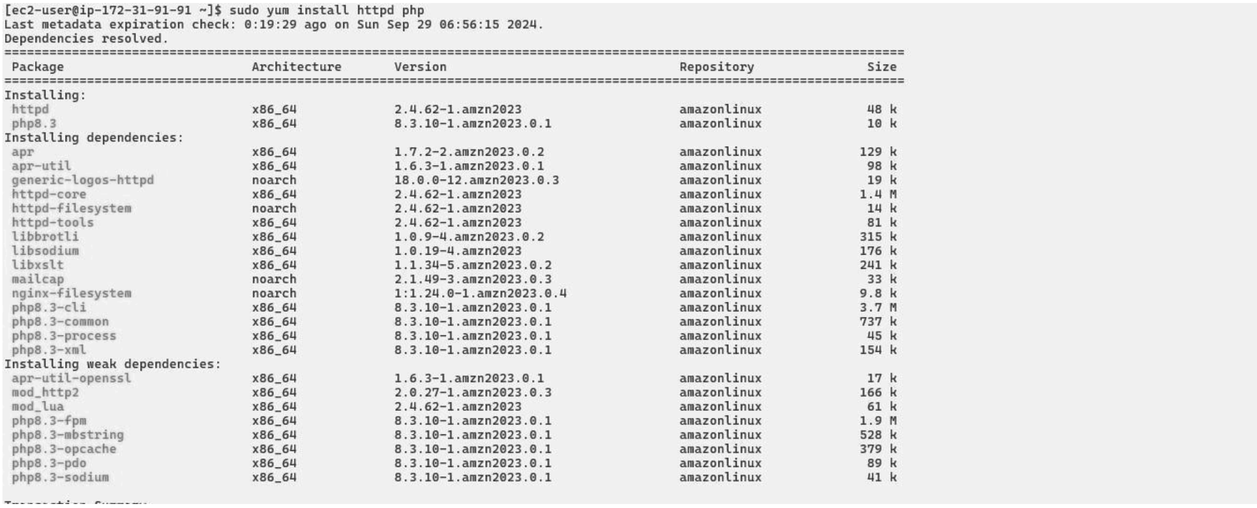
sudo yum update



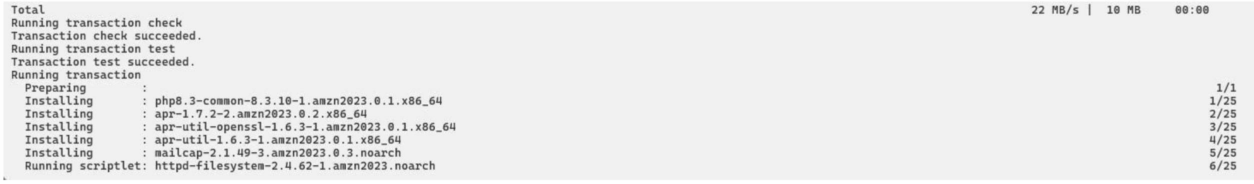
```
[ec2-user@ip-172-31-91-91 ~]$
sudo yum update
Last metadata expiration check: 0:19:03 ago on Sun Sep 29 06:56:15 2024.
Dependencies resolved.
Nothing to do.
Complete!
[ec2-user@ip-172-31-91-91 ~]$ |
```

NAME :HIMANSHU NAIK DIV : D15C ROLL NO:63

sudo yum install httpd php

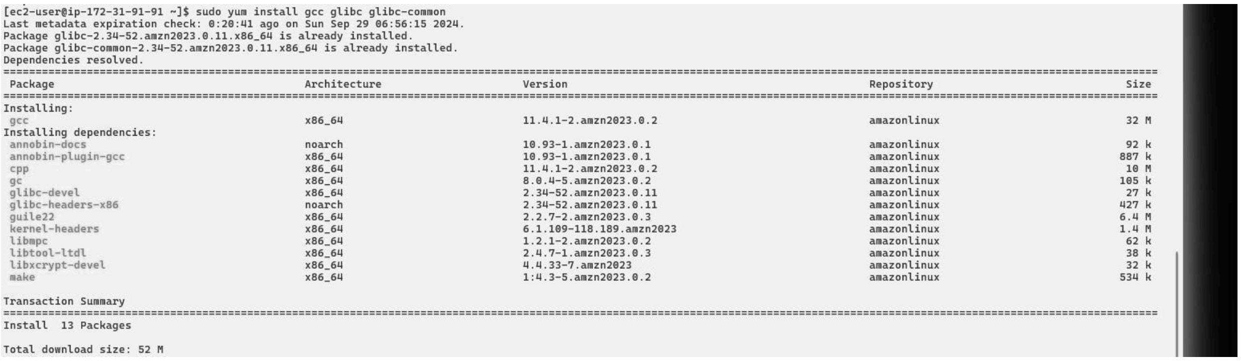


```
[ec2-user@ip-172-31-91-91 ~]$ sudo yum install httpd php
Last metadata expiration check: 0:19:29 ago on Sun Sep 29 06:56:15 2024.
Dependencies resolved.
================================================================================================================
 Package                          Architecture       Version                              Repository       Size
================================================================================================================
Installing:
 httpd                            x86_64             2.4.62-1.amzn2023                    amazonlinux      48 k
 php8.3                           x86_64             8.3.10-1.amzn2023.0.1                amazonlinux      10 k
Installing dependencies:
 apr                              x86_64             1.7.2-2.amzn2023.0.2                 amazonlinux     129 k
 apr-util                         x86_64             1.6.3-1.amzn2023.0.1                 amazonlinux      98 k
 generic-logos-httpd              noarch             18.0.0-12.amzn2023.0.3               amazonlinux      19 k
 httpd-core                       x86_64             2.4.62-1.amzn2023                    amazonlinux     1.4 M
 httpd-filesystem                 noarch             2.4.62-1.amzn2023                    amazonlinux      14 k
 httpd-tools                      x86_64             2.4.62-1.amzn2023                    amazonlinux      81 k
 libbrotli                        x86_64             1.0.9-4.amzn2023.0.2                 amazonlinux     315 k
 libsodium                        x86_64             1.0.19-4.amzn2023                    amazonlinux     176 k
 libxslt                          x86_64             1.1.34-5.amzn2023.0.2                amazonlinux     241 k
 mailcap                          noarch             2.1.49-3.amzn2023.0.3                amazonlinux      33 k
 nginx-filesystem                 noarch             1:1.24.0-1.amzn2023.0.4              amazonlinux     9.8 k
 php8.3-cli                       x86_64             8.3.10-1.amzn2023.0.1                amazonlinux     3.7 M
 php8.3-common                    x86_64             8.3.10-1.amzn2023.0.1                amazonlinux     737 k
 php8.3-process                   x86_64             8.3.10-1.amzn2023.0.1                amazonlinux      45 k
 php8.3-xml                       x86_64             8.3.10-1.amzn2023.0.1                amazonlinux     154 k
Installing weak dependencies:
 apr-util-openssl                 x86_64             1.6.3-1.amzn2023.0.1                 amazonlinux      17 k
 mod_http2                        x86_64             2.0.27-1.amzn2023.0.3                amazonlinux     166 k
 mod_lua                          x86_64             2.4.62-1.amzn2023                    amazonlinux      61 k
 php8.3-fpm                       x86_64             8.3.10-1.amzn2023.0.1                amazonlinux     1.9 M
 php8.3-mbstring                  x86_64             8.3.10-1.amzn2023.0.1                amazonlinux     528 k
 php8.3-opcache                   x86_64             8.3.10-1.amzn2023.0.1                amazonlinux     379 k
 php8.3-pdo                       x86_64             8.3.10-1.amzn2023.0.1                amazonlinux      89 k
 php8.3-sodium                    x86_64             8.3.10-1.amzn2023.0.1                amazonlinux      41 k
```

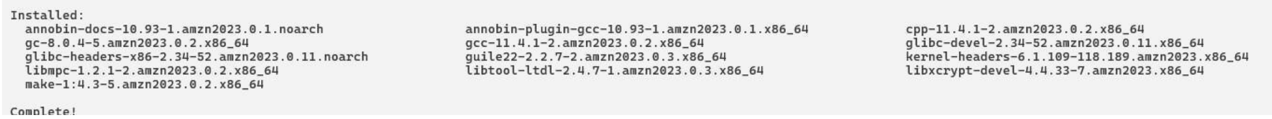


```
Total                                                                                  22 MB/s |  10 MB     00:00
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                                                          1/1
  Installing       : php8.3-common-8.3.10-1.amzn2023.0.1.x86_64                                              1/25
  Installing       : apr-1.7.2-2.amzn2023.0.2.x86_64                                                         2/25
  Installing       : apr-util-openssl-1.6.3-1.amzn2023.0.1.x86_64                                            3/25
  Installing       : apr-util-1.6.3-1.amzn2023.0.1.x86_64                                                    4/25
  Installing       : mailcap-2.1.49-3.amzn2023.0.3.noarch                                                    5/25
  Running scriptlet: httpd-filesystem-2.4.62-1.amzn2023.noarch                                               6/25
```

sudo yum install gcc glibc glibc-common

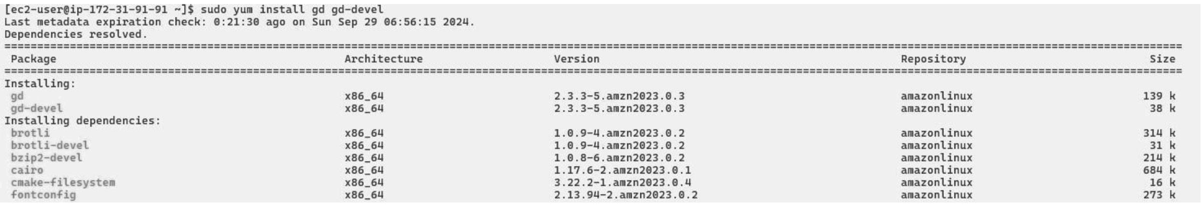


```
[ec2-user@ip-172-31-91-91 ~]$ sudo yum install gcc glibc glibc-common
Last metadata expiration check: 0:20:41 ago on Sun Sep 29 06:56:15 2024.
Package glibc-2.34-52.amzn2023.0.11.x86_64 is already installed.
Package glibc-common-2.34-52.amzn2023.0.11.x86_64 is already installed.
Dependencies resolved.
======================================================================================================================
 Package                    Architecture          Version                              Repository               Size
======================================================================================================================
Installing:
 gcc                        x86_64                11.4.1-2.amzn2023.0.2                amazonlinux              32 M
Installing dependencies:
 annobin-docs               noarch                10.93-1.amzn2023.0.1                 amazonlinux              92 k
 annobin-plugin-gcc         x86_64                10.93-1.amzn2023.0.1                 amazonlinux             887 k
 cpp                        x86_64                11.4.1-2.amzn2023.0.2                amazonlinux              10 M
 gc                         x86_64                8.0.4-5.amzn2023.0.2                 amazonlinux             105 k
 glibc-devel                x86_64                2.34-52.amzn2023.0.11                amazonlinux              27 k
 glibc-headers-x86          noarch                2.34-52.amzn2023.0.11                amazonlinux             427 k
 guile22                    x86_64                2.2.7-2.amzn2023.0.3                 amazonlinux             6.4 M
 kernel-headers             x86_64                6.1.109-118.189.amzn2023             amazonlinux             1.4 M
 libmpc                     x86_64                1.2.1-2.amzn2023.0.2                 amazonlinux              62 k
 libtool-ltdl               x86_64                2.4.7-1.amzn2023.0.3                 amazonlinux              38 k
 libxcrypt-devel            x86_64                4.4.33-7.amzn2023                    amazonlinux              32 k
 make                       x86_64                1:4.3-5.amzn2023.0.2                 amazonlinux             534 k

Transaction Summary
======================================================================================================================
Install  13 Packages

Total download size: 52 M
```

