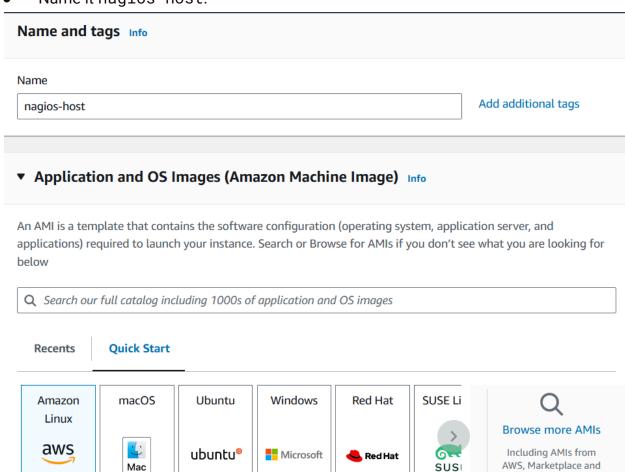
Siddhant Sathe D15A/51

EXPERIMENT 9

User added: nagios New passwd: nagios

Step 1. Create an Amazon Linux EC2 Instance

Name it nagios-host.



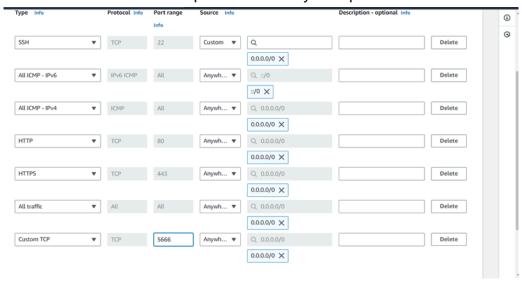
Amazon Machine Image (AMI)



the Community

Step 2. Configure Security Group

- Ensure HTTP, HTTPS, SSH, and ICMP are open from everywhere.
- Edit the inbound rules of the specified Security Group



