NAGIOS

Nagios
======
Nagios is a monitoring tool.

In your organization, you will be working on different different environments like dev, test, pre-prod, prod etc.

Now let's say you have 1000 systems in your infrastructure, so daily it's a tedious task to go and understand what is the status of these 1000 devices.

For monitoring all these servers we use NAGIOS.

What we monitor ??
==========
1. Health {device is up/down}
2. Performance {RAM & CPU utilization}
3. Capacity {Watch HDD capacity}

Threshold of Monitoring
==========
Warning 85%
Critical 95%

Parameters to monitor
==========
CPU
RAM
Storage
Network etc

NAGIOS SERVER SETUP
==========

NAGIOS CORE
==========

Goto nagios.com and nagios.org
On nagios.org → Downloads → Nagios Core

On Host Machine
mkdir nagios-software
cd nagios-software

copy #link of nagios-core.tar.gz
wget <nagios-core-link>
extract the tar

sudo yum install -y wget httpd php gcc glibc glibc-common gd gd-devel make net-snmp unzip openssl-devel
sudo yum install httpd php php-cli gcc glibc glibc-common gd gd-devel net-snmp openssl-devel wget unzip -y

sudo useradd nagios
sudo groupadd nagcmd
sudo usermod -a -G nagcmd nagios
sudo usermod -a -G nagcmd apache
cd nagios-4.2.0
./configure
make all
sudo make install
sudo make install-init
sudo make install-config
sudo make install-commandmode
sudo make install-webconf
sudo cp -R contrib/eventhandlers/ /usr/local/nagios/libexec/
sudo chown -R nagios:nagios /usr/local/nagios/libexec/eventhandlers

sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg [checking for syntax errors and to see if everything is working fine]

Creating nagiosadmin user account
sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin

sudo service nagios restart
sudo service httpd restart

NAGIOS PLUGINS
==========

On nagios.org → Downloads → Nagios Core Plugin

wget <link-nagios-plugins>
extract the tar

cd nagios-plugin-x
sudo ./configure
make
sudo make install

NRPE PLUGIN
==========

To get monitor a system we are going to install NRPE plugin,
NRPE - Nagios Remote Plugin Executor

Goto nagios.org → Nagios core plugin → Find more plugins → General Addons → NRPE → Copy download URL

wget <link-nrpe>
cd nrpe
./configure

sudo make all
sudo make install
ls -l /usr/local/nagios/libexec/check_nrpe {installed successfully}

sudo service nagios restart
sudo service httpd restart

To view Nagios server Dashboard : # ip-add/nagios

NAGIOS CLIENT/AGENT SETUP
==========

Use another linux machine either on cloud or vm

sudo useradd nagios
sudo yum install -y wget php gcc glibc glibc-common gd gd-devel make net-snmp unzip openssl-devel net-tools xinetd

NAGIOS PLUGINS

==========

Downloads → Nagios Core Plugin

wget <link-nagios-plugins>
extract the tar

cd nagios-plugin-x
./configure
make all
sudo make install

NRPE PLUGIN
==========

To get monitor a system we are going to install NRPE plugin,
NRPE - Nagios Remote Plugin Executor

Goto nagios.org → Nagios core plugin → Find more plugins → General Addons → NRPE → Copy download URL

wget <link-nrpe>
cd nrpe

sudo chown -R nagios:nagios /usr/local/nagios/libexec
./configure
make
make all
sudo make install

sudo mkdir -p /usr/local/nagios/etc
cd nrpe {dir - make sure you are in nrpe directory }
sudo cp sample-config/nrpe.cfg /usr/local/nagios/etc
cd sample-config
sudo vi sample-config/nrpe.xinetd

```
service nrpe
{
        flags           = REUSE
        port            = 5666
        socket_type     = stream
```

```
        wait            = no
        user            = nagios
        group           = nagios
        server          = /usr/local/nagios/bin/nrpe
        server_args     = -c /usr/local/nagios/etc/nrpe.cfg --inetd
        log_on_failure  += USERID
        disable         = no
       only_from        = 127.0.0.1 <ip-add-server>
}

# sudo cp sample-config/nrpe.xinetd /etc/xinetd.d/nrpe
# vi /etc/xinetd.d/nrpe
Change allow from to nagios server ip

# vi /etc/services
   Add →  nrpe            5666/tcp                # NRPE service
# ls -l /usr/local/nagios    {i should be nagios:nagios}
# chown -R nagios:nagios /usr/local/nagios
# sudo service xinetd start
# netstat -ntpl
```

Configuring Agent

==========

In Server machine

```
# cd /usr/local/nagios/etc
# sudo touch hosts.cfg
# sudo touch services.cfg
# sudo vi /usr/local/nagios/etc/nagios.cfg [ goto OBJECT CONFIGURATION FILE(S) ]
 Add the following lines below templates.cfg
# This config is to add agents
cfg_file=/usr/local/nagios/etc/hosts.cfg
cfg_file=/usr/local/nagios/etc/services.cfg
```

Default

```
define host{
use generic-host ; Inherit default values from a template
host_name c1 ; The name we're giving to this server
alias CentOS 7 ; A longer name for the server
address 192.168.44.11; IP address of Remote Linux host
max_check_attempts 5;
}

# sudo vi /usr/local/nagios/etc/services.cfg
```

```
define service{
use generic-service
host_name c1
service_description CPU Load
check_command check_nrpe!check_load
}

define service{
use generic-service
host_name c1
service_description Total Processes
check_command check_nrpe!check_total_procs
}
# sudo vi /usr/local/nagios/etc/objects/commands.cfg
```

Add the following to end of the file

```
# Command to use NRPE to check remote host systems
define command{
command_name check_nrpe
command_line $USER1$/check_nrpe -H $HOSTADDRESS$ -c $ARG1$
}
```

And check for any syntax errors

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

You should have Zero warnings and errors
You can see Checked hosts

```
# sudo /etc/init.d/nagios restart
# sudo systemctl restart httpd
```