EXPERIMENT NO. : 09

AIM : To understand Continuous monitoring and Installation and configuration of Nagios Core, Nagios Plugins and NRPE on Linux machine

THEORY :

Nagios is a popular and open-source application that is used for continuous monitoring of systems, networks, services and applications. It constantly monitors the status of machines and various services. In case of any issue, it provides early warning so that administrator can take required actions. Nagios performs all checks on local and host machines using the external-programs known as plugins. It also provides you with a web interface that allows viewing the status of hosts and services, history, logs and generating reports.

Nagios was originally designed to run under Linux, but it also runs on other Unix variants. It is free software licensed under the terms of the GNU General Public License version 2 as published by the Free Software Foundation.

Installation and configuration of Nagios Core

Installing Nagios Core involves downloading the Nagios Core source code; then, configuring, making and installing it on thehost that will run Nagios Core instance.

Installing Nagios Prerequisites

```
[user@nagios]# yum install -y httpd php php-cli gcc glibc glibc-common gd gd-devel net-snm
```

Open port 80 for httpd

```
[user@nagios]# firewall-cmd --zone=public --add-port=80/tcp
[user@nagios]# firewall-cmd --zone=public --add-port=80/tcp --permanent
```

Creating a Nagios User and Group

Create a user and group for Nagios Core.

```
[user@nagios]# useradd nagios
[user@nagios]# passwd nagios
[user@nagios]# groupadd nagcmd
[user@nagios]# usermod -a -G nagcmd nagios
```

Then, execute the following:

```
[user@nagios]# usermod -a -G nagcmd apache
```

Download Nagios Source Code and Plug-Ins

Download the latest version of Nagios Core and Plugins

```
[user@nagios]# wget --inet4-only https://assets.nagios.com/downloads/nagioscore/releases/
[user@nagios]# wget --inet4-only http://www.nagios-plugins.org/download/nagios-plugins-2.
[user@nagios]# tar zxf nagios-4.3.1.tar.gz
[user@nagios]# tar zxf nagios-plugins-2.2.1.tar.gz
[user@nagios]# cd nagios-4.3.1
```

Make and Install Nagios Core

To make and install Nagios Core, first run ./configure.

```
[user@nagios]# ./configure --with-command-group=nagcmd
```

After running `./configure`, compile the Nagios Core source code.

```
[user@nagios]# make all
```

After making Nagios Core, install it.

```
[user@nagios]# make install
[user@nagios]# make install-init
[user@nagios]# make install-config
[user@nagios]# make install-commandmode
[user@nagios]# make install-webconf
```

Copy the event handlers and change their ownership.

```
[user@nagios]# cp -R contrib/eventhandlers/ /usr/local/nagios/libexec/
[user@nagios]# chown -R nagios:nagios /usr/local/nagios/libexec/eventhandlers
```

Finally, run the pre-flight check.

```
[user@nagios]# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
```

Installation and configuration of **Nagios Plug-Ins**

Download the latest version of the Nagios plug-ins. Then, makeand install them.

```
[user@mon]# wget http://www.nagios-plugins.org/download/nagios-plugins-2.2.1.tar.gz
[user@mon]# tar zxf nagios-plugins-2.2.1.tar.gz
[user@mon]# cd nagios-plugins-2.2.1
[user@mon]# ./configure
[user@mon]# make
[user@mon]# make install
```

Installation and configuration of NRPE (Nagios RemotePlugin Executor)

```
[user@mon]# cd ~
[user@mon]# wget https://github.com/NagiosEnterprises/nrpe/releases/download/nrpe-3.1.0/n
[user@mon]# tar xvfz nrpe-3.1.0.tar.gz
[user@mon]# cd nrpe-3.1.0
[user@mon]# ./configure
[user@mon]# make all
[user@mon]# make install-groups-users
[user@mon]# make install
[user@mon]# make install-config
[user@mon]# make install-init
```

Enable and Start NRPE

```
[user@mon]# systemctl enable nrpe
[user@mon]# systemctl start nrpe
```

Open Port 5666

Open port 5666 to allow communication with NRPE.

```
[user@mon]# firewall-cmd --zone=public --add-port=5666/tcp
[user@mon]# firewall-cmd --zone=public --add-port=5666/tcp --permanent
```

Edit the NRPE configuration with the Nagios server's IP address.

```
[user@mon]# vim /usr/local/nagios/etc/nrpe.cfg
```

```
allowed_hosts=127.0.0.1,<ip-address-of-nagios-core>
```

Add the IP address of the Nagios Core server tothe allowed_hosts setting. Then, restart nrpe

```
[user@mon]# systemctl restart nrpe
```

Test the Installation

Ensure that the make and install procedures worked.

CONCLUSION :- Hence , we successfully understood Continuousmonitoring and Installation and configuration of Nagios
Core, Nagios Plugins and NRPE (Nagios Remote Plugin Executor)on Linux Machine is implemented.