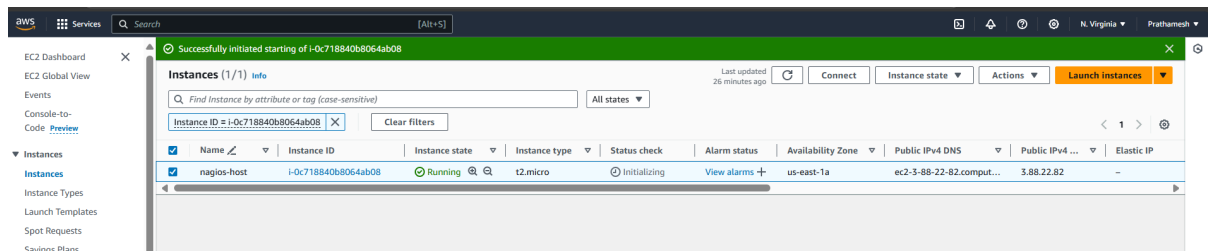


## Experiment No 9

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

### 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.

Inbound rules (7)

Q

Filter security group rules

<

1

>

Manage tags

Edit inbound rules

<input type="checkbox"/>	Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Description
<input type="checkbox"/>	-	sgr-06968184311c69...	IPv6	HTTP	TCP	80	::/0	-
<input type="checkbox"/>	-	sgr-0ef2b7b0ba4fa4a3b	IPv6	All ICMP - IPv6	IPv6 ICMP	All	::/0	-
<input type="checkbox"/>	-	sgr-0642522c2a7a765...	IPv4	HTTPS	TCP	443	0.0.0.0/0	-
<input type="checkbox"/>	-	sgr-076c55ff3b7dd80fe	IPv4	All traffic	All	All	0.0.0.0/0	-
<input type="checkbox"/>	-	sgr-07a8c3049a00dbee6	IPv4	SSH	TCP	22	0.0.0.0/0	-
<input type="checkbox"/>	-	sgr-04c83c4a2db4537...	IPv4	Custom TCP	TCP	5666	0.0.0.0/0	-
<input type="checkbox"/>	-	sgr-04d54b6dd961b1...	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0	-

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

```
[ec2-user@ip-172-31-92-100:~] $
```

```
Windows PowerShell  
Copyright (C) Microsoft Corporation. All rights reserved.  
  
Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows  
  
PS C:\Users\prath> cd .\Desktop\  
PS C:\Users\prath\Desktop> cd '.\adv DevOps temp\'  
PS C:\Users\prath\Desktop\adv DevOps temp> chmod 400 your-key-pair.pem  
/usr/bin/chmod: cannot access 'your-key-pair.pem': No such file or directory  
PS C:\Users\prath\Desktop\adv DevOps temp> chmod 400 exp-9.pem  
PS C:\Users\prath\Desktop\adv DevOps temp> ssh -i "exp-9.pem" ec2-user@44.202.40.68  
The authenticity of host '44.202.40.68 (44.202.40.68)' can't be established.  
ED25519 key fingerprint is SHA256:rtnyRksavxfOalsjWpTk6bevj7n0U7Htvs3NhFA9/50.  
This key is unknown by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes  
Warning: Permanently added '44.202.40.68' (ED25519) to the list of known hosts.
```

```
#  
##### Amazon Linux 2  
#####  
####| AL2 End of Life is 2025-06-30.  
### \##/  
### #/  
### V -->  
### |  
### _.  
### _/_/_____  
_/_/' /_____ Amazon Linux 2023, GA and supported until 2028-03-15.  
_/_/_' / _____ https://aws.amazon.com/linux/amazon-linux-2023/  
_/_/'''
```

```
[ec2-user@ip-172-31-92-100 ~]$
```

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

```
sudo yum update
```

```
sudo yum install httpd php
```

