**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 ??**

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  1. Health    {device is up/down}

  2. Performance    {RAM & CPU utilization}

  3. Capacity    {Watch HDD capacity}

Threshold of Monitoring

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  Warning    85%

  Critical    95%

Parameters to monitor

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  CPU

  RAM

  Storage

  Network etc

**NAGIOS SERVER SETUP**

**======================**

**NAGIOS CORE**

**=============**

Goto [nagios.com](http://nagios.com/) and [nagios.org](http://nagios.org/)

  On [nagios.org](http://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](http://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](http://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**

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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](http://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