

## EXPERIMENT - (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:

- 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 failure, Nagios alerts about the issues so that the technical team can perform recovery process immediately.
- Nagios is used for continuous monitoring of systems, applications, service and business processes in DevOps culture.

Important reasons why Nagios monitoring tool is used is:-

- Detects all the types of network or server issues.
- Helps you to find the root cause of problem which allows you to get permanent solution to the problem.

- Active monitoring of your entire infrastructure and business processes.
- Allows you to monitor and troubleshoot service performance issues.
- Helps you to plan for infrastructure upgrades before outdated systems create failures.
- You can maintain security and availability of service.
- Automatically fix problems in panic situation.

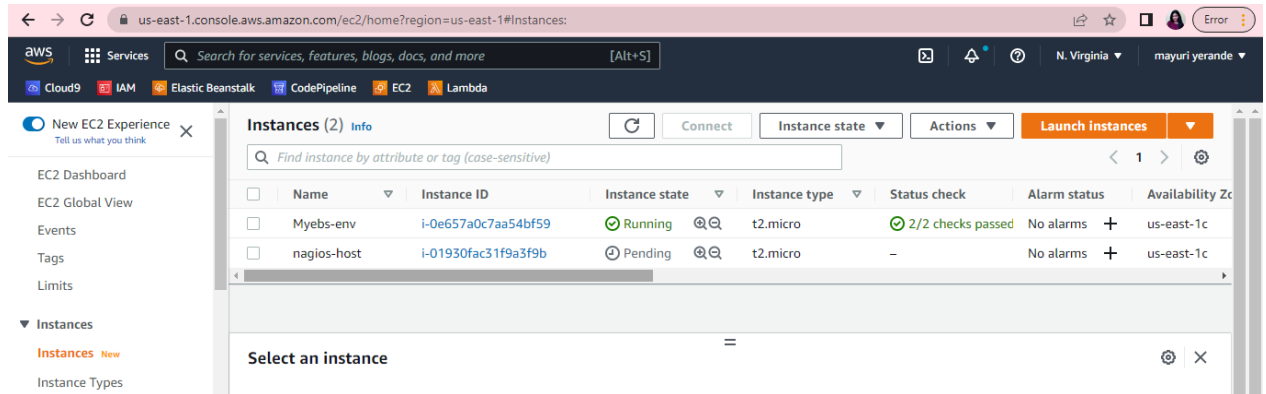
CONCLUSION: Thus we learned about Nagios and successfully set it up as host on Amazon linux.

# Installation of Nagios

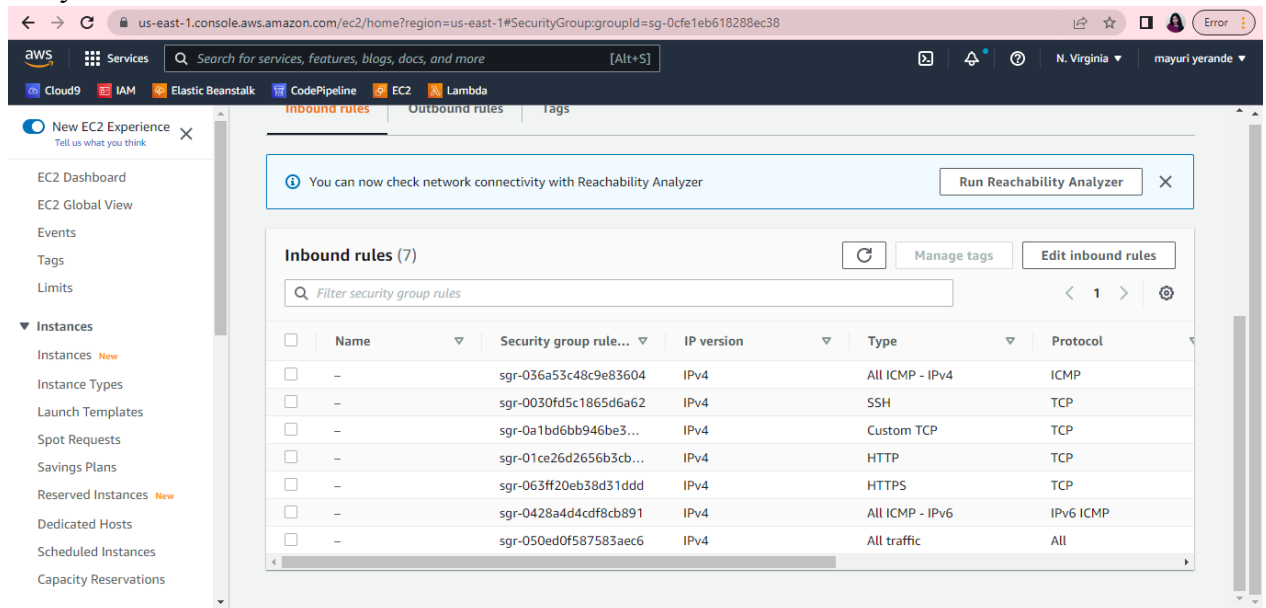
Prerequisites: AWS Free Tier

Steps:

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

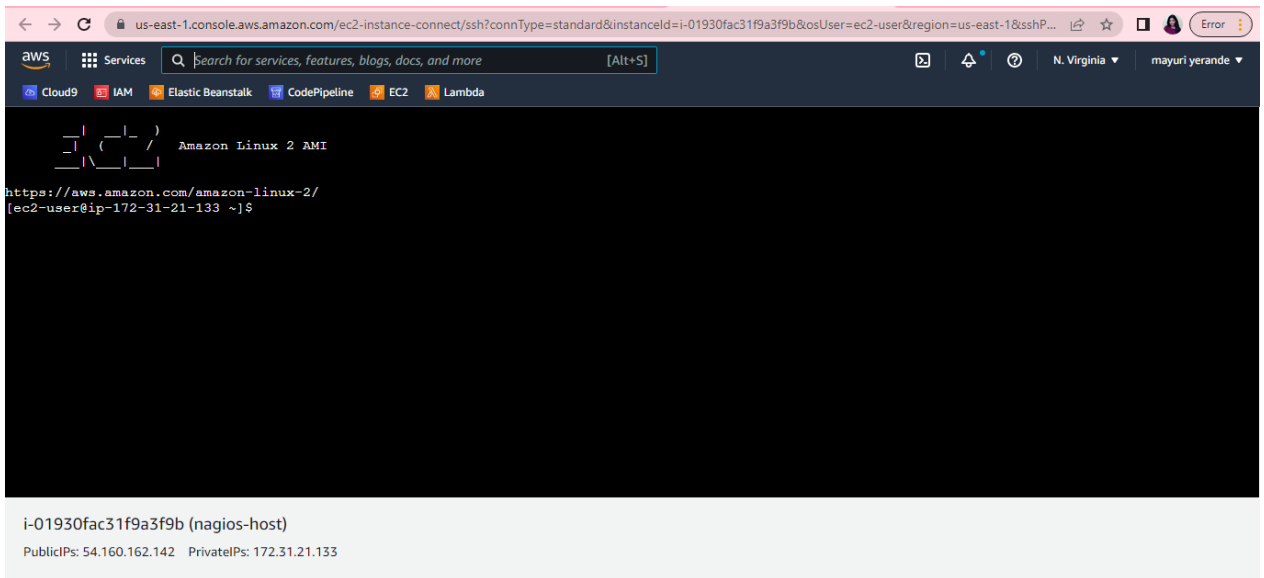


2. Under Security Group, make sure HTTP, HTTPS, SSH, ICMP are open from everywhere.



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.



#### 4. Update the package indices and install the following packages using yum

```
sudo yum update
```

```
sudo yum install httpd php
```

```
Verifying : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64 2/13
Verifying : apr-util-bdb-1.6.1-5.amzn2.0.2.x86_64 3/13
Verifying : php-cli-5.4.16-46.amzn2.0.2.x86_64 4/13
Verifying : httpd-tools-2.4.54-1.amzn2.x86_64 5/13
Verifying : php-5.4.16-46.amzn2.0.2.x86_64 6/13
Verifying : mod_http2-1.15.19-1.amzn2.0.1.x86_64 7/13
Verifying : httpd-2.4.54-1.amzn2.x86_64 8/13
Verifying : mailcap-2.1.41-2.amzn2.noarch 9/13
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 10/13
Verifying : httpd filesystem-2.4.54-1.amzn2.noarch 11/13
Verifying : apr-1.7.0-9.amzn2.x86_64 12/13
Verifying : php-common-5.4.16-46.amzn2.0.2.x86_64 13/13

Installed:
httpd.x86_64 0:2.4.54-1.amzn2 php.x86_64 0:5.4.16-46.amzn2.0.2

Dependency Installed:
apr.x86_64 0:1.7.0-9.amzn2 apr-util.x86_64 0:1.6.1-5.amzn2.0.2 apr-util-bdb.x86_64 0:1.6.1-5.amzn2.0.2
generic-logos-httpd.noarch 0:18.0.0-4.amzn2 httpd filesystem.noarch 0:2.4.54-1.amzn2 httpd-tools.x86_64 0:2.4.54-1.amzn2
libzip010-compat.x86_64 0:0.10.1-9.amzn2.0.5 mailcap.noarch 0:2.1.41-2.amzn2 mod_http2.x86_64 0:1.15.19-1.amzn2.0.1
php-cli.x86_64 0:5.4.16-46.amzn2.0.2 php-common.x86_64 0:5.4.16-46.amzn2.0.2

Complete!
[ec2-user@ip-172-31-21-133 ~]$
```

```
sudo yum install gcc glibc glibc-common
```

```
Verifying : libmpx-7.3.1-15.amzn2.x86_64 2/13
Verifying : libitm-7.3.1-15.amzn2.x86_64 3/13
Verifying : glibc-headers-2.26-60.amzn2.x86_64 4/13
Verifying : libmpc-1.0.1-3.amzn2.0.2.x86_64 5/13
Verifying : libquadmath-7.3.1-15.amzn2.x86_64 6/13
Verifying : libatomic-7.3.1-15.amzn2.x86_64 7/13
Verifying : libsanitizer-7.3.1-15.amzn2.x86_64 8/13
Verifying : glibc-devel-2.26-60.amzn2.x86_64 9/13
Verifying : gcc-7.3.1-15.amzn2.x86_64 10/13
Verifying : libcilkrts-7.3.1-15.amzn2.x86_64 11/13
Verifying : cpp-7.3.1-15.amzn2.x86_64 12/13
Verifying : mpfr-3.1.1-4.amzn2.0.2.x86_64 13/13

Installed:
gcc.x86_64 0:7.3.1-15.amzn2

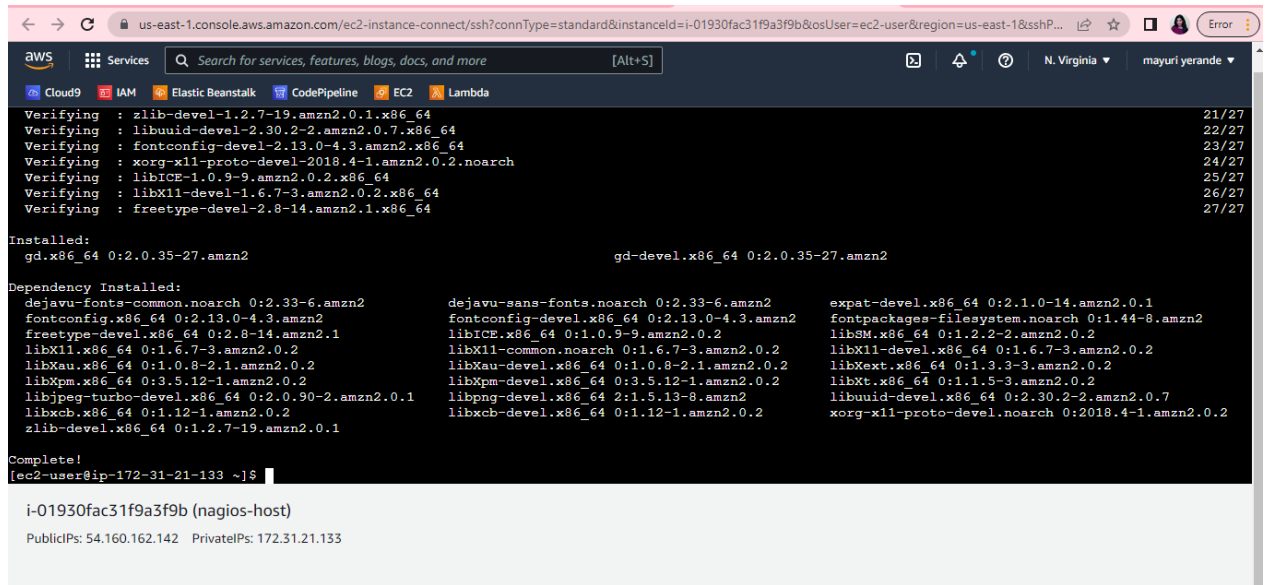
Dependency Installed:
cpp.x86_64 0:7.3.1-15.amzn2 glibc-devel.x86_64 0:2.26-60.amzn2 glibc-headers.x86_64 0:2.26-60.amzn2
kernel-headers.x86_64 0:5.10.135-122.509.amzn2 libatomic.x86_64 0:7.3.1-15.amzn2 libcilkrts.x86_64 0:7.3.1-15.amzn2
libitm.x86_64 0:7.3.1-15.amzn2 libmpc.x86_64 0:1.0.1-3.amzn2.0.2 libmpx.x86_64 0:7.3.1-15.amzn2
libquadmath.x86_64 0:7.3.1-15.amzn2 libsanitizer.x86_64 0:7.3.1-15.amzn2 mpfr.x86_64 0:3.1.1-4.amzn2.0.2

Complete!
[ec2-user@ip-172-31-21-133 ~]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

```
sudo yum install gd gd-devel
```



The screenshot shows an AWS console terminal window with the following output:

```
Verifying : zlib-devel-1.2.7-19.amzn2.0.1.x86_64 21/27
Verifying : libuuid-devel-2.30.2-2.amzn2.0.7.x86_64 22/27
Verifying : fontconfig-devel-2.13.0-4.3.amzn2.x86_64 23/27
Verifying : xorg-x11-proto-devel-2018.4-1.amzn2.0.2.noarch 24/27
Verifying : libICE-1.0.9-9.amzn2.0.2.x86_64 25/27
Verifying : libX11-devel-1.6.7-3.amzn2.0.2.x86_64 26/27
Verifying : freetype-devel-2.8-14.amzn2.1.x86_64 27/27

Installed:
  gd.x86_64 0:2.0.35-27.amzn2          gd-devel.x86_64 0:2.0.35-27.amzn2

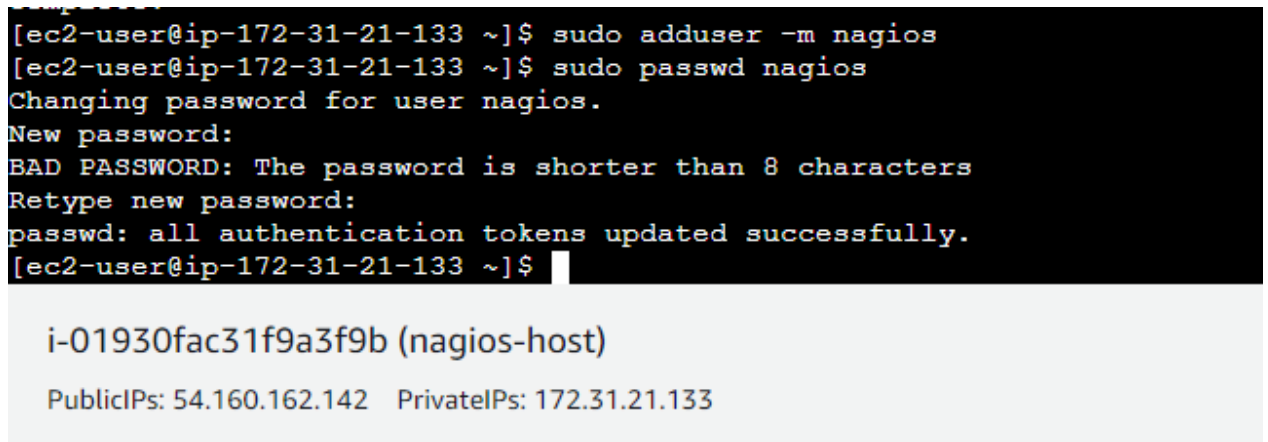
Dependency Installed:
  dejavu-fonts-common.noarch 0:2.33-6.amzn2      expat-devel.x86_64 0:2.1.0-14.amzn2.0.1
  fontconfig.x86_64 0:2.13.0-4.3.amzn2          fontpackages-filesystem.noarch 0:1.44-8.amzn2
  freetype-devel.x86_64 0:2.8-14.amzn2.1         libSM.x86_64 0:1.2.2-2.amzn2.0.2
  libX11.x86_64 0:1.6.7-3.amzn2.0.2             libX11-devel.x86_64 0:1.6.7-3.amzn2.0.2
  libXau.x86_64 0:1.0.8-2.1.amzn2.0.2           libXext.x86_64 0:1.3.3-3.amzn2.0.2
  libXpm.x86_64 0:3.5.12-1.amzn2.0.2            libXt.x86_64 0:1.1.5-3.amzn2.0.2
  libjpeg-turbo-devel.x86_64 0:2.0.90-2.amzn2.0.1 libpng-devel.x86_64 2:1.5.13-8.amzn2
  libxcb.x86_64 0:1.12-1.amzn2.0.2              libxcb-devel.x86_64 0:1.12-1.amzn2.0.2
  zlib-devel.x86_64 0:1.2.7-19.amzn2.0.1        xorg-x11-proto-devel.noarch 0:2018.4-1.amzn2.0.2

Complete!
[ec2-user@ip-172-31-21-133 ~]$
```

i-01930fac31f9a3f9b (nagios-host)  
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

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
(mayuri)
```



The screenshot shows an AWS console terminal window with the following output:

```
[ec2-user@ip-172-31-21-133 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-21-133 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-21-133 ~]$
```

i-01930fac31f9a3f9b (nagios-host)  
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

6. Create a new user group

```
sudo groupadd nagcmd
```

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-172-31-21-133 ~]$ sudo groupadd nagcmd  
[ec2-user@ip-172-31-21-133 ~]$ sudo usermod -a -G nagcmd nagios  
[ec2-user@ip-172-31-21-133 ~]$ sudo usermod -a -G nagcmd apache
```

## 8. Create a new directory for Nagios downloads

```
mkdir ~/downloads
```

```
cd ~/downloads
```

```
[ec2-user@ip-172-31-21-133 ~]$ mkdir ~/downloads  
[ec2-user@ip-172-31-21-133 ~]$ cd ~/downloads  
[ec2-user@ip-172-31-21-133 downloads]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

## 9. Use **wget** to download the source zip files.

wget

<http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz>

wget <http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz>

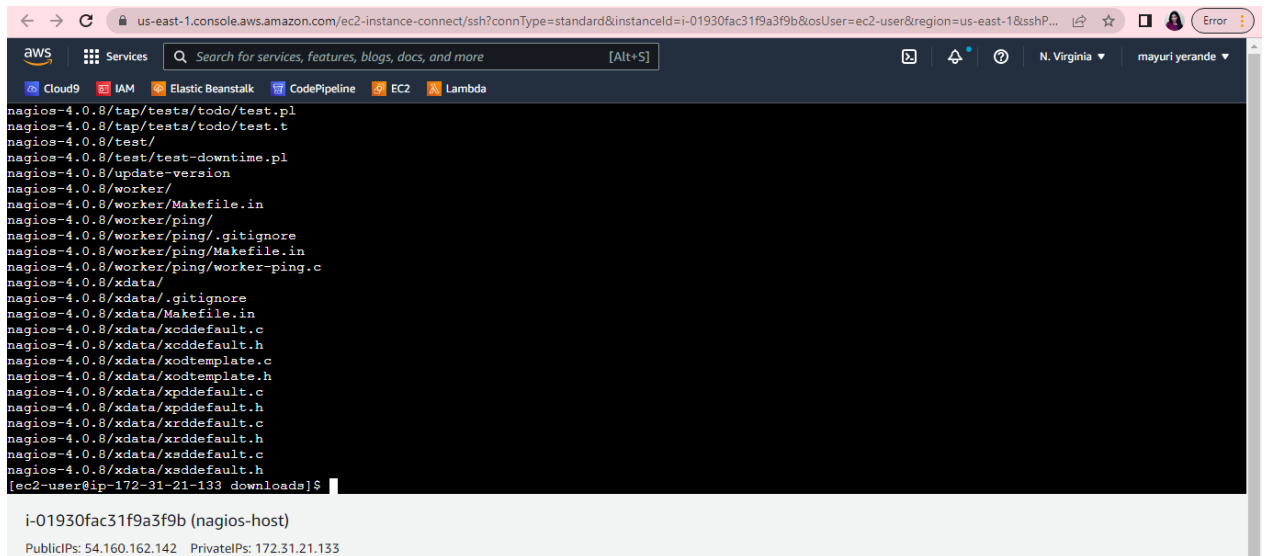
```
[ec2-user@ip-172-31-21-133 ~]$ cd downloads  
[ec2-user@ip-172-31-21-133 downloads]$ wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz  
--2022-09-23 04:33:14-- http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz  
Resolving prdownloads.sourceforge.net (prdownloads.sourceforge.net)... 204.68.111.105  
Connecting to prdownloads.sourceforge.net (prdownloads.sourceforge.net)|204.68.111.105|:80... connected.  
HTTP request sent, awaiting response... 301 Moved Permanently  
Location: http://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz [following]  
--2022-09-23 04:33:14-- http://downloads.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz  
Resolving downloads.sourceforge.net (downloads.sourceforge.net)... 204.68.111.105  
Reusing existing connection to prdownloads.sourceforge.net:80.  
HTTP request sent, awaiting response... 302 Found  
Location: http://versaweb.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz [following]  
--2022-09-23 04:33:14-- http://versaweb.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz  
Resolving versaweb.dl.sourceforge.net (versaweb.dl.sourceforge.net)... 162.251.232.173  
Connecting to versaweb.dl.sourceforge.net (versaweb.dl.sourceforge.net)|162.251.232.173|:80... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 1805059 (1.7M) [application/x-gzip]  
Saving to: 'nagios-4.0.8.tar.gz'  
100%[=====>] 1,805,059 595KB/s in 3.0s  
2022-09-23 04:33:17 (595 KB/s) - 'nagios-4.0.8.tar.gz' saved [1805059/1805059]  
[ec2-user@ip-172-31-21-133 downloads]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

## 10. Use **tar** to unzip and change to that directory.

