

How to Install NagiosQL in Ubuntu/Debian?

written by sysadmin | 30 August 2025

After you [install the Nagios](#) application on the Ubuntu/Debian server, by default, Nagios Core does not provide a web-based interface to manage Nagios configuration for adding/deleting/changing hosts and services. Therefore, some developers create a web-based interface so users can manage the hosts and services easily. This article will explain how to install the NagiosQL application to set up the device or service on Nagios.

Problem

How to install NagiosQL in Ubuntu/Debian?

Solution

NagiosQL is a professional, web-based configuration tool for Nagios 2.x/3.x/4.x and other Nagios-based monitoring tools. It is designed for large enterprise requirements as well as small environments, and any Nagios functionality is supported. I ran the steps below in Ubuntu 24.04, and I think it will work in Debian too. Here are the steps to install the NagioSQL application, and

A. Install the dependencies

Use the following command to install the dependencies:

```
sudo apt update
sudo apt-get install -y php libmcrypt-dev php-cli php-gd php-curl php-mysql
php-ldap php-zip php-fileinfo php-pear gcc php-dev php zlib1g-dev libssh2-1
libssh2-1-dev php-ssh2 mariadb-server build-essential
sudo pear channel-update pear.php.net
sudo pear install HTML_Template_IT
```

B. Install PHP Modules

After that, install PHP Modules using the following command:

```
sudo pecl install mcrypt
```

C. Configure PHP

Type the following commands to configure PHP:

```
echo "extension=mcrypt.so" >> /etc/php/*/apache2/php.ini
echo "date.timezone=Asia/Singapore" >> /etc/php/*/apache2/php.ini
sudo systemctl restart apache2
```

D. Configure the database

Start MariaDB and give the password using the following commands:

```
sudo systemctl start mariadb
sudo mariadb-secure-installation
```

Access to MariaDB using the following command:

```
mariadb -uroot -p
```

Type your root password and then run the following commands to create a database for NagiosQL:

```
CREATE DATABASE nagiosql;
GRANT ALL PRIVILEGES ON nagiosql.* TO `nagiosql_user`@`%` IDENTIFIED BY
'qwerty';
FLUSH PRIVILEGES;
```

E. Download NagiosQL

Download the latest release of the NagiosQL application, as of this writing (August 2025), has reached version 3.5.0, and configure it by typing the commands below:

```
cd /tmp/
```

```
wget https://sourceforge.net/projects/nagiosql/files/latest/download -O
nagiosql.tar.gz
tar -zxvf nagiosql.tar.gz
sudo cp -vprf nagiosql-*/ /usr/local/nagios/share/nagiosql
```

F. Configure files and folders

Copy the commands below to configure files and folders:

```
sudo mkdir /usr/local/nagios/etc/nagiosql;
sudo mkdir /usr/local/nagios/etc/nagiosql/hosts;
sudo mkdir /usr/local/nagios/etc/nagiosql/services;
sudo mkdir /usr/local/nagios/etc/nagiosql/backup;
sudo mkdir /usr/local/nagios/etc/nagiosql/backup/hosts;
sudo mkdir /usr/local/nagios/etc/nagiosql/backup/services;
sudo chown nagios:nagcmd /usr/local/nagios/var/rw
sudo chown nagios:nagcmd /usr/local/nagios/var/rw/nagios.cmd
sudo chown nagios:www-data /usr/local/nagios/etc/nagios.cfg;
sudo chown nagios:www-data /usr/local/nagios/etc/cgi.cfg;
sudo chown nagios:www-data /usr/local/nagios/etc/resource.cfg;
sudo chown nagios:www-data /usr/local/nagios/var/spool/checkresults;
sudo chown nagios:www-data /usr/local/nagios/bin/nagios;
sudo chmod 775 /usr/local/nagios/etc/
sudo chmod 777 /usr/local/nagios/bin/nagios
sudo chmod -R 777 /usr/local/nagios/share/nagiosql/config
sudo chmod -R 6775 /usr/local/nagios/etc/nagiosql;
sudo chmod 660 /usr/local/nagios/var/rw/nagios.cmd;
sudo chmod 775 /usr/local/nagios/etc/;
sudo chmod 664 /usr/local/nagios/etc/nagios.cfg;
sudo chmod 664 /usr/local/nagios/etc/cgi.cfg;
sudo chmod g+x /usr/local/nagios/var/rw/;
sudo chgrp www-data /usr/local/nagios/etc/;
sudo chgrp www-data /usr/local/nagios/etc/nagios.cfg;
sudo chgrp www-data /usr/local/nagios/etc/cgi.cfg;
sudo sed -i 's/^cfg/#cfg/' /usr/local/nagios/etc/nagios.cfg
echo "" | sudo tee -a /usr/local/nagios/etc/nagios.cfg
echo "cfg_dir=/usr/local/nagios/etc/nagiosql" | sudo tee -a
/usr/local/nagios/etc/nagios.cfg
```

