How to Install Nagios Monitoring Tool on Alma Linux

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Nagios is a free and open-source network monitoring tool for Windows, Linux, BSD, etc. It monitors hosts, processes, and services for remote servers, routers, and other devices. It provides a simple and user-friendly web-based interface for management and monitoring. If the monitored devices fail, you can configure it to send a notification via email, SMS, or phone call. With Nagios, you can monitor CPU load, memory usage, disk usage, logged-in users, processes, and services such as HTTP, FTP, SSH, SMTP, etc.

In this article, you will learn how to install the Nagios monitoring tool on Alma Linux 8.

Prerequisites

* A server running Alma Linux 8.
* A root password is configured on the server.

Install the required dependencies

First you need to install Apache, PHP and other required dependencies on your server. You can install them all by running the following command:

dnf install httpd wget php perl unzip glibc automake glibc-common gettext autoconf php php-cli gcc gd gd-devel net-snmp openssl-devel unzip net-snmp postfix net-snmp-utils -y

Next, you also need to install the Development Tools group package to compile Nagios from source code. You can install it with the following command:

dnf groupinstall "Development Tools" -y

Next, start the Apache and PHP-FPM service and enable them with the following command so that they start after the system reboots:

systemctl start httpd

systemctl start php-fpm

systemctl enable httpd

systemctl enable php-fpm

Install Nagios on Alma Linux 8

By default, the Nagios package is not included in the Alma Linux standard repository. You must therefore compile it from the source code.

First, download the latest version of Nagios using the following command:

wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.7.tar.gz

Once Nagios is downloaded, unzip the downloaded file with the following command:

tar -xzf nagios-4.4.7.tar.gz

Next, navigate to the unzipped Nagios directory and configure it with the following command:

cd nagios-4.4.7

./configure

You will get the following output:

General Options:

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Nagios executable: nagios

Nagios user/group: nagios,nagios

Command user/group: nagios,nagios

Event Broker: yes

Install ${prefix}: /usr/local/nagios

Install ${includedir}: /usr/local/nagios/include/nagios

Lock file: /run/nagios.lock

Check result directory: /usr/local/nagios/var/spool/checkresults

Init directory: /lib/systemd/system

Apache conf.d directory: /etc/httpd/conf.d

Mail program: /usr/sbin/sendmail

Host OS: linux-gnu

IOBroker Method: epoll

Web Interface Options:

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HTML URL: http://localhost/nagios/

CGI URL: http://localhost/nagios/cgi-bin/

Traceroute (used by WAP):

Review the options above for accuracy. If they look okay,

type 'make all' to compile the main program and CGIs.

Next, compile all programs with the following command:

make all

Next, add the Nagios user and the Nagios group with the following command:

make install-groups-users

Next, add the Nagios user to the Apache group:

usermod -aG nagios apache

Next, install Nagios with the following command:

make install

Next, install the init service with the following command:

make install-init

Output:

/usr/bin/install -c -m 755 -d -o root -g root /lib/systemd/system

/usr/bin/install -c -m 755 -o root -g root startup/default-service /lib/systemd/system/nagios.service

Next, install the Nagios daemon service with the following command:

make install-daemoninit

Output:

/usr/bin/install -c -m 755 -d -o root -g root /lib/systemd/system

/usr/bin/install -c -m 755 -o root -g root startup/default-service /lib/systemd/system/nagios.service

Created symlink /etc/systemd/system/multi-user.target.wants/nagios.service → /usr/lib/systemd/system/nagios.service.

Next, install the Nagios command line with the following command:

make install-commandmode

Next, install the Nagios sample configuration file with the following command:

make install-config

Next, install the Apache configuration file for Nagios:

make install-webconf

Output:

/usr/bin/install -c -m 644 sample-config/httpd.conf /etc/httpd/conf.d/nagios.conf

if [ 0 -eq 1 ]; then \

I am running a few minutes late; my previous meeting is running over.

ln -s /etc/httpd/conf.d/nagios.conf /etc/apache2/sites-enabled/nagios.conf; \

fi

Next, create an admin user for Nagios with the following command:

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

Set an admin password as shown below:

New password:

Re-type new password:

Adding password for user nagiosadmin

Next, set ownership of the Nagios password file:

chown apache:apache /usr/local/nagios/etc/htpasswd.users

chmod 640 /usr/local/nagios/etc/htpasswd.users

Next, restart the Apache service with the following command:

systemctl restart httpd

Now you can check the status of the Apache service with the following command:

systemctl status httpd

You will receive the following output:

? httpd.service - The Apache HTTP Server

Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; vendor preset: disabled)

Drop-In: /usr/lib/systemd/system/httpd.service.d

??php-fpm.conf

Active: active (running) since Fri 2022-04-15 09:36:16 UTC; 4s ago

Docs: man:httpd.service(8)

Main PID: 61846 (httpd)

Status: "Started, listening on: port 80"

Tasks: 213 (limit: 11412)

Memory: 24.4M

CGroup: /system.slice/httpd.service

??61846 /usr/sbin/httpd -DFOREGROUND

??61848 /usr/sbin/httpd -DFOREGROUND

??61849 /usr/sbin/httpd -DFOREGROUND

??61850 /usr/sbin/httpd -DFOREGROUND

??61851 /usr/sbin/httpd -DFOREGROUND

Apr 15 09:36:15 linux systemd[1]: httpd.service: Succeeded.