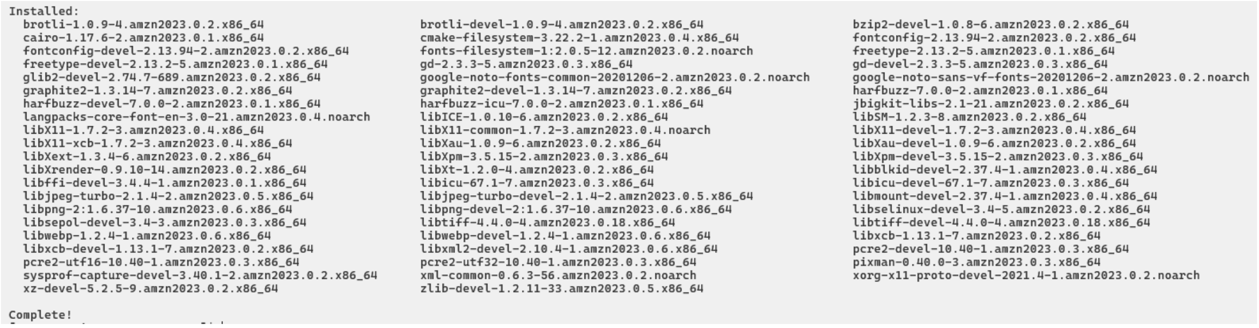


```
Installed:
  annobin-docs-10.93-1.amzn2023.0.1.noarch            annobin-plugin-gcc-10.93-1.amzn2023.0.1.x86_64      cpp-11.4.1-2.amzn2023.0.2.x86_64
  gc-8.0.4-5.amzn2023.0.2.x86_64                      gcc-11.4.1-2.amzn2023.0.2.x86_64                    glibc-devel-2.34-52.amzn2023.0.11.x86_64
  glibc-headers-x86-2.34-52.amzn2023.0.11.noarch      guile22-2.2.7-2.amzn2023.0.3.x86_64                 kernel-headers-6.1.109-118.189.amzn2023.x86_64
  libmpc-1.2.1-2.amzn2023.0.2.x86_64                  libtool-ltdl-2.4.7-1.amzn2023.0.3.x86_64            libxcrypt-devel-4.4.33-7.amzn2023.x86_64
  make-1:4.3-5.amzn2023.0.2.x86_64

Complete!
```

sudo yum install gd gd-devel



```
[ec2-user@ip-172-31-91-91 ~]$ sudo yum install gd gd-devel
Last metadata expiration check: 0:21:30 ago on Sun Sep 29 06:56:15 2024.
Dependencies resolved.
======================================================================================================================
 Package                    Architecture          Version                              Repository               Size
======================================================================================================================
Installing:
 gd                         x86_64                2.3.3-5.amzn2023.0.3                 amazonlinux             139 k
 gd-devel                   x86_64                2.3.3-5.amzn2023.0.3                 amazonlinux              38 k
Installing dependencies:
 brotli                     x86_64                1.0.9-4.amzn2023.0.2                 amazonlinux             314 k
 brotli-devel               x86_64                1.0.9-4.amzn2023.0.2                 amazonlinux              31 k
 bzip2-devel                x86_64                1.0.8-6.amzn2023.0.2                 amazonlinux             214 k
 cairo                      x86_64                1.17.6-2.amzn2023.0.1                amazonlinux             684 k
 cmake-filesystem           x86_64                3.22.2-1.amzn2023.0.4                amazonlinux              16 k
 fontconfig                 x86_64                2.13.94-2.amzn2023.0.2               amazonlinux             273 k
```



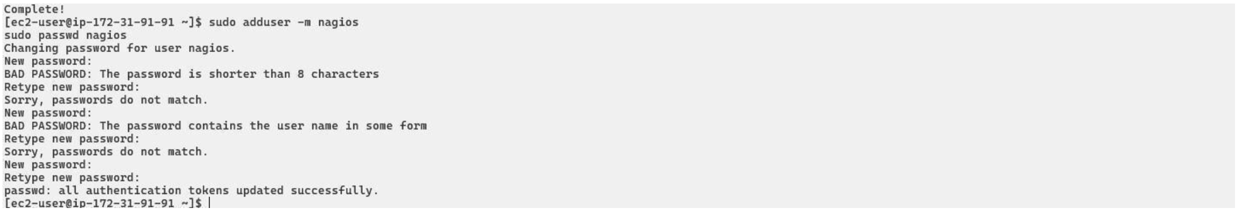
```
Installed:
  brotli-1.0.9-4.amzn2023.0.2.x86_64                    brotli-devel-1.0.9-4.amzn2023.0.2.x86_64                    bzip2-devel-1.0.8-6.amzn2023.0.2.x86_64
  cairo-1.17.6-2.amzn2023.0.1.x86_64                    cmake-filesystem-3.22.2-1.amzn2023.0.4.x86_64               fontconfig-2.13.94-2.amzn2023.0.2.x86_64
  fontconfig-devel-2.13.94-2.amzn2023.0.2.x86_64        fonts-filesystem-1:2.0.5-12.amzn2023.0.2.noarch             freetype-2.13.2-5.amzn2023.0.1.x86_64
  freetype-devel-2.13.2-5.amzn2023.0.1.x86_64           gd-2.3.3-5.amzn2023.0.3.x86_64                              gd-devel-2.3.3-5.amzn2023.0.3.x86_64
  glib2-devel-2.74.7-689.amzn2023.0.2.x86_64            google-noto-fonts-common-20201206-2.amzn2023.0.2.noarch     google-noto-sans-vf-fonts-20201206-2.amzn2023.0.2.noarch
  graphite2-1.3.14-7.amzn2023.0.2.x86_64                graphite2-devel-1.3.14-7.amzn2023.0.2.x86_64                harfbuzz-7.0.0-2.amzn2023.0.1.x86_64
  harfbuzz-devel-7.0.0-2.amzn2023.0.1.x86_64            harfbuzz-icu-7.0.0-2.amzn2023.0.1.x86_64                    jbigkit-libs-2.1-21.amzn2023.0.2.x86_64
  langpacks-core-font-en-3.0-21.amzn2023.0.4.noarch     libICE-1.0.10-6.amzn2023.0.2.x86_64                         libSM-1.2.3-8.amzn2023.0.2.x86_64
  libX11-1.7.2-3.amzn2023.0.4.x86_64                    libX11-common-1.7.2-3.amzn2023.0.4.noarch                   libX11-devel-1.7.2-3.amzn2023.0.4.x86_64
  libX11-xcb-1.7.2-3.amzn2023.0.4.x86_64                libXau-1.0.9-6.amzn2023.0.2.x86_64                          libXau-devel-1.0.9-6.amzn2023.0.2.x86_64
  libXext-1.3.4-6.amzn2023.0.2.x86_64                   libXpm-3.5.15-2.amzn2023.0.3.x86_64                         libXpm-devel-3.5.15-2.amzn2023.0.3.x86_64
  libXrender-0.9.10-14.amzn2023.0.2.x86_64              libXt-1.2.0-4.amzn2023.0.2.x86_64                           libblkid-devel-2.37.4-1.amzn2023.0.4.x86_64
  libffi-devel-3.4.4-1.amzn2023.0.1.x86_64              libicu-67.1-7.amzn2023.0.3.x86_64                           libicu-devel-67.1-7.amzn2023.0.3.x86_64
  libjpeg-turbo-2.1.4-2.amzn2023.0.5.x86_64             libjpeg-turbo-devel-2.1.4-2.amzn2023.0.5.x86_64             libmount-devel-2.37.4-1.amzn2023.0.4.x86_64
  libpng-2:1.6.37-10.amzn2023.0.6.x86_64                libpng-devel-2:1.6.37-10.amzn2023.0.6.x86_64                libselinux-devel-3.4-5.amzn2023.0.2.x86_64
  libsepol-devel-3.4-3.amzn2023.0.3.x86_64              libtiff-4.4.0-4.amzn2023.0.18.x86_64                        libtiff-devel-4.4.0-4.amzn2023.0.18.x86_64
  libwebp-1.2.4-1.amzn2023.0.6.x86_64                   libwebp-devel-1.2.4-1.amzn2023.0.6.x86_64                   libxcb-1.13.1-7.amzn2023.0.2.x86_64
  libxcb-devel-1.13.1-7.amzn2023.0.2.x86_64             libxml2-devel-2.10.4-1.amzn2023.0.6.x86_64                  pcre2-devel-10.40-1.amzn2023.0.3.x86_64
  pcre2-utf16-10.40-1.amzn2023.0.3.x86_64               pcre2-utf32-10.40-1.amzn2023.0.3.x86_64                     pixman-0.40.0-3.amzn2023.0.3.x86_64
  sysprof-capture-devel-3.40.1-2.amzn2023.0.2.x86_64    xml-common-0.6.3-56.amzn2023.0.2.noarch                     xorg-x11-proto-devel-2021.4-1.amzn2023.0.2.noarch
  xz-devel-5.2.5-9.amzn2023.0.2.x86_64                  zlib-devel-1.2.11-33.amzn2023.0.5.x86_64

Complete!
```

5. Create a new Nagios User with its password. You'll have to enter the password twice for confirmation.

sudo adduser -m nagios

sudo passwd nagios

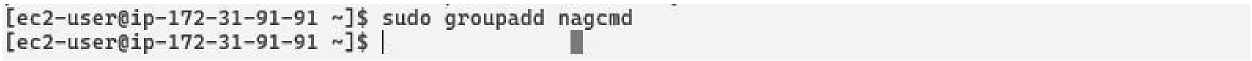
(password : *ayushmau)*



```
Complete!
[ec2-user@ip-172-31-91-91 ~]$ sudo adduser -m nagios
sudo passwd nagios
Changing password for user nagios.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
Sorry, passwords do not match.
New password:
BAD PASSWORD: The password contains the user name in some form
Retype new password:
Sorry, passwords do not match.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-91-91 ~]$ |
```

6. Create a new user group

sudo groupadd nagcmd

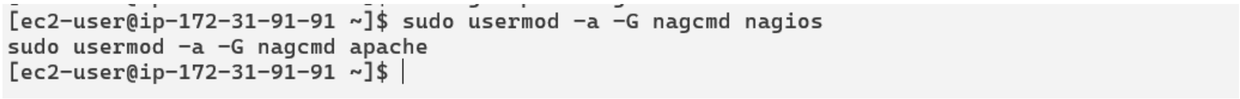


```
[ec2-user@ip-172-31-91-91 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-91-91 ~]$ |
```