G. Configure NagiosQL in the browser

Next, configure the application in the browser by typing the command in the browser:

```
http://your_ip_server/nagios/nagiosql
```

If the browser asks to insert the username and password, insert your Nagios username and password.

 <http://192.168.56.12>

This site is asking you to sign in.

Username

Password

Insert username and password

After you insert the password, there will be a display like this:

 [Online Documentation](#) Language : English

Welcome to the NagiosQL installation wizard

This wizard will help you to install and configure NagiosQL.
For questions please visit: [NagiosQL @ Sourceforge](#)

NagiosQL version 3.5.0

First let's check your local environment and find out if everything NagiosQL needs is available.

The basic requirements are:

- PHP 7.2.0 or above (PHP 8 is recommended) including:
 - PHP database module: supported types are **mysqli**
 - PHP module: **session**
 - PHP module: **gettext**
 - PHP module: **filter**
 - PHP module: **FTP** (optional)
 - PECL extension: **SSH** (optional)
- php.ini options:
 - file_uploads on (for upload features)
 - session.auto_start needs to be off
 - date.timezone should be set to your local timezone
- A database server
- Nagios 2.x/3.x/4.x

Settings file not found or not readable (config/settings.php). Upgrade not available!

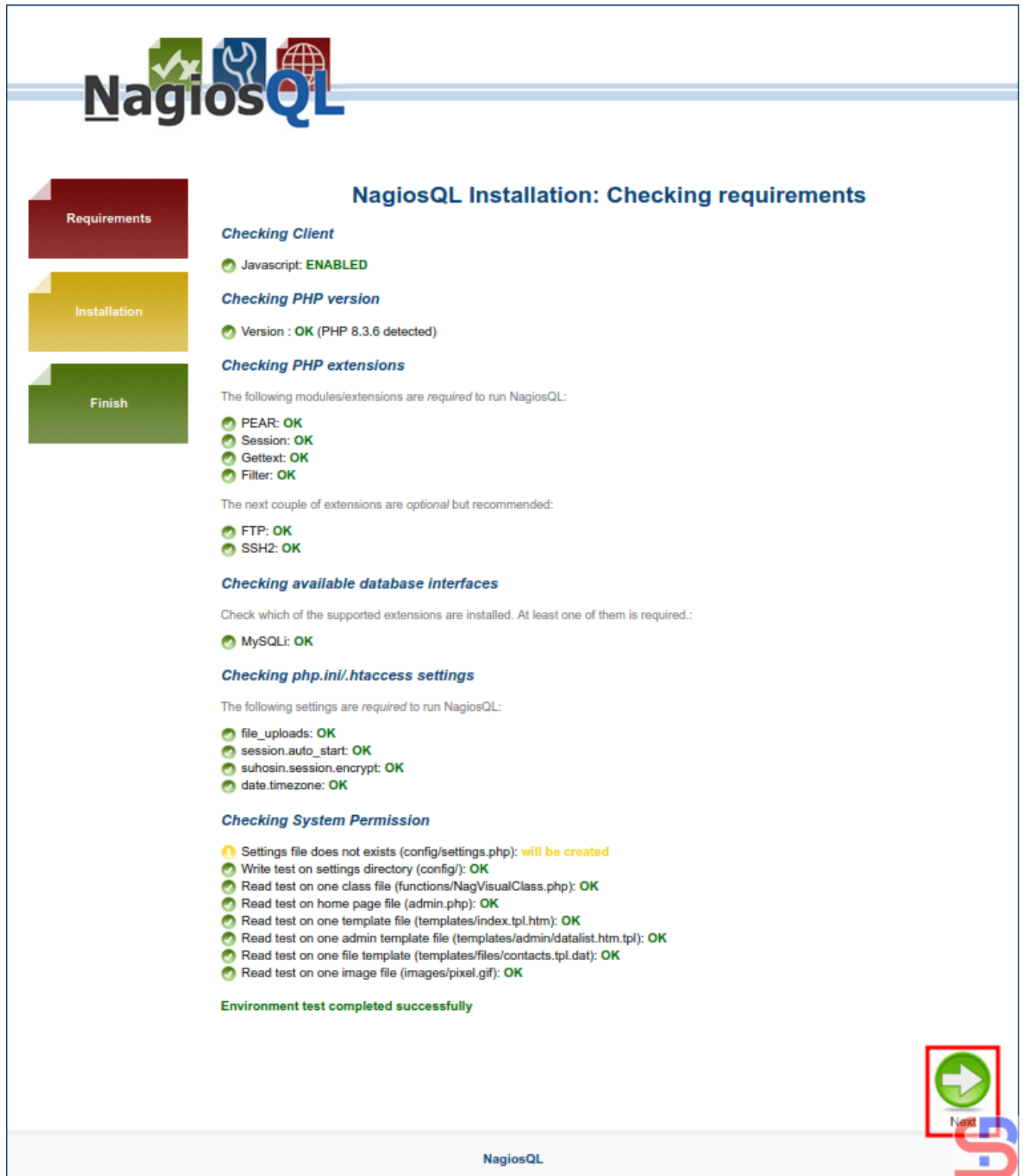
[Online documentation](#)