```
tar zxvf nagios-4.0.8.tar.gz
```



```
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-01930fac31f9a3f9b&osUser=ec2-user&region=us-east-1&sshP...
AWS
Search for services, features, blogs, docs, and more [Alt+S]
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
nagios-4.0.8/tap/tests/todo/test.pl
nagios-4.0.8/tap/tests/todo/test.t
nagios-4.0.8/test/
nagios-4.0.8/test/test-downtime.pl
nagios-4.0.8/update-version
nagios-4.0.8/worker/
nagios-4.0.8/worker/Makefile.in
nagios-4.0.8/worker/ping/
nagios-4.0.8/worker/ping/.gitignore
nagios-4.0.8/worker/ping/Makefile.in
nagios-4.0.8/worker/ping/worker-ping.c
nagios-4.0.8/xdata/
nagios-4.0.8/xdata/.gitignore
nagios-4.0.8/xdata/Makefile.in
nagios-4.0.8/xdata/xoddefault.c
nagios-4.0.8/xdata/xoddefault.h
nagios-4.0.8/xdata/xodtemplate.c
nagios-4.0.8/xdata/xodtemplate.h
nagios-4.0.8/xdata/xpdddefault.c
nagios-4.0.8/xdata/xpdddefault.h
nagios-4.0.8/xdata/xrdddefault.c
nagios-4.0.8/xdata/xrdddefault.h
nagios-4.0.8/xdata/xaddefault.c
nagios-4.0.8/xdata/xaddefault.h
[ec2-user@ip-172-31-21-133 downloads]$

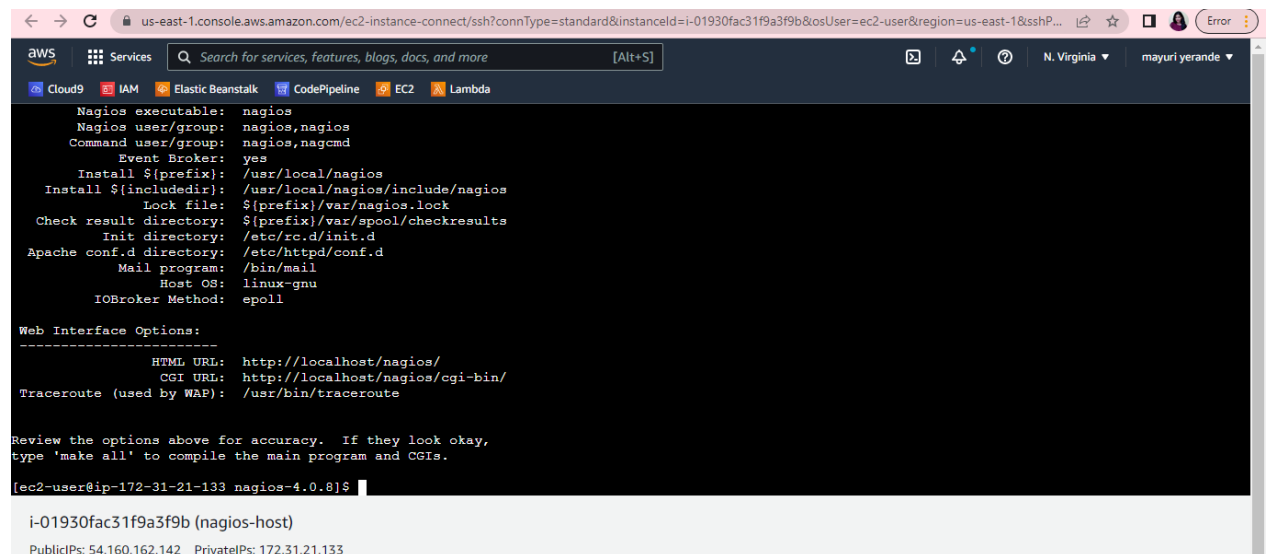
i-01930fac31f9a3f9b (nagios-host)
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133
```

11. Run the configuration script with the same group name you previously created.

Switch to nagios-4.0.8/ directory

```
cd nagios-4.0.8/
```

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



```
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-01930fac31f9a3f9b&osUser=ec2-user&region=us-east-1&sshP...
AWS
Search for services, features, blogs, docs, and more [Alt+S]
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
Nagios executable: nagios
Nagios user/group: nagios,nagios
Command user/group: nagios,nagcmd
Event Broker: yes
Install ${prefix}: /usr/local/nagios
Install ${includedir}: /usr/local/nagios/include/nagios
Lock file: ${prefix}/var/nagios.lock
Check result directory: ${prefix}/var/spool/checkresults
Init directory: /etc/rc.d/init.d
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-172-31-21-133 nagios-4.0.8]$

i-01930fac31f9a3f9b (nagios-host)
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133
```

12. Compile the source code.

```
make all
```

```
aws Services Search for services, features, blogs, docs, and more [Alt+S]
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
If you have questions about configuring or running Nagios,
please make sure that you:
    - Look at the sample config files
    - Read the documentation on the Nagios Library at:
      http://library.nagios.com
before you post a question to one of the mailing lists.
Also make sure to include pertinent information that could
help others help you. This might include:
    - What version of Nagios you are using
    - What version of the plugins you are using
    - Relevant snippets from your config files
    - Relevant error messages from the Nagios log file
For more information on obtaining support for Nagios, visit:
    http://support.nagios.com
*****
Enjoy.
[ec2-user@ip-172-31-21-133 nagios-4.0.8]$
```

i-01930fac31f9a3f9b (nagios-host)

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

```
sudo make install
```

```
make[1]: Entering directory `/home/ec2-user/downloads/nagios-4.0.8'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/libexec
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/archives
/usr/bin/install -c -m 775 -o nagios -g nagcmd -d /usr/local/nagios/var/spool/checkresults
chmod g+s /usr/local/nagios/var/spool/checkresults

*** Main program, CGIs and HTML files installed ***

You can continue with installing Nagios as follows (type 'make'
without any arguments for a list of all possible options):

    make install-init
        - This installs the init script in /etc/rc.d/init.d

    make install-commandmode
        - This installs and configures permissions on the
          directory for holding the external command file

    make install-config
        - This installs sample config files in /usr/local/nagios/etc

make[1]: Leaving directory `/home/ec2-user/downloads/nagios-4.0.8'
[ec2-user@ip-172-31-21-133 nagios-4.0.8]$
```

i-01930fac31f9a3f9b (nagios-host)

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



```
[ec2-user@ip-172-31-21-133 nagios-4.0.8]$ sudo make install-init
/usr/bin/install -c -m 755 -d -o root -g root /etc/rc.d/init.d
/usr/bin/install -c -m 755 -o root -g root daemon-init /etc/rc.d/init.d/nagios

*** Init script installed ***

[ec2-user@ip-172-31-21-133 nagios-4.0.8]$ sudo make install-config
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc/objects
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/nagios.cfg /usr/local/nagios/etc/nagios.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/cgi.cfg /usr/local/nagios/etc/cgi.cfg
/usr/bin/install -c -b -m 660 -o nagios -g nagios sample-config/resource.cfg /usr/local/nagios/etc/resource.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/templates.cfg /usr/local/nagios/etc/objects/templates.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/commands.cfg /usr/local/nagios/etc/objects/commands.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/contacts.cfg /usr/local/nagios/etc/objects/contacts.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/timeperiods.cfg /usr/local/nagios/etc/objects/timeperiods.cfg

/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/localhost.cfg /usr/local/nagios/etc/objects/localhost.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/windows.cfg /usr/local/nagios/etc/objects/windows.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/printer.cfg /usr/local/nagios/etc/objects/printer.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/switch.cfg /usr/local/nagios/etc/objects/switch.cfg

*** Config files installed ***

Remember, these are *SAMPLE* config files. You'll need to read
the documentation for more information on how to actually define
services, hosts, etc. to fit your particular needs.

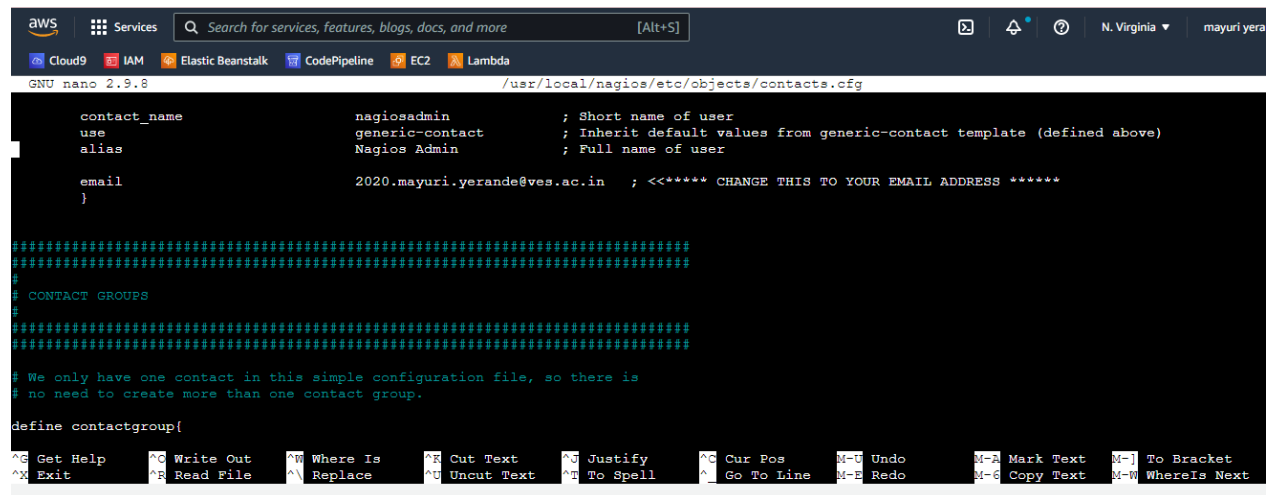
[ec2-user@ip-172-31-21-133 nagios-4.0.8]$ sudo make install-commandmode
/usr/bin/install -c -m 775 -o nagios -g nagcmd -d /usr/local/nagios/var/rw
chmod g+s /usr/local/nagios/var/rw

