Vivekanand Education Society's

Institute of Technology

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Hashu Advani Memorial Complex, Collector Colony, Chembur East, Mumbai - 400074.

Department of Information Technology

A.Y. 2024-25

Advance DevOps Lab
Experiment 09

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

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Class	D15B
Subject	Advance DevOps Lab
LO Mapped	LO1: To understand the fundamentals of Cloud Computing and be fully proficient with Cloud based DevOps solution deployment options to meet your business requirements. LO5: To use Continuous Monitoring Tools to resolve any system errors (low memory, unreachable server etc.) before they have any negative impact on the business productivity.
Grade:	

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

THEORY :

What is Nagios?

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

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

Why Use Nagios?

Key reasons to use Nagios include:

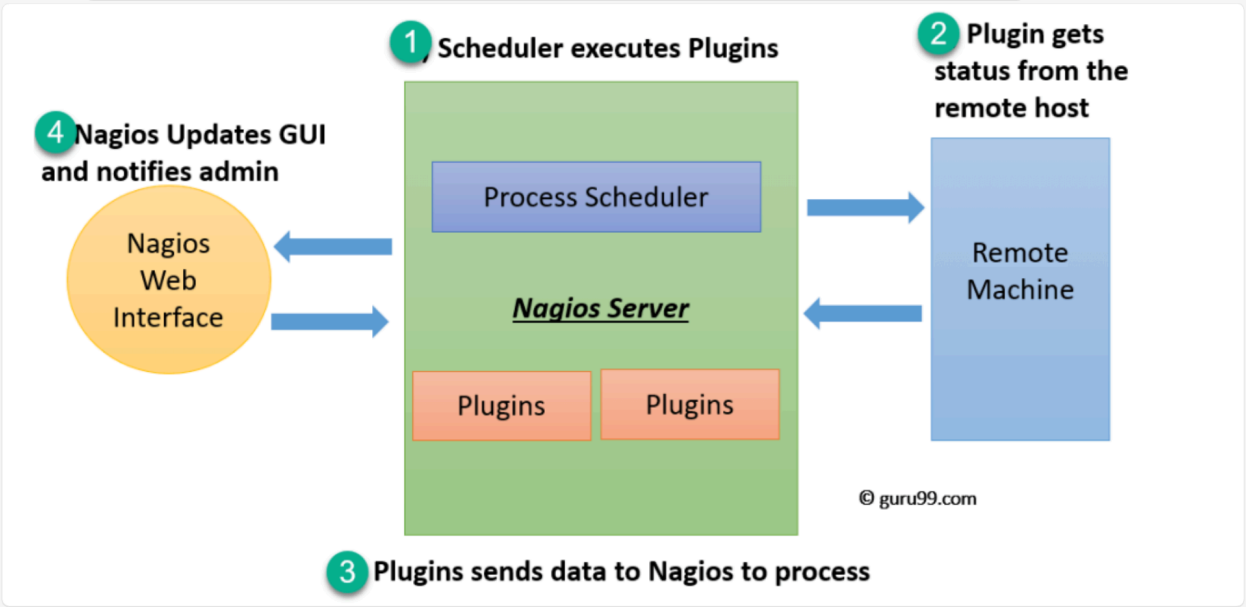
- Detecting network or server issues early
- Identifying the root cause for permanent fixes
- Active monitoring of your infrastructure and processes
- Troubleshooting server performance problems
- Planning upgrades to prevent failures
- Maintaining security and service availability
- Automating problem resolution in critical situations

Features of Nagios:

- Scalable, secure, and manageable
- Attractive web interface
- Automatic alerts for changing conditions
- Ability to monitor network services like HTTP, FTP, SMTP, SSH, and more
- Detecting server crashes and performance issues
- Easy plugin integration
- Monitors entire business processes with a single tool
- Event handlers for proactive issue resolution

