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1.1 Overview

The Nagios Webmin Module that allows you to install and manage Nagios Core.
The UI panel allows you start and stop Nagios and Nrpe, as well as edit and create cfg files.
The module has been tested on CentOS 7 and Ubuntu 18.
All installed components are non-forked and un-modified and installed via the projects archive.
1.2 System Requirements

- CentOS 8 or
- Ubuntu 18
- Webmin
- 1 GB Ram
- 10 GB SSD

1.3 Authors

- David Ghedini
- Kaloyan Petrov

1.4 Components

Nagios Core
Nagios Remote Plugin Executor
Apache Tomcat

1.5 Open Source

This module is Free, Open Source Software.
GNU GENERAL PUBLIC LICENSE v3
Installation can be done using the pre-installer.sh script or via GIT.

### 2.1 Using the Pre-Installer

On a fresh CentOS 7 or Ubuntu 18 installation, the fastest method is to use the pre-installer script:

```
1 wget https://raw.githubusercontent.com/cited/nagios-webmin-module/master/scripts/pre-install.sh
2 chmod +x pre-install.sh
3 ./pre-install.sh
```

The above will install Webmin, Apache HTTPD Server, and the Nagios module, as well as our (optional) Certbot Module for SSL.

When the script completes, you will see the message below:

```
1 ~
2 /opt ~
3 Installed Nagios Module in /usr/share/webmin/certbot (336 kb)
4 Nagios is now installed. Go to Servers > Nagios to complete installation
```

**Note:** Following above, you will need to log in to Webmin to complete installation using the install Wizard.

### 2.2 Via Git or Download

You can use Git to build module for an existing Webmin installation:
git clone https://github.com/cited/nagios-webmin-module/
mv nagios-webmin-module-master nagios
	tar -cvzf nagios.wbm.gz nagios/

**Note:** Following above, you will need to log in to Webmin to complete installation using the install *Wizard.*
Once the module is installed, the Wizard is used to configure the components.

Go to Servers > Nagios:

The main Wizard screen contains a link for completing each step.

The steps are self-explanatory, and you simply need to click through each step.

Note: Due to compiling of components, completion of the Wizard may take up to 10 minutes to complete.

Nrpe

Installation of nrpe service is optional.
Once installation is completed, the page will appear as below:

![Nagios Page Screenshot]

### 3.1 About nrpe

NRPE allows you to remotely execute Nagios plugins on compatible servers.
Webmin can be accessed via:

https://yourdomain.com:10000

The Nagios module is found under Servers > Nagios as shown below:
CHAPTER 5

Access

On completion, you can access your nagios instance at:

https://yourdomain.com/nagios

5.1 Default User and Password

The default user name is:

nagiosmin

A unique password for HTTP access is created and saved to:

/etc/webmin/nagios/aut.txt

Example contents for auth.txt are as below:

nagiosmin http pass:sTpoL-dBhQ

Note: For security purposes, you change the default admin name as well as the nagios url.
CHAPTER 6

Main Configuration Files

Table of Contents

- Main Configuration Files
  -Editing Files
  -Adding New File
  -Restart Nagios
  -Conf Location

6.1 Editing Files

To access the Main Conf file editor, click the Objects icon as show below.

From here you can edit any existing file within the /usr/local/nagios/etc directory.
Once you have completed any edits, click the Save and Close button and restart Nagios.

### 6.2 Adding New File

Any new file added to the directory will appear in the editor drop-down.

### 6.3 Restart Nagios

For the edits to register, you must restart Nagios.

This can be done via Servers > Nagios in your control panel.

It can also be done via command line using:

```
systemctl restart nagios.service
```

### 6.4 Conf Location

By default, all main conf files are saved to `/usr/local/nagios/etc`
CHAPTER 7

Objects Configuration Files

Table of Contents

- Objects Configuration Files
  - Editing Files
  - Creating a New File
  - Template File
  - Restart Nagios
  - Edit Conf
  - Conf Location

7.1 Editing Files

To access the Objects file editor, click the Objects icon as show below.

![Objects Icon]

From here you can edit any existing file within the NAGIOS/objects directory.
Once you have completed any edits, click the Save and Close button and restart Nagios.

### 7.2 Creating a New File

You can create a new service file from a template via the editor.

Enter a new filename.cfg and click the Create button.

Give your file a name that will make it easy to identify, such as myconf.cfg
Click the Create button.

The Create button will load the template below.

```plaintext
define host {
  use              linux-server
  host_name        <HOST>
  alias            <HOST>
  address          <IP>
  register         1
}

define service {
  host_name        <HOST>
  service_description  PING
  check_command     check_ping!100.0,20%,500.0,60%
  max_check_attempts 2
  check_interval   2
  retry_interval   2
  check_period     24x7
  check_freshness  1
  notification_interval  2
  notification_period  24x7
  notifications_enabled  1
  register         1
}
```

The template is commented.

1. Replace all instances of `<HOST>` with the host you have added.
2. Replace `<IP>` with the host IP
3. Click Save and Close
4. Restart Nagios for the new cfg to register

### 7.2. Creating a New File
7.3 Template File

```plaintext
# Host configuration file

define host {
    use         linux-server
    host_name   <HOST>
    alias       <HOST>
    address     <IP>
    register    1
}

define service {
    host_name   <HOST>
    service_description PING
    check_command check_ping!
    max_check_attempts 2
    check_interval 2
    retry_interval 2
    check_period 24x7
    check_freshness 1
    contact_groups admins,slackmins
    notification_interval 2
    notification_period 24x7
    notifications_enabled 1
    register 1
}

define service {
    host_name   <HOST>
    service_description Check SSH
    check_command check_ssh!
    check_period 24x7
    check_freshness 1
    contact_groups admins
    notification_interval 2
    notification_period 24x7
    notifications_enabled 1
    register 1
}

define service {
    host_name   <HOST>
    service_description Check HTTP
    check_command check_http
    max_check_attempts 2
    check_interval 2
    retry_interval 2
    check_period 24x7
    check_freshness 1
    contact_groups admins
    notification_interval 2
    notification_period 24x7
    notifications_enabled 1
}
```

(continues on next page)
Note: To create your own template, simply update the template.cfg located at /usr/share/webmin/nagios.

### 7.4 Restart Nagios

For the new cfg to register, you must restart Nagios.
This can be done via Servers > Nagios in your control panel.
It can also be done via command line using:

```
 systemctl restart nagios.service
```

### 7.5 Edit Conf

To edit a Conf File you have created, simply select the conf file from the drop down.
Make the required edits and click Save.

### 7.6 Conf Location

By default, all conf files are saved to /usr/local/nagios/objects/
8.1 Overview

Nagios is installed as a service.

The service file is located under:

```
/lib/systemd/system/nagios.service
```

It has the contents below:

```ini
[Unit]
Description=Nagios Core 4.4.5
Documentation=https://www.nagios.org/documentation
After=network.target local-fs.target

[Service]
Type=forking
ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
ExecStop=/bin/kill -s TERM ${MAINPID}
ExecStopPost=/bin/rm -f /usr/local/nagios/var/rw/nagios.cmd
ExecReload=/bin/kill -s HUP ${MAINPID}
```

(continues on next page)
8.2 Start and Stop

The Nagios service can be started and stopped via the module or via command line.

To start and stop via the module, go to Servers > Nagios and click the Start or Stop button:

Start Nagios

Click to start Nagios Service

To start and stop via command line, as root, issue:

```
service nagios stop | start
```
9.1 Overview

Nrpe is installed as a service.
The service file is located under:

```bash
/lib/systemd/system/nrpe.service
```

It has the contents below:

```ini
[Unit]
Description=Nagios Remote Plugin Executor
Documentation=http://www.nagios.org/documentation
After=var-run.mount nss-lookup.target network.target local-fs.target time-sync.
→target
Before=getty@tty1.service plymouth-quit.service xdm.service
Conflicts(nrpe.socket
[Install]
WantedBy=multi-user.target
[Service]
Type=simple
```

(continues on next page)
9.2 Start and Stop

The Nrpe service can be started and stopped via the module or via command line.

To start and stop via the module, go to Servers > Nagios and click the Start or Stop button:

Start Nrpe

Click to start Nrpe Service

To start and stop via command line, as root, issue:

```
service nrpe stop | start
```
10.1 Overview

Nrpe is used for monitoring remote hosts.

To install the nrpe client on a remote host, you can use the nrpe.sh file in /script directory.

The script content is below:

```bash
#!/bin/bash

#Info: This script installs a NRPE client, following [1]
#[1] https://support.nagios.com/kb/article.php?id=515

#Nagios server, that will monitor this client node
NAGIOS_MON_HOST='1.2.3.4'
NAGIOS_HOME='/usr/local/nagios/

function detect_distro()
{
  if [ -f /etc/centos-release ]; then
    DISTRO='centos'
    DISTRO_VER=$(grep VERSION_ID /etc/os-release | tr -d '' | cut -f2 -d= | cut -f1 -d.)
  
  #opensuse,debian,slackware, ubuntu
  elif [ -f /etc/os-release ]; then
    DISTRO=$(grep -m 1 ID /etc/os-release | cut -f2 -d= | tr -d '"

(continues on next page)
```
17   DISTRO_VER=$(grep VERSION_ID /etc/os-release | tr -d '' | cut -f2 -d= | cut -f1 -d.)
18   else
19     echo "Error: Failed to detect distribution"; exit 1;
20   fi
21 }

23 function install_deps(){
24   if [ "${DISTRO}" == 'centos' ]; then
25     yum install -y gcc glibc glibc-common openssl openssl-devel perl wget
26   elif [ "${DISTRO}" == 'ubuntu' ]; then
27     export DEBIAN_FRONTEND=noninteractive
28     if [ "${DISTRO_VER}" -eq 18 ]; then
29       apt-add-repository universe
30     fi
31     apt-get install -y autoconf automake gcc libc6 libmcrypt-dev make libssl-dev wget openssl make
32   fi
33 }

35 function install_nrpe(){
36   NRPE_VER='3.2.1'
37   if [ $(grep -m 1 -c '^nagios:' /etc/passwd) -eq 0 ]; then
38     useradd -s /bin/false nagios
39   fi
40   pushd
41   if [ ! -f nrpe-$(NRPE_VER).tar.gz ]; then
42     wget --no-check-certificate https://github.com/NagiosEnterprises/nrpe/archive/nrpe-$(NRPE_VER).tar.gz
43   fi
44   tar xzf nrpe-$(NRPE_VER).tar.gz
45   rm -f nrpe-$(NRPE_VER).tar.gz
46   pushd nrpe-nrpe-$(NRPE_VER)/
47   if [ $(which systemctl 2>/dev/null | grep -c yum) -eq 1 ]; then
48     ./configure --enable-command-args --with-init-type=systemd
49   else
50     ./configure --enable-command-args
51   fi
52   make all install install-groups-users install-plugin install-config install-init
53   popd
54   rm -f nrpe-nrpe-$(NRPE_VER)/
55   popd
56 }

