

Installation of Nagios in Ubuntu 20.04

Task requirement

To track the status and performance of their IT infrastructure. It provides a centralized platform for monitoring hosts, services, and network devices,

Environment details

Os- Ubuntu 20.04

Cpu- 8 Core

Storage- 1 TB

Tool used

- podman version (3.4.2)
- Nagios version (4.4.8)

Here are some steps for installing nagios in container:

Command 1:-

This command is used for installation of podman.

```
apt install -y podman
```

apt: apt stands for "Advanced Package Tool. It is used to install, update, and manage software packages on the system.

install: This is the sub-command that tells apt to install a package. When you use apt install, you're instructing the package manager to download and install the specified software.

-y: This is an option flag that stands for "yes." It's used to automatically answer "yes" to any prompts

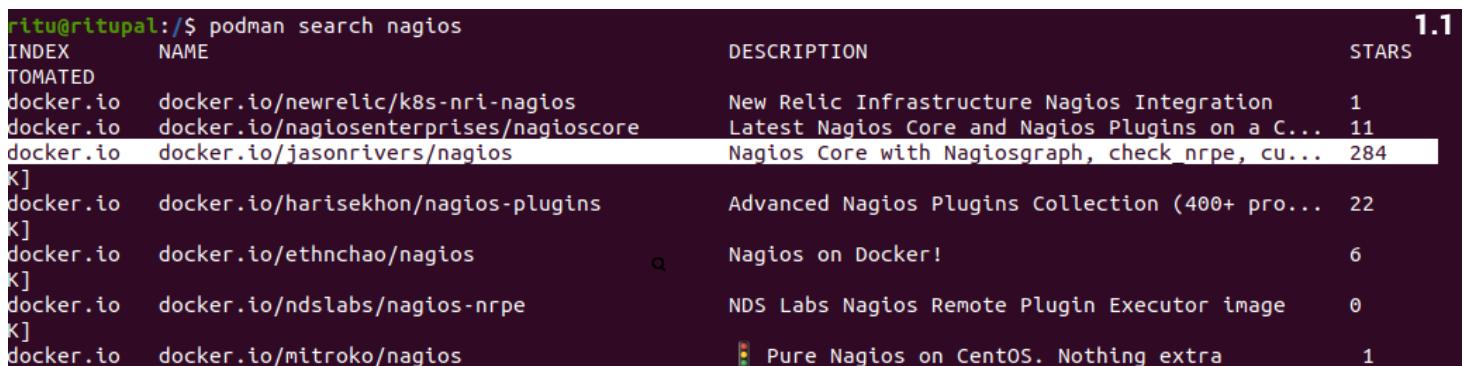
that may come up during the installation process.

podman: This is the name of the package or software you want to install.

Command 2:-

This command will query the default container registry (usually Docker Hub) and return a list of container images with "nagios" in their name or description.

```
podman search nagios
```



1.1			
INDEX	NAME	DESCRIPTION	STARS
docker.io	docker.io/newrelic/k8s-nri-nagios	New Relic Infrastructure Nagios Integration	1
docker.io	docker.io/nagiosenterprises/nagioscore	Latest Nagios Core and Nagios Plugins on a C...	11
docker.io	docker.io/jasonrivers/nagios	Nagios Core with Nagiosgraph, check_nrpe, cu...	284
docker.io	docker.io/harisekhon/nagios-plugins	Advanced Nagios Plugins Collection (400+ pro...	22
docker.io	docker.io/ethnchao/nagios	Nagios on Docker!	6
docker.io	docker.io/ndslabs/nagios-nrpe	NDS Labs Nagios Remote Plugin Executor image	0
docker.io	docker.io/mitroko/nagios	Pure Nagios on CentOS. Nothing extra	1

podman: It is the name of the containerization tool.

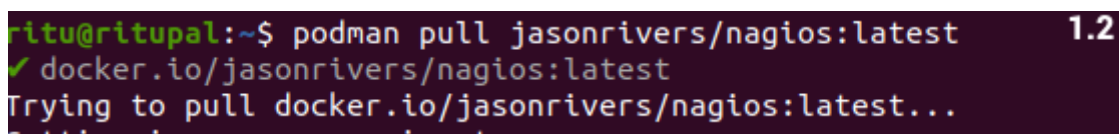
search: It is a subcommand in a podman tool, it indicates that you want to search for container image images in container registry.

nagios: It is search term or query,here I am looking for container images related to the Nagios monitoring tool.