*** External command directory configured ***

[ec2-user@ip-172-31-21-133 nagios-4.0.8]$
```

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

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



```
aws Services Search for services, features, blogs, docs, and more [Alt+S] N. Virginia mayuri.yerande
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
GNU nano 2.9.8 /usr/local/nagios/etc/objects/contacts.cfg

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 2020.mayuri.yerande@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{
```

15. Configure the web interface.

`sudo make install-webconf`

```
[ec2-user@ip-172-31-21-133 nagios-4.0.8]$ sudo make install-webconf
/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios.conf

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

[ec2-user@ip-172-31-21-133 nagios-4.0.8]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

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
```

```
make: *** No rule to make target 'install-webconf'. Stop.
[ec2-user@ip-172-31-21-133 ~]$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
[ec2-user@ip-172-31-21-133 ~]$
```

17. Restart Apache

```
sudo service httpd restart
```

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

```
cd ~/downloads
tar zxvf nagios-plugins-2.0.3.tar.gz
```

```
aws Services Search for services, features, blogs, docs, and more [Alt+S]
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
nagios-plugins-2.0.3/plugins-scripts/check_disk_smb.pl
nagios-plugins-2.0.3/plugins-scripts/t/
nagios-plugins-2.0.3/plugins-scripts/t/check_ifoperstatus.t
nagios-plugins-2.0.3/plugins-scripts/t/check_rpc.t
nagios-plugins-2.0.3/plugins-scripts/t/check_file_age.t
nagios-plugins-2.0.3/plugins-scripts/t/check_disk_smb.t
nagios-plugins-2.0.3/plugins-scripts/t/check_ifstatus.t
nagios-plugins-2.0.3/plugins-scripts/t/utlis.t
nagios-plugins-2.0.3/plugins-scripts/check_mailq.pl
nagios-plugins-2.0.3/plugins-scripts/check_wave.pl
nagios-plugins-2.0.3/plugins-scripts/check_ircd.pl
nagios-plugins-2.0.3/plugins-scripts/utlis.sh.in
nagios-plugins-2.0.3/plugins-scripts/check_ifstatus.pl
nagios-plugins-2.0.3/plugins-scripts/check_sensors.sh
nagios-plugins-2.0.3/pkg/
nagios-plugins-2.0.3/pkg/fedora/
nagios-plugins-2.0.3/pkg/fedora/requires
nagios-plugins-2.0.3/pkg/solaris/
nagios-plugins-2.0.3/pkg/solaris/preinstall
nagios-plugins-2.0.3/pkg/solaris/solpkg
nagios-plugins-2.0.3/pkg/solaris/pkginfo.in
nagios-plugins-2.0.3/pkg/solaris/pkginfo
nagios-plugins-2.0.3/pkg/redhat/
nagios-plugins-2.0.3/pkg/redhat/requires
[ec2-user@ip-172-31-21-133 downloads]$

i-01930fac31f9a3f9b (nagios-host)
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133
```

## 19. Compile and install plugins

```
cd nagios-plugins-2.0.3
```

```
nagios-plugins-2.0.3/pkg/redhat/
nagios-plugins-2.0.3/pkg/redhat/requires
[ec2-user@ip-172-31-21-133 downloads]$ cd nagios-plugins-2.0.3
[ec2-user@ip-172-31-21-133 nagios-plugins-2.0.3]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

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

```
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-01930fac31f9a3f9b&osUser=ec2-user&region=us-east-1&sshP...
AWS Services Search for services, features, blogs, docs, and more [Alt+S]
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
config.status: creating plugins-scripts/utls.sh
config.status: creating perlmods/Makefile
config.status: creating test.pl
config.status: creating pkg/solaris/pkginfo
config.status: creating po/Makefile.in
config.status: creating config.h
config.status: executing depfiles commands
config.status: executing libtool commands
config.status: executing po-directories commands
config.status: creating po/POTFILES
config.status: creating po/Makefile
--with-apt-get-command:
--with-ping6-command: /usr/bin/ping6 -n -U -w %d -c %d %s
--with-ping-command: /usr/bin/ping -n -U -w %d -c %d %s
--with-ipv6: yes
--with-mysql: no
--with-openssl: no
--with-gnutls: no
--enable-extra-opts: yes
--with-perl: /usr/bin/perl
--enable-perl-modules: no
--with-cgiurl: /nagios/cgi-bin
--with-trusted-path: /bin:/sbin:/usr/bin:/usr/sbin
--enable-libtap: no
[ec2-user@ip-172-31-21-133 nagios-plugins-2.0.3]$

i-01930fac31f9a3f9b (nagios-host)
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133
```