7. Use these commands so that you don't have to use sudo for Apache and Nagios

sudo usermod -a -G nagcmd nagios

sudo usermod -a -G nagcmd apache

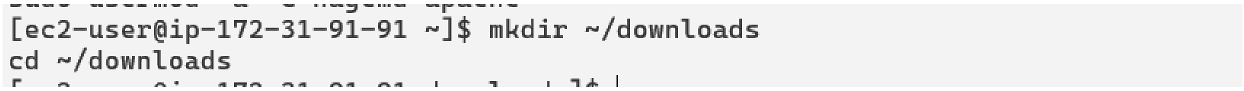


```
[ec2-user@ip-172-31-91-91 ~]$ sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-91-91 ~]$ |
```

8. Create a new directory for Nagios downloads

mkdir

~/downloads cd

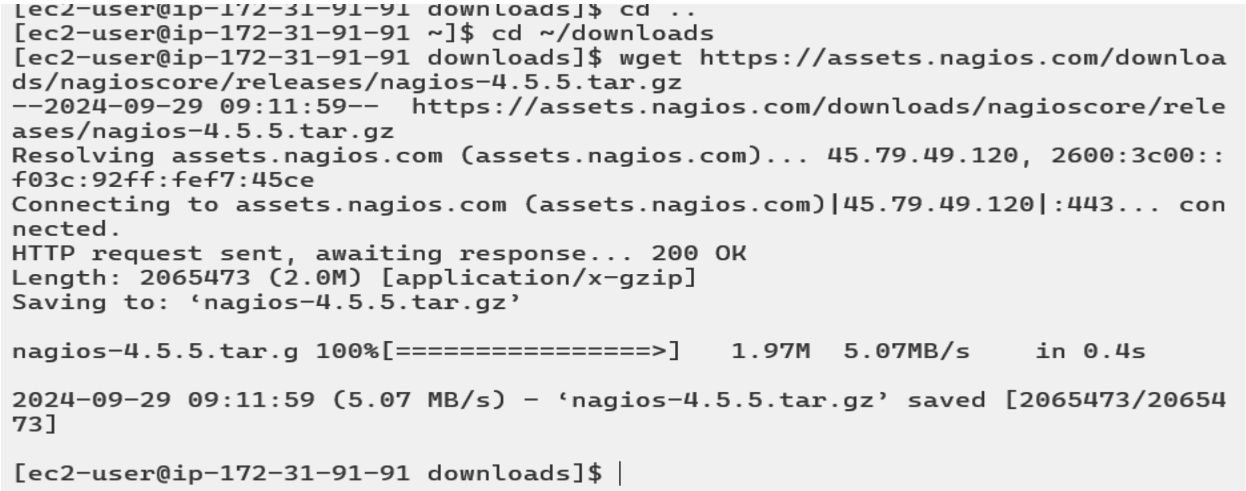


```
[ec2-user@ip-172-31-91-91 ~]$ mkdir ~/downloads
cd ~/downloads
```

~/downloads

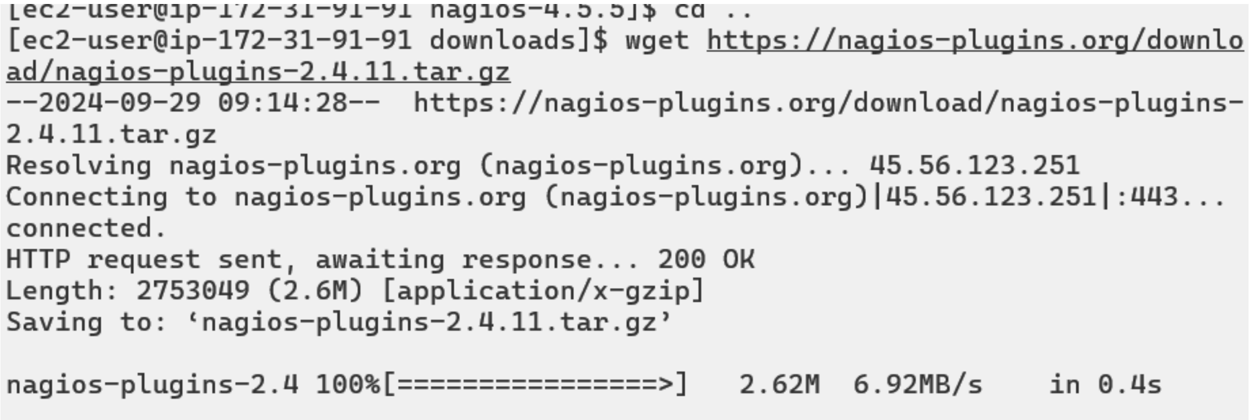
9. Use wget to download the source zip files.

wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.5.5.tar.gz



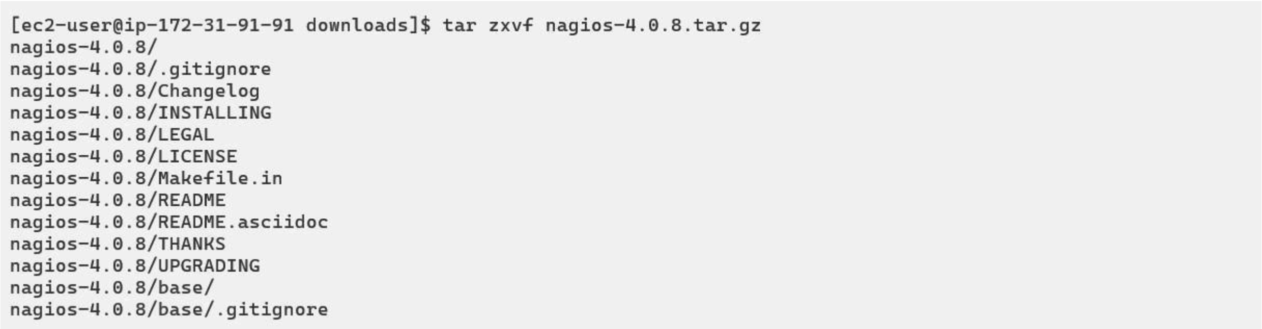
```
[ec2-user@ip-172-31-91-91 downloads]$ cd ..
[ec2-user@ip-172-31-91-91 ~]$ cd ~/downloads
[ec2-user@ip-172-31-91-91 downloads]$ wget https://assets.nagios.com/downloa
ds/nagioscore/releases/nagios-4.5.5.tar.gz
--2024-09-29 09:11:59--  https://assets.nagios.com/downloads/nagioscore/rele
ases/nagios-4.5.5.tar.gz
Resolving assets.nagios.com (assets.nagios.com)... 45.79.49.120, 2600:3c00::
f03c:92ff:fef7:45ce
Connecting to assets.nagios.com (assets.nagios.com)|45.79.49.120|:443... con
nected.
HTTP request sent, awaiting response... 200 OK
Length: 2065473 (2.0M) [application/x-gzip]
Saving to: ‘nagios-4.5.5.tar.gz’

nagios-4.5.5.tar.g 100%[================>]   1.97M  5.07MB/s    in 0.4s

2024-09-29 09:11:59 (5.07 MB/s) - ‘nagios-4.5.5.tar.gz’ saved [2065473/20654
73]

[ec2-user@ip-172-31-91-91 downloads]$ |
```

wget https://nagios-plugins.org/download/nagios-plugins-2.4.11.tar.gz



```
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ cd ..
[ec2-user@ip-172-31-91-91 downloads]$ wget https://nagios-plugins.org/downlo
ad/nagios-plugins-2.4.11.tar.gz
--2024-09-29 09:14:28--  https://nagios-plugins.org/download/nagios-plugins-
2.4.11.tar.gz
Resolving nagios-plugins.org (nagios-plugins.org)... 45.56.123.251
Connecting to nagios-plugins.org (nagios-plugins.org)|45.56.123.251|:443...
connected.
HTTP request sent, awaiting response... 200 OK
Length: 2753049 (2.6M) [application/x-gzip]
Saving to: ‘nagios-plugins-2.4.11.tar.gz’

nagios-plugins-2.4 100%[================>]   2.62M  6.92MB/s    in 0.4s
```

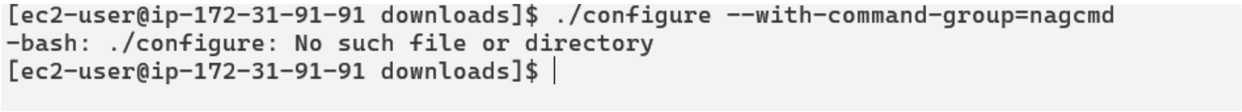
10. Use tar to unzip and change to that directory. tar zxvf nagios-4.5.5.tar.gz



```
[ec2-user@ip-172-31-91-91 downloads]$ tar zxvf nagios-4.0.8.tar.gz
nagios-4.0.8/
nagios-4.0.8/.gitignore
nagios-4.0.8/Changelog
nagios-4.0.8/INSTALLING
nagios-4.0.8/LEGAL
nagios-4.0.8/LICENSE
nagios-4.0.8/Makefile.in
nagios-4.0.8/README
nagios-4.0.8/README.asciidoc
nagios-4.0.8/THANKS
nagios-4.0.8/UPGRADING
nagios-4.0.8/base/
nagios-4.0.8/base/.gitignore
```

11. Run the configuration script with the same group name you previously created.
./configure --with-command-group=nagcmd

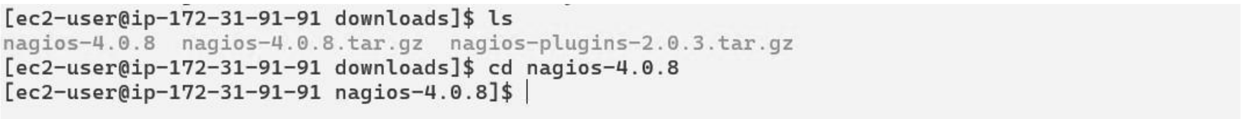
Here we go an error



```
[ec2-user@ip-172-31-91-91 downloads]$ ./configure --with-command-group=nagcmd
-bash: ./configure: No such file or directory
[ec2-user@ip-172-31-91-91 downloads]$ |
```

Solution

Navigate to nagios folder in downloads



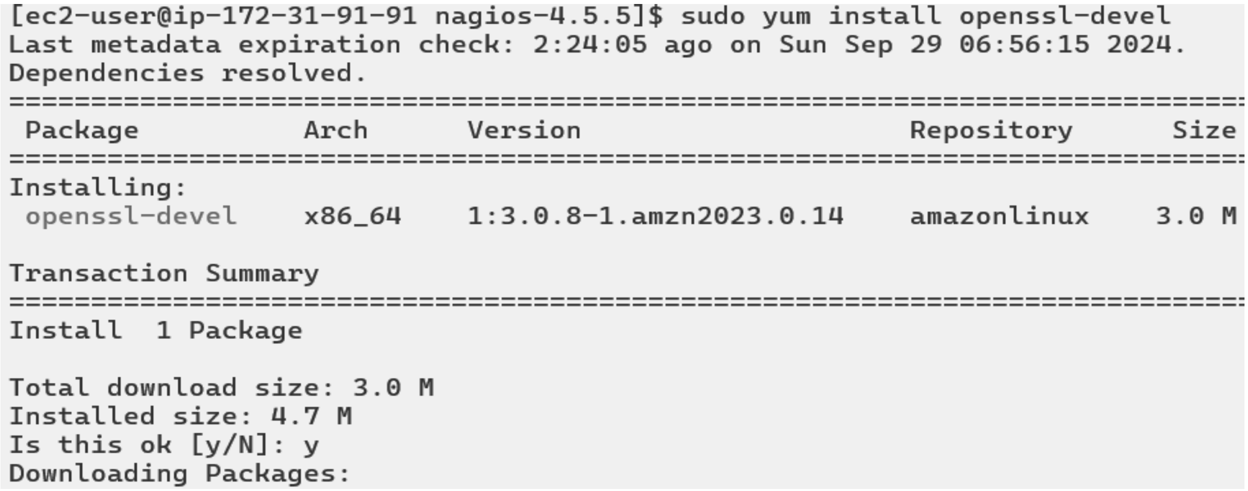
```
[ec2-user@ip-172-31-91-91 downloads]$ ls
nagios-4.0.8  nagios-4.0.8.tar.gz  nagios-plugins-2.0.3.tar.gz
[ec2-user@ip-172-31-91-91 downloads]$ cd nagios-4.0.8
[ec2-user@ip-172-31-91-91 nagios-4.0.8]$ |
```

Error 2: Cannot find SSL headers.

Solution: Install openssl dev library

Steps:

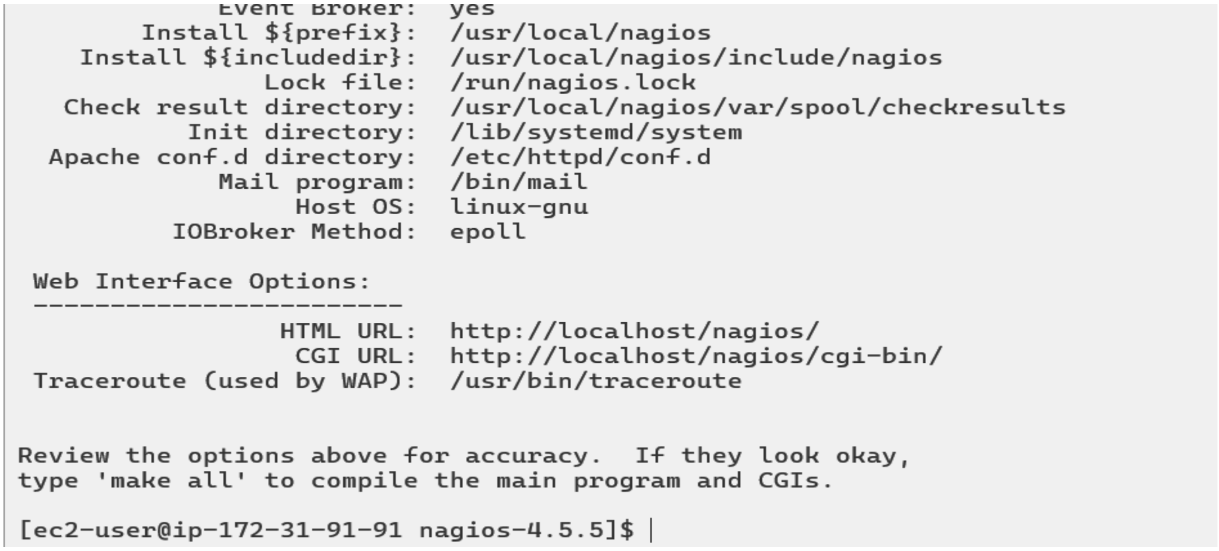
sudo yum install openssl-devel



```
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ sudo yum install openssl-devel
Last metadata expiration check: 2:24:05 ago on Sun Sep 29 06:56:15 2024.
Dependencies resolved.
============================================================================
 Package          Arch      Version                    Repository      Size
============================================================================
Installing:
 openssl-devel    x86_64    1:3.0.8-1.amzn2023.0.14    amazonlinux    3.0 M

Transaction Summary
============================================================================
Install  1 Package

Total download size: 3.0 M
Installed size: 4.7 M
Is this ok [y/N]: y
Downloading Packages:
```

Now run

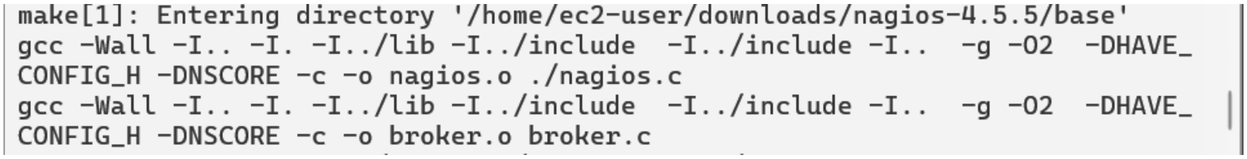
./configure --with-command-group=nagcmd



```
             Event Broker:  yes
        Install ${prefix}:  /usr/local/nagios
    Install ${includedir}:  /usr/local/nagios/include/nagios
                Lock file:  /run/nagios.lock
   Check result directory:  /usr/local/nagios/var/spool/checkresults
           Init directory:  /lib/systemd/system
  Apache conf.d directory:  /etc/httpd/conf.d
             Mail program:  /bin/mail
                  Host OS:  linux-gnu
          IOBroker Method:  epoll

 Web Interface Options:
 ------------------------
                 HTML URL:  http://localhost/nagios/
                  CGI URL:  http://localhost/nagios/cgi-bin/
 Traceroute (used by WAP):  /usr/bin/traceroute


Review the options above for accuracy.  If they look okay,
type 'make all' to compile the main program and CGIs.

[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ |
```

12. Compile the source code.

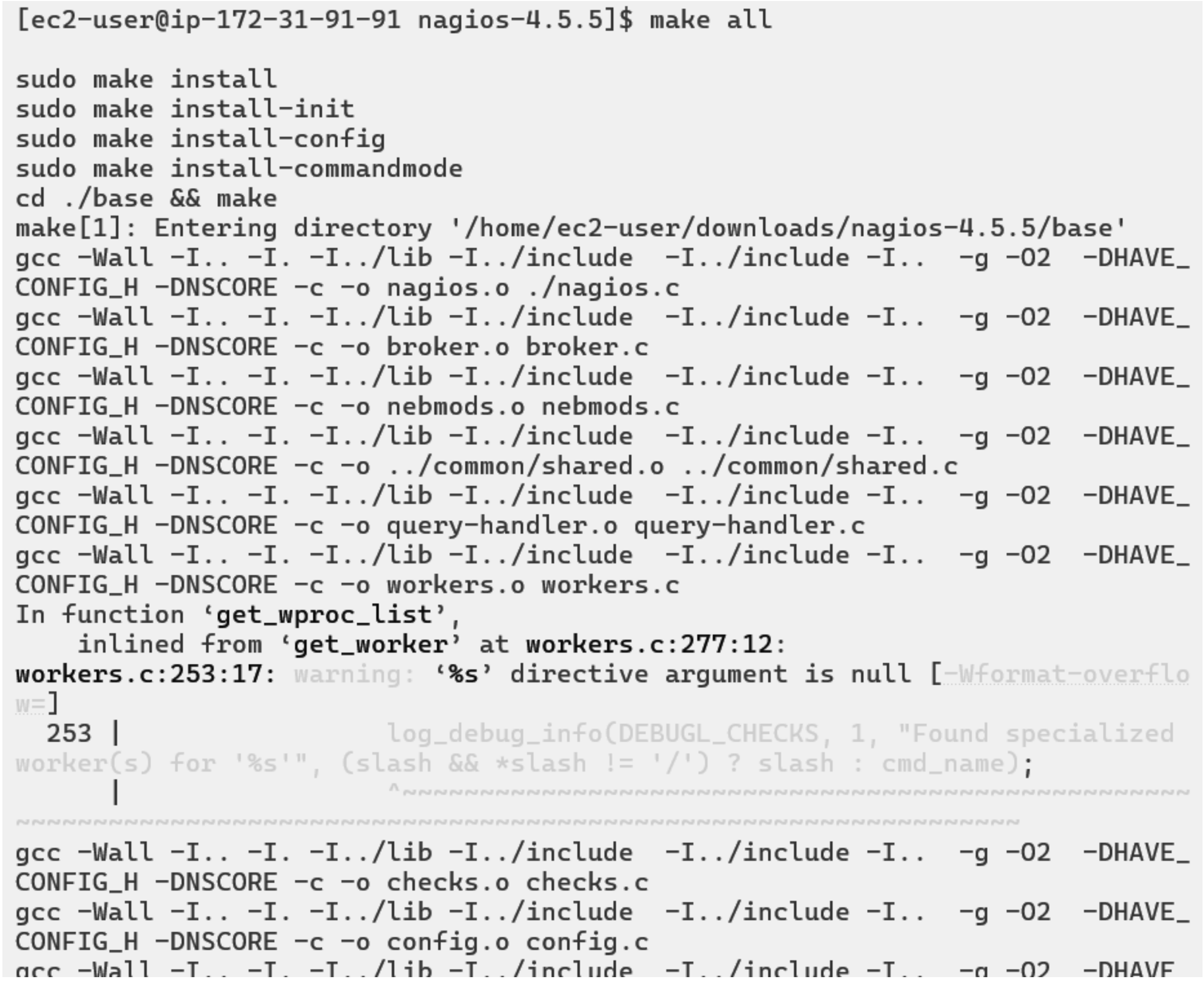
make all



```
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/base'
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o nagios.o ./nagios.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o broker.o broker.c
```