NagiosQL



Configure the NagiosQL button

Click the **START INSTALLATION** button, and there is a display like the image below:



Checking requirements

Make sure there is no error like in the image above. Click the **Next** button, and it will be an image like this:



NagiosQL Installation: Setup

Please complete the form below. Mandatory fields marked *:

Requirements

Installation

Finish

Database Configuration	
Database Type *	mysql
Database Server *	localhost
Local hostname or IP address *	localhost
Database Server Port *	3306
Database name *	nagiosql
NagiosQL DB User *	nagiosql_user
NagiosQL DB Password *	
Administrative Database User *	root
Administrative Database Password *	
Drop database if already exists?	☒
NagiosQL User Setup	
Initial NagiosQL User *	admin
Initial NagiosQL Password *	
Please repeat the password *	
Nagios Configuration	
Import Nagios sample config?	☒
NagiosQL path values	
Create NagiosQL config paths?	☒
NagiosQL config path	/usr/local/nagios/etc/nagiosql
Nagios config path	/usr/local/nagios/etc

Both path values were stored in your configuration target settings for localhost.
If you select the create path option, be sure that the NagiosQL base path exist and the webserver demon has write access to it. So the installer will create the required subdirectories in your localhost's filesystem (hosts, services, backup etc.)

Next

NagiosQL

Setup NagiosQL

You must fill in the configuration columns, and I fill in like in this image above. After you fill it out, press the Next button, and there is a display like the image below:



NagiosQL Installation: Finishing Setup

Create new NagiosQL database

Database server connection (privileged user)	passed (mysqli)
Database server version	10.11.13-MariaDB-0ubuntu0.24.04.1
Database server support	supported
Delete existing NagiosQL database	done (nagiosql)
Creating new database	done (nagiosql)
Installing NagiosQL database tables	done
Create NagiosQL database user	done (Only added rights to existing user: nagiosql_user)
Set initial NagiosQL Administrator	done
Database server connection (NagiosQL user)	passed

Deploy NagiosQL settings

Writing global settings to database	done
Writing database configuration to settings.php	done
Import Nagios sample data	done
Create and/or store NagiosQL path settings	done

Please delete the install directory to continue!



NagiosQL

The finishing setup

Before you click the **Finish** button, use the command below to delete the install directory:

```
rm -rf /usr/local/nagios/share/nagiosql/install/
```

After that, click the Finish button, and it should display an image like the image below:



Welcome

Username:

Password:

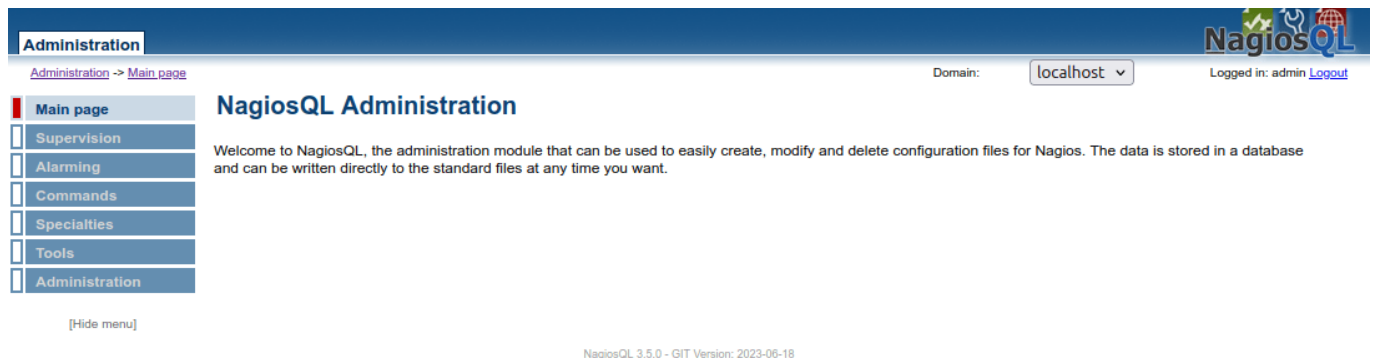
Please enter your username and password to access NagiosQL.
If you forgot one of them, please contact your Administrator.

NagiosQL 3.5.0



The NagiosQL login

Enter the username (**admin**) and password, and if nothing is wrong, the NagiosQL application will appear like the image below:



The page of NagioQL administration

Now, configure the NagiosQL application to integrate it with Nagios. Click **Administration > Config targets > Modify**, like in the image below:

Administration

Administration -> Administration -> Config targets

Domain: localhost

Logged in: admin Logout

Configuration domain administration

Configuration target	Description	Active	Function
☐ localhost	Local installation	Yes	

Add

Marked:

[Hide menu]

NagiosQL 3.5.0

Configure domain administration

And there will be a display like the image below:

Administration

Administration -> Administration -> Config targets

Domain: localhost

Logged in: admin Logout

Configuration domain administration

Configuration target * localhost

Description * Local installation

Server name * localhost

Method Fileaccess

Configuration directories

Base directory * /usr/local/nagios/etc/nagiosql/

Host directory * /usr/local/nagios/etc/nagiosql/hosts/

Service directory * /usr/local/nagios/etc/nagiosql/services/

Backup directory * /usr/local/nagios/etc/nagiosql/backup/

Host backup directory * /usr/local/nagios/etc/nagiosql/backup/hosts/

Service backup directory * /usr/local/nagios/etc/nagiosql/backup/services/

Nagios configuration files and directories

Nagios base directory * /usr/local/nagios/etc/

Import directory /usr/local/nagios/etc/objects/

Picture base directory /usr/local/nagios/share/images/logos

Nagios command file /usr/local/nagios/var/rw/nagios.cmd

Nagios binary file /usr/local/nagios/bin/nagios

Nagios process file /run/nagios.lock

Nagios config file * /usr/local/nagios/etc/nagios.cfg

Nagios cgi file * /usr/local/nagios/etc/cgi.cfg

Nagios resource file * /usr/local/nagios/etc/resource.cfg

Nagios version 4.x

Access group Unrestricted access

Active ☒

* required

[Hide menu]

NagiosQL 3.5.0

Configure the NagiosQL

Configure in the red box like my configuration in the image above, and click the **Save** button. After that, go to **Tools >**

Nagios control and click all the buttons like the image below, and make sure there is no error:

The image displays four screenshots of the Nagios web interface, specifically the 'Check written configuration files' section. Each screenshot shows a list of actions with a 'Do it' button highlighted by a red box. The actions include writing monitoring data, additional data, and configuration files, and restarting Nagios. The final screenshot shows a successful restart command sent to Nagios.