Command 3:-

This comand is used to pull the nagios container image from docker hub to your local system using podman.

```
podman pull docker.io/jasonrivers/nagios
```



```
ritu@ritupal:~$ podman pull jasonrivers/nagios:latest 1.2
✓ docker.io/jasonrivers/nagios:latest
Trying to pull docker.io/jasonrivers/nagios:latest...
```

podman pull: It tells your computer to download something.

docker.io: It's the location on the internet where we want to get something.

jasonrivers/nagios: This specifies exactly what we want to download, in this case, it's a tool or application called "nagios."

Command 4:-

This command will start the Nagios container with the specified options. You can access the Nagios web interface by opening a web browser and navigating to <http://localhost:8095/nagios>.

In this command I added my username and password also otherwise nagios will give you default username and password.

```
podman run -d --name nagios -p 8095:80 --cap-add=NET_RAW -e NAGIOSADMIN_USER=reetu -e N
```

```
ritu@ritupal:~$ podman run -d --name nagios -p 8095:80 --cap-add=NET_RAW -e NAGIOSADMIN_USER=reetu -e NAGIOSADMIN_PASSW
ORD=nagios docker.io/jasonrivers/nagios
7e7a0fa8fd759737922d35b4c2aeb163fff093b02fab7039f85aade35190a922
```

1.3

podman run: It tells your computer to start running something in a container.

-d: It stands for "detached mode." This means that the container will run in the background, and you'll get your command prompt back.

--name nagios: This gives your container a name, in this case, "nagios." It's like giving it a label so you can refer to it easily.

-p 8095:80: This maps port 8095 on your computer to port 80 in the container. So, when you access port 8095 on your computer, it's like talking to port 80 in the container.

--cap-add=NET_RAW: This adds the capability to send and receive raw network packets. It's needed for certain network-related tasks.

-e NAGIOSADMIN_USER=reetu: This sets an environment variable NAGIOSADMIN_USER inside the container to "reetu." It's like giving a piece of information to the container.

-e NAGIOSADMIN_PASSWORD=nagios: This sets another environment variable NAGIOSADMIN_PASSWORD inside the container to "nagios." It's like giving another piece of information to the container.

docker.io/jasonrivers/nagios: This is the name of the container image you want to run. It's like specifying which application or tool you want to use in the container.

Command 5 :-

Check running container details by this command.

```
podman ps
```

ritu@ritupal:/\$ podman ps							1.4
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES	
7e7a0fa8fd75	docker.io/jasonrivers/nagios:latest	/usr/local/bin/st...	3 hours ago	Up 3 hours ago	0.0.0.0:8095->80/tcp	nagios	

podman: This is the command-line tool for managing containers.

ps: This is a subcommand of podman that stands for "processes" or "list containers."

Command 6:-

This command is used for going into the container and execute commands.

```
podman exec -it nagios bash
```

```

exec
ritu@ritupal:~$ podman exec -it nagios bash
root@7e7a0fa8fd75:/#
1.5

```

podman exec: Exec is the sub command of podman used for executing a command inside a running container.

-it: It allows you to run interactive commands inside containers while maintaining a terminal-like environment for a smooth interactive experience.

nagios: This is the name of the container where you want to execute the command. It specifies which container to enter.

bash: This is the command you want to run inside the container. In this case, you are starting a Bash shell inside the container. Bash is a command-line shell that allows you to interact with the container's file system and execute commands within it.

Command 7:-

By this command, I am telling my computer to change my current working directory to the /opt/nagios/etc directory.

```
cd /opt/nagios/etc
```

cd: This is a command that stands for "change directory." It is used to navigate or move to a different directory (folder) in the file system.

/opt/nagios/etc: This is the path or location you want to change your current directory to. In this case, you are specifying the directory /opt/nagios/etc as the target directory.

```
root@7e7a0fa8fd75:/# cd /opt/nagios/etc 1.6
root@7e7a0fa8fd75:/opt/nagios/etc#
```

Command 8:-

```
ls
```

```
root@7e7a0fa8fd75:/opt/nagios/etc# ls 1.7
cgi.cfg  conf.d  htpasswd.users  monitor  nagios.cfg  nsca.cfg  objects  resource.cfg  send_nsca.cfg
```

Command 9:-

This command is used for editing in file.

```
vim cgi.cfg
```

Go to the cgi.cfg file and add your username which you have mentioned in run command.

```
1.8
authorized_for_all_services=nagiosadmin,reetu
authorized_for_all_hosts=nagiosadmin,reetu

authorized_for_system_commands=nagiosadmin,reetu

authorized_for_configuration_information=nagiosadmin,reetu

authorized_for_system_information=nagiosadmin,reetu

authorized_for_all_service_commands=nagiosadmin,reetu
authorized_for_all_host_commands=nagiosadmin,reetu
```

vim: This is the name of a text editor program.

cgi.cfg: This appears to be a filename or file path.

