

DVS Technologies Aws & Devops

Compiled and Scrutinized by
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Words To The Students

Though we have taken utmost efforts to present you this book error free, but still it may contain some errors or mistakes. Students are encouraged to bring, if there are any mistakes or errors in this document to our notice. So that it may be rectified in the next edition of this document.

“Suppressing your doubts is Hindering your growth”.

We urge you to work hard and make use of the facilities we are providing to you, because there is no substitute for hard work. We wish you all the best for your future.

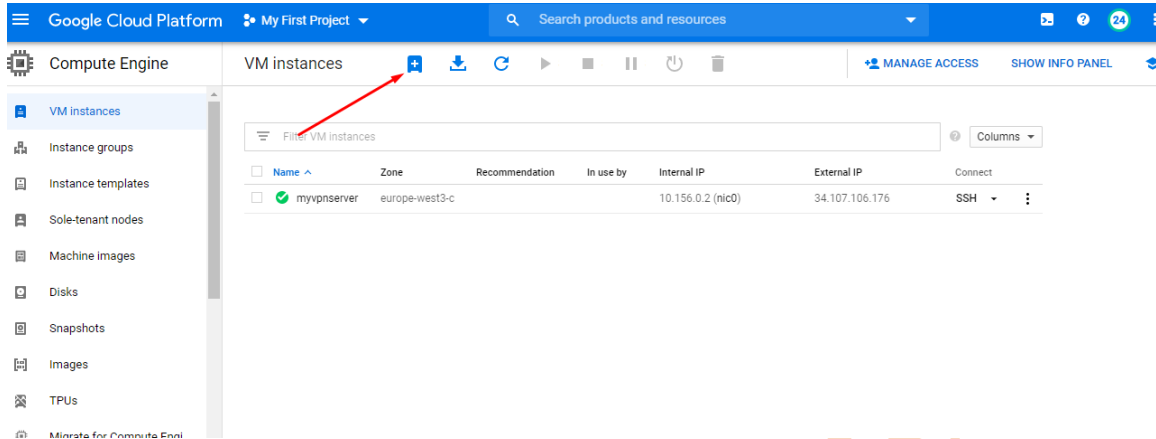
“The grass isn’t greener on the other side; the grass is greener where you water it.”

You and your suggestions are valuable to us; Help us to serve you better. In case of any suggestions, grievance, or complaints, please feel free to write us your suggestions, grievance and feedback on the following

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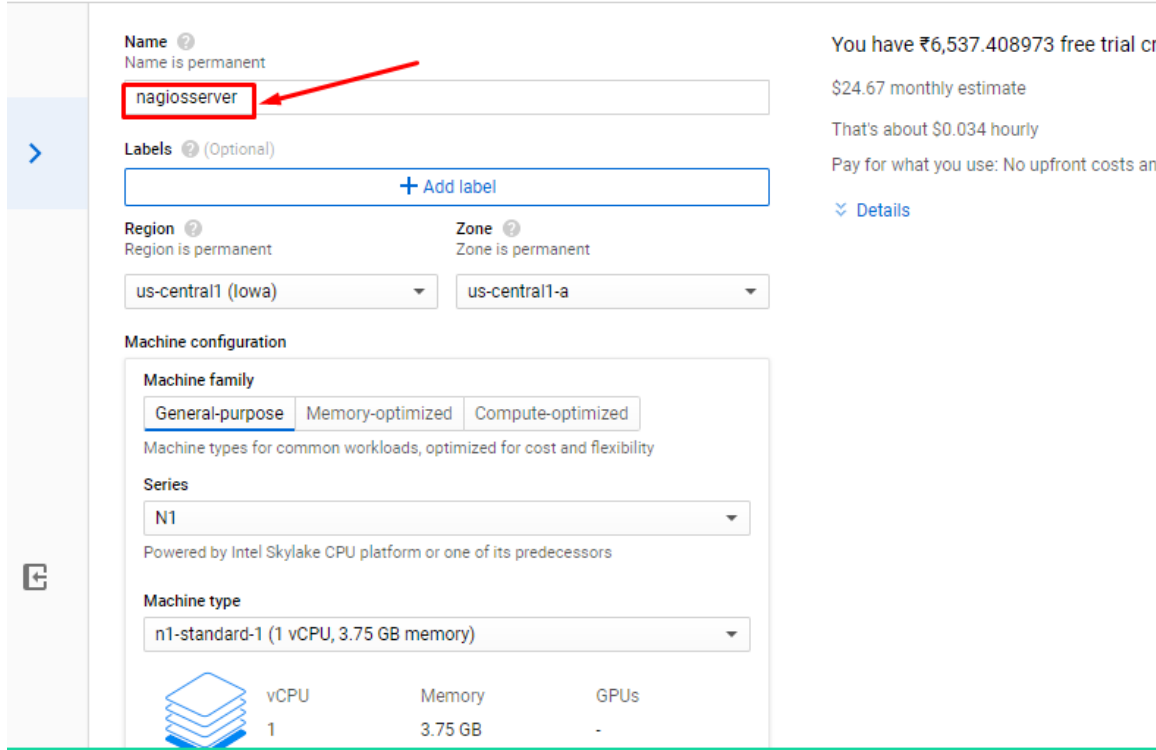
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1. Installing and configuring Nagios



The screenshot shows the Google Cloud Platform interface for VM instances. A red arrow points to the 'myvpnserver' instance in the table.

Name	Zone	Recommendation	In use by	Internal IP	External IP	Connect
myvpnserver	europa-west3-c			10.156.0.2 (nic0)	34.107.106.176	SSH



The screenshot shows the configuration page for a new VM instance named 'nagiosserver'. A red arrow points to the name field.

