

1. To Confirm that Nagios is running on the server side, run this sudo systemctl status nagios on the “NAGIOS HOST”.

```
[ec2-user@ip-172-31-45-253 nagios-plugins-2.0.3]$ sudo service nagios start
Starting nagios (via systemctl): [ OK ]
```

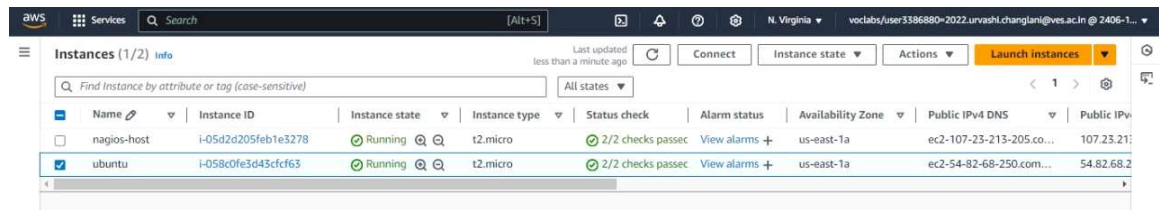
```
lines 8-28/28 (END)
[ec2-user@ip-172-31-45-253 nagios-plugins-2.0.3]$ http://123.45.67.89/nagios
-bash: http://123.45.67.89/nagios: No such file or directory
[ec2-user@ip-172-31-45-253 nagios-plugins-2.0.3]$ curl http://169.254.169.254/latest/meta-data/public-ipv4
[ec2-user@ip-172-31-45-253 nagios-plugins-2.0.3]$ http://34.229.231.23/nagios
-bash: http://34.229.231.23/nagios: No such file or directory
[ec2-user@ip-172-31-45-253 nagios-plugins-2.0.3]$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.4.7
   Loaded: loaded (/usr/lib/systemd/system/nagios.service; enabled; preset: disabled)
   Active: active (running) since Thu 2024-10-10 17:40:03 UTC; 12min ago
     Docs: https://www.nagios.org/documentation
   Process: 100336 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
   Process: 100337 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
   Main PID: 100338 (nagios)
    Tasks: 6 (limit: 1112)
   Memory: 7.2M
      CPU: 240ms
   CGroup: /system.slice/nagios.service
           └─100338 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
             └─100339 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
               └─100340 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                 └─100341 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   └─100342 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                     └─100343 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 10 17:44:55 ip-172-31-45-253.ec2.internal nagios[100338]: SERVICE ALERT: localhost:HTTP:WARNING:HARD;4:HTTP WARNING: HTTP/1.1 403 Forbidden
Oct 10 17:45:25 ip-172-31-45-253.ec2.internal nagios[100338]: SERVICE ALERT: localhost:Swap Usage:CRITICAL:SOFT;2:SWAP CRITICAL - 0% free (0 MB
Oct 10 17:46:25 ip-172-31-45-253.ec2.internal nagios[100338]: SERVICE ALERT: localhost:Swap Usage:CRITICAL:SOFT;3:SWAP CRITICAL - 0% free (0 MB
```

Before we begin,

To monitor a Linux machine, create an Ubuntu 20.04 server EC2 Instance in AWS.

Provide it with the same security group as the Nagios Host and name it ‘ubuntu’ alongside the host.



Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4
nagios-host	i-05d2d205feb1e3278	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1a	ec2-107-23-213-205.co...	107.23.213.205
ubuntu	i-058c0fe3d43cfc63	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1a	ec2-54-82-68-250.com...	54.82.68.250