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

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

```
ec2-user@ip-172-31-92-100:~$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00:00
No packages marked for update
[ec2-user@ip-172-31-92-100 ~]$ sudo yum install httpd php
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
amzn2-core | 3.6 kB 00:00:00
Resolving Dependencies
--> Running transaction check
--> Package httpd.x86_64 0:2.4.62-1.amzn2.0.2 will be installed
--> Processing Dependency: httpd-filesystem = 2.4.62-1.amzn2.0.2 for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: httpd-tools = 2.4.62-1.amzn2.0.2 for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: /etc/mime.types for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: httpd-filesystem for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: mod_http2 for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: system-logos-httpd for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.62-1.amzn2.0.2.x86_64
--> Package php.x86_64 0:5.4.16-46.amzn2.0.5 will be installed
--> Processing Dependency: php-common(x86-64) = 5.4.16-46.amzn2.0.5 for package: php-5.4.16-46.amzn2.0.5.x86_64
--> Processing Dependency: php-cli(x86-64) = 5.4.16-46.amzn2.0.5 for package: php-5.4.16-46.amzn2.0.5.x86_64
--> Running transaction check
--> Package apr.x86_64 0:1.7.2-1.amzn2.0.1 will be installed
--> Package apr-util.x86_64 0:1.6.3-1.amzn2.0.1 will be installed
--> Processing Dependency: apr-util-bdb(x86-64) = 1.6.3-1.amzn2.0.1 for package: apr-util-1.6.3-1.amzn2.0.1.x86_64
--> Package generic-logos-httpd.noarch 0:18.0.0-4.amzn2.0.2 will be installed
--> Package httpd-filesystem.noarch 0:2.4.62-1.amzn2.0.2 will be installed
--> Package httpd-tools.x86_64 0:2.4.62-1.amzn2.0.2 will be installed
--> Package mailcap.noarch 0:2.1.41-2.amzn2.0.2 will be installed
--> Package mod_http2.x86_64 0:1.15.19-1.amzn2.0.2 will be installed
--> Package php-cli.x86_64 0:5.4.16-46.amzn2.0.5 will be installed
--> Package php-common.x86_64 0:5.4.16-46.amzn2.0.5 will be installed
--> Processing Dependency: libzip.so.2()(64bit) for package: php-common-5.4.16-46.amzn2.0.5.x86_64
--> Running transaction check
--> Package apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1 will be installed
--> Package libzip010-compat.x86_64 0:0.10.1-9.amzn2.0.5 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====
Installing:
httpd x86_64 2.4.62-1.amzn2.0.2 amzn2-core 1.4 M
```

```
ec2-user@ip-172-31-92-100:~$ sudo yum install httpd php
(13/13): php-cli-5.4.16-46.amzn2.0.5.x86_64.rpm | 2.8 MB 00:00:00
-----
Total 21 MB/s | 6.7 MB 00:00:00
Running transaction check
Running transaction test
Transaction test succeeded
Running transaction
  Installing : apr-1.7.2-1.amzn2.x86_64 1/13
  Installing : apr-util-1.6.3-1.amzn2.0.1.x86_64 2/13
  Installing : apr-util-bdb-1.6.3-1.amzn2.0.1.x86_64 3/13
  Installing : httpd-tools-2.4.62-1.amzn2.0.2.x86_64 4/13
  Installing : httpd-filesystem-2.4.62-1.amzn2.0.2.noarch 5/13
  Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch 6/13
  Installing : mailcap-2.1.41-2.amzn2.noarch 7/13
  Installing : mod_http2-1.15.19-1.amzn2.0.2.x86_64 8/13
  Installing : httpd-2.4.62-1.amzn2.0.2.x86_64 9/13
  Installing : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64 10/13
  Installing : php-common-5.4.16-46.amzn2.0.5.x86_64 11/13
  Installing : php-cli-5.4.16-46.amzn2.0.5.x86_64 12/13
  Installing : php-5.4.16-46.amzn2.0.5.x86_64 13/13
  Verifying : libzip010-compat-0.10.1-9.amzn2.0.5.x86_64 1/13
  Verifying : apr-util-bdb-1.6.3-1.amzn2.0.1.x86_64 2/13
  Verifying : httpd-2.4.62-1.amzn2.0.2.x86_64 3/13
  Verifying : php-5.4.16-46.amzn2.0.5.x86_64 4/13
  Verifying : php-common-5.4.16-46.amzn2.0.5.x86_64 5/13
  Verifying : apr-1.7.2-1.amzn2.x86_64 6/13
  Verifying : php-cli-5.4.16-46.amzn2.0.5.x86_64 7/13
  Verifying : mod_http2-1.15.19-1.amzn2.0.2.x86_64 8/13
  Verifying : apr-util-1.6.3-1.amzn2.0.1.x86_64 9/13
  Verifying : mailcap-2.1.41-2.amzn2.noarch 10/13
  Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 11/13
  Verifying : httpd-tools-2.4.62-1.amzn2.0.2.x86_64 12/13
  Verifying : httpd-filesystem-2.4.62-1.amzn2.0.2.noarch 13/13
Installed:
httpd.x86_64 0:2.4.62-1.amzn2.0.2 php.x86_64 0:5.4.16-46.amzn2.0.5

Dependency Installed:
apr.x86_64 0:1.7.2-1.amzn2 apr-util.x86_64 0:1.6.3-1.amzn2.0.1 apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1
generic-logos-httpd.noarch 0:18.0.0-4.amzn2 httpd-filesystem.noarch 0:2.4.62-1.amzn2.0.2 httpd-tools.x86_64 0:2.4.62-1.amzn2.0.2
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.amzn2.0.2
php-cli.x86_64 0:5.4.16-46.amzn2.0.5 php-common.x86_64 0:5.4.16-46.amzn2.0.5

Complete!
[ec2-user@ip-172-31-92-100 ~]$
```