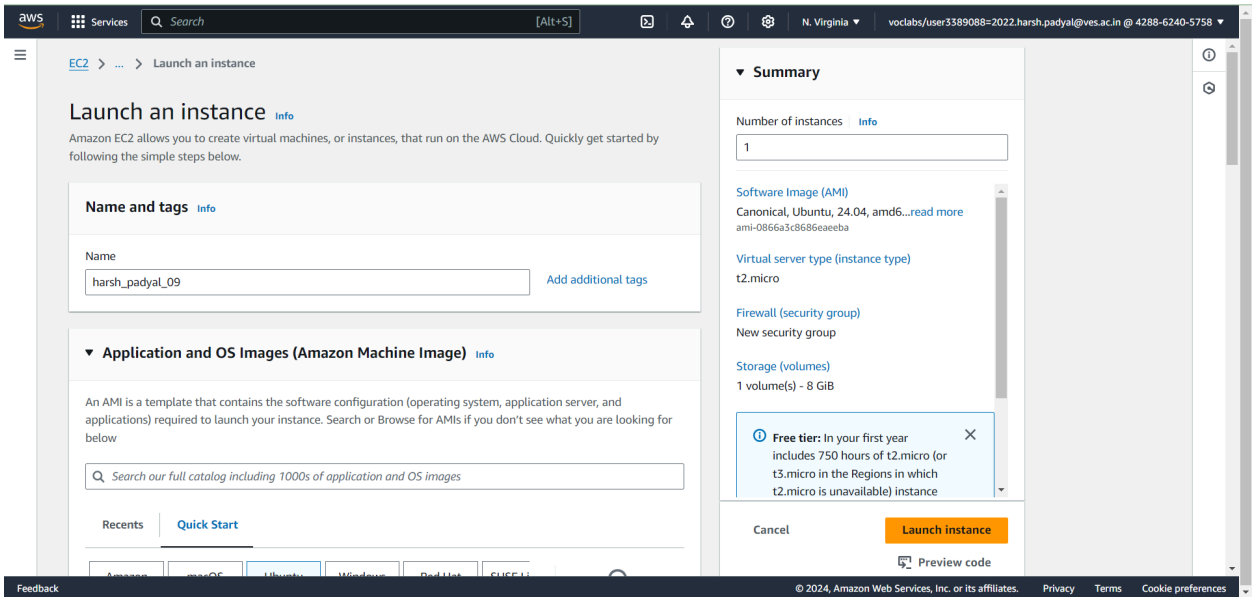
Nagios Architecture

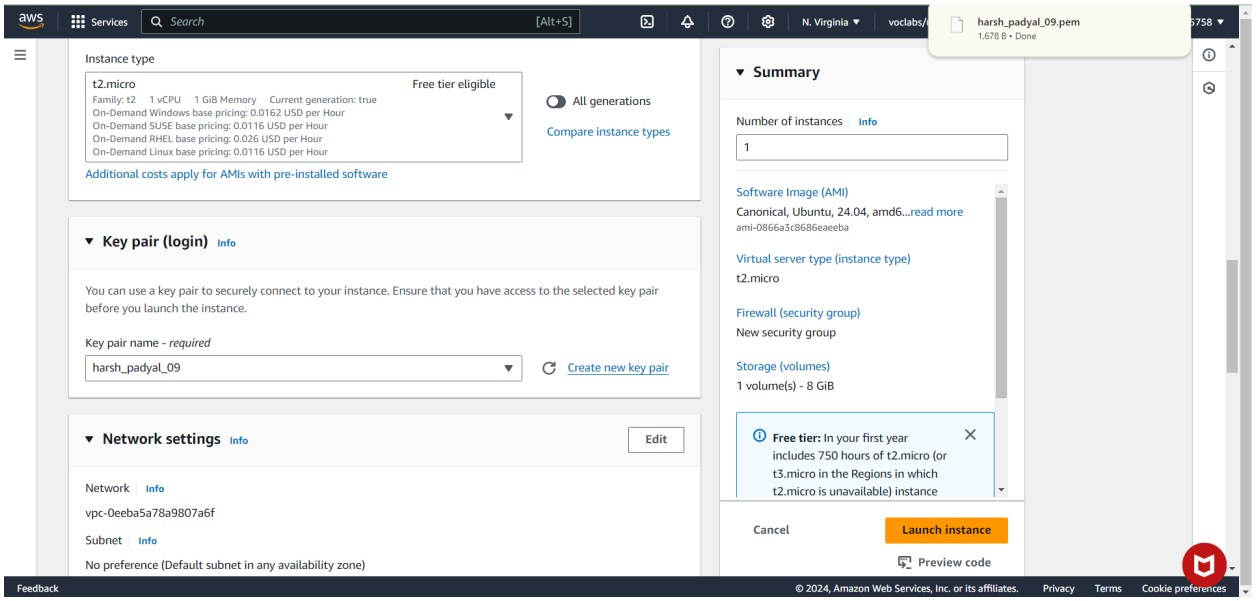
Nagios is a client-server architecture. Usually, on a network, a Nagios server is running on a host, and plugins are running on all the remote hosts which should be monitored.