3. On the server, run this command

ps -ef | grep nagios

```
70876 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
70877 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
70878 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
70879 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
70880 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 11 17:19:34 ip-172-31-46-225.ec2.internal nagios[70875]: SERVICE ALERT: localhost;HTTP;WARNING;HARD;4;HTTP WARNING: HTTP/1.1 403 Forbidden - 319 bytes in 0.00
Oct 11 17:20:04 ip-172-31-46-225.ec2.internal nagios[70875]: SERVICE ALERT: localhost;Swap Usage;CRITICAL;SOFT;2;SWAP CRITICAL - 0% free (0 MB out of 0 MB) - Swa
Oct 11 17:21:04 ip-172-31-46-225.ec2.internal nagios[70875]: SERVICE ALERT: localhost;Swap Usage;CRITICAL;SOFT;3;SWAP CRITICAL - 0% free (0 MB out of 0 MB) - Swa
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: SERVICE NOTIFICATION: nagiosadmin;localhost;Swap Usage;CRITICAL;notify-service-by-email;SWAP CRITICA
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: SERVICE ALERT: localhost;Swap Usage;CRITICAL;HARD;4;SWAP CRITICAL - 0% free (0 MB out of 0 MB) - Swa
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: wproc: NOTIFY job 4 from worker Core Worker 70876 is a non-check helper but exited with return code 2
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: wproc: host=localhost; service=Swap Usage; contact=nagiosadmin
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: wproc: early timeout=0; exited ok=1; wait_status=32512; error code=0;
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: wproc: stderr line 01: /bin/sh: line 1: /bin/mail: No such file or directory
Oct 11 17:22:04 ip-172-31-46-225.ec2.internal nagios[70875]: wproc: stderr line 02: /usr/bin/printf: write error: Broken pipe

lines 5-28/28 (END)
[ec2-user@ip-172-31-46-225 ~]$ ps -ef | grep nagios
nagios 70875 1 0 17:14 ? 00:00:00 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
nagios 70876 70875 0 17:14 ? 00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios 70877 70875 0 17:14 ? 00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios 70878 70875 0 17:14 ? 00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios 70879 70875 0 17:14 ? 00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios 70880 70875 0 17:14 ? 00:00:00 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
ec2-user 72742 72644 0 17:40 pts/1 00:00:00 grep --color=auto nagios

[ec2-user@ip-172-31-46-225 ~]$ sudo su
[root@ip-172-31-46-225 ec2-user]# mkdir /usr/local/nagios/etc/objects/monitorhosts
[root@ip-172-31-46-225 ec2-user]# mkdir /usr/local/nagios/etc/objects/monitorhosts/linuxhosts
[root@ip-172-31-46-225 ec2-user]# cp /usr/local/nagios/etc/objects/localhost.cfg /usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg
```

Become a root user and create 2 folders

```
sudo su
```

```
mkdir /usr/local/nagios/etc/objects/monitorhosts
```

```
mkdir /usr/local/nagios/etc/objects/monitorhosts/linuxhosts
```

Open linuxserver.cfg using nano and make the following changes

```
nano
```

```
/usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg
```

Everywhere else on the file, change the hostname to linuxserver instead of localhost.

```
GNU nano 2.8 /usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg
# HOST DEFINITION
#
#####
# Define a host for the local machine
define host {
    use linux-server ; Name of host template to use
    ; This host definition will inherit all variables that are defined
    ; in (or inherited by) the linux-server host template definition.

    host name linux-server
    alias linux-server
    address 127.0.0.1
}

#####
#
# HOST GROUP DEFINITION
#
#####
#
#####
```

Verify the configuration files

```
aws [Services] Search [Alt+S] N. Virginia voclabs/user3386880-2022.urvashi.changlani@ves.ac.in @ 24
[root@ip-172-31-46-225 ec2-user]# nano /usr/local/nagios/etc/nagios.cfg
[root@ip-172-31-46-225 ec2-user]# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.4.6
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2020-04-28
License: GPL

Website: https://www.nagios.org
Reading configuration data...
  Read main config file okay...
  Read object config files okay...

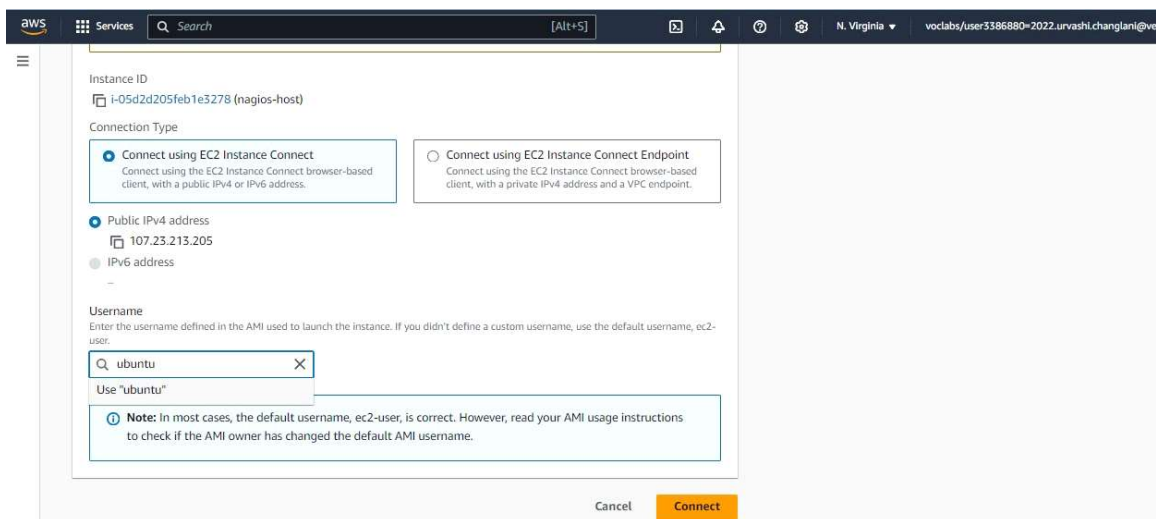
Running pre-flight check on configuration data...

Checking objects...
  Checked 16 services.
  Checked 2 hosts.
  Checked 2 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 2 hosts
  Checked 0 service dependencies
  Checked 0 host dependencies
```

Restart the nagios service

service nagios restart

SSH into the machine or simply use the EC2 Instance Connect feature.



Make a package index update and install gcc, nagios-nrpe-server and the plugins.

sudo apt update -y

sudo apt install gcc -y

sudo apt install -y nagios-nrpe-server nagios-plugins

```
aws [Services] Search [Alt+S] N. Virginia voclabs/user3386880-2022.urvashi.changlani@ves.ac.in @ 24
ubuntu@ip-172-31-37-48:~$ sudo apt update -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
```

```
ubuntu@ip-172-31-37-48:~$ sudo apt install gcc -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu cpp cpp-13 cpp-13-x86-64-linux-gnu cpp-x86-64-linux-gnu fontconfig-config fonts-dejavu-core
  fonts-dejavu-mono gcc-13 gcc-13-base gcc-13-x86-64-linux-gnu gcc-x86-64-linux-gnu libacorn3 libasan8 libatomic1 libbinutils libc-dev-bin libc-devtools libc6-dev
  libcc1-0 libcrypt-dev libctf-nobfd0 libctf0 libde265-0 libdeflate0 libfontconfig1 libgcc-13-dev libgd3 libgomp1 libgprofng0 libheif-plugin-acmdec
  libheif-plugin-acmenc libheif-plugin-libde265 libheif1 libhwasan0 libisl23 libitm1 libjbig0 libjpeg-turbo8 libjpeg8 liblerc4 liblsan0 libmpc3 libquadmath0
  libstdc++6 libtiff5 libubsan1 libwebp7 libxpm4 linux-libc-dev manpages-dev rpcsvc-proto
Suggested packages:
  binutils-doc gprofng-gui cpp-doc gcc-13-locales cpp-13-doc gcc-multilib make autoconf automake libtool flex bison gdb gcc-doc gcc-13-multilib gcc-13-doc
  gdb-x86-64-linux-gnu libc-dev-bin libgd-tools libheif-plugin-x265 libheif-plugin-ffmpegdec libheif-plugin-jpegdec libheif-plugin-jpegenc libheif-plugin-j2kdec
  libheif-plugin-j2keno libheif-plugin-rav1e libheif-plugin-svtenc
The following NEW packages will be installed:
  binutils binutils-common binutils-x86-64-linux-gnu cpp cpp-13 cpp-13-x86-64-linux-gnu cpp-x86-64-linux-gnu fontconfig-config fonts-dejavu-core
```

Open nrpe.cfg file to make changes.

`sudo nano /etc/nagios/nrpe.cfg`

Under `allowed_hosts`, add your nagios host IP address like so

```
aws Services Q Search [Alt+S] N. Virginia voclabs/user3186880-2022.urvashi.changiani@ves.ac.in @ 2406-
GNU nano 7.2 /etc/nagios/nrpe.cfg
# Users are allowed to talk to the NRPE daemon. Network addresses with a bit mask
# (i.e. 192.168.1.0/24) are also supported. Hostname wildcards are not currently
# supported.
#
# Note: The daemon only does rudimentary checking of the client's IP
# address. I would highly recommend adding entries in your /etc/hosts.allow
# file to allow only the specified host to connect to the port
# you are running this daemon on.
#
# NOTE: This option is ignored if NRPE is running under either inetd or xinetd
allowed_hosts=127.0.0.1,107.23.213.205

# COMMAND ARGUMENT PROCESSING
# This option determines whether or not the NRPE daemon will allow clients
# to specify arguments to commands that are executed. This option only works
# if the daemon was configured with the --enable-command-args configure script
# option.

Help Write Out Where Is Cut Execute Location Undo Set Mark To Bracket Previous
Exit Read File Replace Paste Justify Go To Line Redo Copy Where Was Next
```

Restart the NRPE server

`sudo systemctl restart nagios-nrpe-server`

Now, check your nagios dashboard and you'll see a new host being added.

Click on Hosts

Not secure | 107.23.213.205/nagios/

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# Nagios®

**Current Network Status**  
 Last Updated: Fri Oct 11 18:39:48 UTC 2024  
 Updated every 90 seconds  
 Nagios® Core™ 4.4.6 - www.nagios.org  
 Logged in as nagiosadmin

**Host Status Totals**

Up	Down	Unreachable	Pending
2	0	0	0

All Problems: 0 All Types: 2

**Service Status Totals**

OK	Warning	Unknown	Critical	Pending
12	2	0	2	0

All Problems: 4 All Types: 16

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 Details For All Host Groups

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
linux-server	UP	10-11-2024 18:38:59	0d 0h 40m 11s	PING OK - Packet loss = 0%, RTA = 0.03 ms
localhost	UP	10-11-2024 18:39:04	0d 1h 25m 5s	PING OK - Packet loss = 0%, RTA = 0.03 ms

Results 1 - 2 of 2 Matching Hosts

**Page Tour**

click Services to see all services and ports being monitored.

Not secure | 107.23.213.205/nagios/

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# Nagios®

**Current Network Status**  
 Last Updated: Fri Oct 11 18:47:39 UTC 2024  
 Updated every 90 seconds  
 Nagios® Core™ 4.4.6 - www.nagios.org  
 Logged in as nagiosadmin

**Host Status Totals**

Up	Down	Unreachable	Pending
2	0	0	0

All Problems: 0 All Types: 2

**Service Status Totals**

OK	Warning	Unknown	Critical	Pending
12	2	0	2	0

All Problems: 4 All Types: 16

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

## Service Status Details For All Hosts

Display Filters:  
 Host Status Types: All  
 Host Properties: Any  
 Service Status Types: All Problems  
 Service Properties: Any

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
linux-server	HTTP	WARNING	10-11-2024 18:44:30	0d 0h 43m 10s	4/4	HTTP WARNING: HTTP/1.1 403 Forbidden - 319 bytes in 0.000 second response time
linux-server	Swap Usage	CRITICAL	10-11-2024 18:46:59	0d 0h 40m 40s	4/4	SWAP CRITICAL: -0% free (0 MB out of 0 MB) - Swap is either disabled, not present, or of zero size.
localhost	HTTP	WARNING	10-11-2024 18:44:34	0d 1h 28m 40s	4/4	HTTP WARNING: HTTP/1.1 403 Forbidden - 319 bytes in 0.000 second response time
localhost	Swap Usage	CRITICAL	10-11-2024 18:47:04	0d 1h 25m 35s	4/4	SWAP CRITICAL: -0% free (0 MB out of 0 MB) - Swap is either disabled, not present, or of zero size.