Check written configuration files

Write monitoring data **Do it**

Write additional data **Do it**

Check configuration files: **Do it**

Restart Nagios: **Do it**

Write host configurations ...
Hosts: Configuration file successfully written!
Write service configurations ...
Services: Configuration file successfully written!
Write hostgroups.cfg ...
Hostgroups: Configuration file successfully written!
Write servicegroups.cfg ...
Servicegroups: Configuration file successfully written!
Write hosttemplates.cfg ...
Hosttemplates: Configuration file successfully written!
Write servicetemplates.cfg ...
Servicetemplates: Configuration file successfully written!

Check written configuration files

Write monitoring data **Do it**

Write additional data **Do it**

Check configuration files: **Do it**

Restart Nagios: **Do it**

Total Warnings: 0
Total Errors: 0
Written configuration files are valid, Nagios can be restarted!

Nagios Core 4.5.9
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2024-12-19
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 21 services.
Checked 4 hosts.
Checked 4 host groups.

Check written configuration files

Write monitoring data **Do it**

Write additional data **Do it**

Check configuration files: **Do it**

Restart Nagios: **Do it**

Restart command successfully send to Nagios



Click all the Do it buttons

Now go to the Nagios application in the **Hosts** page and make sure that on the page, 3 default hosts appear in Nagios (**hplj2605dn**, **linksys-srw224p**, and **winserver**) besides localhost, like in the image below:

← → ↻ Not Secure http://192.168.56.12/nagios/ ☆ ⬇️ Ⓜ️ ⚙️ ☰

Nagios

General

- Home
- Documentation
- Current Status**
- Tactical Overview
- Map
- Hosts**
- Services
- Host Groups
 - Summary
- Grid
- Service Groups
 - Summary
- Grid
- Problems
 - Services (Unhandled)
 - Hosts (Unhandled)
 - Network Outages
- Quick Search:

Current Network Status
Last Updated: Tue Aug 19 14:57:40 UTC 2025
Updated every 90 seconds
Nagios® Core™ 4.5.9 - www.nagios.org
Logged in as nagiosadmin

View Service Status Detail For All Host Groups
View Status Overview For All Host Groups
View Status Summary For All Host Groups
View Status Grid For All Host Groups

Host Status Totals

Up	Down	Unreachable	Pending
1	3	0	0

All Problems All Types

3	4
---	---

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
7	1	1	12	0

All Problems All Types

14	21
----	----

Host Status Details For All Host Groups

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
hplj2605dn	DOWN	08-19-2025 14:55:59	0d 0h 10m 41s	PING CRITICAL - Packet loss = 100%
linksys-srw224p	DOWN	08-19-2025 14:55:44	0d 0h 9m 26s	PING CRITICAL - Packet loss = 100%
localhost	UP	08-19-2025 14:56:24	0d 3h 14m 21s	PING OK - Packet loss = 0%, RTA = 0.08 ms
winserver	DOWN	08-19-2025 14:56:31	0d 0h 8m 39s	PING CRITICAL - Packet loss = 100%

Results 1 - 4 of 4 Matching Hosts

3 new hosts in the Hosts page on Nagios

Now go to the **Services** section, and there should be services that appear on the 3 new default hosts:

← → ↻ Not Secure http://192.168.56.12/nagios/ ☆ ⬇️ Ⓜ️ ⚙️ ☰

Nagios

General

- Home
- Documentation
- Current Status**
- Tactical Overview
- Map
- Hosts
- Services**
- Host Groups
 - Summary
- Grid
- Service Groups
 - Summary
- Grid
- Problems
 - Services (Unhandled)
 - Hosts (Unhandled)
 - Network Outages
- Quick Search:

Current Network Status
Last Updated: Tue Aug 19 14:58:48 UTC 2025
Updated every 90 seconds
Nagios® Core™ 4.5.9 - www.nagios.org
Logged in as nagiosadmin

View History For all hosts
View Notifications For All Hosts
View Host Status Detail For All Hosts