Step 3. Connect to Your EC2 Instance

SSH into your EC2 instance or use EC2 Instance Connect from the browser

Step 4. Update Package Indices and Install Required Packages

Commands sudo yum update sudo yum install httpd php sudo yum install gcc glibc glibc-common sudo yum install gd gd-devel

```
ec2-user@ip-172-31-82-146 ~]$ ^[{200~sudo yum update
bash: $^\K[200~sudo': command not found
ec2-user@ip-172-31-82-146 ~]$ sudo yum install httpd php
udo yum install gcc glibc glibc-common
udo yum install gd gd-devel
[[201-Last metadata expiration check: 0:06:52 ago on Tue Oct 1 08:39:57 2024.
ependencies resolved.
                                                                                                                               Architecture
   nstalling:
                                                                                                                                                                                                                       2.4.62-1.amzn2023
8.3.10-1.amzn2023.0.1
   php8.3
nstalling dependencies:
                                                                                                                                                                                                                      1.7.2-2.amzn2023.0.2
1.6.3-1.amzn2023.0.1
18.0.0-12.amzn2023.0.3
2.4.62-1.amzn2023
2.4.62-1.amzn2023
                                                                                                                               x86_64
x86_64
noarch
x86_64
   nttpd-core
    mailcap
nginx-filesystem
                                                                                                                                                                                                                                                                                                                                                                    amazonlinux
                                                                                                                                                                                                                        8.3.10-1.amzn2023.0.1
8.3.10-1.amzn2023.0.1
8.3.10-1.amzn2023.0.1
8.3.10-1.amzn2023.0.1
                 3-cli
                                                                                                                                                                                                                                                                                                                                                                    amazonlinux
                                                                                                                                                                                                                       10.40-1.amzn2023.0.3
10.40-1.amzn2023.0.3
10.40-1.amzn2023.0.3
     cre2-utf16
cre2-utf32
                                                                                                                                                                                                                                                                                                                                                              amazonlinux
amazonlinux
   pixman
sysprof-capture-devel
                                                                                                                                                                                                                       0.40.0-3.amzn2023.0.3
                                                                                                                                                                                                                        5.2.5-9.amzn2023.0.2
1.2.11-33.amzn2023.0.5
   ransaction Summary
   nstall 62 Packages
 otal download size: 23 M
installed size: 87 M
s this ok [y/N]: y
ownloading Packages:
(1/62): brotli-devel-1.0.9-4.amzn2023.0.2.x86 64.rpm
(2/62): brotli-1.0.9-4.amzn2023.0.2.x86 64.rpm
(3/62): bzip2-devel-1.0.8-6.amzn2023.0.2.x86 64.rpm
(4/62): cmake-filesystem-3.22.2-1.amzn2023.0.4.x86_64.rpm
(5/62): fontconfig-2.13.94-2.amzn2023.0.2.x66 64.rpm
(6/62): cairo-1.17.6-2.amzn2023.0.1.x86 64.rpm
(7/62): fontconfig-2.13.94-2.amzn2023.0.2.x66 64.rpm
                                                                                                                                                                                                                                                                                                                                                                                 561 kB/s | 31 kB
4.2 MB/s | 314 kB
2.2 MB/s | 214 kB
654 kB/s | 16 kB
9.8 MB/s | 273 kB
7.7 MB/s | 684 kB
                                                                                                                                                                                                                                                                                                                                                                                                                                               00:00
00:00
00:00
00:00
00:00
     pcre2-utf16-10.40-1.amzn2023.0.3.x86_64
pixman-0.40.0-3.amzn2023.0.3.x86_64
xml-common-0.6.3-56.amzn2023.0.2.noarch
xz-devel-5.2.5-9.amzn2023.0.2.x86_64
                                                                                                                                                                                                                                                                                         pcre2-utf32-10.40-1.amzn2023.0.3.x86_64
sysprof-capture-devel-3.40.1-2.amzn2023.0.2.x86_64
xorg-x11-proto-devel-2021.4-1.amzn2023.0.2.noarch
                                                                                                                                                                                                                                                                                          zlib-devel-1.2.11-33.amzn2023.0.5.x86 64
Complete!
```

Step 5. Create a New Nagios User

Commands -

sudo adduser -m nagios

sudo passwd nagios

New password:

BAD PASSWORD: The password is shorter than 8 characters

Retype new password:

passwd: all authentication tokens updated successfully.

Step 6. Create a New User Group

Commands -

sudo groupadd nagcmd

```
[ec2-user@ip-172-31-82-146 ~]$ sudo groupadd nagcmd [ec2-user@ip-172-31-82-146 ~]$
```

Step 7. Add Users to the Group

Commands -

sudo usermod -a -G nagcmd nagios

sudo usermod -a -G nagcmd apache

```
[ec2-user@ip-172-31-82-146 ~]$ sudo usermod -a -G nagcmd nagios sudo usermod -a -G nagcmd apache
```

Step 8. Create a Directory for Nagios Downloads

Commands -

mkdir ~/downloads

cd ~/downloads

```
[ec2-user@ip-172-31-80-22 ~]$ mkdir ~/downloads
cd ~/downloads
[ec2-user@ip-172-31-80-22 downloads]$ wget https://assets.magios.com/downloads/magioscore/releases/magios-4.4.6.tar.gz
```

Step 9. Download Nagios and Plugins Source Files

Commands -

wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz wget https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz

Step 10. Extract the Nagios Source File

Commands -

tar zxvf nagios-4.4.6.tar.gz

cd nagios-4.4.6

```
[ec2-user@ip-172-31-82-146 downloads]$ tar zxvf nagios-4.4.6.tar.gz nagios-4.4.6/
nagios-4.4.6/
nagios-4.4.6/.gitignore
nagios-4.4.6/.travis.yml
nagios-4.4.6/CONTRIBUTING.md
nagios-4.4.6/Changelog
nagios-4.4.6/INSTALLING
nagios-4.4.6/LEGAL
nagios-4.4.6/LICENSE
nagios-4.4.6/Makefile.in
nagios-4.4.6/README.md
```

```
nagios-4.4.6/xdata/xrddefault.c
nagios-4.4.6/xdata/xrddefault.h
nagios-4.4.6/xdata/xsddefault.c
nagios-4.4.6/xdata/xsddefault.h
```

```
[ec2-user@ip-172-31-82-146 downloads]$ cd nagios-4.4.6 [ec2-user@ip-172-31-82-146 nagios-4.4.6]$ ./configure --with-command-group=nagcmd checking for a BSD-compatible install... /usr/bin/install -c checking build system type... x86_64-pc-linux-gnu checking host system type... x86_64-pc-linux-gnu checking for gcc... no checking for cc... no checking for cc... no configure: error: in `/home/ec2-user/downloads/nagios-4.4.6': configure: error: no acceptable C compiler found in $PATH See `config.log' for more details
```

Step 11. Run the Configuration Script

Commands -

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

```
[ec2-user@ip-172-31-82-146 nagios-4.4.6]$ ./configure --with-command-group=nagcmd checking for a BSD-compatible install... /usr/bin/install -c 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
```

Step 12. Compile Source Code

Commands -

make all

```
[cc2-user8ip-172-31-80-22 nagios-4.4.6]$ make all
cd ./base && make
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.4.6/base'
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o nagios.o nagios.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o broker.o broker.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o nebmods.o nebmods.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o users.o broker.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o workers.o users.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o workers.o users.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o workers.o
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o workers.o
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o workers.o
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o checks.o checks.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o comfig.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o commands.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o commands.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o commands.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o flapping.o flapping.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o logging.o logging.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -DHAVE_CONFIG H -DNSCORE -c -o express.o events.c
gcc -Wall -I.. -g -02 -D
```

```
*** Support Notes ***************************
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:
          https://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:
      https://support.nagios.com
***************
Enjoy.
```

Step 13. Install Binaries, Init Script, and Sample Config Files Commands -

./sudo make install sudo make install-init sudo make install-config sudo make install-commandmode

```
[ec2-user@ip-172-31-82-146 nagios-4.4.6]$ ./sudo make install
sudo make install-init
sudo make install-config
sudo make install-commandmode
-bash: ./sudo: No such file or directory
/usr/bin/install -c -m 755 -d -o root -g root /lib/systemd/system
/usr/bin/install -c -m 755 -o root -g root startup/default-service /lib/systemd/system/nagios.service
/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/ragios.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/cgi.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/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/contacts.cfg /usr/local/nagios/etc/objects/contacts.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/windows.cfg /usr/local/nagios/etc/objects/windows.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/windows.cfg /usr/local/nagio
```

```
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.

/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 ***
```

Step 14. Edit the Config File to Change the Email Address

Commands -

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

Change the email address in the contacts.cfg file to your preferred email.

Step 15. Configure the Web Interface

Commands -

sudo make install-webconf

Step 16. Create a Nagios Admin Account

Commands -

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

• You will be prompted to enter and confirm the password for the nagiosadmin user.(password is nagios)

```
[ec2-user@ip-172-31-82-146 nagios-4.4.6]$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
```

Step 17. Restart Apache

Commands - sudo systemctl restart httpd

```
[ec2-user@ip-172-31-82-146 nagios-4.4.6]$ sudo systemctl restart httpd
```

Step 18. Extract the Plugins Source File

Commands -

cd ~/downloads

tar zxvf nagios-plugins-2.3.3.tar.gz

cd nagios-plugins-2.3.3

```
[ec2-user@ip-172-31-82-146 nagios-4.4.6]$ cd ~/downloads
tar zxvf nagios-plugins-2.3.3.tar.gz
cd nagios-plugins-2.3.3
nagios-plugins-2.3.3/
nagios-plugins-2.3.3/perlmods/
nagios-plugins-2.3.3/perlmods/Config-Tiny-2.14.tar.gz
nagios-plugins-2.3.3/perlmods/parent-0.226.tar.gz
nagios-plugins-2.3.3/perlmods/Test-Simple-0.98.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.in
nagios-plugins-2.3.3/perlmods/version-0.9903.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.am
nagios-plugins-2.3.3/perlmods/Module-Runtime-0.013.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Metadata-1.000014.tar.gz
nagios-plugins-2.3.3/perlmods/Params-Validate-1.08.tar.gz
nagios-plugins-2.3.3/perlmods/Class-Accessor-0.34.tar.gz
```

Step 19. Compile and Install Plugins

Commands -

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

sudo make install

```
[ec2-user@ip-172-31-80-22 nagios-plugins-2.3.3]$ ./configure --with-nagios-user=nagios --with-nagios-group=nagios
make
sudo make install
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is same... yes
checking for a thread-safe mkdir -p... /usr/bin/mkdir -p
checking for gawk... gawk
checking whether make sets $(MAKE)... yes
checking whether to disable maintainer-specific portions of Makefiles... yes
checking build system type... x86_64-unknown-linux-gnu
checking host system type... x86 64-unknown-linux-gnu
checking for gcc... gcc
checking for C compiler default output file name... a.out
checking whether the C compiler works... yes
checking whether we are cross compiling... no
checking for suffix of executables...
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 for style of include used by make... GNU
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
```

Step 20. Start Nagios

Commands -

sudo chkconfig --add nagios sudo chkconfig nagios on sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg sudo systemctl start nagios

```
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:
Things look okay - No serious problems were detected during the pre-flight check
```

Step 21. Check the Status of Nagios

Commands -

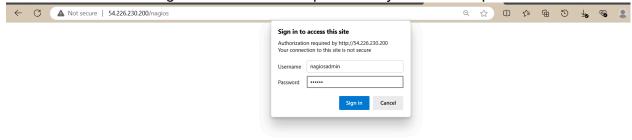
sudo systemctl status nagios

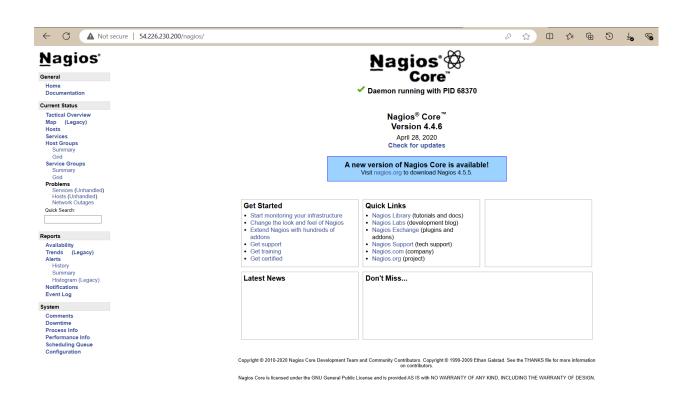
Step 22. Access Nagios Web Interface

Copy the Public IP address of your EC2 instance.

 Open your browser and navigate to http://<your_public_ip_address>/nagios.

Enter the username nagiosadmin and the password you set in Step 16.





Error:

This error arises because nagios 4.4.6 was not found. It was arised due to sudo yum install gcc glibc glibc-common was not executed successfully.

```
[ec2-user@ip-172-31-82-146 downloads]$ tar zxvf nagios-4.4.6.tar.gz
cd nagios-4.4.6
tar (child): nagios-4.4.6.tar.gz: Cannot open: No such file or directory
tar (child): Error is not recoverable: exiting now
tar: Child returned status 2
tar: Error is not recoverable: exiting now
-bash: cd: nagios-4.4.6: No such file or directory
[ec2-user@ip-172-31-82-146 downloads]$
```