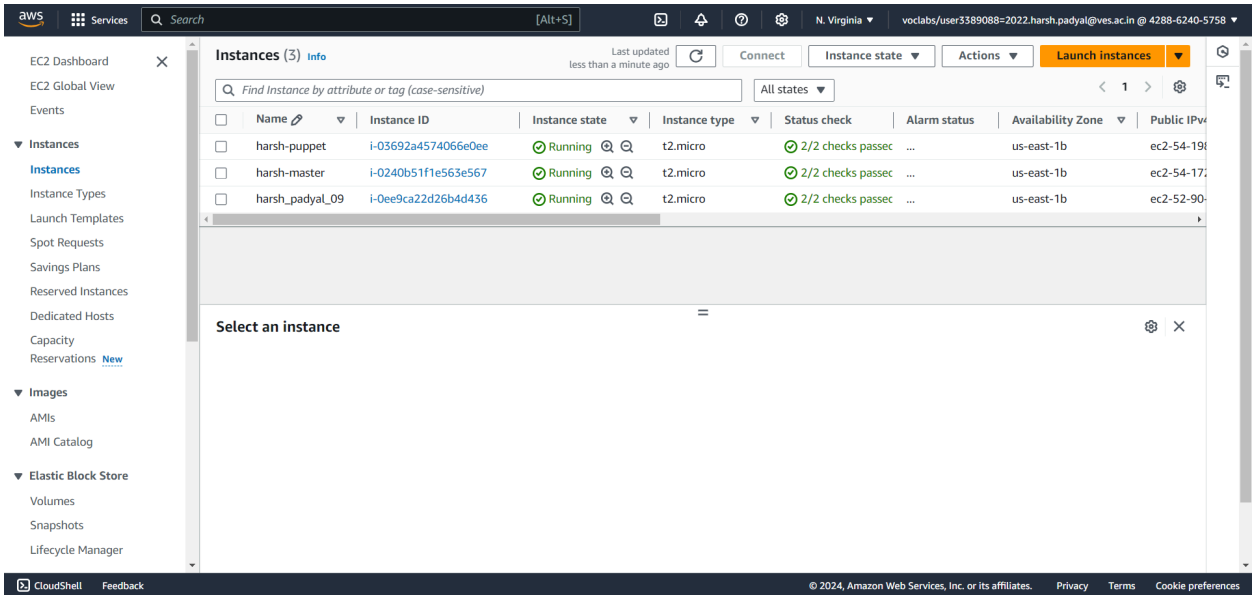


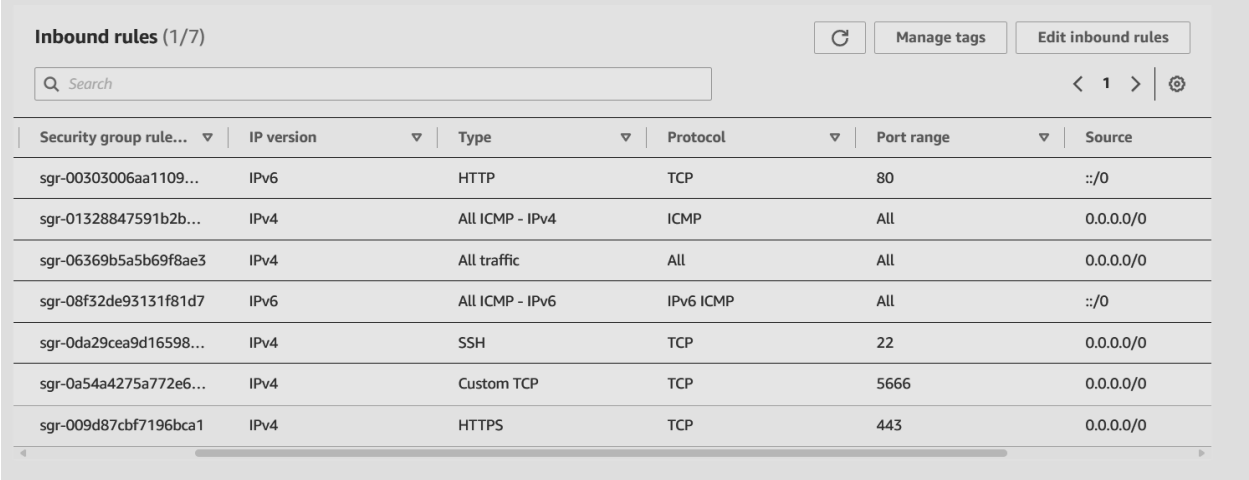
1. The scheduler is a component of the server part of Nagios. It sends a signal to execute the plugins at the remote host.
2. The plugin gets the status from the remote host
3. The plugin sends the data to the process scheduler

The process scheduler updates the GUI and notifications are sent to admins.


Launch an instance
Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.
Name and tags
Name
harsh_padyal_09
Add additional tags
Application and OS Images (Amazon Machine Image)
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below
Search our full catalog including 1000s of application and OS images
Recents
Quick Start
Summary
Number of instances
1
Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-0866a3c8686eaeeba
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance
Cancel
Launch instance
Preview code


harsh_padyal_09.pem
1.678 B • Done
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.026 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour
All generations
Compare instance types
Additional costs apply for AMIs with pre-installed software
Key pair (login)
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
harsh_padyal_09
Create new key pair
Network settings
Edit
Network
vpc-0eeba5a78a9807a6f
Subnet
No preference (Default subnet in any availability zone)
Summary
Number of instances
1
Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-0866a3c8686eaeeba
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance
Cancel
Launch instance
Preview code


Instances (3)
Last updated less than a minute ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
harsh-puppet i-03692a4574066e0ee Running t2.micro 2/2 checks passed us-east-1b
harsh-master i-0240b51f1e563e567 Running t2.micro 2/2 checks passed us-east-1b
harsh_padyal_09 i-0ee9ca22d26b4d436 Running t2.micro 2/2 checks passed us-east-1b
Select an instance
EC2 Dashboard
EC2 Global View
Events
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager



Inbound rules (1/7)

Manage tags | Edit inbound rules

Search

1

Security group rule...	IP version	Type	Protocol	Port range	Source
sgr-00303006aa1109...	IPv6	HTTP	TCP	80	::/0
sgr-01328847591b2b...	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0
sgr-06369b5a5b69f8ae3	IPv4	All traffic	All	All	0.0.0.0/0
sgr-08f32de93131f81d7	IPv6	All ICMP - IPv6	IPv6 ICMP	All	::/0
sgr-0da29cea9d16598...	IPv4	SSH	TCP	22	0.0.0.0/0
sgr-0a54a4275a772e6...	IPv4	Custom TCP	TCP	5666	0.0.0.0/0
sgr-009d87cbf7196bca1	IPv4	HTTPS	TCP	443	0.0.0.0/0

```
C:\Users\harsh>cd C:\Users\harsh\OneDrive\Desktop\ADO

C:\Users\harsh\OneDrive\Desktop\ADO>ssh -i "harsh_padyal_09.pem" root@ec2-52-90-254-14.compute-1.amazonaws.com

C:\Users\harsh\OneDrive\Desktop\ADO>ssh -i "harsh_padyal_09.pem" root@ec2-52-90-254-14.compute-1.amazonaws.com
The authenticity of host 'ec2-52-90-254-14.compute-1.amazonaws.com (52.90.254.14)' can't be established.
ED25519 key fingerprint is SHA256:gwctOmy5JRo3yXqaTQqIJ5KTsuynPjQzwQXow7kUHms.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'ec2-52-90-254-14.compute-1.amazonaws.com' (ED25519) to the list of known hosts.
```

```
================================================================================================================================================
 Package                         Architecture          Version                                 Repository                              Size
================================================================================================================================================
Installing:
 gcc                             x86_64                11.4.1-2.amzn2023.0.2                   amazonlinux                             32 M
Installing dependencies:
 annobin-docs                    noarch                10.93-1.amzn2023.0.1                    amazonlinux                             92 k
 annobin-plugin-gcc              x86_64                10.93-1.amzn2023.0.1                    amazonlinux                            887 k
 cpp                             x86_64                11.4.1-2.amzn2023.0.2                   amazonlinux                             10 M
 gc                              x86_64                8.0.4-5.amzn2023.0.2                    amazonlinux                            105 k
 glibc-devel                     x86_64                2.34-52.amzn2023.0.11                   amazonlinux                             27 k
 glibc-headers-x86               noarch                2.34-52.amzn2023.0.11                   amazonlinux                            427 k
 guile22                         x86_64                2.2.7-2.amzn2023.0.3                    amazonlinux                            6.4 M
 kernel-headers                  x86_64                6.1.109-118.189.amzn2023                amazonlinux                            1.4 M
 libmpc                          x86_64                1.2.1-2.amzn2023.0.2                    amazonlinux                             62 k
 libtool-ltdl                    x86_64                2.4.7-1.amzn2023.0.3                    amazonlinux                             38 k
 libxcrypt-devel                 x86_64                4.4.33-7.amzn2023                       amazonlinux                             32 k
 make                            x86_64                1:4.3-5.amzn2023.0.2                    amazonlinux                            534 k

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

```
Complete!
[ec2-user@ip-172-31-2-207 ~]$  sudo yum install gd gd-devel
Last metadata expiration check: 0:02:22 ago on Sat Oct 12 09:34:48 2024.
Dependencies resolved.
================================================================================================================================================
 Package                         Architecture          Version                                 Repository                              Size
================================================================================================================================================
Installing:
 gd                              x86_64                2.3.3-5.amzn2023.0.3                    amazonlinux                            139 k
 gd-devel                        x86_64                2.3.3-5.amzn2023.0.3                    amazonlinux                             38 k
Installing dependencies:
 brotli                          x86_64                1.0.9-4.amzn2023.0.2                    amazonlinux                            314 k
 brotli-devel                    x86_64                1.0.9-4.amzn2023.0.2                    amazonlinux                             31 k
 bzip2-devel                     x86_64                1.0.8-6.amzn2023.0.2                    amazonlinux                            214 k
 cairo                           x86_64                1.17.6-2.amzn2023.0.1                   amazonlinux                            684 k
 cmake-filesystem                x86_64                3.22.2-1.amzn2023.0.4                   amazonlinux                             16 k
 fontconfig                      x86_64                2.13.94-2.amzn2023.0.2                  amazonlinux                            273 k
 fontconfig-devel                x86_64                2.13.94-2.amzn2023.0.2                  amazonlinux                            128 k
 fonts-filesystem                noarch                1:2.0.5-12.amzn2023.0.2                 amazonlinux                            9.5 k
 freetype                        x86_64                2.13.2-5.amzn2023.0.1                   amazonlinux                            423 k
 freetype-devel                  x86_64                2.13.2-5.amzn2023.0.1                   amazonlinux                            912 k
 glib2-devel                     x86_64                2.74.7-689.amzn2023.0.2                 amazonlinux                            486 k
 google-noto-fonts-common        noarch                20201206-2.amzn2023.0.2                 amazonlinux                             15 k
 google-noto-sans-vf-fonts       noarch                20201206-2.amzn2023.0.2                 amazonlinux                            492 k
 graphite2                       x86_64                1.3.14-7.amzn2023.0.2                   amazonlinux                             97 k
 graphite2-devel                 x86_64                1.3.14-7.amzn2023.0.2                   amazonlinux                             21 k
```

