**Nagios Monitoring Tool Document**

**Requirments:**

Following software requirements for nagios monitoring tool,

**OS**  : Ubuntu 14.x

**Web Server**  : Apache2

**Nagios Server Package** : nagios3 nagios-nrpe-plugin

**Nagios Client Package** : nagios-nrpe-server

## Installation

**Monitoring Server Installation:**

First, on monitoring server install the nagios package and other dependencies package. In a terminal enter:

sudo apt-get inastall nagios3 nagios-nrpe-plugin

You will be asked to enter a password for the nagiosadmin user. The user's credentials are stored in /etc/nagios3/htpasswd.users.

sudo apt-get install libwww-perl

sudo apt-get install libxml-xpath-perl

sudo apt-get install libsys-statistics-linux-perl

**Change the nagiosadmin password, or add additional users to the Nagios**

**To change the password for the nagiosadmin user enter:**

sudo htpasswd /etc/nagios3/htpasswd.users nagiosadmin

**To add a user:**

sudo htpasswd /etc/nagios3/htpasswd.users username

**Remote Host Installation**

On client machine install the nagios package and other dependencies package. In a terminal enter:

sudo apt-get inastall nagios-nrpe-server

sudo apt-get install libwww-perl

sudo apt-get install libxml-xpath-perl

sudo apt-get install libsys-statistics-linux-perl

## Configuration

## Basic Configuration

First, create a host configuration file for remote-host. Run all these commands on monitoring server. In a terminal enter:

sudo cp /etc/nagios3/conf.d/localhost\_nagios2.cfg /etc/nagios3/conf.d/remote-host.cfg

Next, edit /etc/nagios3/conf.d/remote-host.cfg:

vi /etc/nagios3/conf.d/remote-host.cfg

define host{

use generic-host ; Name of host template to use

host\_name remote-host

alias remote-host

address xx.xx.xx.100

}

# Define a service to check the disk space of the root partition

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Disk Space

check\_command check\_all\_disks!20%!10%

}

# Define a service to check the number of currently logged in

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Current Users

check\_command check\_users!20!50

}

# Define a service to check the number of currently running procs

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Total Processes

check\_command check\_procs!250!400

}

# Define a service to check the load on the remote host.

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Current Load

check\_command check\_load!5.0!4.0!3.0!10.0!6.0!4.0

}

# Define a service to check the ssh-accessible on the remote host.

define service {

use generic-service ; Name of service template to use

host\_name remote-host

service\_description SSH

check\_command check\_ssh\_port!7503

notifications\_enabled 1

}

# Define a service to check the MySQL on the remote host.

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description MySQL\_Status

check\_command check\_mysql\_cmdlinecred!DB\_user\_name!DB\_password!DB\_name

}

example:

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description MySQL\_Status

check\_command check\_mysql\_cmdlinecred!root!12345!mysql

}

**Note:**

In the above and following command examples, replace "monitoring-server", "remote-host" xx.xx.xx.100, and xx.xx.xx.101 with the host names and IP addresses of your servers.

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

## Add Other Configuration

## On Remote Machine:

On remote-host edit /etc/nagios/nrpe.cfg file with following values,

In a terminal enter:

vi /etc/nagios/nrpe.cfg:

server\_address=xx.xx.xx.101 #remote-host ip address

allowed\_hosts=xx.xx.xx.100 #monitoring server ip address

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/commands.cfg file to put the nrpe command definition.

In a terminal enter:

vi /etc/nagios3/commands.cfg

define command{

command\_name check\_nrpe

command\_line /usr/lib/nagios/plugins/check\_nrpe -H $HOSTADDRESS$ -c $ARG1$

}

**1)Nginx**

**On Remote Host**

First, put check\_nginx\_status.pl script file in the /usr/lib/nagios/plugins/ location.Now change the permission and owner of the file.In a terminal enter:

**To change permission:**

chmod 755 /usr/lib/nagios/plugins/check\_nginx\_status.pl

**To change owner:**

chown nagios:nagios /usr/lib/nagios/plugins/check\_nginx\_status.pl

Now edit /etc/nagios/nrpe.cfg file and put the command definition of perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg:

command[check\_nginx\_status.pl]=/usr/lib/nagios/plugins/check\_nginx\_status.pl -H xx.xx.xx.101 -p 80 -w 5000 -c 30000

**Note:**

\*where xx.xx.xx.100 remote host ip address and 80 is nginx port.

\***w** stand for **warning** and **c** for **critical**

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the nginx service command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Nginx\_Status

check\_command check\_nrpe!check\_nginx\_status.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**2)Apache Tomcat**

**On Remote Host**

First, put check\_tomcat.pl script file in the /usr/lib/nagios/plugins/ location.Now change the permission and owner of the file.In a terminal enter:

**To change permission:**

chmod 755 /usr/lib/nagios/plugins/ check\_tomcat.pl

**To change owner:**

chown nagios:nagios /usr/lib/nagios/plugins/ check\_tomcat.pl

Now edit /etc/nagios/nrpe.cfg file and put the command definition of perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg

command[check\_tomcat.pl]=/usr/lib/nagios/plugins/ check\_tomcat.pl -H xx.xx.xx.101 -p 8072 -l tomcat -a tomcat

**Note:**

\*where xx.xx.xx.100 remote host ip address and 8072 is tomcat port.