Type **localhost:8095** on web page and then you have to login by username and password.

🌐 **localhost:8095**

This site is asking you to sign in.

Username

Password

After login you will get Nagios dashboard like this:

The screenshot shows the Nagios Core 4.4.8 dashboard. The browser address bar indicates the URL is localhost:8095. The dashboard features a left sidebar with navigation links categorized under Current Status, Reports, and System. The main content area displays the Nagios Core logo, version information (4.4.8), and the date (October 04, 2022). Below this, there are four boxes: 'Get Started' with links to start monitoring, change look, extend Nagios, get support, get training, and get certified; 'Quick Links' with links to Nagios Library, Nagios Labs, Nagios Exchange, Nagios Support, Nagios.com, and Nagios.org; 'Latest News'; and 'Don't Miss...'. The 'Current Status' section on the left lists Tactical Overview, Map (Legacy), Hosts, Services, Host Groups, Service Groups, Problems, and a Quick Search bar.

Current Status

- Tactical Overview
- Map (Legacy)
- Hosts
- Services
- Host Groups
 - Summary
 - Grid
- Service Groups
 - Summary
 - Grid
- Problems
 - Services (Unhandled)
 - Hosts (Unhandled)
 - Network Outages

Quick Search:

Reports

- Availability
- Trends (Legacy)
- Alerts
 - History
 - Summary
 - Histogram (Legacy)
- Notifications
- Event Log

System

- Comments
- Downtime
- Process Info
- Performance Info
- Scheduling Queue
- Configuration

Nagios® Core™

✓ Process running with PID 15

Nagios® Core™
Version 4.4.8
October 04, 2022
[Check for updates](#)

Get Started

- [Start monitoring your infrastructure](#)
- [Change the look and feel of Nagios](#)
- [Extend Nagios with hundreds of addons](#)
- [Get support](#)
- [Get training](#)
- [Get certified](#)

Quick Links

- [Nagios Library](#) (tutorials and docs)
- [Nagios Labs](#) (development blog)
- [Nagios Exchange](#) (plugins and addons)
- [Nagios Support](#) (tech support)
- [Nagios.com](#) (company)
- [Nagios.org](#) (project)

Latest News

Don't Miss...

Checking services

We have to go on left side and click on the service option.

This is the dashboard of all services.

Nagios®

General

[Home](#)
[Documentation](#)

Current Status

[Tactical Overview](#)
[Map \(Legacy\)](#)

Hosts

Services

Host Groups

[Summary](#)

[Grid](#)

Service Groups

[Summary](#)

[Grid](#)

Problems

[Services \(Unhandled\)](#)

[Hosts \(Unhandled\)](#)

[Network Outages](#)

Quick Search:

Reports

Availability

Trends (Legacy)

Alerts

[History](#)

[Summary](#)

Current Network Status

Last Updated: Fri Sep 8 18:00:38 UTC 2023
Updated every 90 seconds
Nagios® Core™ 4.4.8 - www.nagios.org
Logged in as reetu

[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	0	0	0
All Problems		All Types	
0		1	

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
6	1	0	0	0
All Problems		All Types		
1		7		

Service Status Details For All Hosts

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	09-08-2023 17:57:14	0d 5h 23m 9s	1/4	OK - load average: 2.55, 2.65, 2.52
	Current Users	OK	09-08-2023 17:57:14	0d 21h 6m 40s	1/4	USERS OK - 0 users currently logged in
	HTTP	WARNING	09-08-2023 17:57:14	0d 5h 15m 58s	4/4	HTTP WARNING: HTTP/1.1 401 Unauthorized - 695 bytes in 0.001 seconds
	PING	OK	09-08-2023 17:57:14	0d 21h 5m 14s	1/4	PING OK - Packet loss = 0%, RTA = 0.07 ms
	Root Partition	OK	09-08-2023 17:57:14	0d 21h 4m 31s	1/4	DISK OK - free space: / 705483 MiB (79.38% inode=99%):
	Swap Usage	OK	09-08-2023 17:57:14	0d 5h 19m 34s	1/4	SWAP OK - 11% free (99 MB out of 975 MB)
	Total Processes	OK	09-08-2023 17:57:14	0d 21h 3m 5s	1/4	PROCS OK: 34 processes with STATE = RSZDT

Results 1 - 7 of 7 Matching Services