```
[ec2-user@ip-172-31-2-207 ~]$ sudo adduser -m nagios
[ec2-user@ip-172-31-2-207 ~]$ 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-172-31-2-207 ~]$ sudo groupadd nagcmd
[ec2-user@ip-172-31-2-207 ~]$ udo usermod -a -G nagcmd nagios
-bash: udo: command not found
[ec2-user@ip-172-31-2-207 ~]$ sudo usermod -a -G nagcmd nagios
[ec2-user@ip-172-31-2-207 ~]$ sudo usermod -a -G nagcmd apache
[ec2-user@ip-172-31-2-207 ~]$  mkdir downloads
[ec2-user@ip-172-31-2-207 ~]$ cd downloads
[ec2-user@ip-172-31-2-207 downloads]$ wget http://prdownloads.sourceforge.net/sourceforge/nagios/nagios-4.0.8.tar.gz
--2024-10-12 09:41:04--  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]
--2024-10-12 09:41:05--  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://excellmedia.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1 [following]
--2024-10-12 09:41:05--  http://excellmedia.dl.sourceforge.net/project/nagios/nagios-4.x/nagios-4.0.8/nagios-4.0.8.tar.gz?viasf=1
Resolving excellmedia.dl.sourceforge.net (excellmedia.dl.sourceforge.net)... 202.153.32.19, 2401:fb00:0:1fe:8000::5
Connecting to excellmedia.dl.sourceforge.net (excellmedia.dl.sourceforge.net)|202.153.32.19|:80... connected.
```

```
*** Configuration summary for nagios 4.0.8 08-12-2014 ***:

 General Options:
 -------------------------
        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-172-31-2-207 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
In function 'get_wproc_list',
    inlined from 'get_worker' at workers.c:224:12:
workers.c:209:17: warning: '%s' directive argument is null [-Wformat-overflow=]
  209 |                 log_debug_info(DEBUGL_CHECKS, 1, "Found specialized worker(s) for '%s'", (slash && *slash != '/') ? slash : cmd
name);
      |                 ^~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~
~~~~~~
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:2247:19: warning: assignment discards 'const' qualifier from pointer target type [-Wdiscarded-qualifiers]
 2247 |         cr.source = command_worker.source_name;
      |                   ^
commands.c: In function 'process_passive_host_check':
commands.c:2339:19: warning: assignment discards 'const' qualifier from pointer target type [-Wdiscarded-qualifiers]
 2339 |         cr.source = command_worker.source_name;
      |                   ^
```

```
ip-172-31-39-112 nagios-4.0.8]$ sudo make install
&& make install
ntering directory '/home/ec2-user/downloads/nagios-4.0.8/base
ll-basic
```

```
[ec2-user@ip-172-31-2-207 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-172-31-2-207 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.cf
g
/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/timeperiod
s.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/localhost.cfg /usr/local/nagios/etc/objects/localhost.cf
g
/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
```

```
[ec2-user@ip-172-31-39-112 nagios-4.0.8]$ sudo make install-commandmode
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/rw
chmod g+s /usr/local/nagios/var/rw

*** External command directory configured ***

[ec2-user@ip-172-31-39-112 nagios-4.0.8]$ sudo nano /usr/local/nagios/etc/object
s/contacts.cfg
[ec2-user@ip-172-31-39-112 nagios-4.0.8]$ sudo make install-webconf
/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios.con
f
```

```
 GNU nano 5.8                          /usr/local/nagios/etc/objects/contacts.cfg                          Modified
##############################################################################
##############################################################################
#
# CONTACTS
#
##############################################################################
##############################################################################

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

define contact{
        contact_name                    nagiosadmin             ; Short name of user
        use                             generic-contact         ; Inherit default values from generic-contact template (defined above)
        alias                           Nagios Admin            ; Full name of user
```

```
/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-172-31-2-207 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-172-31-2-207 nagios-4.0.8]$ sudo nano /usr/local/nagios/etc/objects/contacts.cfg



[ec2-user@ip-172-31-2-207 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-172-31-2-207 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-172-31-2-207 nagios-4.0.8]$
```

```
[ec2-user@ip-172-31-2-207 downloads]$ ls
nagios-4.0.8  nagios-4.0.8.tar.gz  nagios-plugins-2.0.3.tar.gz
[ec2-user@ip-172-31-2-207 downloads]$ tar nagios-plugins-2.0.3.tar.gz
tar: Old option 'g' requires an argument.
Try 'tar --help' or 'tar --usage' for more information.
[ec2-user@ip-172-31-2-207 downloads]$ ls
nagios-4.0.8  nagios-4.0.8.tar.gz  nagios-plugins-2.0.3.tar.gz
[ec2-user@ip-172-31-2-207 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
```

```
[ec2-user@ip-172-31-2-207 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...
Error in configuration file '/usr/local/nagios/etc/nagios.cfg' - Line 452 (Check result path '/usr/local/nagios/var/spool/checkresults'
is not a valid directory)
   Error processing main config file!

[ec2-user@ip-172-31-2-207 nagios-plugins-2.0.3]$
```

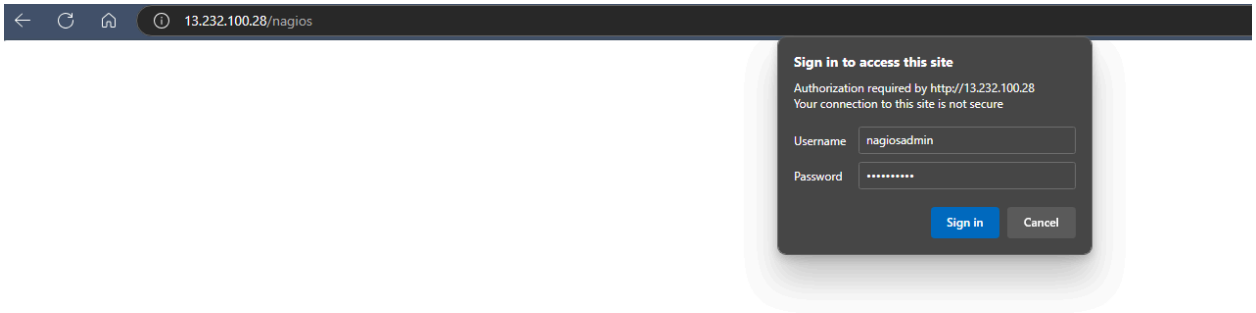
```
[ec2-user@ip-172-31-39-112 nagios-plugins-2.0.3]$ sudo nano /usr/local/nagios/etc/nagios.c
[ec2-user@ip-172-31-39-112 nagios-plugins-2.0.3]$ sudo chown -R nagios:nagios /usr/local/n
spool/checkresults
```