13. Install binaries, init script and sample config files. Lastly, set permissions on the external command directory.

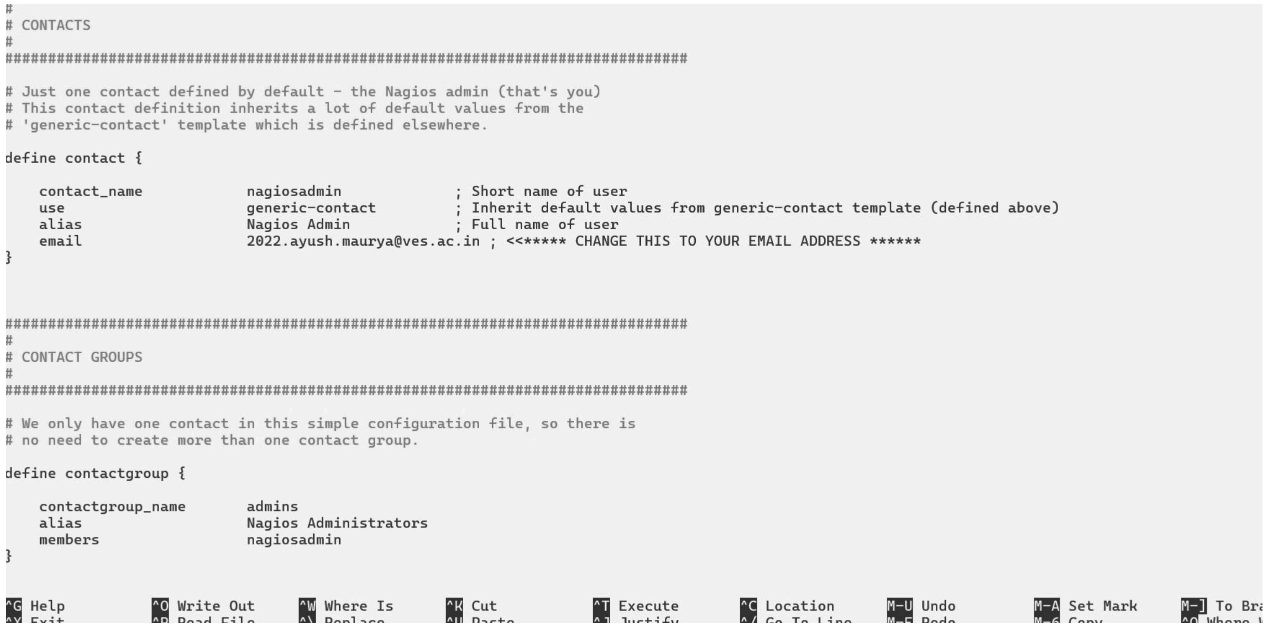
sudo make install
sudo make install-init
sudo make install-config
sudo make install-commandmode



```
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ make all

sudo make install
sudo make install-init
sudo make install-config
sudo make install-commandmode
cd ./base && make
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.5.5/base'
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o nagios.o ./nagios.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o broker.o broker.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o nebmods.o nebmods.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o ../common/shared.o ../common/shared.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o query-handler.o query-handler.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o workers.o workers.c
In function ‘get_wproc_list’,
    inlined from ‘get_worker’ at workers.c:277:12:
workers.c:253:17: warning: ‘%s’ directive argument is null [-Wformat-overflo
w=]
  253 |                 log_debug_info(DEBUGL_CHECKS, 1, "Found specialized
worker(s) for '%s'", (slash && *slash != '/') ? slash : cmd_name);
      |                 ^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o checks.o checks.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
CONFIG_H -DNSCORE -c -o config.o config.c
gcc -Wall -I.. -I. -I../lib -I../include  -I../include -I..  -g -O2  -DHAVE_
```

14. Edit the config file and change the email address.

sudo nano /usr/local/nagios/etc/objects/contacts.cfg

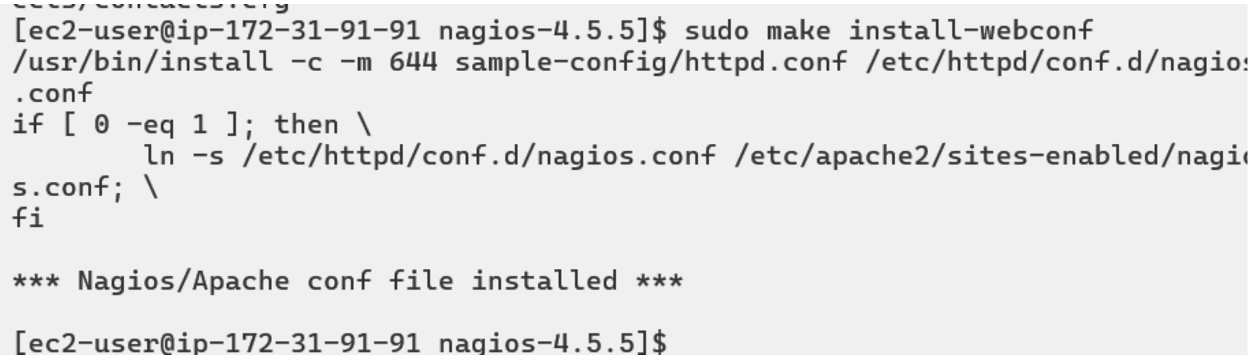


```
#
# CONTACTS
#
###############################################################################

# Just one contact defined by default - the Nagios admin (that's you)
# This contact definition inherits a lot of default values from the
# 'generic-contact' template which is defined elsewhere.

define contact {

    contact_name            nagiosadmin             ; Short name of user
    use                     generic-contact         ; Inherit default values from generic-contact template (defined above)
    alias                   Nagios Admin            ; Full name of user
    email                   2022.ayush.maurya@ves.ac.in ; <<***** CHANGE THIS TO YOUR EMAIL ADDRESS ******
}



###############################################################################
#
# CONTACT GROUPS
#
###############################################################################

# We only have one contact in this simple configuration file, so there is
# no need to create more than one contact group.

define contactgroup {

    contactgroup_name       admins
    alias                   Nagios Administrators
    members                 nagiosadmin
}

^G Help        ^O Write Out   ^W Where Is    ^K Cut         ^T Execute     ^C Location    M-U Undo       M-A Set Mark   M-] To Bra
^X Exit        ^R Read File   ^\ Replace     ^U Paste       ^J Justify     ^/ Go To Line  M-E Redo       M-6 Copy       ^Q Where W
```

And change email with your email

15. Configure the web interface.

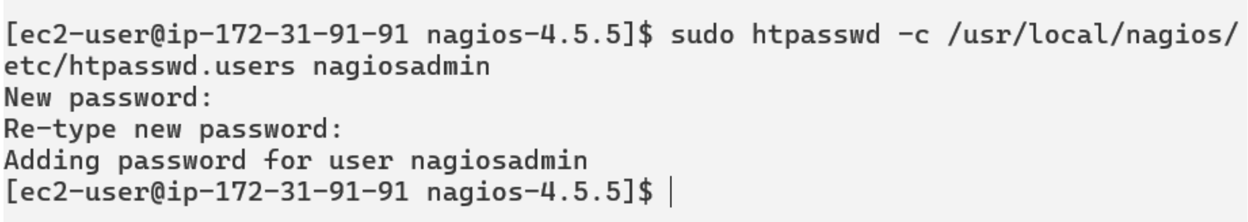
sudo make install-webconf



```
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ sudo make install-webconf
/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios
.conf
if [ 0 -eq 1 ]; then \
        ln -s /etc/httpd/conf.d/nagios.conf /etc/apache2/sites-enabled/nagio
s.conf; \
fi

*** Nagios/Apache conf file installed ***

[ec2-user@ip-172-31-91-91 nagios-4.5.5]$
```

16. Create a nagiosadmin account for nagios login along with password. You'll have to specify the password twice.

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

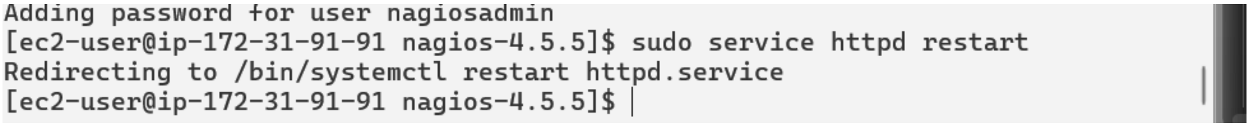


```
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ sudo htpasswd -c /usr/local/nagios/
etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ |
```

Password: Ayushmau

17. Restart Apache

sudo service httpd restart

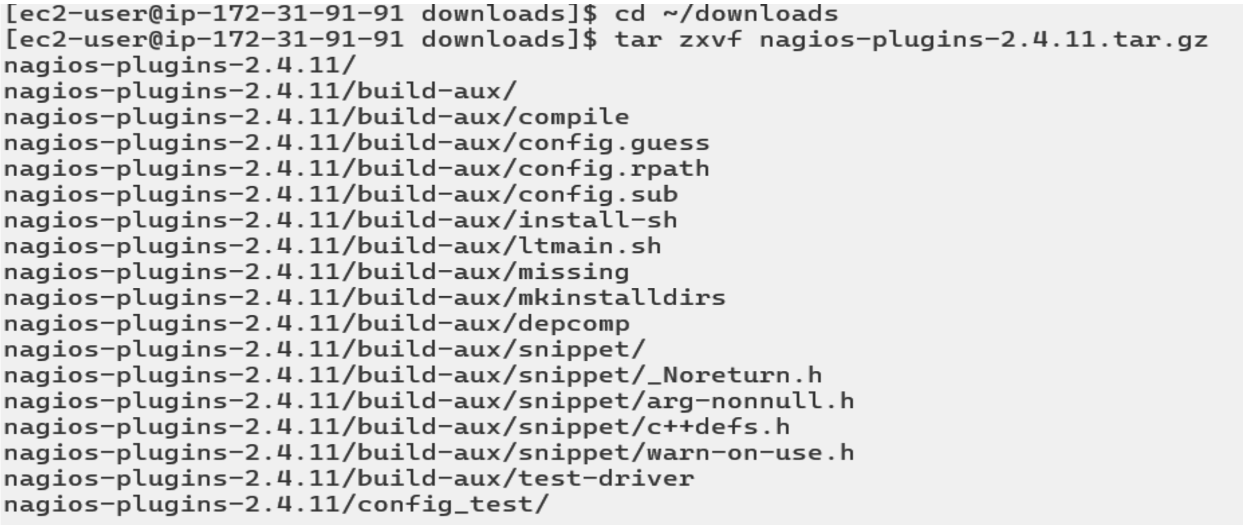


```
Adding password for user nagiosadmin
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
[ec2-user@ip-172-31-91-91 nagios-4.5.5]$ |
```