Name: nagiosserver

Labels: (Optional)

Region: us-central1 (Iowa)

Zone: us-central1-a

Machine configuration:

- Machine family:** General-purpose
- Series:** N1
- Machine type:** n1-standard-1 (1 vCPU, 3.75 GB memory)

Specifications:

vCPU	Memory	GPUs
1	3.75 GB	-


Cost summary:

- You have ₹6,537.408973 free trial credit
- \$24.67 monthly estimate
- That's about \$0.034 hourly
- Pay for what you use: No upfront costs and no long-term contracts

[Details](#)

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Boot disk ?



New 10 GB standard persistent disk
Image
Debian GNU/Linux 9 (stretch)

Change

Identity and API access ?

Service account ?

Compute Engine default service account

Access scopes ?

☒ Allow default access

Boot disk

Select an image or snapshot to create a boot disk; or attach an existing disk. Can't find what you're looking for? Explore hundreds of VM

Public images Custom images Snapshots Existing disks

Operating system

CentOS

Version

CentOS 7

x86_64 built on 20200811, supports Shielded VM features ?

Boot disk type ?

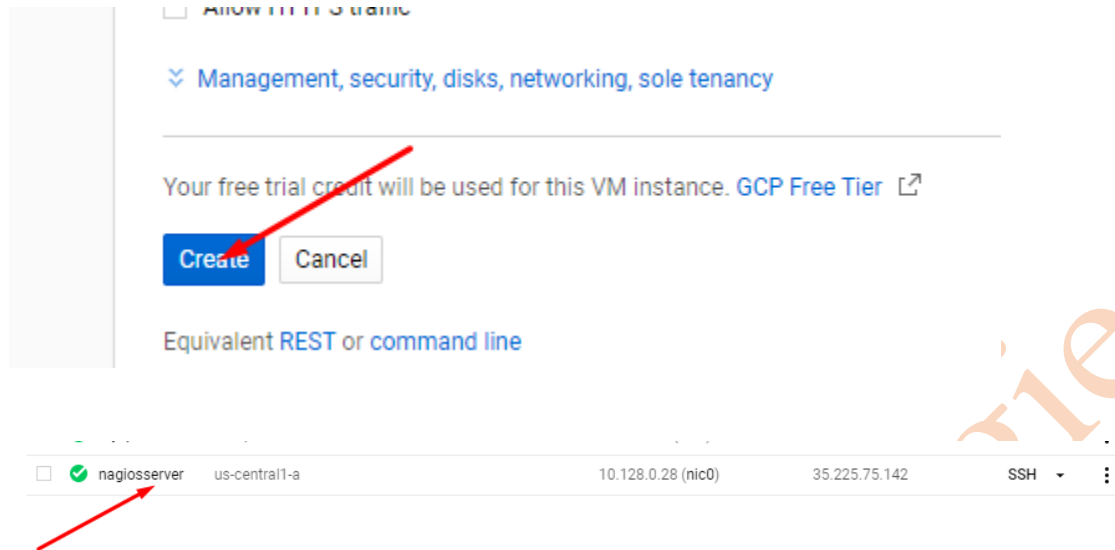
Standard persistent disk

Size (GB) ?

40

Select Cancel

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Let's Install Nagios in the above server:

```
yum install httpd -y
systemctl start httpd.service
systemctl enable httpd.service
yum install mariadb-server mariadb -y
systemctl start mariadb
mysql_secure_installation
```

During the installation it will ask for the password set for root account please hit enter for the first case & reset the root password. Once done hit enter for all other prompts !!

```
systemctl enable mariadb.service
yum install php php-mysql -y
systemctl restart httpd.service
systemctl restart firewalld
systemctl enable firewalld
firewall-cmd --permanent --zone=public --add-service=http
firewall-cmd --permanent --zone=public --add-service=https
firewall-cmd --reload
```

Please do execute the below steps in order to install your nagios4 package !!

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```
yum install gcc glibc glibc-common gd gd-devel make net-snmp openssl-devel xinetd unzip  
-y  
useradd nagios  
groupadd nagcmd  
usermod -a -G nagcmd nagios
```

```
cd ~  
curl -L -O https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.1.1.tar.gz  
tar xvf nagios-*.tar.gz  
cd nagios-*/  
./configure --with-command-group=nagcmd  
make all  
sudo make install  
sudo make install-commandmode  
sudo make install-init  
sudo make install-config  
sudo make install-webconf  
usermod -G nagcmd apache  
cd ~  
curl -L -O http://nagios-plugins.org/download/nagios-plugins-2.1.1.tar.gz  
tar xvf nagios-plugins-*.tar.gz  
cd nagios-plugins-*/  
./configure --with-nagios-user=nagios --with-nagios-group=nagios --with-openssl  
make  
make install  
cd ~  
curl -L -O http://downloads.sourceforge.net/project/nagios/nrpe-2.x/nrpe-2.15/nrpe-2.15.tar.gz  
tar xvf nrpe-*.tar.gz  
cd nrpe-*/  
./configure --enable-command-args --with-nagios-user=nagios --with-nagios-group=nagios -  
-with-ssl=/usr/bin/openssl --with-ssl-lib=/usr/lib/x86_64-linux-gnu  
make all  
sudo make install  
sudo make install-xinetd  
sudo make install-daemon-config
```

```
##### Add the below  
vi /etc/xinetd.d/nrpe
```

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Modify the only_from line by adding the private IP address of the your Nagios server to the end (substitute in the actual IP address of your server):

only_from = 127.0.0.1 10.132.224.168 (your private ipaddress)

service xinetd restart

Configuring the nagios server according to our wish !!!

```
[root@nagiosserver objects]# pwd
/usr/local/nagios/etc/objects
[root@nagiosserver objects]# ll
total 48
-rw-rw-r--. 1 nagios nagios 7688 Mar 25 07:23 commands.cfg
-rw-rw-r--. 1 nagios nagios 2138 Mar 25 07:23 contacts.cfg
-rw-rw-r--. 1 nagios nagios 5375 Mar 25 07:23 localhost.cfg
-rw-rw-r--. 1 nagios nagios 3096 Mar 25 07:23 printer.cfg
-rw-rw-r--. 1 nagios nagios 3265 Mar 25 07:23 switch.cfg
-rw-rw-r--. 1 nagios nagios 10621 Mar 25 07:23 templates.cfg
-rw-rw-r--. 1 nagios nagios 3180 Mar 25 07:23 timeperiods.cfg
-rw-rw-r--. 1 nagios nagios 3991 Mar 25 07:23 windows.cfg
```

Make sure that you are creating the below directories

mkdir commands contacts contactgroups hosts hostgroups services servicegroups
templates timeperiods

Now start moving the content of respective files to the destination directories !! like below.

```
mv commands.cfg commands
mv contacts.cfg contacts
mv localhost.cfg hosts/
mv templates.cfg templates
mv timeperiods.cfg timeperiods/
```

Add the below

```
vi /usr/local/nagios/etc/nagios.cfg
```

add the below to the nagios configuration & comment all the lines of cfg_file

```
cfg_dir=/usr/local/nagios/etc/objects/commands
```

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```
cfg_dir=/usr/local/nagios/etc/objects/contacts
cfg_dir=/usr/local/nagios/etc/objects/contactgroups
cfg_dir=/usr/local/nagios/etc/objects/hosts
cfg_dir=/usr/local/nagios/etc/objects/hostgroups
cfg_dir=/usr/local/nagios/etc/objects/services
cfg_dir=/usr/local/nagios/etc/objects/servicegroups
cfg_dir=/usr/local/nagios/etc/objects/templates
cfg_dir=/usr/local/nagios/etc/objects/timeperiods
```

Add the below

```
vi /usr/local/nagios/etc/objects/contacts/contacts.cfg
```

Find the email directive, and replace its value (the highlighted part) with your own email address:

```
email                nagios@localhost    ; <<***** CHANGE THIS TO YOUR EMAIL
ADDRESS *****
```

Add the below

```
vi /usr/local/nagios/etc/objects/commands/commands.cfg
```

Add the following to the end of the file:

```
define command{
    command_name check_nrpe
    command_line $USER1$/check_nrpe -H $HOSTADDRESS$ -c $ARG1$
}
```

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

Note: If you create a user that is not named "nagiosadmin", you will need to edit /usr/local/nagios/etc/cgi.cfg and change all the "nagiosadmin" references to the user you created.

```
sudo systemctl daemon-reload
sudo systemctl start nagios.service
sudo systemctl restart httpd.service
chkconfig nagios on
```

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```
systemctl restart nagios.service  
systemctl restart httpd.service
```

5. Accessing the Nagios Web Interface

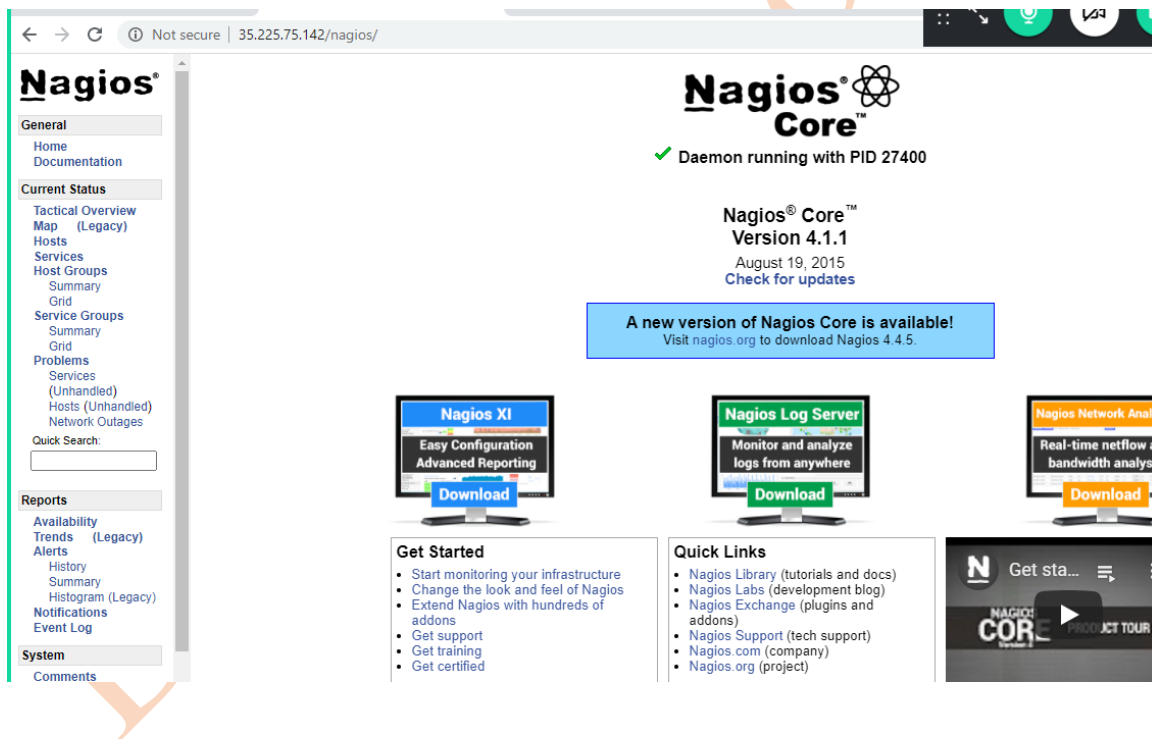
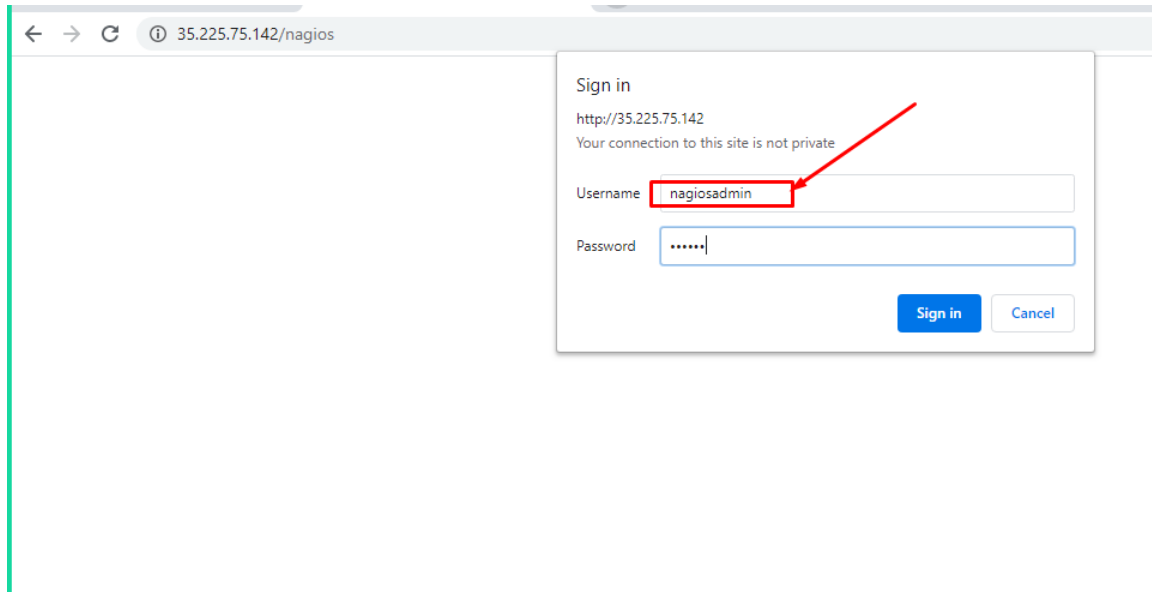
http://nagios_server_public_ip/nagios

Note: Password is "redhat"(your own password !!)

Configuring nagios:

```
[root@nagiosserver nrpe-2.15]# cd /usr/local/nagios/  
[root@nagiosserver nagios]# ls -l  
total 12  
drwxrwxr-x. 2 nagios nagios 50 Aug 17 02:09 bin  
drwxrwxr-x. 3 nagios nagios 90 Aug 17 02:09 etc  
drwxr-xr-x. 2 root root 6 Aug 17 02:09 include  
drwxrwxr-x. 2 nagios nagios 4096 Aug 17 02:09 libexec  
drwxrwxr-x. 2 nagios nagios 4096 Aug 17 02:08 sbin  
drwxrwxr-x. 15 nagios nagios 4096 Aug 17 02:09 share  
drwxrwxr-x. 5 nagios nagios 45 Aug 17 02:08 var  
[root@nagiosserver nagios]# cd etc/  
[root@nagiosserver etc]# ls -l  
total 68  
-rw-rw-r--. 1 nagios nagios 12267 Aug 17 02:08 cgi.cfg  
-rw-rw-r--. 1 nagios nagios 44831 Aug 17 02:08 nagios.cfg  
-rw-r--r--. 1 nagios nagios 7988 Aug 17 02:09 nrpe.cfg  
drwxrwxr-x. 2 nagios nagios 167 Aug 17 02:08 objects  
-rw-rw----. 1 nagios nagios 1312 Aug 17 02:08 resource.cfg  
[root@nagiosserver etc]# cd objects  
[root@nagiosserver objects]# ls -l  
total 48  
-rw-rw-r--. 1 nagios nagios 7688 Aug 17 02:08 commands.cfg  
-rw-rw-r--. 1 nagios nagios 2138 Aug 17 02:08 contacts.cfg  
-rw-rw-r--. 1 nagios nagios 5375 Aug 17 02:08 localhost.cfg  
-rw-rw-r--. 1 nagios nagios 3096 Aug 17 02:08 printer.cfg  
-rw-rw-r--. 1 nagios nagios 3265 Aug 17 02:08 switch.cfg  
-rw-rw-r--. 1 nagios nagios 10621 Aug 17 02:08 templates.cfg  
-rw-rw-r--. 1 nagios nagios 3180 Aug 17 02:08 timeperiods.cfg  
-rw-rw-r--. 1 nagios nagios 3991 Aug 17 02:08 windows.cfg  
[root@nagiosserver objects]# pwd  
/usr/local/nagios/etc/objects  
[root@nagiosserver objects]#
```


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The screenshot shows the Nagios web interface at 35.225.75.142/nagios/. The left sidebar has a 'Hosts' link highlighted with a red box and an arrow. The main content area shows 'Current Network Status' and 'Host Status Totals'. Below these, there's a table titled 'Host Status Details For All Host Group' with columns: Host, Status, Last Check, and Duration. The table shows one entry for 'localhost' with status 'UP'.

Host	Status	Last Check	Duration
localhost	UP	08-17-2020 02:20:13	0d 0h 1m 34s

2. Adding a server to nagios

Default Commands:

```
[root@nagiosserver libexec]# pwd
/usr/local/nagios/libexec
[root@nagiosserver libexec]# ls
check_apd      check_dummy    check_ifstatus  check_mrtgtraf  check_ntp_time  check_rpc       check_tcp       urlize
check_breeze   check_file_age  check_imap      check_nagios    check_nwstat    check_sensors   check_time     utils.pm
check_by_ssh   check_flexlm    check_ircd      check_nttp      check_oracle    check_simap     check_udp       utils.sh
check_clamd    check_ftp       check_jabber    check_nttps     check_overrr    check_smtp      check_ups
check_cluster  check_http      check_load      check_nrpe      check_ping      check_spop      check_uptime
check_dhcp     check_icmp      check_log       check_nt        check_procs     check_ssh       check_users
check_disk     check_ide_smart  check_mailq     check_ntp       check_real      check_ssmtp     check_wave
check_disk_smb check_ifoperstatus  check_mrtg      check_ntp_peer  check_real      check_swap      negate
```

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```
[root@nagiosserver hosts]# pwd
/usr/local/nagios/etc/objects/hosts
[root@nagiosserver hosts]# vi nagiosserver.cfg
[root@nagiosserver hosts]# cat nagiosserver.cfg
define host{
    host_name                nagiosserver
    alias                    nagios core host
    check_period              24x7
    check_interval            5
    retry_interval            1
    max_check_attempts        3
    check_command              check_ping!100.0,20%!500.0,60%
    address                   127.0.0.1
    contact_groups             admins
    notifications_enabled      1
    event_handler_enabled      1
    flap_detection_enabled     1
    process_perf_data          1
    retain_status_information   1
    retain_nonstatus_information 1
    notification_interval      5
    notification_options        d,u,r
    notification_period         24x7
}
[root@nagiosserver hosts]# systemctl reload nagios
[root@nagiosserver hosts]#
```

The screenshot shows the Nagios web interface at the URL 35.225.75.142/nagios/. The interface includes a sidebar with navigation links for General, Current Status, Problems, and Reports. The main content area displays the 'Current Network Status' and 'Host Status Details For All Host Groups'.

Current Network Status
Last Updated: Mon Aug 17 02:36:07 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

Host Status Totals

Up	Down	Unreachable	Pending
2	0	0	0

Service Status Totals

Ok	Warning	Unknown
6	1	0

Host Status Details For All Host Groups

Host	Status	Last Check	Duration	Status
localhost	UP	08-17-2020 02:35:43	0d 0h 17m 9s	PING
nagiosserver	UP	08-17-2020 02:35:17	0d 0h 0m 50s+	PING

Results 1 - 2 of 2 Matching Hosts

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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

Host Information
Last Updated: Mon Aug 17 02:36:32 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

[View Status Detail For This Host](#)
[View Alert History For This Host](#)
[View Trends For This Host](#)
[View Alert Histogram For This Host](#)
[View Availability Report For This Host](#)
[View Notifications For This Host](#)

Host
nagios core host (nagiosserver)

Member of
No hostgroups

127.0.0.1

Host State Information

Host Status: UP (for 0d 0h 1m 15s+)
Status Information: PING OK - Packet loss = 0%, RTA = 0.08 ms
Performance Data: rta=0.062000ms;100.000000;500.000000;0.000000 pl=0%;20;60;0
Current Attempt: 1/3 (HARD state)
Last Check Time: 08-17-2020 02:35:17
Check Type: ACTIVE
Check Latency / Duration: 0.002 / 4.005 seconds
Next Scheduled Active Check: 08-17-2020 02:40:21
Last State Change: N/A
Last Notification: N/A (notification 0)
Is This Host Flapping? NO (0.00% state change)
In Scheduled Downtime? NO
Last Update: 08-17-2020 02:36:26 (0d 0h 0m 6s ago)

Active Checks: ENABLED
Passive Checks: ENABLED
Obsessing: ENABLED
Notifications: ENABLED
Event Handler: ENABLED
External Command: ENABLED

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

Current Network Status
Last Updated: Mon Aug 17 02:36:58 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

[View History For This Host](#)
[View Notifications For This Host](#)
[View Service 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
0	0	0

[All Problems](#) [All Types](#)

0

Service Status Details For Host 'nagiosserver'

Limit Results: 100

Host	Service	Status	Last Check	Duration
Results 1 - 0 of 0 Matching Services				

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Perform the below to configure Nagios alerts:

```
[root@nagiosserver hosts]# pwd
/usr/local/nagios/etc/objects/hosts
[root@nagiosserver hosts]# vi nagiosserver.cfg
[root@nagiosserver hosts]# cat nagiosserver.cfg
define host{
    host_name                nagiosserver
    alias                    nagios core host
    check_period              24x7
    check_interval            5
    retry_interval            1
    max_check_attempts        3
    check_command              check_ping!100.0,20%!500.0,60%
    address                  127.0.0.1
    contact_groups             admins
    notifications_enabled      1
    event_handler_enabled      1
    flap_detection_enabled     1
    process_perf_data          1
    retain_status_information   1
    retain_nonstatus_information 1
    notification_interval      5
    notification_options        d,u,r
    notification_period         24x7
}

define service{
    use                        local-service           ; Name of service template to use
    host_name                  nagiosserver
    service_description         SSH
    check_command                check_ssh
    notifications_enabled        0
}
[root@nagiosserver hosts]#
```

Alert definition

```
[root@nagiosserver hosts]# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
Nagios Core 4.1.1
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 08-19-2015
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 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
[root@nagiosserver hosts]# systemctl reload nagios
[root@nagiosserver hosts]#
```

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Verification:

The screenshot shows the Nagios Core 4.1.1 web interface. The left sidebar contains navigation links: General (Home, Documentation), Current Status (Tactical Overview, Map (Legacy), Hosts, Services, Host Groups, Service Groups, Problems), and Reports. The main content area displays 'Current Network Status' with a last update of Mon Aug 17 02:41:56 UTC 2020. Below this, 'Host Status Totals' are shown: Up (2), Down (0), Unreachable (0), Pending (0). 'Service Status Totals' are also shown: Ok (6), Warning (1), Unknown (0), Critical (0). A table titled 'Host Status Details For All Host Groups' lists two hosts: localhost and nagiosserver, both with a status of UP. A red arrow points to the 'localhost' entry in the table.