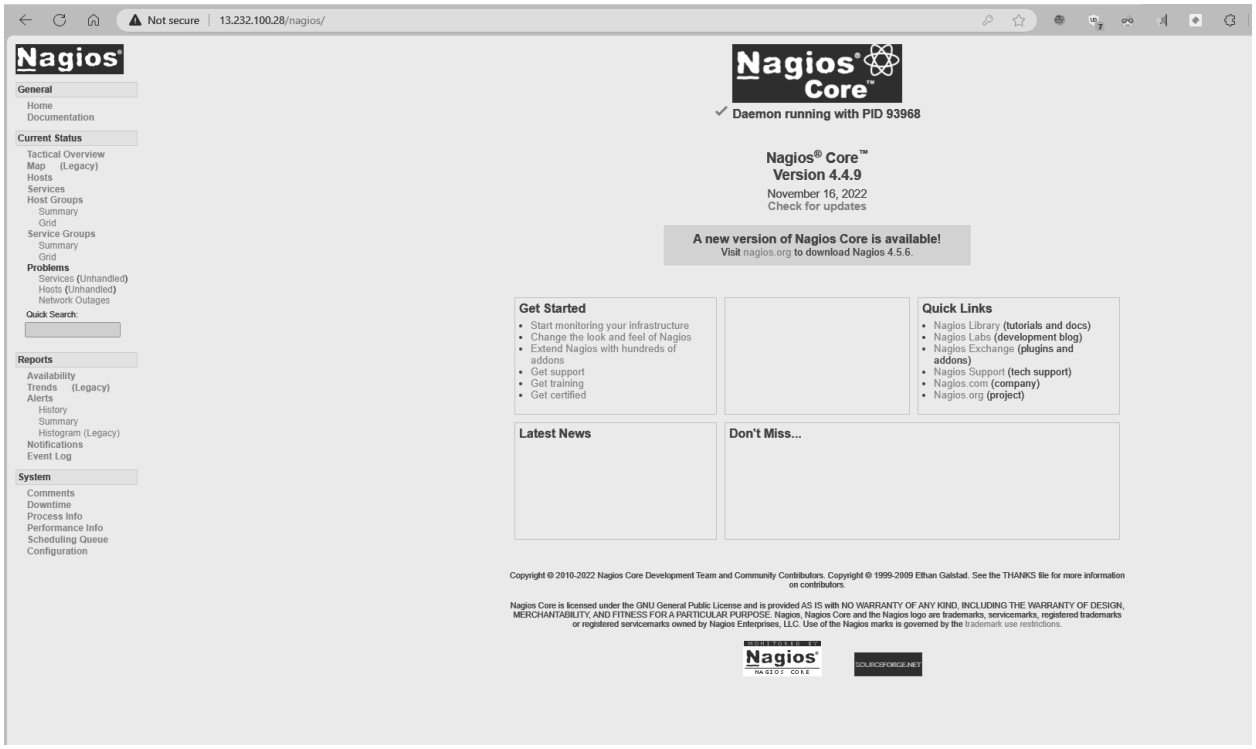
```
[Unit]
Description=Nagios Service
After=network.target

[Service]
User=nagios
Group=nagios
ExecStart=/usr/local/nagios/bin/nagios /usr/local/nagios/etc/nagios.cfg

[Install]
WantedBy=multi-user.target
```

```
[ec2-user@ip-172-31-39-112 nagios-plugins-2.0.3]$ ls /usr/local/nagios/bin/
nagios  nagiostats
[ec2-user@ip-172-31-39-112 nagios-plugins-2.0.3]$ sudo /usr/local/nagios/bin/nagios /usr/l
s/etc/nagios.cfg
```

```
Nagios Core 4.4.9
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2022-11-16
License: GPL

Website: https://www.nagios.org
Reading configuration data...
   Read main config file okay...
   Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
        Checked 8 services.
        Checked 1 hosts.
        Checked 1 host groups.
        Checked 0 service groups.
        Checked 1 contacts.
        Checked 1 contact groups.
        Checked 24 commands.
        Checked 5 time periods.
        Checked 0 host escalations.
        Checked 0 service escalations.
Checking for circular paths...
```

```
Things look okay - No serious problems were detected during the pre-flight check
[ec2-user@ip-172-31-5-147 nagios-plugins-2.0.3]$ sudo service nagios start
Starting nagios (via systemctl):                           [  OK  ]
[ec2-user@ip-172-31-5-147 nagios-plugins-2.0.3]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.4.9
     Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
     Active: active (running) since Sat 2024-10-12 13:09:24 UTC; 8s ago
       Docs: https://www.nagios.org/documentation
    Process: 93966 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=
    Process: 93967 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/S
   Main PID: 93968 (nagios)
      Tasks: 6 (limit: 1112)
     Memory: 5.6M
        CPU: 291ms
     CGroup: /system.slice/nagios.service
             ├─93968 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             ├─93969 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─93970 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─93971 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             ├─93972 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
             └─93973 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 12 13:09:24 ip-172-31-5-147.ap-south-1.compute.internal nagios[93968]: qh: Socket '/usr/local/nagios/var/rw/nagios
Oct 12 13:09:24 ip-172-31-5-147.ap-south-1.compute.internal nagios[93968]: qh: core query handler registered
Oct 12 13:09:24 ip-172-31-5-147.ap-south-1.compute.internal nagios[93968]: qh: echo service query handler registered
Oct 12 13:09:24 ip-172-31-5-147.ap-south-1.compute.internal nagios[93968]: qh: help for the query handler registered
Oct 12 13:09:24 ip-172-31-5-147.ap-south-1.compute.internal nagios[93968]: wproc: Successfully registered manager as @
```





CONCLUSION :

Thus, we learned about Nagios and successfully set it up on our Linux machine. Nagios proves to be an effective tool for continuous monitoring, helping to detect and resolve issues quickly, ensuring system reliability and smooth operations.