18. Go back to the downloads folder and unzip the plugins zip file.

cd ~/downloads

tar zxvf nagios-plugins-2.4.11.tar.gz

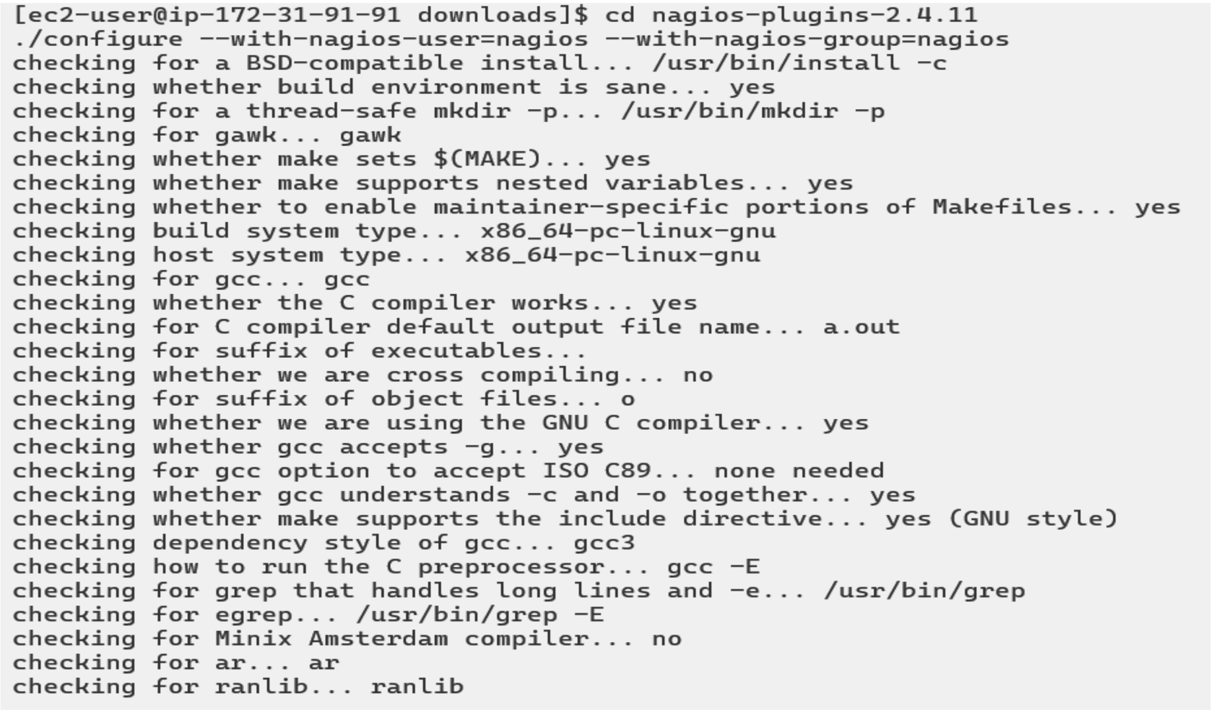


```
[ec2-user@ip-172-31-91-91 downloads]$ cd ~/downloads
[ec2-user@ip-172-31-91-91 downloads]$ tar zxvf nagios-plugins-2.4.11.tar.gz
nagios-plugins-2.4.11/
nagios-plugins-2.4.11/build-aux/
nagios-plugins-2.4.11/build-aux/compile
nagios-plugins-2.4.11/build-aux/config.guess
nagios-plugins-2.4.11/build-aux/config.rpath
nagios-plugins-2.4.11/build-aux/config.sub
nagios-plugins-2.4.11/build-aux/install-sh
nagios-plugins-2.4.11/build-aux/ltmain.sh
nagios-plugins-2.4.11/build-aux/missing
nagios-plugins-2.4.11/build-aux/mkinstalldirs
nagios-plugins-2.4.11/build-aux/depcomp
nagios-plugins-2.4.11/build-aux/snippet/
nagios-plugins-2.4.11/build-aux/snippet/_Noreturn.h
nagios-plugins-2.4.11/build-aux/snippet/arg-nonnull.h
nagios-plugins-2.4.11/build-aux/snippet/c++defs.h
nagios-plugins-2.4.11/build-aux/snippet/warn-on-use.h
nagios-plugins-2.4.11/build-aux/test-driver
nagios-plugins-2.4.11/config_test/
```

19. Compile and install plugins

cd nagios-plugins-2.4.11

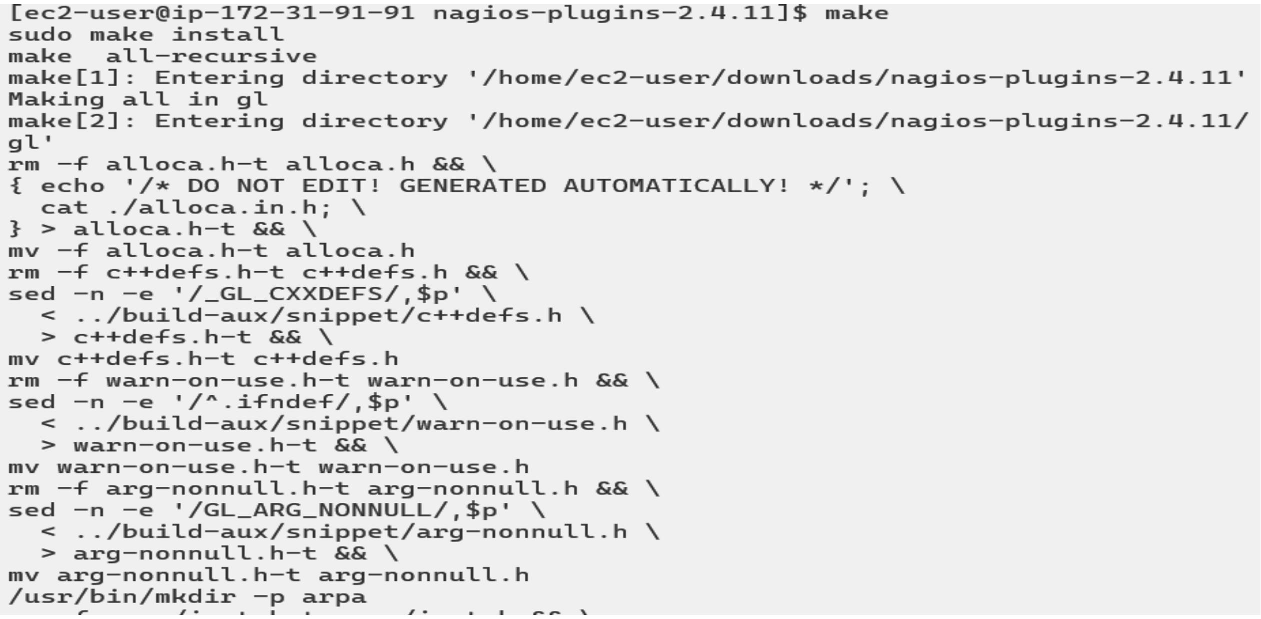
./configure --with-nagios-user=nagios --with-nagios-group=nagios



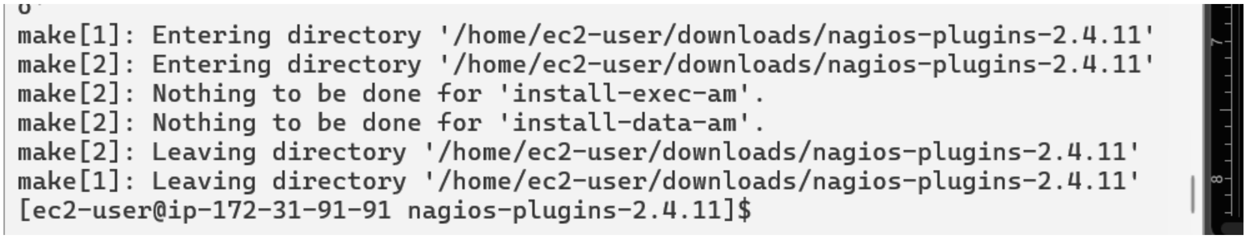
```
[ec2-user@ip-172-31-91-91 downloads]$ cd nagios-plugins-2.4.11
./configure --with-nagios-user=nagios --with-nagios-group=nagios
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is sane... yes
checking for a thread-safe mkdir -p... /usr/bin/mkdir -p
checking for gawk... gawk
checking whether make sets $(MAKE)... yes
checking whether make supports nested variables... yes
checking whether to enable maintainer-specific portions of Makefiles... yes
checking build system type... x86_64-pc-linux-gnu
checking host system type... x86_64-pc-linux-gnu
checking for gcc... gcc
checking whether the C compiler works... yes
checking for C compiler default output file name... a.out
checking for suffix of executables...
checking whether we are cross compiling... no
checking for suffix of object files... o
checking whether we are using the GNU C compiler... yes
checking whether gcc accepts -g... yes
checking for gcc option to accept ISO C89... none needed
checking whether gcc understands -c and -o together... yes
checking whether make supports the include directive... yes (GNU style)
checking dependency style of gcc... gcc3
checking how to run the C preprocessor... gcc -E
checking for grep that handles long lines and -e... /usr/bin/grep
checking for egrep... /usr/bin/grep -E
checking for Minix Amsterdam compiler... no
checking for ar... ar
checking for ranlib... ranlib
```

make

sudo make install



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$ make
sudo make install
make  all-recursive
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11'
Making all in gl
make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11/
gl'
rm -f alloca.h-t alloca.h && \
{ echo '/* DO NOT EDIT! GENERATED AUTOMATICALLY! */'; \
  cat ./alloca.in.h; \
} > alloca.h-t && \
mv -f alloca.h-t alloca.h
rm -f c++defs.h-t c++defs.h && \
sed -n -e '/_GL_CXXDEFS/,$p' \
  < ../build-aux/snippet/c++defs.h \
  > c++defs.h-t && \
mv c++defs.h-t c++defs.h
rm -f warn-on-use.h-t warn-on-use.h && \
sed -n -e '/^.ifndef/,$p' \
  < ../build-aux/snippet/warn-on-use.h \
  > warn-on-use.h-t && \
mv warn-on-use.h-t warn-on-use.h
rm -f arg-nonnull.h-t arg-nonnull.h && \
sed -n -e '/GL_ARG_NONNULL/,$p' \
  < ../build-aux/snippet/arg-nonnull.h \
  > arg-nonnull.h-t && \
mv arg-nonnull.h-t arg-nonnull.h
/usr/bin/mkdir -p arpa
```



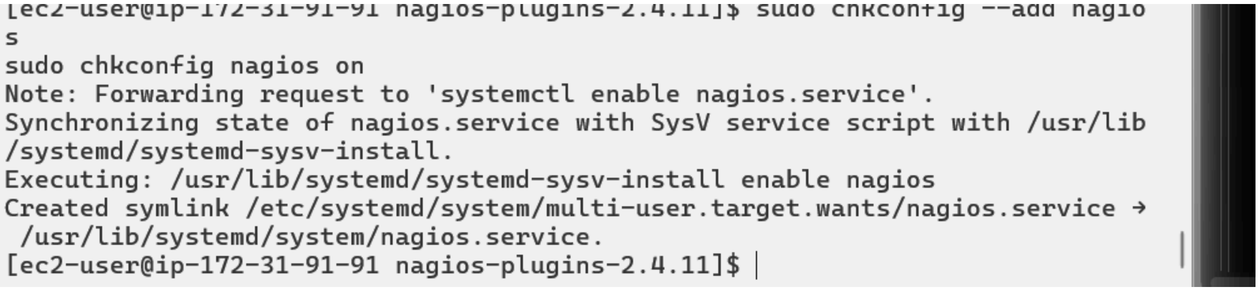
```
make[1]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11'
make[2]: Entering directory '/home/ec2-user/downloads/nagios-plugins-2.4.11'
make[2]: Nothing to be done for 'install-exec-am'.
make[2]: Nothing to be done for 'install-data-am'.
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-plugins-2.4.11'
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$
```

20. Start Nagios

Add Nagios to the list of system services

sudo chkconfig --add nagios

sudo chkconfig nagios on

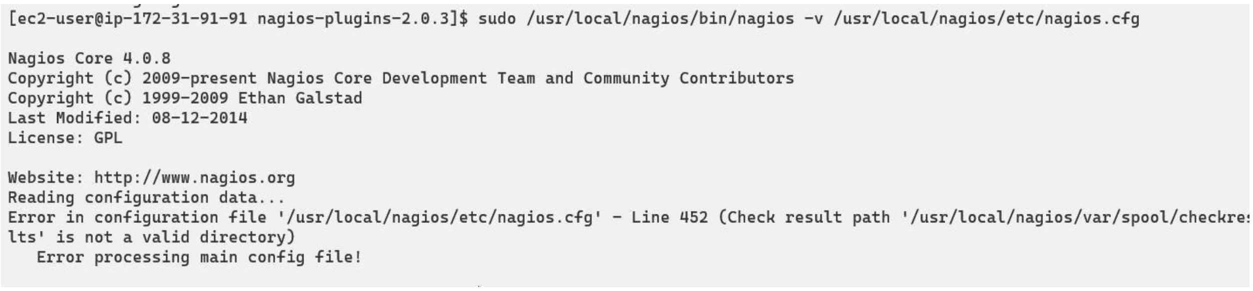