Results 1 - 4 of 4 Matching Services

←↻⚠ Not secure | 107.23.213.205/nagios/

Gmail

YouTube

Maps

WhatsApp

People in XI C & D...

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News

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Nagios®

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Current Network Status

Last Updated: Fri Oct 11 18:48:52 UTC 2024

Updated every 60 seconds

Nagios® Core™ 4.4.6 - www.nagios.org

Logged in as nagiosadmin

View Status Overview For All Service Groups

View Status Summary For All Service Groups

View Service Status Grid For All Service Groups

Host Status Totals

UpDownUnreachablePending

2000

All ProblemsAll Types

02

Service Status Totals

OkWarningUnknownCriticalPending

122020

All ProblemsAll Types

416

Service Status Details For All Service Groups

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
linux-server	Current Load	OK	10-11-2024 18:45:14	0d 0h 46m 38s	1/4	OK - load average: 0.00, 0.00, 0.00
	Current Users	OK	10-11-2024 18:45:52	0d 0h 46m 0s	1/4	USERS OK - 1 users currently logged in
	HTTP	WARNING	10-11-2024 18:44:30	0d 0h 44m 23s	4/4	HTTP WARNING: HTTP/1.1 403 Forbidden - 319 bytes in 0.000 second response time
	PING	OK	10-11-2024 18:47:07	0d 0h 46m 45s	1/4	PING OK - Packet loss = 0%, RTA = 0.03 ms
	Root Partition	OK	10-11-2024 18:47:44	0d 0h 46m 8s	1/4	DISK OK - free space: / 6083 MB (74.95% inode=98%)
	SSH	OK	10-11-2024 18:48:22	0d 0h 45m 30s	1/4	SSH OK - OpenSSH_8.7 (protocol 2.0)
	Swap Usage	CRITICAL	10-11-2024 18:46:59	0d 0h 41m 53s	4/4	SWAP CRITICAL - 0% free (0 MB out of 0 MB) - Swap is either disabled, not present, or of zero size.
localhost	Total Processes	OK	10-11-2024 18:44:37	0d 0h 44m 15s	1/4	PROCS OK: 36 processes with STATE = RSZDT
	Current Load	OK	10-11-2024 18:45:19	0d 1h 33m 33s	1/4	OK - load average: 0.00, 0.00, 0.00
	Current Users	OK	10-11-2024 18:45:57	0d 1h 32m 55s	1/4	USERS OK - 1 users currently logged in
	HTTP	WARNING	10-11-2024 18:44:34	0d 1h 29m 18s	4/4	HTTP WARNING: HTTP/1.1 403 Forbidden - 319 bytes in 0.000 second response time
	PING	OK	10-11-2024 18:47:12	0d 1h 31m 40s	1/4	PING OK - Packet loss = 0%, RTA = 0.03 ms
	Root Partition	OK	10-11-2024 18:47:49	0d 1h 31m 3s	1/4	DISK OK - free space: / 6083 MB (74.95% inode=98%)
	SSH	OK	10-11-2024 18:48:27	0d 1h 30m 25s	1/4	SSH OK - OpenSSH_8.7 (protocol 2.0)
	Swap Usage	CRITICAL	10-11-2024 18:47:04	0d 1h 26m 48s	4/4	SWAP CRITICAL - 0% free (0 MB out of 0 MB) - Swap is either disabled, not present, or of zero size.
	Total Processes	OK	10-11-2024 18:44:42	0d 1h 29m 10s	1/4	PROCS OK: 36 processes with STATE = RSZDT

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