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Advance DevOps Lab

Experiment 9.

Aim -

To understand continuous monitoring and installation and configuration of nagios core, plug-ins and NRPE on linux machine.

Theory -

Nagios is an open-source monitoring system for computer systems. It was designed to run on linux operating system. It can monitor linux, unix and windows OS.

Nagios software runs periodic checks on critical parameters of application, network and server resources.

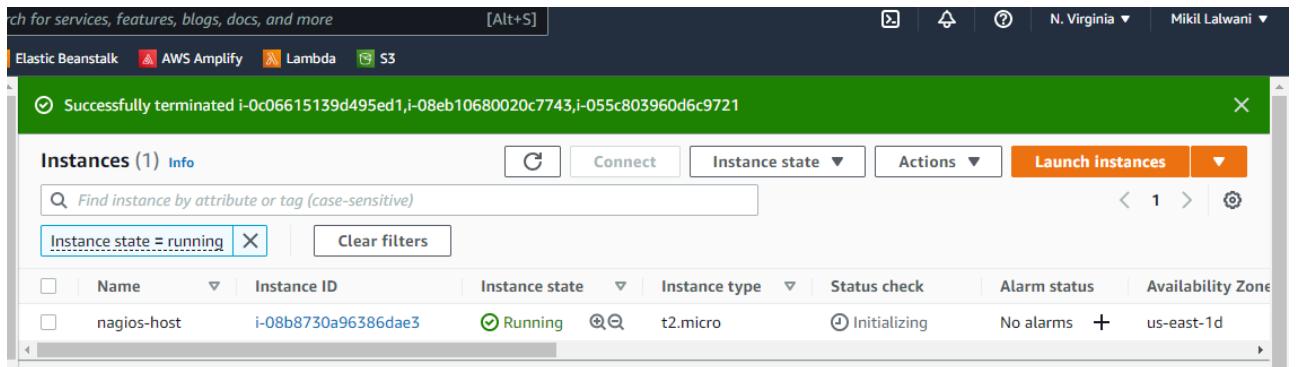
Nagios structure -

A user can choose CLI or web based GUI in some versions of Nagios and from third parties.

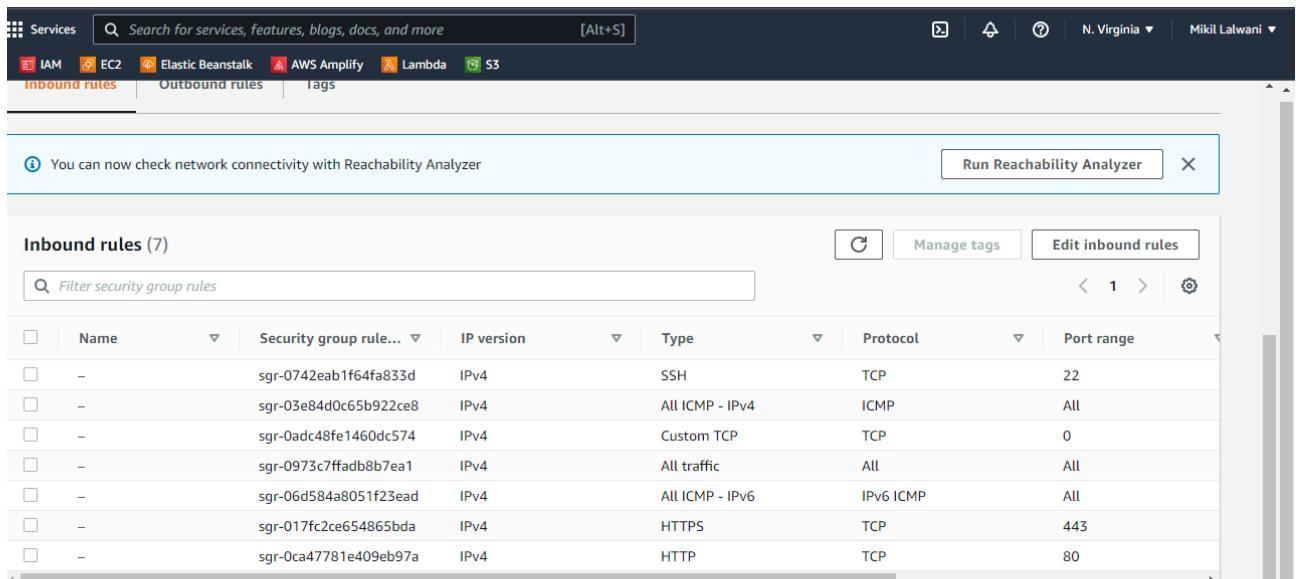
Nagios dashboard provides an overview of critical parameters monitored on assets. Based on thresholds defined, Nagios can send out alerts. Notifications can be sent by email or text. Authorization system allows administrator to restrict access.