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
```

```
[ec2-user@ip-172-31-92-100 ~]$ sudo adduser -m nagios
adduser: user 'nagios' already exists
[ec2-user@ip-172-31-92-100 ~]$ sudo passwd nagios
Changing password for user nagios.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-92-100 ~]$ |
```

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-172-31-92-100 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-92-100 ~]$ sudo usermod -a -G nagcmd nagios
[ec2-user@ip-172-31-92-100 ~]$ sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-92-100 ~]$ mkdir ~/downloads
```

8. Create a new directory for Nagios downloads

```
mkdir ~/downloads
```

```
cd ~/downloads
```

```
[ec2-user@ip-172-31-92-100 ~]$ mkdir ~/downloads
[ec2-user@ip-172-31-92-100 ~]$ cd ~/downloads
```

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-172-31-92-100 ~]$ cd ~/downloads
[ec2-user@ip-172-31-92-100 downloads]$ wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
--2024-09-29 20:39:25-- 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]
```

```
[ec2-user@ip-172-31-92-100 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-92-100 ~]$ sudo usermod -a -G nagcmd nagios
[ec2-user@ip-172-31-92-100 ~]$ sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-92-100 ~]$ mkdir ~/downloads
[ec2-user@ip-172-31-92-100 ~]$ cd ~/downloads
[ec2-user@ip-172-31-92-100 downloads]$ wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
--2024-09-29 20:39:25-- 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]
--2024-09-29 20:39:25-- 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?viasf=1 [following]
--2024-09-29 20:39:25-- http://versaweb.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1
Resolving versaweb.dl.sourceforge.net (versaweb.dl.sourceforge.net)... 162.251.232.175
Connecting to versaweb.dl.sourceforge.net (versaweb.dl.sourceforge.net)[162.251.232.175]: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 3.53MB/s in 0.5s

2024-09-29 20:39:26 (3.53 MB/s) - 'nagios-4.0.8.tar.gz' saved [1805059/1805059]

[ec2-user@ip-172-31-92-100 downloads]$ wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz
--2024-09-29 20:39:26-- http://nagios-plugins.org/download/nagios-plugins-2.0.3.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]:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2659772 (2.5M) [application/x-gzip]
Saving to: 'nagios-plugins-2.0.3.tar.gz'

100%[=====>] 2,659,772 6.77MB/s in 0.4s

2024-09-29 20:39:26 (6.77 MB/s) - 'nagios-plugins-2.0.3.tar.gz' saved [2659772/2659772]

[ec2-user@ip-172-31-92-100 downloads]$
```

10. Use tar to unzip and change to that directory.  
tar xzvf nagios-4.0.8.tar.gz

```
ec2-user@ip-172-31-92-100:~, X + v

[ec2-user@ip-172-31-92-100 downloads]$ tar xzvf 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
nagios-4.0.8/base/Makefile.in
nagios-4.0.8/base/broker.c
nagios-4.0.8/base/checks.c
```

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

```
Windows PowerShell X + v

[ec2-user@ip-172-31-92-100 downloads]$ cd nagios-4.0.8
[ec2-user@ip-172-31-92-100 nagios-4.0.8]$ ./configure --with-command-group=nagcmd
checking for a BSD-compatible install... /usr/bin/install -c
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 whether make sets $(MAKE)... yes
checking for strip... /usr/bin/strip
checking how to run the C preprocessor... gcc -E
```

## 12. Compile the source code.

make all

```
Windows PowerShell
[ec2-user@ip-172-31-92-100 nagios-4.0.8]$ make all
cd ./base && make
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/base'
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nagios.o nagios.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o broker.o broker.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nebmodes.o nebmodes.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o ../common/shared.o ../common/shared.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o nerd.o nerd.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o query-handler.o query-handler.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o workers.o workers.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o checks.o checks.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o config.o config.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o commands.o commands.c
commands.c: In function 'process_passive_service_check':
commands.c:2247:12: warning: assignment discards 'const' qualifier from pointer target type [-Wdiscarded-qualifiers]
    cr.source = command_worker.source_name;
    ^
commands.c: In function 'process_passive_host_check':
commands.c:2339:12: warning: assignment discards 'const' qualifier from pointer target type [-Wdiscarded-qualifiers]
    cr.source = command_worker.source_name;
    ^
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o events.o events.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o flapping.o flapping.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o logging.o logging.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o macros-base.o ../common/macros.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o netutils.o netutils.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o notifications.o notifications.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o sehndlers.o sehndlers.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o utils.o utils.c
utils.c: In function 'get_matching_timerange':
utils.c:1117:6: warning: assuming signed overflow does not occur when assuming that (X + c) >= X is always true [-Wstrict-overflow]
    if (midnight + 84800 >= start_time && (midnight <= end_time || start_time > end_time)) || (midnight <= end_time && start_time > end_time)
    ^
utils.c: In function 'process_check_result_queue':
utils.c:2038:38: warning: 'snprintf' output may be truncated before the last format character [-Wformat-truncation=]
    snprintf(file, sizeof(file), "%s/%s", dirname, dirfile->d_name);
    ~~~~~^~~~~
utils.c:2038:3: note: 'snprintf' output 2 or more bytes (assuming 257) into a destination of size 256
    snprintf(file, sizeof(file), "%s/%s", dirname, dirfile->d_name);
    ~~~~~^~~~~
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o retention-base.o sretention.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o xretention-base.o ../xdata/xrddefault.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o comments-base.o ../common/comments.c
gcc -Wall -I... -g -O2 -DHAVE_CONFIG_H -DNSCORE -c -o xcomments-base.o ../xdata/xcddefault.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-172-31-92-100 nagios-4.0.8]$ sudo make install
cd ./base && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/base'
make install-basic
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/base'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/bin
/usr/bin/install -c -m 774 -o nagios -g nagios nagios /usr/local/nagios/bin
/usr/bin/install -c -m 774 -o nagios -g nagios nagiosstats /usr/local/nagios/bin
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/base'
make strip-post-install
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/base'
/usr/bin/strip /usr/local/nagios/bin/nagios
/usr/bin/strip /usr/local/nagios/bin/nagiosstats
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/base'
make[1]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/base'
cd ./cgi && make install
make[1]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
make install-basic
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/sbin
for file in *.cgi; do \
    /usr/bin/install -c -m 775 -o nagios -g nagios $file /usr/local/nagios/sbin; \
done
make[2]: Leaving directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
make strip-post-install
make[2]: Entering directory '/home/ec2-user/downloads/nagios-4.0.8/cgi'
for file in *.cgi; do \
```



15. Configure the web interface.

sudo make install-webconf

```
[ec2-user@ip-172-31-92-100 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 ***
```

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-172-31-92-100 nagios-4.0.8]$ sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
```

17. Restart Apache

sudo service httpd restart

```
[ec2-user@ip-172-31-92-100 nagios-4.0.8]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
```

19. Compile and install plugins

cd nagios-plugins-2.0.3

```
[ec2-user@ip-172-31-92-100 nagios-4.0.8]$ cd ~/downloads
[ec2-user@ip-172-31-92-100 downloads]$ tar zxvf nagios-plugins-2.0.3.tar.gz
nagios-plugins-2.0.3/
nagios-plugins-2.0.3/perlmods/
nagios-plugins-2.0.3/perlmods/Config-Tiny-2.14.tar.gz
nagios-plugins-2.0.3/perlmods/parent-0.226.tar.gz
nagios-plugins-2.0.3/perlmods/Test-Simple-0.98.tar.gz
nagios-plugins-2.0.3/perlmods/Makefile.in
nagios-plugins-2.0.3/perlmods/version-0.9903.tar.gz
nagios-plugins-2.0.3/perlmods/Makefile.am
nagios-plugins-2.0.3/perlmods/Module-Runtime-0.013.tar.gz
nagios-plugins-2.0.3/perlmods/Module-Metadata-1.000014.tar.gz
nagios-plugins-2.0.3/perlmods/Params-Validate-1.08.tar.gz
nagios-plugins-2.0.3/perlmods/Class-Accessor-0.34.tar.gz
nagios-plugins-2.0.3/perlmods/Try-Tiny-0.18.tar.gz
nagios-plugins-2.0.3/perlmods/Module-Implementation-0.07.tar.gz
nagios-plugins-2.0.3/perlmods/Makefile
```

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

make

sudo make install

```
[ec2-user@ip-172-31-92-100 downloads]$ cd nagios-plugins-2.0.3
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ ./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 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
```

## 20. Start Nagios

Add Nagios to the list of system services

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

```
sudo chkconfig nagios on
```

```
make[1]: Leaving directory `/home/ec2-user/downloads/nagios-plugins-2.0.3'
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ sudo chkconfig --add nagios
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ sudo chkconfig nagios on
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ sudo service nagios start
```

Verify the sample configuration files

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

```
[ec2-user@ip-172-31-92-100 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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Website: http://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

Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ |
```

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

```
Total Warnings: 0
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ |
```

sudo service nagios start

```
[ec2-user@ip-172-31-92-100 nagios-plugins-2.0.3]$ sudo service nagios start
Starting nagios (via systemctl): [ OK ]
```