Host	Status	Last Check	Duration	Status Info
localhost	UP	08-17-2020 02:40:43	0d 0h 22m 58s	PING OK - P
nagiosserver	UP	08-17-2020 02:40:21	0d 0h 0m 22s+	PING OK - P

The screenshot shows the Nagios Core 4.1.1 web interface, specifically the 'Host Information' page for 'nagios core host (nagiosserver)'. The left sidebar is the same as the previous screenshot. The main content area displays 'Host Information' with a last update of Mon Aug 17 02:42:25 UTC 2020. Below this, 'Host State Information' is shown, including Host Status (UP), Status Information (PING OK - Packet loss = 0%, RTA = 0.06 ms), Performance Data (rta=0.060000ms;100.000000;500.000000;0.000000 pl=0%;20;60;0), Current Attempt (1/3 (HARD state)), Last Check Time (08-17-2020 02:40:21), Check Type (ACTIVE), Check Latency / Duration (0.000 / 4.004 seconds), Next Scheduled Active Check (08-17-2020 02:45:25), Last State Change (N/A), Last Notification (N/A (notification 0)), Is This Host Flapping? (NO), and In Scheduled Downtime? (NO). A red arrow points to the 'View Status Detail For This Host' link.

Host Status:	UP (for 0d 0h 0m 51s+)
Status Information:	PING OK - Packet loss = 0%, RTA = 0.06 ms
Performance Data:	rta=0.060000ms;100.000000;500.000000;0.000000 pl=0%;20;60;0
Current Attempt:	1/3 (HARD state)
Last Check Time:	08-17-2020 02:40:21
Check Type:	ACTIVE
Check Latency / Duration:	0.000 / 4.004 seconds
Next Scheduled Active Check:	08-17-2020 02:45:25
Last State Change:	N/A
Last Notification:	N/A (notification 0)
Is This Host Flapping?	NO (0.00% state change)
In Scheduled Downtime?	NO

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The screenshot shows the Nagios web interface at 35.225.75.142/nagios/. The left sidebar contains navigation links for General, Current Status, Tactical Overview, Map (Legacy), Hosts, Services, Host Groups, Service Groups, Problems, and a Quick Search bar. The main content area displays the 'Current Network Status' (last updated Mon Aug 17 02:42:36 UTC 2020), 'Host Status Totals' (Up: 1, Down: 0, Unreachable: 0, Pending: 0), and 'Service Status Totals' (Ok: 0, Warning: 0, Unknown: 0, Critical: 0). Below these, the 'Service Status Details For Host 'nagiosserver'' are shown, with a table indicating the SSH service is in a 'PENDING' state. A red arrow points to the 'Limit Results' dropdown set to 100. A large orange watermark 'Chin' is visible across the center of the interface.

Host	Service	Status	Last Check	Duration	Attempt	Status Inform
nagiosserver	SSH	PENDING	N/A	0d 0h 1m 2s+	1/4	Service check :

Configuring More alerts:

```
define service{
  use                local-service      ; Name of service template to use
  host_name          nagiosserver
  service_description SSH
  check_command       check_ssh
  notifications_enabled 0
}

define service{
  use                local-service      ; Name of service template to use
  host_name          nagiosserver
  service_description HTTP
  check_command       check_http
  notifications_enabled 0
}

define service{
  use                local-service      ; Name of service template to use
  host_name          nagiosserver
  service_description Total Processes
  check_command       check_local_procs!250!400!RSZDT
}

[root@nagiosserver hosts]# pwd
/usr/local/nagios/etc/objects/hosts
[root@nagiosserver hosts]#
```