Steps:

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



2. Under Security Group, make sure HTTP, HTTPS, SSH, and 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
```

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

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

```
[ec2-user@ip-172-31-85-63 ~]$ sudo yum update
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package amazon-ssm-agent.x86_64 0:3.1.1575.0-1.amzn2 will be updated
---> Package amazon-ssm-agent.x86_64 0:3.1.1732.0-1.amzn2 will be an update
---> Package chrony.x86_64 0:4.0-3.amzn2.0.2 will be updated
---> Package chrony.x86_64 0:4.2-5.amzn2.0.2 will be an update
---> Package dhclient.x86_64 12:4.2.5-77.amzn2.1.6 will be updated
---> Package dhclient.x86_64 12:4.2.5-79.amzn2.1.1 will be an update
---> Package dhcp-common.x86_64 12:4.2.5-77.amzn2.1.6 will be updated
---> Package dhcp-common.x86_64 12:4.2.5-79.amzn2.1.1 will be an update
---> Package dhcp-libs.x86_64 12:4.2.5-77.amzn2.1.6 will be updated
---> Package dhcp-libs.x86_64 12:4.2.5-79.amzn2.1.1 will be an update
---> Package ec2-net-utils.noarch 0:1.7.0-1.amzn2 will be updated
---> Package ec2-net-utils.noarch 0:1.7.1-1.amzn2 will be an update
---> Package gnupg2.x86_64 0:2.0.22-5.amzn2.0.4 will be updated
```

```
Complete!
[ec2-user@ip-172-31-85-63 ~]$ sudo yum install httpd php
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package httpd.x86_64 0:2.4.54-1.amzn2 will be installed
---> Processing Dependency: httpd-tools = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: httpd-filesystem = 2.4.54-1.amzn2 for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: system-logos-httpd for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: mod_http2 for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: httpd-filesystem for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: /etc/mime.types for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: libaprutil-1.so.0()(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
---> Processing Dependency: libapr-1.so.0()(64bit) for package: httpd-2.4.54-1.amzn2.x86_64
---> Package php.x86_64 0:5.4.16-46.amzn2.0.2 will be installed
---> Processing Dependency: php-cli(x86-64) = 5.4.16-46.amzn2.0.2 for package: php-5.4.16-46.amzn2.0.2.x86_64
```

```
Complete!
[ec2-user@ip-172-31-85-63 ~]$ sudo yum install gcc glibc glibc-common
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Package glibc-2.26-60.amzn2.x86_64 already installed and latest version
Package glibc-common-2.26-60.amzn2.x86_64 already installed and latest version
Resolving Dependencies
--> Running transaction check
---> Package gcc.x86_64 0:7.3.1-15.amzn2 will be installed
---> Processing Dependency: cpp = 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
---> Processing Dependency: libasanitizer >= 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
---> Processing Dependency: libquadmath >= 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
---> Processing Dependency: libmpx >= 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
---> Processing Dependency: libitm >= 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
---> Processing Dependency: libcilkclrt >= 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
---> Processing Dependency: libatomic >= 7.3.1-15.amzn2 for package: gcc-7.3.1-15.amzn2.x86_64
```