Host Status Totals

Up	Down	Unreachable	Pending
1	3	0	0

All Problems All Types

3	4
---	---

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
7	1	1	12	0

All Problems All Types

14	21
----	----

Service Status Details For All Hosts

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
hplj2605dn	PING	CRITICAL	08-19-2025 14:48:28	0d 0h 10m 20s	1/3	PING CRITICAL - Packet loss = 100%
	Printer Status	CRITICAL	08-19-2025 14:49:58	0d 0h 8m 50s	1/3	(No output on stdout) stderr: execvp(/usr/local/nagios/libexec/check_hpjd, ...) failed. errno is 2: No such file or directory
linksys-srw224p	PING	CRITICAL	08-19-2025 14:56:28	0d 0h 7m 20s	1/3	PING CRITICAL - Packet loss = 100%
	Port 1 Bandwidth Usage	UNKNOWN	08-19-2025 14:52:58	0d 0h 5m 50s	1/3	check_mrtgtraf: Unable to open MRTG log file
	Port 1 Link Status	CRITICAL	08-19-2025 14:54:27	0d 0h 4m 21s	1/3	(No output on stdout) stderr: execvp(/usr/local/nagios/libexec/check_snmp, ...) failed. errno is 2: No such file or directory
	Uptime	CRITICAL	08-19-2025 14:55:57	0d 0h 2m 51s	1/3	(No output on stdout) stderr: execvp(/usr/local/nagios/libexec/check_snmp, ...) failed. errno is 2: No such file or directory
localhost	Current Load	OK	08-19-2025 14:53:54	0d 3h 14m 54s	1/4	OK - load average: 0.00, 0.00, 0.00
	Current Users	OK	08-19-2025 14:54:32	0d 3h 14m 16s	1/4	USERS OK - 1 users currently logged in
	HTTP	OK	08-19-2025 14:55:09	0d 3h 13m 39s	1/4	HTTP OK: HTTP/1.1 200 OK - 10945 bytes in 0.001 second response time
	PING	OK	08-19-2025 14:55:47	0d 3h 13m 1s	1/4	PING OK - Packet loss = 0%, RTA = 0.06 ms
	Root Partition	WARNING	08-19-2025 14:54:24	0d 1h 49m 24s	4/4	DISK WARNING - free space: / 1583 MiB (16.75% inode=78%):
	SSH	OK	08-19-2025 14:57:03	0d 3h 11m 46s	1/4	SSH OK - OpenSSH_9.6p1 Ubuntu-3ubuntu13.11 (protocol 2.0)
	Swap Usage	OK	08-19-2025 14:57:39	0d 3h 11m 9s	1/4	SWAP OK - 100% free (1952 MB out of 1967 MB)
	Total Processes	OK	08-19-2025 14:58:17	0d 3h 10m 31s	1/4	PROCS OK: 43 processes with STATE = RSZDT
winserver	C:\ Drive Space	CRITICAL	08-19-2025 14:51:01	0d 0h 7m 47s	3/3	CRITICAL - Socket timeout
	CPU Load	CRITICAL	08-19-2025 14:50:21	0d 0h 8m 27s	1/3	CRITICAL - Socket timeout
	Explorer	CRITICAL	08-19-2025 14:51:50	0d 0h 6m 58s	1/3	CRITICAL - Socket timeout
	Memory Usage	CRITICAL	08-19-2025 14:53:20	0d 0h 5m 28s	1/3	CRITICAL - Socket timeout
	NSClient++ Version	CRITICAL	08-19-2025 14:54:50	0d 0h 3m 58s	1/3	CRITICAL - Socket timeout
	Uptime	CRITICAL	08-19-2025 14:56:20	0d 0h 2m 28s	1/3	CRITICAL - Socket timeout
	W3SVC	CRITICAL	08-19-2025 14:51:23	0d 0h 7m 25s	3/3	CRITICAL - Socket timeout

Results 1 - 21 of 21 Matching Services

Services in the 3 new hosts

If there are 3 additional hosts in the Hosts and Services

section in Nagios, you have successfully integrated the Nagios application with the NagiosQL application.

Note

You have to be careful when filling in the Configuration domain administration section, because if it is wrong in this section, then the NagiosQL application will not run properly

References

sourceforge.net
tecadmin.net