## 21. Check the status of Nagios

sudo systemctl status nagios

```
[ec2-user@ip-172-31-92-100 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 Sun 2024-09-29 21:06:29 UTC; 44min ago
     Docs: man:systemd-sysv-generator(8)
  Process: 22314 ExecStart=/etc/rc.d/init.d/nagios start (code=exited, status=0/SUCCESS)
    CGroup: /system.slice/nagios.service
            └─22335 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
               22337 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               22338 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               22339 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               22340 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               22341 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Sep 29 21:11:21 ip-172-31-92-100.ec2.internal nagios[22335]: SERVICE ALERT: localhost;HTTP;WARNING;HARD;4;HTTP WA
Sep 29 21:11:51 ip-172-31-92-100.ec2.internal nagios[22335]: SERVICE ALERT: localhost;Swap Usage;CRITICAL;SOFT;2;
Sep 29 21:12:51 ip-172-31-92-100.ec2.internal nagios[22335]: SERVICE ALERT: localhost;Swap Usage;CRITICAL;SOFT;3;
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: SERVICE ALERT: localhost;Swap Usage;CRITICAL;HARD;4;
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: SERVICE NOTIFICATION: nagiosadmin;localhost;Swap Usa
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: wproc: NOTIFY job 6 from worker Core Worker 22340 is
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: wproc: host=localhost; service=Swap Usage; contact
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: wproc: early_timeout=0; exited_ok=1; wait_status=3
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: wproc: stderr line 01: /bin/sh: /bin/mail: No such
Sep 29 21:13:51 ip-172-31-92-100.ec2.internal nagios[22335]: wproc: stderr line 02: /usr/bin/printf: write erro
Hint: Some lines were ellipsized, use -l to show in full.
```

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

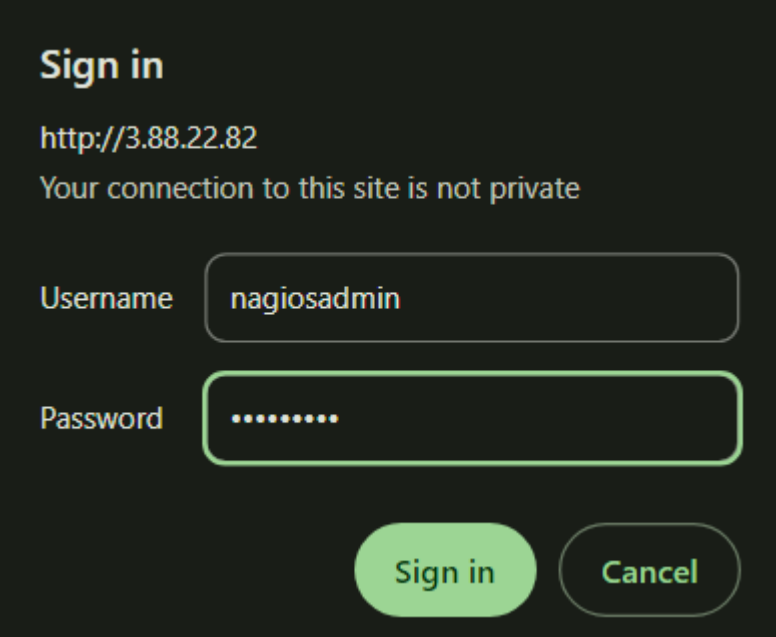
EC2 > Instances > i-0c718840b8064ab08

Instance summary for i-0c718840b8064ab08 (nagios-host) [Info](#)

Updated less than a minute ago

Instance ID i-0c718840b8064ab08 (nagios-host)	Public IPv4 address 3.88.22.82   <a href="#">open address</a>	Private IPv4 addresses 172.31.92.100
IPv6 address -	Instance state <span>Running</span>	Public IPv4 DNS ec2-3-88-22-82.compute-1.amazonaws.com   <a href="#">open address</a>
Hostname type IP name: ip-172-31-92-100.ec2.internal	Private IP DNS name (IPv4 only) ip-172-31-92-100.ec2.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding <a href="#">Opt-in to AWS Compute Optimizer for recommendatio</a>
Auto-assigned IP address 3.88.22.82 [Public IP]	VPC ID vpc-08d8d23aa994554c8	

23. Open up your browser and look for `http://<your_public_ip_address>/nagios`




**Sign in**

`http://3.88.22.82`

Your connection to this site is not private

Username

Password



**Nagios® Core™**  
✓ Daemon running with PID 22335

**Nagios® Core™**  
**Version 4.0.8**  
August 12, 2014  
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- Nagios Core 4.0.6 Released
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