```
[ec2-user@ip-172-31-85-63 ~]$ sudo yum install gd gd-devel
Loaded plugins: extras_suggestions, langpacks, priorities, update-motd
Resolving Dependencies
--> Running transaction check
---> Package gd.x86_64 0:2.0.35-27.amzn2 will be installed
---> Processing Dependency: libfontconfig.so.1()(64bit) for package: gd-2.0.35-27.amzn2.x86_64
---> Processing Dependency: libXpm.so.4()(64bit) for package: gd-2.0.35-27.amzn2.x86_64
---> Processing Dependency: libXi1.so.6()(64bit) for package: gd-2.0.35-27.amzn2.x86_64
---> Package gd-devel.x86_64 0:2.0.35-27.amzn2 will be installed
---> Processing Dependency: zlib-devel for package: gd-devel-2.0.35-27.amzn2.x86_64
---> Processing Dependency: libpng-devel for package: gd-devel-2.0.35-27.amzn2.x86_64
---> Processing Dependency: libjpeg-devel for package: gd-devel-2.0.35-27.amzn2.x86_64
---> Processing Dependency: libXpm-devel for package: gd-devel-2.0.35-27.amzn2.x86_64
---> Processing Dependency: libX11-devel for package: gd-devel-2.0.35-27.amzn2.x86_64
---> Processing Dependency: freetype-devel for package: gd-devel-2.0.35-27.amzn2.x86_64
```

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
```

```
(nagios123)
```

```
[ec2-user@ip-172-31-85-63 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-85-63 ~]$ 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:
passwd: all authentication tokens updated successfully.
[ec2-user@ip-172-31-85-63 ~]$
```

6. Create a new user group

```
sudo groupadd nagcmd
```

```
ec2-user@ip-172-31-85-63 ~]$ sudo groupadd nagcmd
ec2-user@ip-172-31-85-63 ~]$
```

i-08b8730a96386dae3 (nagios-host)

Public IPs: 18.208.169.190 Private IPs: 172.31.85.63

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-172-31-85-63 ~]$ sudo usermod -a -G nagcmd nagios
[ec2-user@ip-172-31-85-63 ~]$ sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-85-63 ~]$
```

i-08b8730a96386dae3 (nagios-host)

Public IPs: 18.208.169.190 Private IPs: 172.31.85.63

8. Create a new directory for Nagios downloads

```
mkdir ~/downloads
```

```
Cd ~/downloads
```

```
[ec2-user@ip-172-31-85-63 ~]$ mkdir ~/downloads  
[ec2-user@ip-172-31-85-63 ~]$ cd ~/downloads  
[ec2-user@ip-172-31-85-63 downloads]$
```

i-08b8730a96386dae3 (nagios-host)

Public IPs: 18.208.169.190 Private IPs: 172.31.85.63

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-172-31-85-63 downloads]$ wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz  
--2022-09-19 08:33:20-- 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]  
--2022-09-19 08:33:20-- 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://cfhcable.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz [following]  
--2022-09-19 08:33:20-- http://cfhcable.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz  
Resolving cfhcable.dl.sourceforge.net (cfhcable.dl.sourceforge.net)... 146.71.73.6  
Connecting to cfhcable.dl.sourceforge.net (cfhcable.dl.sourceforge.net)|146.71.73.6|:80... connected.  
HTTP request sent, awaiting response... 200 OK  
Length: 1805059 (1.7M) [application/x-gzip]  
Saving to: 'nagios-4.0.8.tar.gz'
```

```
[ec2-user@ip-172-31-85-63 downloads]$ wget http://nagios-plugins.org/download/nagios-plugins-2.0.3.tar.gz  
--2022-09-19 08:33:36-- 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 6.54MB/s in 0.4s  
2022-09-19 08:33:37 (6.54 MB/s) - 'nagios-plugins-2.0.3.tar.gz' saved [2659772/2659772]  
[ec2-user@ip-172-31-85-63 downloads]$
```

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

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

```
[ec2-user@ip-172-31-85-63 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.

Switch to nagios-4.0.8/ directory

```
cd nagios-4.0.8/
```

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

```
[ec2-user@ip-172-31-85-63 downloads]$ cd nagios-4.0.8/
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$
```

i-08b8730a96386dae3 (nagios-host)

```
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$ ./configure --with-command-group=nagcmd
```

i-08b8730a96386dae3 (nagios-host)

12. Compile the source code.

