Nagios Core - Installing Nagios Core From Source

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Installing Nagios Core From Source

This document describes how to install Nagios Core from source.

This guide is broken up into several sections and covers different operating system (OS) distributions. If
included in this guide then please contact us to see if we can get it added. Some distributions may be mi
test environment that allows us to develop the documentation.

Nagios Core 4.4.5 and Nagios Plugins 2.2.1 is what this guide instructs you to install, however future ver
these steps.

This documentation is broken up into two distinct sections:

- Install Nagios Core
- Install Nagios Plugins

This separation is to make a clear distinction as to what prerequisite packages are required by the OS it i
the SNMP packages are installed as part of the Nagios Plugins section, as SNMP is not required by Nagio

Please select your OS:

- Red Hat Enterprise Linux (RHEL)
- CentOS
- Oracle Linux
- Ubuntu
- SUSE SLES | openSUSE Leap
- Debian
- Raspbian
- Fedora
- Arch Linux
- Gentoo
- FreeBSD
- Solaris
- Apple OS X

RHEL | CentOS | Oracle Linux

Security-Enhanced Linux

This guide is based on SELinux being disabled or in permissive mode. Steps to do this are as follows.

```
sed -i 's/SELINUX=.*/SELINUX=disabled/g' /etc/selinux/config
setenforce 0
```

Prerequisites

Perform these steps to install the pre-requisite packages.

===== RHEL 5/6/7 | CentOS 5/6/7 | Oracle Linux 5/6/7 =====

```
yum install -y gcc glibc glibc-common wget unzip httpd php gd gd-devel perl postfix
```

===== RHEL 8 =====

```
dnf install -y gcc glibc glibc-common perl httpd php wget gd gd-devel
dnf update -y
```

Downloading the Source

```
cd /tmp
wget -O nagioscore.tar.gz https://github.com/NagiosEnterprises/nagioscore/archive/nagios-4.4.5.tar.g
tar xzf nagioscore.tar.gz
```

Compile

```
cd /tmp/nagioscore-nagios-4.4.5/
./configure
make all
```

Create User And Group

This creates the `nagios` user and group. The `apache` user is also added to the `nagios` group.

```
make install-groups-users
usermod -a -G nagios apache
```

Install Binaries

This step installs the binary files, CGIs, and HTML files.

```
make install
```

Install Service / Daemon

This installs the service or daemon files and also configures them to start on boot. The Apache `httpd` se
point.

===== RHEL 5/6 | CentOS 5/6 | Oracle Linux 5/6 =====

```
make install-daemoninit
chkconfig --level 2345 httpd on
```

===== RHEL 7/8 | CentOS 7 | Oracle Linux 7 =====

```
make install-daemoninit
systemctl enable httpd.service
```

Information on starting and stopping services will be explained further on.

Install Command Mode

This installs and configures the external command file.

```
make install-commandmode
```

Install Configuration Files

This installs the *SAMPLE* configuration files. These are required as Nagios needs some configuration fil

```
make install-config
```

Install Apache Config Files

This installs the Apache web server configuration files. Also configure Apache settings if required.

```
make install-webconf
```

Configure Firewall

You need to allow port 80 inbound traffic on the local firewall so you can reach the Nagios Core web inte

===== RHEL 5/6 | CentOS 5/6 | Oracle Linux 5/6 =====

```
iptables -I INPUT -p tcp --destination-port 80 -j ACCEPT
service iptables save
ip6tables -I INPUT -p tcp --destination-port 80 -j ACCEPT
service ip6tables save
```

===== RHEL 7/8 | CentOS 7 | Oracle Linux 7 =====

```
firewall-cmd --zone=public --add-port=80/tcp
firewall-cmd --zone=public --add-port=80/tcp --permanent
```

Create nagiosadmin User Account

You'll need to create an Apache user account to be able to log into Nagios.

The following command will create a user account called nagiosadmin and you will be prompted to provic

```
htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
```

> When adding additional users in the future, you need to remove **-c** from the above command othe
> nagiosadmin user *(and any other users you may have added)*.

Start Apache Web Server

===== RHEL 5/6 | CentOS 5/6 | Oracle Linux 5/6 =====

```
service httpd start
```

===== RHEL 7/8 | CentOS 7 | Oracle Linux 7 =====

```
systemctl start httpd.service
```

Start Service / Daemon

This command starts Nagios Core.

===== RHEL 5/6 | CentOS 5/6 | Oracle Linux 5/6 =====

```
service nagios start
```

===== RHEL 7/8 | CentOS 7 | Oracle Linux 7 =====

```
systemctl start nagios.service
```

Test Nagios

Nagios is now running, to confirm this you need to log into the Nagios Web Interface.

Point your web browser to the ip address or FQDN of your Nagios Core server, for example:

`http://10.25.5.143/nagios`

`http://core-013.domain.local/nagios`

You will be prompted for a username and password. The username is `nagiosadmin` (you created it in a
is what you provided earlier.

Once you have logged in you are presented with the Nagios interface. Congratulations you have installed

BUT WAIT ...

Currently you have only installed the Nagios Core engine. You'll notice some errors under the hosts and s

```
(No output on stdout) stderr: execvp(/usr/local/nagios/libexec/check_load, ...) failed. errno is 2:
```

These errors will be resolved once you install the Nagios Plugins, which is covered in the next step.

Installing The Nagios Plugins

Nagios Core needs plugins to operate properly. The following steps will walk you through installing Nagio

> These steps install nagios-plugins 2.2.1. Newer versions will become available in the future and you
> installation steps. Please see the releases page on GitHub for all available versions.

Please note that the following steps install most of the plugins that come in the Nagios Plugins package.
that require other libraries which are not included in those instructions. Please refer to the following KB a
instructions:

Documentation - Installing Nagios Plugins From Source

Prerequisites

Make sure that you have the following packages installed.

===== CentOS 5 =====

```
yum install -y gcc glibc glibc-common make gettext automake wget openssl-devel net-snmp net-snmp-uti
yum install -y perl-Net-SNMP
cd /tmp
wget http://ftp.gnu.org/gnu/autoconf/autoconf-2.60.tar.gz
tar xzf autoconf-2.60.tar.gz
cd /tmp/autoconf-2.60
./configure
make
make install
```

===== CentOS 6/7 =====

```
yum install -y gcc glibc glibc-common make gettext automake autoconf wget openssl-devel net-snmp net
yum install -y perl-Net-SNMP
```

===== RHEL 5 | Oracle Linux 5 =====

```
cd /tmp
wget http://archives.fedoraproject.org/pub/archive/epel/epel-release-latest-5.noarch.rpm
rpm -ihv epel-release-latest-5.noarch.rpm
yum install -y gcc glibc glibc-common make gettext automake wget openssl-devel net-snmp net-snmp-uti
yum install -y perl-Net-SNMP
wget http://ftp.gnu.org/gnu/autoconf/autoconf-2.60.tar.gz
tar xzf autoconf-2.60.tar.gz
cd /tmp/autoconf-2.60
./configure
make
make install
```

===== RHEL 6 | Oracle Linux 6 =====

```
cd /tmp
wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-6.noarch.rpm
rpm -ihv epel-release-latest-6.noarch.rpm
yum install -y gcc glibc glibc-common make gettext automake autoconf wget openssl-devel net-snmp net
yum install -y perl-Net-SNMP
```

===== RHEL 7 =====

```
cd /tmp
wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
rpm -ihv epel-release-latest-7.noarch.rpm
subscription-manager repos --enable=rhel-7-server-optional-rpms
yum install -y gcc glibc glibc-common make gettext automake autoconf wget openssl-devel net-snmp net
yum install -y perl-Net-SNMP
```

===== RHEL 8 =====

At the time of writing this EPEL for RHEL 8 was not released, affected commands are struck out but *sho

```
~~cd /tmp~~
~~wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm~~
~~rpm -ihv epel-release-latest-7.noarch.rpm~~
~~subscription-manager repos --enable=rhel-7-server-optional-rpms~~
yum install -y gcc glibc glibc-common make gettext automake autoconf wget openssl-devel net-snmp net
~~yum install -y perl-Net-SNMP~~
```

===== Oracle Linux 7 =====

```
yum install -y yum-utils
yum-config-manager --enable ol7_optional_latest
cd /tmp
wget https://dl.fedoraproject.org/pub/epel/epel-release-latest-7.noarch.rpm
rpm -ihv epel-release-latest-7.noarch.rpm
yum install -y gcc glibc glibc-common make gettext automake autoconf wget openssl-devel net-snmp net
yum install -y perl-Net-SNMP
```

Downloading The Source

```
cd /tmp
wget --no-check-certificate -O nagios-plugins.tar.gz https://github.com/nagios-plugins/nagios-plugir
tar zxf nagios-plugins.tar.gz
```

Compile + Install

```
cd /tmp/nagios-plugins-release-2.2.1/
./tools/setup
./configure
make
make install
```

Test Plugins

Point your web browser to the ip address or FQDN of your Nagios Core server, for example:

```
http://10.25.5.143/nagios
```

```
http://core-013.domain.local/nagios
```

Go to a host or service object and "Re-schedule the next check" under the Commands menu. The error y
disappear and the correct output will be shown on the screen.

Service / Daemon Commands

Different Linux distributions have different methods of starting / stopping / restarting / status Nagios.