\***p** stand for **port**,**l** for **tomcat username** and **a** stand for **tomcat password**.

Next edit /usr/local/apache-tomcat-x.y.z/conf/tomcat-users.xml and put the following configuration.

vi /usr/local/apache-tomcat-x.y.z/conf/tomcat-users.xml

<role rolename="manager-gui"/>

<user username="tomcat" password="tomcat" roles="manager-gui"/>

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the tomcat service command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Tomcat\_Status

check\_command check\_nrpe! check\_tomcat.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**3)Network Interface**

**On Remote Host**

First, put check\_netint.pl script file in the /usr/lib/nagios/plugins/ location.Now change the permission and owner of the file.In a terminal enter:

**To change permission:**

chmod 755 /usr/lib/nagios/plugins/check\_netint.pl

**To change owner:**

chown nagios:nagios /usr/lib/nagios/plugins/check\_netint.pl

Now edit /etc/nagios/nrpe.cfg file and put the command definition of perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg

command[check\_netint.pl]=/usr/lib/nagios/plugins/check\_netint.pl

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Inerface\_Status

check\_command check\_nrpe!check\_netint.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**4)Memory Utilization**

**On Remote Host**

First, put check\_linux\_statsM.pl script file in the /usr/lib/nagios/plugins/ location.Now change the permission and owner of the file.In a terminal enter:

**To change permission:**

chmod 755 /usr/lib/nagios/plugins/check\_linux\_statsM.pl

**To change owner:**

chown nagios:nagios /usr/lib/nagios/plugins/check\_linux\_statsM.pl

Now edit /etc/nagios/nrpe.cfg file and put the command definition of perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg

command[check\_linux\_statsM.pl]=/usr/lib/nagios/plugins/check\_linux\_statsM.pl -M -w 90 -c 95

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Memory\_Utilization

check\_command check\_nrpe!check\_linux\_statsM.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**5)CPU Utilization**

**On Remote Host**

First, put check\_linux\_statsC.pl script file in the /usr/lib/nagios/plugins/ location.Now change the permission and owner of the file.In a terminal enter:

**To change permission:**

chmod 755 /usr/lib/nagios/plugins/check\_linux\_statsC.pl

**To change owner:**

chown nagios:nagios /usr/lib/nagios/plugins/check\_linux\_statsC.pl

Now edit /etc/nagios/nrpe.cfg file and put the command definition of perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg:

command[check\_linux\_statsC.pl]=/usr/lib/nagios/plugins/check\_linux\_statsC.pl -C -w 90 -c 95

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description CPU\_Utilization

check\_command check\_nrpe!check\_linux\_statsC.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**6)Disk Utilization**

**On Remote Host**

First, put check\_linux\_statsD.pl script file in the /usr/lib/nagios/plugins/ location.Now change the permission and owner of the file.In a terminal enter:

**To change permission:**

chmod 755 /usr/lib/nagios/plugins/check\_linux\_statsD.pl

**To change owner:**

chown nagios:nagios /usr/lib/nagios/plugins/check\_linux\_statsD.pl

Now edit /etc/nagios/nrpe.cfg file and put the command definition of perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg:

command[check\_linux\_statsD.pl]=/usr/lib/nagios/plugins/check\_linux\_statsD.pl -D -w 10 -c 5 -p /

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Disk\_Utilization

check\_command check\_nrpe!check\_linux\_statsD.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**5)Cassandra Monitoring**

**On Remote Host:**

First install the cassandra monitoring script file with the following commands,

In a terminal enter:

cd /usr/lib/nagios/plugins/

apt-get install git

git clone https://github.com/harisekhon/nagios-plugins

cd nagios-plugins/

make

apt-get install make

make

**a)Cassandra Node Status**

**On Remote Host**

First edit /etc/nagios/nrpe.cfg file and put the command definition of cassandra perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg:

command[check\_cassandra\_nodes.pl]=/usr/lib/nagios/plugins/nagios-plugins/check\_cassandra\_nodes.pl -H xx.xx.xx.101 -p 7199 -w 1 -c 1

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Cassandra\_Nodes\_Status

check\_command check\_nrpe!check\_cassandra\_nodes.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

**b)Cassandra Heap Status**

**On Remote Host**

First edit /etc/nagios/nrpe.cfg file and put the command definition of cassandra perl script,

In a terminal enter:

vi /etc/nagios/nrpe.cfg:

command[check\_cassandra\_heap.pl]=/usr/lib/nagios/plugins/nagios-plugins/check\_cassandra\_heap.pl -H xx.xx.xx.101 -w 85 -c 90

**Restart the nrpe daemon to enable the new configuration:**

sudo service nagios-nrpe-server restart

**On Monitoring Server**

On monitoring server edit the /etc/nagios3/conf.d/remote-host.cfg file to put the command definition.

In a terminal enter:

vi /etc/nagios3/conf.d/remote-host.cfg

define service{

use generic-service ; Name of service template to use

host\_name remote-host

service\_description Cassandra\_Heap\_Status

check\_command check\_nrpe! check\_cassandra\_heap.pl

}

**Restart the nagios daemon to enable the new configuration:**

sudo service nagios3 restart

NOTE:

Everytime add the new configuration to the nagios daemon and nrpe daemon restart or reload nagios daemon and nagios nrpe daemon.