New alert configurations

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```
[root@nagiosserver hosts]# history|tail -4
133 /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
134 systemctl reload nagios
135 history|grep -i 3
136 history|tail -4
[root@nagiosserver hosts]#
```

← → ↻ ⓘ Not secure | 35.225.75.142/nagios/

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

Current Network Status
Last Updated: Mon Aug 17 02:45:38 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

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
1 0 0 0 2
[All Problems](#) [All Types](#)
0 3

View History For This Host
View Notifications For This Host
View Service Status Detail For All Hosts

Service Status Details For Host 'nagiosserver'

Limit Results: 100 ▾

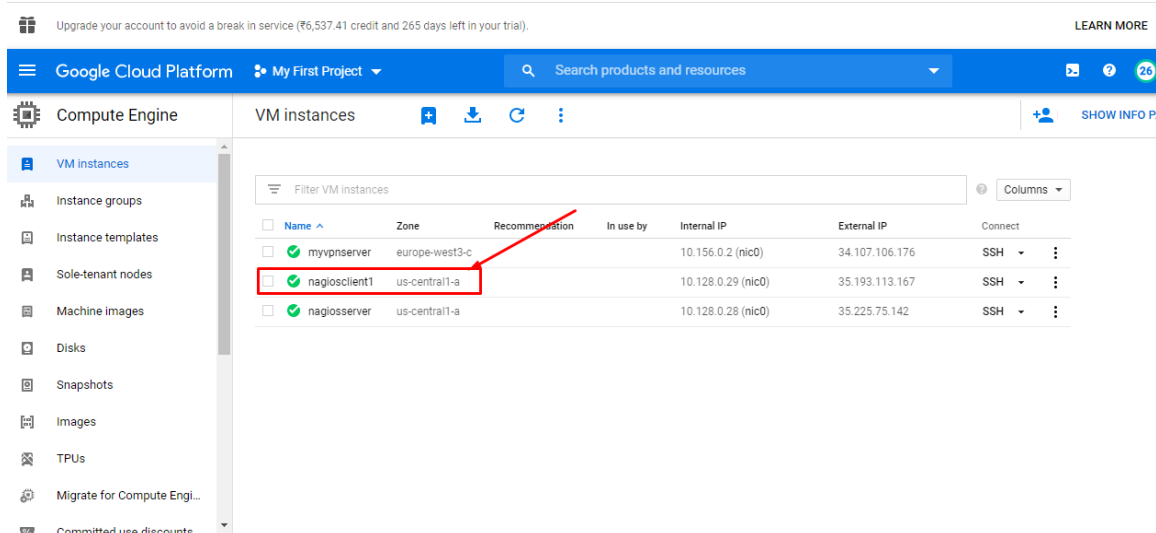
Host	Service	Status	Last Check	Duration	Attempt	Status Information
nagiosserver	HTTP	PENDING	N/A	0d 0h 0m 4s+	1/4	Service check schedu
nagiosserver	SSH	OK	08-17-2020 02:42:40	0d 0h 2m 58s	1/4	SSH OK - OpenSSH_
nagiosserver	Total Processes	PENDING	N/A	0d 0h 0m 4s+	1/4	Service check schedu

Results 1 - 3 of 3 Matching Services

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3. Adding a client node to the nagios monitoring

Make sure that you are creating a new server with name "nagiosclient1" like below



The screenshot shows the Google Cloud Platform interface for VM instances. The left sidebar lists various resources, and the main area displays a table of VM instances. The instance 'nagiosclient1' is highlighted with a red box. A red arrow points to the 'Recommendation' column for this instance.

Name	Zone	Recommendation	In use by	Internal IP	External IP	Connect
myvpnserver	europe-west3-c			10.156.0.2 (nic0)	34.107.106.176	SSH
nagiosclient1	us-central1-a			10.128.0.29 (nic0)	35.193.113.167	SSH
nagiosserver	us-central1-a			10.128.0.28 (nic0)	35.225.75.142	SSH

Installing and configuring Nagios clients:

Let's monitor another host with Nagios!

ON NAGIOS CLIENT MACHINE ::

Monitor a CentOS 7 Host with NRPE

In this section, we'll show you how to add a new host to Nagios, so it will be monitored. Repeat this section for each CentOS or RHEL server you wish to monitor.

On a server that you want to monitor, install the EPEL repository:

yum install epel-release -y

Now install Nagios Plugins and NRPE:

yum install nrpe nagios-plugins-all -y

Now, let's update the NRPE configuration file. Open it in your favorite editor (we're using vi):

vi /etc/nagios/nrpe.cfg

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Find the `allowed_hosts` directive, and add the private IP address of your Nagios server to the comma-delimited list (substitute it in place of the highlighted example):

`allowed_hosts=127.0.0.1,10.132.224.168`(private ip address of your nagiosserver)

ave and exit. This configures NRPE to accept requests from your Nagios server, via its private IP address.

Restart NRPE to put the change into effect:

```
sudo systemctl start nrpe.service
sudo systemctl enable nrpe.service
```

Once you are done installing and configuring NRPE on the hosts that you want to monitor, you will have to add these hosts to your Nagios server configuration before it will start monitoring them.

ON NAGIOS SERVER:

Add Host to Nagios Configuration

Pls do the below changes !!

```
[root@nagiosserver nrpe-2.15]# cat /usr/local/nagios/etc/objects/hosts/nagiosclient1.cfg
```

```
define host {
    use                linux-server
    host_name          nagiosclient1
    alias              My first Apache server
    address             <nagiosclient1 private ipaddress>
    max_check_attempts 5
    check_period        24x7
    notification_interval 30
    notification_period 24x7
}
```

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```
[root@nagiosserver hosts]# ls -l
total 12
-rw-rw-r--. 1 nagios nagios 5375 Aug 17 02:08 localhost.cfg
-rw-r--r--. 1 root   root   1780 Aug 17 02:44 nagiosserver.cfg
[root@nagiosserver hosts]# vi nagiosclient1.cfg
[root@nagiosserver hosts]# cat nagios
cat: nagios: No such file or directory
[root@nagiosserver hosts]# cat nagiosclient1.cfg
define host {
    use                linux-server
    host_name          nagiosclient1
    alias              My first Apache server
    address            10.128.0.29
    max_check_attempts 5
    check_period        24x7
    notification_interval 30
    notification_period 24x7
}

[root@nagiosserver hosts]#
```

```
[root@nagiosserver hosts]# history|tail -4
156 cat nagiosclient1.cfg
157 /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
158 systemctl reload nagios
159 history|tail -4
[root@nagiosserver hosts]#
```

← → ↻ ⓘ Not secure | 35.225.75.142/nagios/

Nagios®

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Current Network Status
Last Updated: Mon Aug 17 02:59:32 UTC 2020
Updated every 90 seconds
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View Service Status Detail For All Host Groups
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View Status Grid For All Host Groups