```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$ sudo chkconfig --add nagio
s
sudo chkconfig nagios on
Note: Forwarding request to 'systemctl enable nagios.service'.
Synchronizing state of nagios.service with SysV service script with /usr/lib
/systemd/systemd-sysv-install.
Executing: /usr/lib/systemd/systemd-sysv-install enable nagios
Created symlink /etc/systemd/system/multi-user.target.wants/nagios.service →
 /usr/lib/systemd/system/nagios.service.
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$
```

Verify the sample configuration files

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

Error



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.0.8
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Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 08-12-2014
License: GPL

Website: http://www.nagios.org
Reading configuration data...
Error in configuration file '/usr/local/nagios/etc/nagios.cfg' - Line 452 (Check result path '/usr/local/nagios/var/spool/checkre
lts' is not a valid directory)
   Error processing main config file!
```
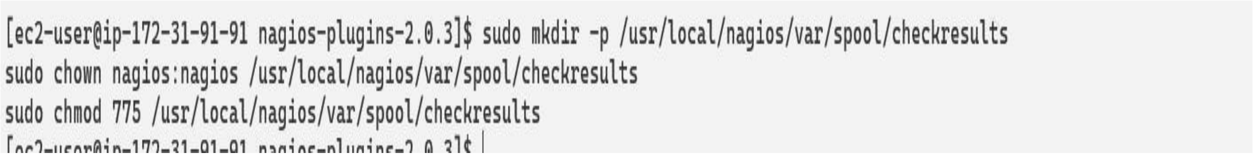

Solution:

# Create the missing directory: If the directory is missing, create it with the necessary permissions:

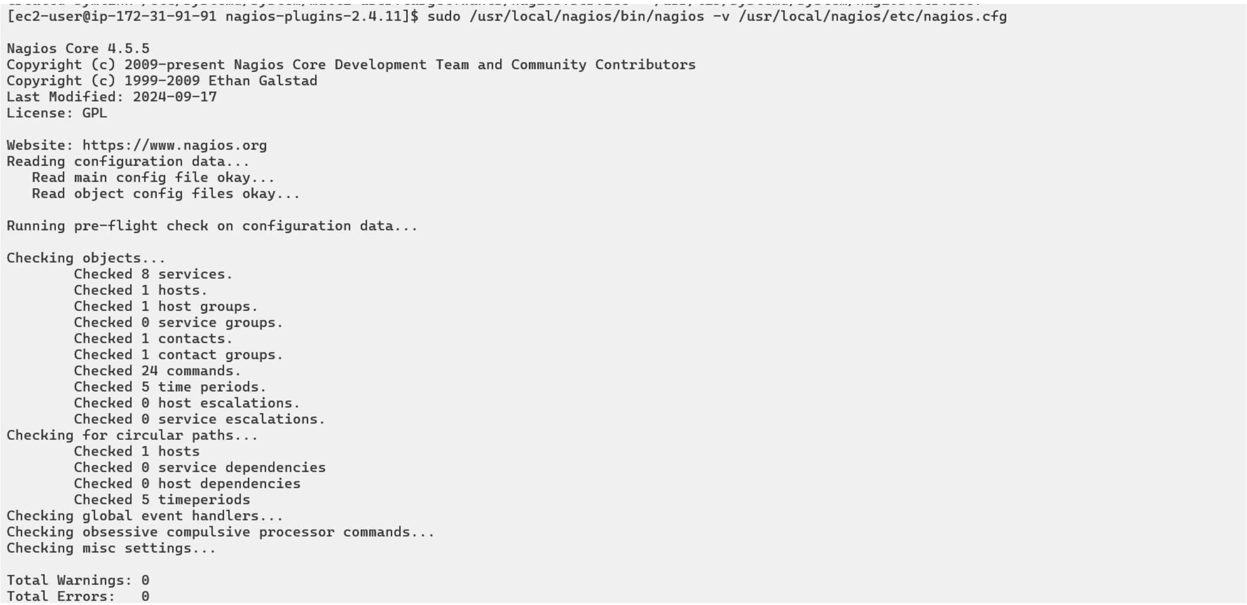
sudo mkdir -p /usr/local/nagios/var/spool/checkresults
sudo chown nagios:nagios /usr/local/nagios/var/spool/checkresults
sudo chmod 775 /usr/local/nagios/var/spool/checkresults



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$ sudo mkdir -p /usr/local/nagios/var/spool/checkresults
sudo chown nagios:nagios /usr/local/nagios/var/spool/checkresults
sudo chmod 775 /usr/local/nagios/var/spool/checkresults
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$
```

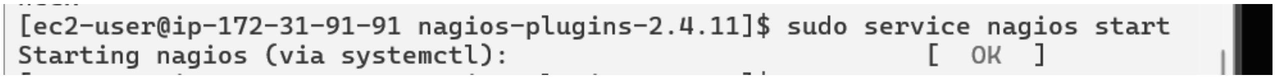
Now run again

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



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$ sudo /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...
   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
```

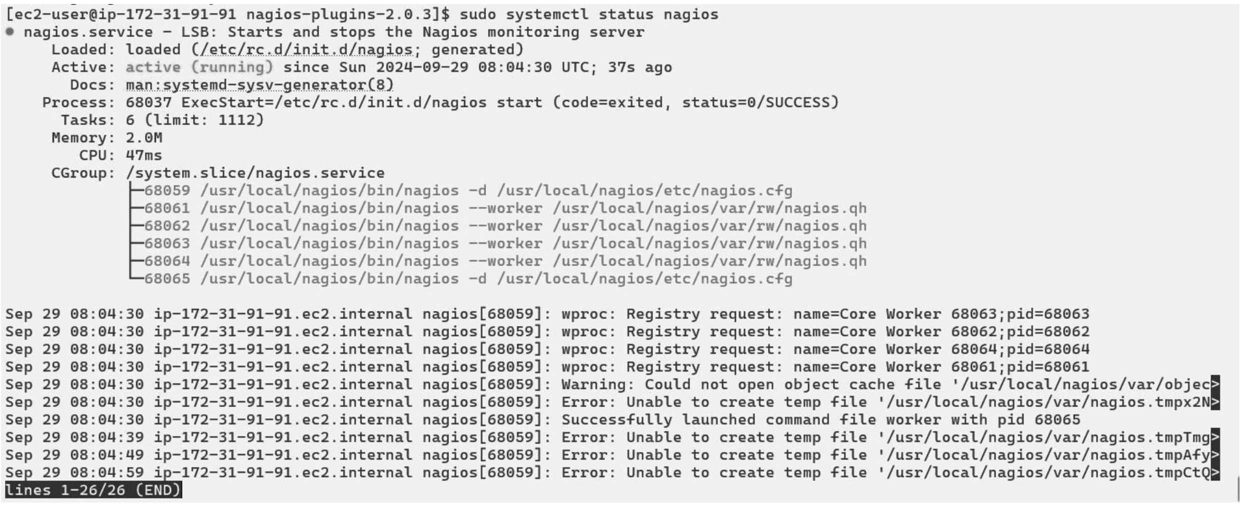
sudo service nagios start



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$ sudo service nagios start
Starting nagios (via systemctl):                           [  OK  ]
```

21. Check the status of Nagios

sudo systemctl status nagios



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$ sudo systemctl status nagios
● nagios.service - LSB: Starts and stops the Nagios monitoring server
     Loaded: loaded (/etc/rc.d/init.d/nagios; generated)
     Active: active (running) since Sun 2024-09-29 08:04:30 UTC; 37s ago
       Docs: man:systemd-sysv-generator(8)
    Process: 68037 ExecStart=/etc/rc.d/init.d/nagios start (code=exited, status=0/SUCCESS)
      Tasks: 6 (limit: 1112)
     Memory: 2.0M
        CPU: 47ms
     CGroup: /system.slice/nagios.service
             ├─68059 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─68061 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─68062 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─68063 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─68064 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─68065 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: wproc: Registry request: name=Core Worker 68063;pid=68063
Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: wproc: Registry request: name=Core Worker 68062;pid=68062
Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: wproc: Registry request: name=Core Worker 68064;pid=68064
Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: wproc: Registry request: name=Core Worker 68061;pid=68061
Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: Warning: Could not open object cache file '/usr/local/nagios/var/objec>
Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: Error: Unable to create temp file '/usr/local/nagios/var/nagios.tmpx2N>
Sep 29 08:04:30 ip-172-31-91-91.ec2.internal nagios[68059]: Successfully launched command file worker with pid 68065
Sep 29 08:04:39 ip-172-31-91-91.ec2.internal nagios[68059]: Error: Unable to create temp file '/usr/local/nagios/var/nagios.tmpTmg>
Sep 29 08:04:49 ip-172-31-91-91.ec2.internal nagios[68059]: Error: Unable to create temp file '/usr/local/nagios/var/nagios.tmpAfy>
Sep 29 08:04:59 ip-172-31-91-91.ec2.internal nagios[68059]: Error: Unable to create temp file '/usr/local/nagios/var/nagios.tmpCtQ>
lines 1-26/26 (END)
```

Error:

The log messages suggest that Nagios is unable to create temporary files, particularly in the directory /usr/local/nagios/var/. This is typically caused by permission issues, or the directory might not exist.