58 function config_nrpe(){
59   sed -i "/^allowed_hosts=/s/\$/,${NAGIOS_MON_HOST}/" ${NAGIOS_HOME}/etc/nrpe.cfg
60   sed -i "s/^dont_blame_nrpe=.*/dont_blame_nrpe=1/dont_blame_nrpe=1/g" ${NAGIOS_HOME}/etc/nrpe.cfg
61   #Standard command found in source/package plugins
62   cat >> $(NAGIOS_HOME)/etc/nrpe.cfg <<CMD_EOF
63   command[check_disk_root]=$(CUSTOM_PLUGINS_HOME)/check_disk -w 30% -c 10% -p /
CMD_EOF
```

(continues on next page)
CMD_EOF

cat >> ${NAGIOS_HOME}/etc/nrpe.cfg <<CMD_EOF
command[check_linuxdiskspace]=${CUSTOM_PLUGINS_HOME}/check_linuxdiskspace
CMD_EOF

#Linux S.M.A.R.T Checks
#NOTE: we may have /dev/vda1 for virtual disk
for sd in $(find /dev -type b -name 'sd[a-z][0-9]' | cut -f3 -d/); do
echo "command[check_linux_smart_${sd}]=${CUSTOM_PLUGINS_HOME}/check_ide_smart -d /dev/${sd}" >> $(NAGIOS_HOME)/etc/nrpe.cfg
done

if [ $(which systemctl 2>/dev/null | grep -c systemctl) -eq 1 ]; then
    systemctl enable nrpe.service
    systemctl start nrpe
else
    chkconfig --set nrpe on
    service nrpe start
fi

function install_plugins_source()
    PLUG_VER='2.3.1'
    if [ ${DISTRO} == 'centos' ]; then
        yum install -y gcc glibc glibc-common make gettext automake autoconf wget openssl-devel net-snmp net-snmp-utils epel-release perl-Net-SNMP
    elif [ ${DISTRO} == 'ubuntu' ]; then
        apt-get install -y autoconf gcc libc6 libmcrypt-dev make libssl-dev wget bc gawk dc build-essential snmp libnet-snmp-perl gettext
    fi
    pushd ${HOME}
    wget --no-check-certificate https://github.com/nagios-plugins/nagios-plugins/archive/release-${PLUG_VER}.tar.gz
    tar xzf release-${PLUG_VER}.tar.gz
    rm -f release-${PLUG_VER}.tar.gz
    pushd nagios-plugins-release-${PLUG_VER}/
    ./tools/setup
    ./configure
    make
    make install
    popd
    rm -rf nagios-plugins-release-${PLUG_VER}/
    popd

    NAGIOS_PLUGINS_HOME='/usr/local/nagios/libexec/

function install_plugins()
    install_plugins_source
}

function test_nrpe()
    if [ ! -f ${NAGIOS_HOME}/etc/nrpe.cfg ]; then
        echo 'Error: nrpe.cfg is missing!'
    fi

    OUT=${NAGIOS_HOME}/libexec/check_nrpe -H 127.0.0.1
    if [ "${OUT}" == "NRPE v${NRPE_VER}" ]; then
        echo "NRPE Test OK"
    else
        echo "NRPE Test FAILED"
        exit 1;
    fi

detect_distro;
install_deps;
install_nrpe;
install_plugins;
config_nrpe;
test_nrpe;
Nagios

Nagios and nrpe client are produced by Nagios
Nagios Exchange provides plugins, addons, docs, extensions and other tools
12.1 Contributing

We welcome all contributors.

12.2 Issues

If you’ve found a bug, let us know.

12.3 Pull Requests

Create a fork of our repo.

To submit a pull request for a new feature:

1. Run the tests. Every pull request for a new feature should have an accompanying unit test and docs changes.
2. Create a new branch off of the master branch for your feature.
3. Add a test (or multiple tests) for your feature.
4. Add your new feature.
5. Push to your fork and submit the pull request.

To submit a bug fix:

1. Create a new branch off of the master branch.
2. Add a test that demonstrates the bug.
3. Make the test pass.
4. Push to your fork and submit the pull request!
To submit a documentation fix:

1. Create a new branch off of the master branch.
2. Add your documentation fixes (no tests required).
3. Push to your fork and submit the pull request!
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implement a Standard Interface for which an implementation is available to the public in source code form. A “Major
Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific
operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object
code interpreter used to run it.

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purpose tools or generally available free programs which are used unmodified in performing those activities but which
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long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

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If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

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