```
make all
```

```
[ec2-user@ip-172-31-85-63 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 nebmods.o nebmods.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;
```

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-172-31-85-63 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 nagiostats /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/nagiostats
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
```

```
[ec2-user@ip-172-31-85-63 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-172-31-85-63 nagios-4.0.8]$
```

```
[ec2-user@ip-172-31-85-63 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.cgi /usr/local/nagios/etc/cgi.cgi
/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 ***
```

```
[ec2-user@ip-172-31-85-63 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-172-31-85-63 nagios-4.0.8]$
```

i-08b8730a96386dae3 (nagios-host)

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

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

```
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$ sudo nano /usr/local/nagios/etc/objects/contacts.cfg
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$ sudo nano /usr/local/nagios/etc/objects/contacts.cfg
[ec2-user@ip-172-31-85-63 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-172-31-85-63 nagios-4.0.8]$ 
```

i-08b8730a96386dae3 (nagios-host)

```
GNU nano 2.9.8                               /usr/local/nagios/etc/objects/contacts.cfg

#
#####
# 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                2020.mikil.lalwani@ves.ac.in ; <***** CHANGE THIS TO YOUR EMAIL ADDRESS *****

}

#####
#
```

^G Get Help ^C Write Out ^W Where Is ^R Cut Text ^J Justify ^C Cur Pos M-U Undo M-A Mark Text M-] To
^X Exit ^F Read File ^V Replace ^U Uncut Text ^T To Spell ^G Go To Line M-E Redo M-C Copy Text M-W Whe

15. Configure the web interface.

```
sudo make install-webconf
```

```
[ec2-user@ip-172-31-85-63 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-172-31-85-63 nagios-4.0.8]$ 
```

i-08b8730a96386dae3 (nagios-host)

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-172-31-85-63 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
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$ 
```

i-08b8730a96386dae3 (nagios-host)

17. Restart Apache

```
sudo service httpd restart
```

```
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$ sudo service httpd restart
Redirecting to /bin/systemctl restart httpd.service
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$
```

i-08b8730a96386dae3 (nagios-host)

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

```
cd ~/downloads
```

```
tar zxvf nagios-plugins-2.0.3.tar.gz
```

```
[ec2-user@ip-172-31-85-63 nagios-4.0.8]$ cd ~/downloads
[ec2-user@ip-172-31-85-63 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
nagios-plugins-2.0.3/perlmods/Perl-OSType-1.003.tar.gz
nagios-plugins-2.0.3/perlmods/install_order
nagios-plugins-2.0.3/perlmods/Nagios-Plugin-0.36.tar.gz
nagios-plugins-2.0.3/perlmods/Math-Calc-Units-1.07.tar.gz
nagios-plugins-2.0.3/perlmods/Module-Build-0.4007.tar.gz
nagios-plugins-2.0.3/ABOUT-NLS
nagios-plugins-2.0.3/configure.ac
nagios-plugins-2.0.3/Makefile.in
```

19. Compile and install plugins

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

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

```
sudo make install
```

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ ./configure --with-nagios-user=nagios --with-nagios-group=nagios
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$
```

```
i-08b8730a96386dae3 (nagios-host)
```

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo make install
```

i-08b8730a96386dae3 (nagios-host)

20. Start Nagios

Add Nagios to the list of system services

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

```
sudo chkconfig nagios on
```

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo chkconfig --add nagios
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo chkconfig nagios on
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$
```

i-08b8730a96386dae3 (nagios-host)

Verify the sample configuration files

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

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
Nagios Core 4.0.8
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 08-12-2014
License: GPL

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 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
```

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

```
sudo service nagios start
```

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo service nagios start
Starting nagios (via systemctl): [ OK ]
```