Apr 15 09:36:15 linux systemd[1]: Stopped The Apache HTTP Server.

Apr 15 09:36:15 linux systemd[1]: Starting The Apache HTTP Server...

Start Nagios service

Now you can start the Nagios service with the following command and enable it to be started when the system is restarted:

systemctl start nagios

systemctl enable nagios

To check the Nagios service, execute the following command:

systemctl status nagios

You will receive the following output:

? nagios.service - Nagios Core 4.4.7

Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; vendor preset: disabled)

Active: active (running) since Fri 2022-04-15 09:36:35 UTC; 6s ago

Docs: https://www.nagios.org/documentation

Process: 62069 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)

Process: 62067 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)

Main PID: 62070 (nagios)

Tasks: 6 (limit: 11412)

Memory: 4.9M

CGroup: /system.slice/nagios.service

??62070 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

??62071 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh

??62072 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh

??62073 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh

??62074 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh

??62075 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Apr 15 09:36:35 linux nagios[62070]: qh: core query handler registered

Apr 15 09:36:35 linux nagios[62070]: qh: echo service query handler registered

Apr 15 09:36:35 linux nagios[62070]: qh: help for the query handler registered

Apr 15 09:36:35 linux nagios[62070]: wproc: Successfully registered manager as @wproc with query handler

Apr 15 09:36:35 linux nagios[62070]: wproc: Registry request: name=Core Worker 62073;pid=62073

Apr 15 09:36:35 linux nagios[62070]: wproc: Registry request: name=Core Worker 62074;pid=62074

Apr 15 09:36:35 linux nagios[62070]: wproc: Registry request: name=Core Worker 62071;pid=62071

Apr 15 09:36:35 linux nagios[62070]: wproc: Registry request: name=Core Worker 62072;pid=62072

Apr 15 09:36:37 linux nagios[62070]: Successfully launched command file worker with pid 62075

Install Nagios plugins

First install the SNMP plugins with the following command:

dnf config-manager --enable powertools

dnf install -y perl-Net-SNMP

Next, download the Nagios plugins with the following command:

wget -O nagios-plugins.tar.gz https://github.com/nagios-plugins/nagios-plugins/releases/download/release-2.3.3/nagios-plugins-2.3.3.tar.gz

Once the download is complete, unzip the downloaded file with the following command:

tar zxf nagios-plugins.tar.gz

Then change to the directory with the Nagios plugins and install them with the following command:

cd nagios-plugins-2.3.3

./configure

make

make install

Next, download the NRPE plugin with the following command:

wget https://github.com/NagiosEnterprises/nrpe/releases/download/nrpe-4.0.3/nrpe-4.0.3.tar.gz

Once the download is complete, unzip the downloaded file with the following command:

tar zxf nrpe-4.0.3.tar.gz

Then change to the unzipped directory and install it with the following command:

cd nrpe-4.0.3

./configure

make check\_nrpe

make install

make install-plugin

make install-config

make install-init

Next, start the NRPE and Nagios service with the following command:

systemctl start nrpe

systemctl start nagios

Check the NRPE plugins with the following command:

/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

If everything is OK, you will get the following output:

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License: GPL

Website: https://www.nagios.org

Reading configuration data...

Read main config file okay...

Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...

Checked 8 services.

Checked 1 hosts.

Checked 1 host groups.

Checked 0 service groups.

Checked 1 contacts.

Checked 1 contact groups.

Checked 24 commands.

Checked 5 time periods.

Checked 0 host escalations.

Checked 0 service escalations.

Checking for circular paths...

Checked 1 hosts

Checked 0 service dependencies

Checked 0 host dependencies

Checked 5 timeperiods

Checking global event handlers...

Checking obsessive compulsive processor commands...

Checking misc settings...

Total Warnings: 0

Total Errors: 0

Things look okay - No serious problems were detected during the pre-flight check

Access the Nagios web interface

Now open your web browser and call up the Nagios web interface via the URL **http://your-server-ip/nagios.** You will be redirected to the Nagios login page:

A screenshot of a computer

Description automatically generated

Enter your admin username and password and click on the ” **Login** ” button. Once you are logged in, you should see the Nagios dashboard on the following screen: