Installation of Nagios 4.3.4 on CentOS 6:

- Nagios and its plugins will be installed under /usr/local/nagios directory.
- Nagios will be configured to monitor few services of your local machine (Disk Usage, CPU Load, Current Users, Total Processes, etc.)
- Nagios web interface will be available at http://localhost/nagios

Step 1: Install Required Dependencies

We need to install Apache, PHP and some libraries like gcc, glibc, glibc-common and GD libraries and its development libraries before installing Nagios 4.3.4 with source. And to do so, we can use yum default package installer.

```
[root@XXX]# yum install -y httpd httpd-tools php gcc glibc glibc-common gd gd-devel make net-snmp
```

Step 2: Create Nagios User and Group

Create a new nagios user and nagcmd group account and set a password.

```
[root@XXX]# useradd nagios
```

```
[root@XXX]# groupadd nagcmd
```

Next, add both the nagios user and the apache user to the nagcmd group.

```
[root@XXX]# usermod -G nagcmd nagios
```

```
[root@XXX]# usermod -G nagcmd apache
```

Step 3: Download Nagios Core 4.3.4 and Nagios Plugin 2.2.1

Create a directory for your Nagios installation and all its future downloads.

```
[root@XXX]# mkdir /root/nagios
```

```
[root@XXX]# cd /root/nagios
```

Now download latest Nagios Core 4.3.4 and Nagios plugins 2.2.1 packages with wget command.

[root@XXX nagios~]# wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.3.4.tar.gz

[root@XXX nagios~]# wget https://nagios-plugins.org/download/nagios-plugins-2.2.1.tar.gz

Step 4: Extract Nagios Core and its Plugins

We need to extract downloaded package with tar command as follows.

[root@XXX nagios~]# tar -xvf nagios-4.3.4.tar.gz

[root@XXX nagios~]# tar -xvf nagios-plugins-2.2.1.tar.gz

When you extract these tarballs with tar command, two new folders will appear in that directory.

[root@XXX nagios ~]# ls -l

total 13520

drwxrwxr-x 18 root root 4096 Aug 24 17:43 nagios-4.3.4

-rw-r--r-- 1 root root 11101966 Aug 24 17:48 nagios-4.3.4.tar.gz

drwxr-xr-x 15 root root 4096 Apr 19 12:04 nagios-plugins-2.2.1

-rw-r--r-- 1 root root 2728818 Apr 19 12:04 nagios-plugins-2.2.1.tar.gz

Configure Nagios Core

Now, first we will configure Nagios Core and to do so we need to go to Nagios directory and run configure file and if everything goes fine, it will show the output in the end as sample output. Please see below.

[root@XXX nagios~]# cd nagios-4.3.4/

[root@XXX nagios-4.3.4] # yum install unzip

[root@XXX nagios-4.3.4]# ./configure --with-command-group=nagcmd

Sample output:

Creating sample config files in sample-config/ ...

*** Configuration summary for nagios 4.3.4 2017-08-24 ***:

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: /run/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: /usr/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.

After configuring, we need to compile and install all the binaries with make all and make install command, it will install all the needed libraries in your machine and we can proceed further.

[root@XXX nagios-4.3.4]# make all

[root@XXX nagios-4.3.4]# make install

Sample output:

*** Exfoliation theme installed ***

NOTE: Use 'make install-classicui' to revert to classic Nagios theme

make[1]: Leaving directory `/root/nagios/nagios-4.3.4'

make install-basic

make[1]: Entering directory `/root/nagios/nagios-4.3.4'

/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/libexec

/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var

/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/archives

/usr/bin/install -c -m 775 -o nagios -g nagcmd -d /usr/local/nagios/var/spool/checkresults

chmod g+s /usr/local/nagios/var/spool/checkresults

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

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

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

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

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

make[1]: Leaving directory `/root/nagios/nagios-4.3.4'
Following command will install the init scripts for Nagios.

[root@XXX nagios-4.3.4]# make install-init
To make nagios work from command line we need to install command-mode.

[root@XXX nagios-4.3.4]# make install-commandmode
Next, install sample nagios files, please run following command.

[root@XXX nagios-4.3.4]# make install-config
Sample output:

/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc

/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc/objects

/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/nagios.cfg /usr/local/nagios/etc/nagios.cfg

/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/cgi.cfg /usr/local/nagios/etc/cgi.cfg

/usr/bin/install -c -b -m 660 -o nagios -g nagios sample-config/resource.cfg /usr/local/nagios/etc/resource.cfg

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

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

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

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

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

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

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

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

*** Config files installed ***

Remember, these are *SAMPLE* config files. You'll need to read

the documentation for more information on how to actually define

services, hosts, etc. to fit your particular needs.

Step 5: Customizing Nagios Configuration

Open the “contacts.cfg” file with your choice of editor and set the email address associated with the nagiosadmin contact definition to receiving email alerts.

vi /usr/local/nagios/etc/objects/contacts.cfg

Sample Output

```
##############################################################################

##############################################################################

#

# 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
```

email admin@XXX.com ; *** CHANGE THIS TO YOUR EMAIL ADDRESS ****

}

Step 6: Install and Configure Web Interface for Nagios

We are done with all configuration in the backend, now we will configure Web Interface For Nagios with following command. The below command will Configure Web interface for Nagios and a web admin user will be created “nagiosadmin”.

[root@XXX nagios-4.3.4]# make install-webconf

In this step, we will be creating a password for “nagiosadmin”. After executing this command, please provide a password twice and keep it remember because this password will be used when you login in the Nagios Web interface.

[root@XXX nagios-4.3.4]# htpasswd -s -c /usr/local/nagios/etc/htpasswd.users nagiosadmin

New password:

Re-type new password:

Adding password for user nagiosadmin

Restart Apache to make the new settings take effect.

[root@XXX]# service httpd start

Step 7: Compile and Install Nagios Plugin

We have downloaded nagios plugins in /root/nagios, Go there and configure and install it as directed below.

[root@XXX nagios]# cd /root/nagios

[root@XXX nagios]# cd nagios-plugins-2.2.1/

[root@XXX nagios]# ./configure --with-nagios-user=nagios --with-nagios-group=nagios

[root@XXX nagios]# make

[root@XXX nagios]# make install

Step 8: Verify Nagios Configuration Files

Now we are all done with Nagios configuration and its time to verify it and to do so please insert following command. If everything goes smooth it will show up similar to below output.

[root@XXX nagios]# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Sample Output

Nagios Core 4.3.4

Copyright (c) 2009-present Nagios Core Development Team and Community Contributors

Copyright (c) 1999-2009 Ethan Galstad

Last Modified: 2017-08-24

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...

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

Step 9: Add Nagios Services to System Startup

To make Nagios work across reboots, we need to add nagios and httpd with chkconfig and systemctl command.

```
[root@XXX ]# chkconfig --add nagios
[root@XXX ]# chkconfig --level 35 nagios on
[root@XXX ]# chkconfig --add httpd
[root@XXX ]# chkconfig --level 35 httpd on
```

On RHEL/CentOS 7 and Fedora 19-26

```
[root@XXX ]# systemctl enable nagios
[root@XXX ]# systemctl enable httpd
```

Restart Nagios to make the new settings take effect.

```
[root@XXX ]# service nagios start
```

Step 10: Login to the Nagios Web Interface

Access Nagios Core Dashboard in your browser with “http://Your-server-IP-address/nagios” or “http://FQDN/nagios” and Provide the username “nagiosadmin” and password.