21.Check the status of Nagios

```
sudo systemctl status nagios
```

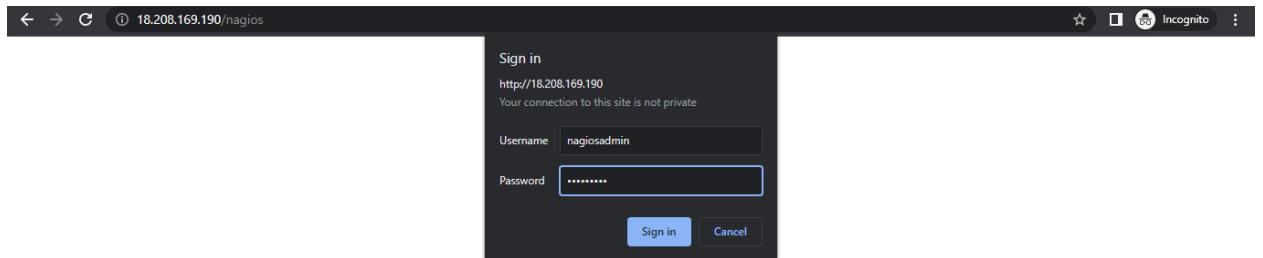
```
Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo service nagios start
Starting nagios (via systemctl):
[ OK ]
[ec2-user@ip-172-31-85-63 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 Mon 2022-09-19 08:49:48 UTC; 16s ago
        Docs: man:systemd-sysv-generator(8)
   Process: 32651 ExecStart=/etc/rc.d/init.d/nagios start (code=exited, status=0/SUCCESS)
   CGroup: /system.slice/nagios.service
           └─32672 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─32674 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.gh
             ├─32675 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.gh
             ├─32676 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.gh
             ├─32677 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.gh
             └─32678 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Sep 19 08:49:48 ip-172-31-85-63.ec2.internal nagios[32672]: nerd: Channel hostchecks registered successfully
Sep 19 08:49:48 ip-172-31-85-63.ec2.internal nagios[32672]: nerd: Channel servicechecks registered successfully
Sep 19 08:49:48 ip-172-31-85-63.ec2.internal nagios[32672]: nerd: Channel opathchecks registered successfully
Sep 19 08:49:48 ip-172-31-85-63.ec2.internal nagios[32672]: nerd: Fully initialized and ready to rock!
Sep 19 08:49:48 ip-172-31-85-63.ec2.internal nagios[32672]: wproc: Successfully registered manager as @wproc with query handler
```

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

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 web interface. On the left, there's a sidebar with navigation links: General, Home, Documentation; Current Status (Tactical Overview, Map, Hosts, Services, Host Groups, Summary, Grid); Service Groups (Summary, Grid); Problems (Services, (Unhandled), Hosts (Unhandled), Network Outages); Quick Search; Reports (Availability, Trends, Alerts, History, Summary, Histogram, Notifications, Event Log); and System (Comments, Downtime, Process Info). The main content area features the Nagios Core logo and a message indicating the daemon is running with PID 32672. It displays the version information: Nagios® Core™ Version 4.0.8, dated August 12, 2014, with a link to "Check for updates". A blue box at the top right says "A new version of Nagios Core is available! Visit [nagios.org](#) to download Nagios 4.4.7." Below this, there are three promotional cards: "Nagios XI" (Easy Configuration, Advanced Reporting, Download), "Nagios Log Server" (Monitor and analyze logs from anywhere, Download), and "Nagios Network Analyzer" (Real-time netflow and bandwidth analysis, Download). At the bottom left, there's a "Get Started" section with a bulleted list: Start monitoring your infrastructure, Change the look and feel of Nagios, Extend Nagios with hundreds of addons, Get support, Get training, Get certified. To the right is a "Quick Links" section with a list: Nagios Library (tutorials and docs), Nagios Labs (development blog), Nagios Exchange (plugins and addons), Nagios Support (tech support), Nagios.com (company), and Nagios.org (project). A video player thumbnail for "NAGIOS CORE PROJECT TOUR" is also present.

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

Conclusion -

Thus we have learned about Nagios and successfully set it up on our Amazon ec2 linux instance.

With this we can monitor our instance or any other EC2 instance. Now we can see the performance of our instance and also get alerts if anything goes wrong.

So this was all about how to monitor your EC2 instance using Nagios.

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