===== RHEL 5/6 | CentOS 5/6 | Oracle Linux 5/6 =====

```
service nagios start
service nagios stop
service nagios restart
service nagios status
```

===== RHEL 7/8 | CentOS 7 | Oracle Linux 7 =====

```
systemctl start nagios.service
systemctl stop nagios.service
systemctl restart nagios.service
systemctl status nagios.service
```

Ubuntu

Security-Enhanced Linux

This guide is based on SELinux being disabled or in permissive mode. SELinux is not enabled by default c
if it is installed run the following command:

```
sudo dpkg -l selinux*
```

Prerequisites

Perform these steps to install the pre-requisite packages.

===== Ubuntu 14.x / 15.x =====

```
sudo apt-get update
sudo apt-get install -y autoconf gcc libc6 make wget unzip apache2 apache2-utils php5 libgd2-xpm-dev
```

===== Ubuntu 16.x / 17.x =====

```
sudo apt-get update
sudo apt-get install -y autoconf gcc libc6 make wget unzip apache2 php libapache2-mod-php7.0 libgd2-
```

===== Ubuntu 18.x =====

```
sudo apt-get update
sudo apt-get install -y autoconf gcc libc6 make wget unzip apache2 php libapache2-mod-php7.2 libgd-d
```

Downloading the Source

```
cd /tmp
wget -O nagioscore.tar.gz https://github.com/NagiosEnterprises/nagioscore/archive/nagios-4.4.5.tar.g
tar xzf nagioscore.tar.gz
```

Compile

```
cd /tmp/nagioscore-nagios-4.4.5/
sudo ./configure --with-httpd-conf=/etc/apache2/sites-enabled
sudo make all
```

Create User And Group

This creates the `nagios` user and group. The `www-data` user is also added to the `nagios` group.

```
sudo make install-groups-users
sudo usermod -a -G nagios www-data
```

Install Binaries

This step installs the binary files, CGIs, and HTML files.

```
sudo make install
```

Install Service / Daemon

This installs the service or daemon files and also configures them to start on boot.

```
sudo make install-daemoninit
```

Information on starting and stopping services will be explained further on.

Install Command Mode

This installs and configures the external command file.

```
sudo make install-commandmode
```

Install Configuration Files

This installs the *SAMPLE* configuration files. These are required as Nagios needs some configuration fil

```
sudo make install-config
```

Install Apache Config Files

This installs the Apache web server configuration files and configures Apache settings.

```
sudo make install-webconf
sudo a2enmod rewrite
sudo a2enmod cgi
```

Configure Firewall

You need to allow port 80 inbound traffic on the local firewall so you can reach the Nagios Core web inte

```
sudo ufw allow Apache
sudo ufw reload
```

Create nagiosadmin User Account

You'll need to create an Apache user account to be able to log into Nagios.

The following command will create a user account called nagiosadmin and you will be prompted to provic

```
sudo htpasswd -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
```

> When adding additional users in the future, you need to remove **-c** from the above command othe
> nagiosadmin user *(and any other users you may have added)*.

Start Apache Web Server

===== Ubuntu 14.x =====

Need to restart it because it is already running.

```
sudo service apache2 restart
```

===== Ubuntu 15.x / 16.x / 17.x /18.x =====

Need to restart it because it is already running.

```
sudo systemctl restart apache2.service
```

Start Service / Daemon

This command starts Nagios Core.

===== Ubuntu 14.x =====

```
sudo start nagios
```

===== Ubuntu 15.x / 16.x / 17.x / 18.x =====

```
sudo systemctl start nagios.service
```

Test Nagios

Nagios is now running, to confirm this you need to log into the Nagios Web Interface.

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that require other libraries which are not included in those instructions. Please refer to the following KB a
instructions:

Documentation - Installing Nagios Plugins From Source

Prerequisites

Make sure that you have the following packages installed.

```
sudo apt-get install -y autoconf gcc libc6 libmcrypt-dev make libssl-dev wget bc gawk dc build-esser
```

Downloading The Source

```
cd /tmp
wget --no-check-certificate -O nagios-plugins.tar.gz https://github.com/nagios-plugins/nagios-plugir
tar zxf nagios-plugins.tar.gz
```

Compile + Install

```
cd /tmp/nagios-plugins-release-2.2.1/
sudo ./tools/setup
sudo ./configure
sudo make
sudo make install
```

Test Plugins

Point your web browser to the ip address or FQDN of your Nagios Core server, for example:

```
http://10.25.5.143/nagios
```

```
http://core-013.domain.local/nagios
```

Go to a host or service object and "Re-schedule the next check" under the Commands menu. The error y
disappear and the correct output will be shown on the screen.

Service / Daemon Commands

Different Linux distributions have different methods of starting / stopping / restarting / status Nagios.

===== Ubuntu 14.x =====

```
sudo start nagios
sudo stop nagios
sudo restart nagios
sudo status nagios
```

===== Ubuntu 15.x / 16.x / 17.x / 18.x =====

```
sudo systemctl start nagios.service
sudo systemctl stop nagios.service
sudo systemctl restart nagios.service
sudo systemctl status nagios.service
```