Solution:

Firstly check whether /usr/local/nagios/var/ is there or not. If yes.....

ls -ld /usr/local/nagios/var/

Change ownership: Set the correct ownership for the Nagios user and group:

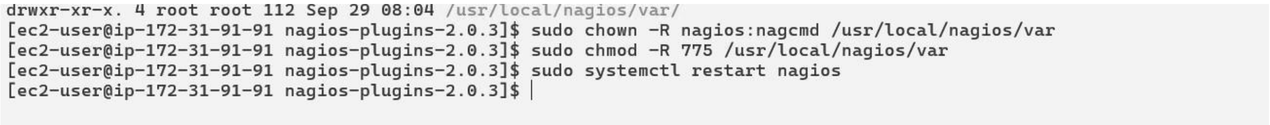
sudo chown -R nagios:nagcmd /usr/local/nagios/var

Set permissions: Ensure the directory has the right permissions:

sudo chmod -R 775 /usr/local/nagios/var

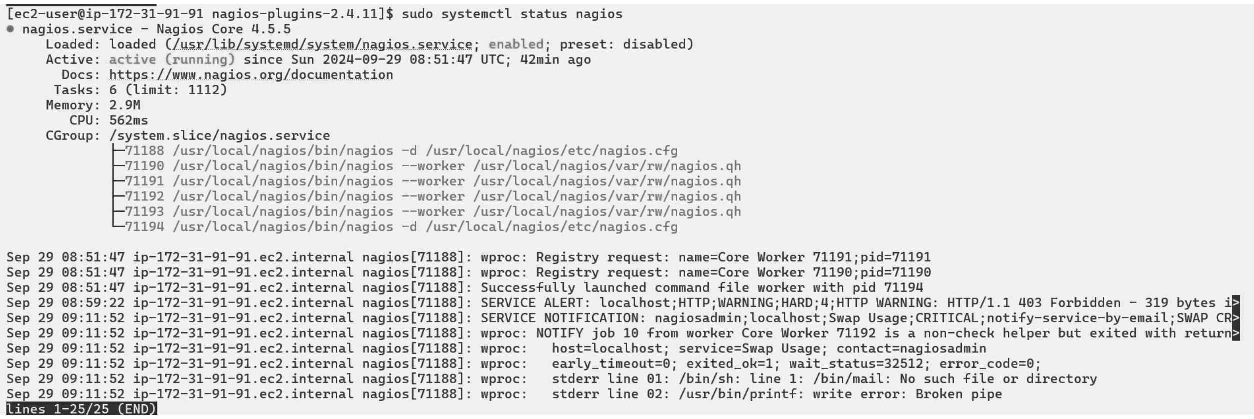
Restart Nagios: After adjusting the ownership and permissions, restart the Nagios service:

sudo systemctl restart nagios



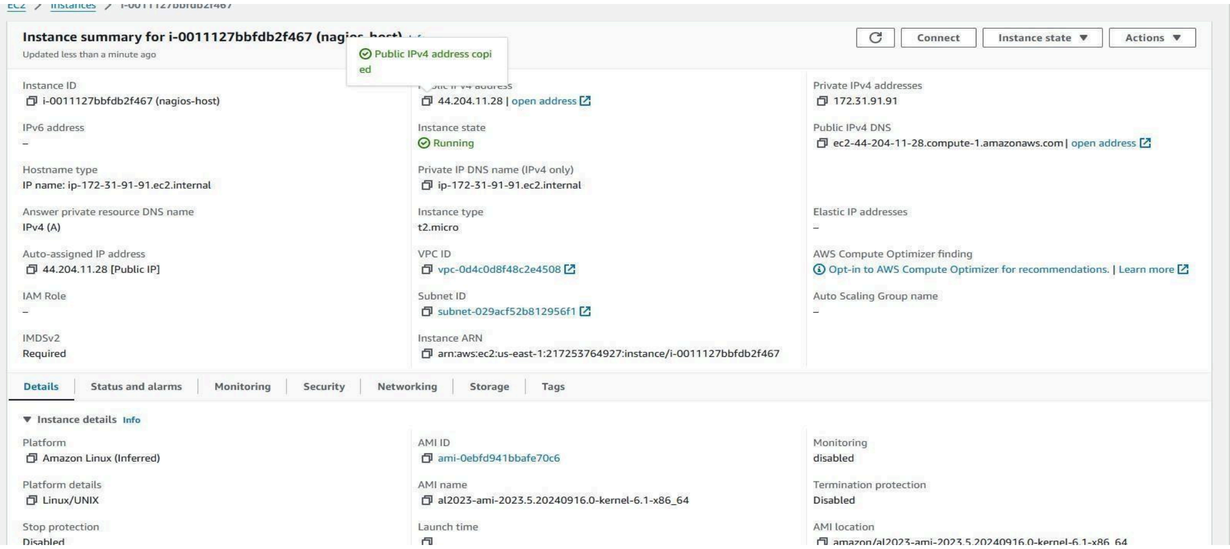
```
drwxr-xr-x. 4 root root 112 Sep 29 08:04 /usr/local/nagios/var/
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$ sudo chown -R nagios:nagcmd /usr/local/nagios/var
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$ sudo chmod -R 775 /usr/local/nagios/var
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$ sudo systemctl restart nagios
[ec2-user@ip-172-31-91-91 nagios-plugins-2.0.3]$
```

Now run again



```
[ec2-user@ip-172-31-91-91 nagios-plugins-2.4.11]$ 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 Sun 2024-09-29 08:51:47 UTC; 42min ago
       Docs: https://www.nagios.org/documentation
      Tasks: 6 (limit: 1112)
     Memory: 2.9M
        CPU: 562ms
     CGroup: /system.slice/nagios.service
             ├─71188 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─71190 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─71191 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─71192 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─71193 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─71194 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Sep 29 08:51:47 ip-172-31-91-91.ec2.internal nagios[71188]: wproc: Registry request: name=Core Worker 71191;pid=71191
Sep 29 08:51:47 ip-172-31-91-91.ec2.internal nagios[71188]: wproc: Registry request: name=Core Worker 71190;pid=71190
Sep 29 08:51:47 ip-172-31-91-91.ec2.internal nagios[71188]: Successfully launched command file worker with pid 71194
Sep 29 08:59:22 ip-172-31-91-91.ec2.internal nagios[71188]: SERVICE ALERT: localhost;HTTP;WARNING;HARD;4;HTTP WARNING: HTTP/1.1 403 Forbidden - 319 bytes i>
Sep 29 09:11:52 ip-172-31-91-91.ec2.internal nagios[71188]: SERVICE NOTIFICATION: nagiosadmin;localhost;Swap Usage;CRITICAL;notify-service-by-email;SWAP CR>
Sep 29 09:11:52 ip-172-31-91-91.ec2.internal nagios[71188]: wproc: NOTIFY job 10 from worker Core Worker 71192 is a non-check helper but exited with return>
Sep 29 09:11:52 ip-172-31-91-91.ec2.internal nagios[71188]: wproc:   host=localhost; service=Swap Usage; contact=nagiosadmin
Sep 29 09:11:52 ip-172-31-91-91.ec2.internal nagios[71188]: wproc:   early_timeout=0; exited_ok=1; wait_status=32512; error_code=0;
Sep 29 09:11:52 ip-172-31-91-91.ec2.internal nagios[71188]: wproc:   stderr line 01: /bin/sh: line 1: /bin/mail: No such file or directory
Sep 29 09:11:52 ip-172-31-91-91.ec2.internal nagios[71188]: wproc:   stderr line 02: /usr/bin/printf: write error: Broken pipe
lines 1-25/25 (END)
```

22. Go back to EC2 Console and copy the Public IP address of this instance



Instance summary for i-0011127bbfdb2f467 (nagios-host)

Updated less than a minute ago

Instance ID
i-0011127bbfdb2f467 (nagios-host)

Public IPv4 address
44.204.11.28 | open address

Private IPv4 addresses
172.31.91.91

IPv6 address
–

Instance state
Running

Public IPv4 DNS
ec2-44-204-11-28.compute-1.amazonaws.com | open address

Hostname type
IP name: ip-172-31-91-91.ec2.internal

Private IP DNS name (IPv4 only)
ip-172-31-91-91.ec2.internal

Answer private resource DNS name
IPv4 (A)

Instance type
t2.micro

Elastic IP addresses
–

Auto-assigned IP address
44.204.11.28 [Public IP]

VPC ID
vpc-0d4c0d8f48c2e4508

AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations. | Learn more

IAM Role
–

Subnet ID
subnet-029acf52b812956f1

Auto Scaling Group name
–

IMDSv2
Required

Instance ARN
arn:aws:ec2:us-east-1:217253764927:instance/i-0011127bbfdb2f467

▼ Instance details Info

Platform
Amazon Linux (Inferred)

AMI ID
ami-0ebfd941bbafe70c6

Monitoring
disabled

Platform details
Linux/UNIX

AMI name
al2023-ami-2023.5.20240916.0-kernel-6.1-x86_64

Termination protection
Disabled

Stop protection
Disabled

Launch time

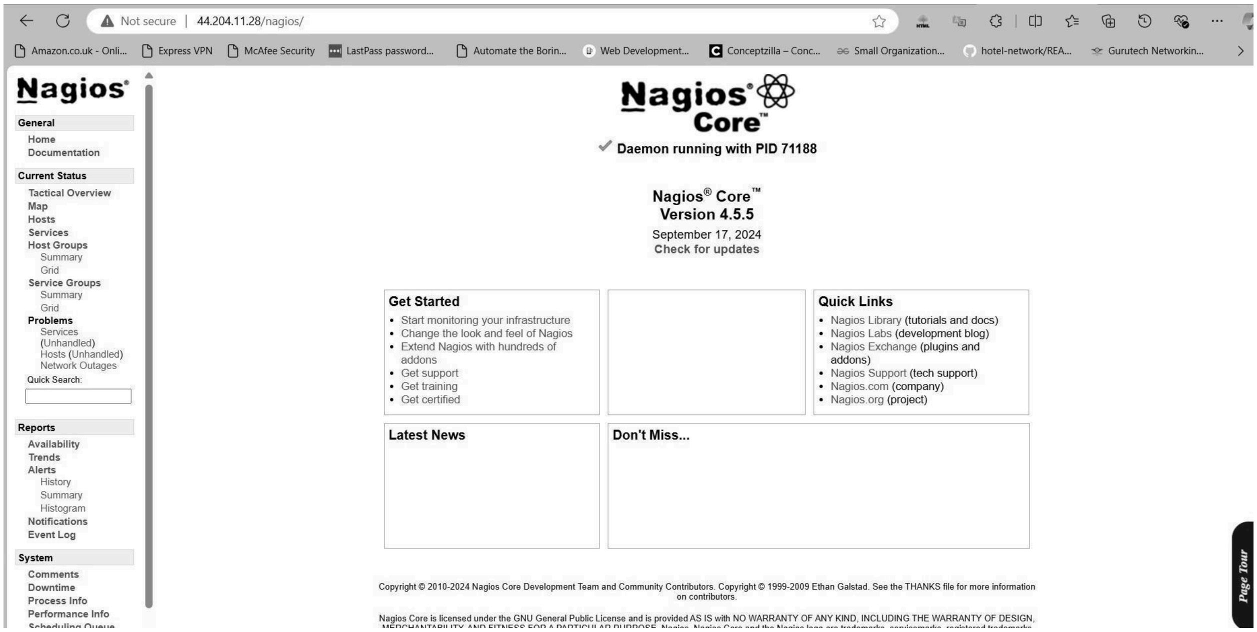
AMI location
amazon/al2023-ami-2023.5.20240916.0-kernel-6.1-x86_64

23. Open up your browser and look for

http://<your_public_ip_address>/nagios Enter username as nagiosadmin and

password which you set in Step 16.

24. After entering the correct credentials, you will see this page.



Nagios® Core™

✓ Daemon running with PID 71188

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...

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This means that Nagios was correctly installed and configured with its plugins so far.

Conclusion:

In this practical, we successfully installed and configured Nagios Core along with Nagios plugins and NRPE on an Amazon EC2 instance. We created a Nagios user, set up necessary permissions, and resolved common installation errors. Finally, we verified the setup by accessing the Nagios web interface, confirming that our monitoring system was fully operational.