sudo make install

```
aws Services Search for services, features, blogs, docs, and more [Alt+S]
Cloud9 IAM Elastic Beanstalk CodePipeline EC2 Lambda
Making install in po
make[1]: Entering directory `/home/ec2-user/downloads/nagios-plugins-2.0.3/po'
/usr/bin/mkdir -p /usr/local/nagios/share
installing fr.gmo as /usr/local/nagios/share/locale/fr/LC_MESSAGES/nagios-plugins.mo
installing de.gmo as /usr/local/nagios/share/locale/de/LC_MESSAGES/nagios-plugins.mo
if test "nagios-plugins" = "gettext-tools"; then \
  /usr/bin/mkdir -p /usr/local/nagios/share/gettext/po; \
  for file in Makefile.in.in remove-potcdate.sin Makevars.template; do \
    /usr/bin/install -c -o nagios -g nagios -m 644 ./.$file \
      /usr/local/nagios/share/gettext/po/$file; \
  done; \
  for file in Makevars; do \
    rm -f /usr/local/nagios/share/gettext/po/$file; \
  done; \
else \
: ; \
fi
make[1]: Leaving directory `/home/ec2-user/downloads/nagios-plugins-2.0.3/po'
make[1]: Entering directory `/home/ec2-user/downloads/nagios-plugins-2.0.3'
make[2]: Entering directory `/home/ec2-user/downloads/nagios-plugins-2.0.3'
make[2]: Nothing to be done for `install-exec-am'.
make[2]: Nothing to be done for `install-data-am'.
make[2]: Leaving directory `/home/ec2-user/downloads/nagios-plugins-2.0.3'
make[1]: Leaving directory `/home/ec2-user/downloads/nagios-plugins-2.0.3'
[ec2-user@ip-172-31-21-133 nagios-plugins-2.0.3]$

i-01930fac31f9a3f9b (nagios-host)
PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133
```

## 20. Start Nagios

Add Nagios to the list of system services

```
sudo chkconfig --add nagios
sudo chkconfig nagios on
```

Verify the sample configuration files

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

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

Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-21-133 nagios-plugins-2.0.3]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

If there are no errors, you can go ahead and start Nagios.

```
sudo service nagios start
```

```
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
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

## 21. Check the status of Nagios

```
sudo systemctl status nagios
```

```
[ec2-user@ip-172-31-21-133 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; bad; vendor preset: disabled)
   Active: active (running) since Fri 2022-09-23 04:46:16 UTC; 10s ago
     Docs: man:systemd-sysv-generator(8)
  Process: 24411 ExecStart=/etc/rc.d/init.d/nagios start (code=exited, status=0/SUCCESS)
   CGroup: /system.slice/nagios.service
           └─24432 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             └─24434 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               └─24435 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                 └─24436 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   └─24437 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                     └─24438 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: nerd: Channel hostchecks registered successfully
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: nerd: Channel servicechecks registered successfully
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: nerd: Channel opathchecks registered successfully
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: nerd: Fully initialized and ready to rock!
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: wproc: Successfully registered manager as @wproc with query handler
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: wproc: Registry request: name=Core Worker 24437;pid=24437
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: wproc: Registry request: name=Core Worker 24436;pid=24436
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: wproc: Registry request: name=Core Worker 24435;pid=24435
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: wproc: Registry request: name=Core Worker 24434;pid=24434
Sep 23 04:46:16 ip-172-31-21-133.ec2.internal nagios[24432]: Successfully launched command file worker with pid 24438
[ec2-user@ip-172-31-21-133 nagios-plugins-2.0.3]$
```

i-01930fac31f9a3f9b (nagios-host)

PublicIPs: 54.160.162.142 PrivateIPs: 172.31.21.133

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



Instances (1/2) [Info](#) Refresh Connect Instance state Actions Launch instances

Find instance by attribute or tag (case-sensitive) < 1 > Settings

Instance state: running Clear filters

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
<input type="checkbox"/>	Myebs-env	i-0e657a0c7aa54bf59	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c
<input checked="" type="checkbox"/>	nagios-host	i-01930fac31f9a3f9b	Running	t2.micro	2/2 checks passed	No alarms	us-east-1c

---

Instance: i-01930fac31f9a3f9b (nagios-host) Settings Close

**Details** | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance summary [Info](#)

Instance ID i-01930fac31f9a3f9b (nagios-host)	Public IPv4 address 54.160.162.142   <a href="#">open address</a>	Private IPv4 addresses 172.31.21.133
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-54-160-162-142.compute-1.amazonaws.com   <a href="#">open address</a>

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.

The screenshot shows the Nagios Core 4.0.8 web interface. The top navigation bar includes links for Home, Documentation, Tactical Overview, Map, Hosts, Services, Host Groups, Summary, Grid, Service Groups, Summary, Grid, Problems, Services, (Unhandled), Hosts (Unhandled), Network Outages, and a Quick Search bar. The main content area displays the Nagios logo, version 4.0.8, and a status message 'Daemon running with PID 24432'. A blue banner indicates that a new version (4.4.7) is available. Below this, there are three featured plugins: Nagios XI, Nagios Log Server, and Nagios Network Analyzer, each with a 'Download' button. The left sidebar contains navigation links for General, Current Status, Reports, and System. The main content area also includes 'Get Started' and 'Quick Links' sections.

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

## Conclusion:

Thus, we learned about Nagios and successfully set it up as a host on our Amazon Linux machine