Host Status Totals

Up	Down	Unreachable	Pending
3	0	0	0

All Problems All Types

0 3

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
8	2	0	1	0

All Problems All Types

3 11

Host Status Details For All Host Groups

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	08-17-2020 02:58:13	0d 0h 40m 34s	PING OK - Packet loss = 0%, RTA = 0.0
nagiosclient1	UP	08-17-2020 02:59:05	0d 0h 0m 27s+	PING OK - Packet loss = 0%, RTA = 0.5
nagiosserver	UP	08-17-2020 02:54:28	0d 0h 16m 52s	PING OK - Packet loss = 0%, RTA = 0.0

Results 1 - 3 of 3 Matching Hosts

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Quick Search:

Reports

- Availability

Current Network Status

Last Updated: Mon Aug 17 02:59:54 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

View History For This Host
View Notifications For This Host
View Service Status Detail For All Hosts

Host Status Totals

Up	Down	Unreachable	Pending
1	0	0	0

All Problems All Types

Up	Down
0	1

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
0	0	0	0	0

All Problems All Types

Ok	Warning
0	0

Service Status Details For Host 'nagiosclient1'

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt
Results 1 - 0 of 0 Matching Services					

No Alerts

With the configuration file above, Nagios will only monitor if the host is up or down. If this is sufficient for you, save and exit then restart Nagios.

If you want to monitor particular services, then do the below....

Add any of these service blocks for services you want to monitor. Note that the value of `check_command` determines what will be monitored, including status threshold values. Here are some examples that you can add to your host's configuration file:

Ping:

```
define service {
    use                generic-service
    host_name          nagiosclient1
    service_description PING
    check_command       check_ping!100.0,20%!500.0,60%
}
```

SSH (notifications_enabled set to 0 disables notifications for a service):

```
define service {
    use                generic-service
```

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```
host_name          nagiosclient1
service_description SSH
check_command       check_ssh
notifications_enabled 0
}
```

If you're not sure what use generic-service means, it is simply inheriting the values of a service template called "generic-service" that is defined by default.

Now save and quit. Reload your Nagios configuration to put any changes into effect:

sudo systemctl reload nagios.service

```
[root@nagiosserver hosts]# cat nagiosclient1.cfg
define host {
    use                linux-server
    host_name          nagiosclient1
    alias              My first Apache server
    address            10.128.0.29
    max_check_attempts 5
    check_period       24x7
    notification_interval 30
    notification_period 24x7
}

define service {
    use                generic-service
    host_name          nagiosclient1
    service_description PING
    check_command       check_ping!100.0,20%!500.0,60%
}

define service {
    use                generic-service
    host_name          nagiosclient1
    service_description SSH
    check_command       check_ssh
    notifications_enabled 0
}
```

```
[root@nagiosserver hosts]# history|tail -4
161 cat nagiosclient1.cfg
162 /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
163 systemctl reload nagios
164 history|tail -4
[root@nagiosserver hosts]#
```

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Once you are done configuring Nagios to monitor all of your remote hosts, you should be set. Be sure to access your Nagios web interface, and check out the Services page to see all of your monitored hosts and services:

Hence we have completed installing & configuring the Nagios & its Client !!! :) :) :

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Last Updated: Mon Aug 17 03:02:22 UTC 2020
Updated every 90 seconds
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Logged in as nagiosadmin

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

Host Status Totals
Up Down Unreachable Pending
3 0 0 0
All Problems All Types
0 3

Service Status Totals
Ok Warning Unknown Critical Pending
8 2 0 1 2
All Problems All Types
3 13

Host Status Details For All Host Groups
Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	08-17-2020 03:00:43	0d 0h 43m 24s	PING OK - Packet loss = 0%, RTA = 0.06 ms
nagiosclient1	UP	08-17-2020 02:59:05	0d 0h 1m 0s+	PING OK - Packet loss = 0%, RTA = 0.58 ms
nagiosserver	UP	08-17-2020 02:59:28	0d 0h 19m 42s	PING OK - Packet loss = 0%, RTA = 0.06 ms

Results 1 - 3 of 3 Matching Hosts

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Current Network Status
Last Updated: Mon Aug 17 03:02:35 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

View History For This Host
View Notifications For This Host
View Service 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
0 0 0 0 2
All Problems All Types
0 2

Service Status Details For Host 'nagiosclient1'
Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
nagiosclient1	PING	PENDING	N/A	0d 0h 1m 13s+	1/3	Service check scheduled for Mon Aug 17 03:02:41 UTC 2020
nagiosclient1	SSH	PENDING	N/A	0d 0h 1m 13s+	1/3	Service check scheduled for Mon Aug 17 03:04:01 UTC 2020

Results 1 - 2 of 2 Matching Services

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4. Configuring httpd alert on client1

Finally Lets Configure our final alert for our host nagiosclient1 !!!!

Finally Lets Configure our final alert for our host nagiosclient1 !!!!

1. First install and configure the httpd in nagiosclient1

```
yum install httpd -y
cd /var/www/html/
echo "hello Team"> index.html
service httpd restart
```

2. now lets do our work in nagiosserver

```
[root@nagiosserver objects]# pwd
/usr/local/nagios/etc/objects
```

Configuring the command:

```
[root@nagiosserver services]# pwd
/usr/local/nagios/etc/objects/command
```

```
[root@nagiosserver services]#
```

```
[root@nagiosserver commands]# cat check-http-port-80.cfg
define command{
    command_name    check-http-port-80
    command_line     $USER1$../libexec/check_http $ARG1$ -H $HOSTNAME$ -p
$ARG2$ -w $ARG3$ -c $ARG4$ -t $ARG5$
}
[root@nagiosserver commands]#
```

Configuring the service:

```
[root@nagiosserver services]# pwd
/usr/local/nagios/etc/objects/services
[root@nagiosserver services]#
```

```
[root@nagiosserver services]# cat http-port-80.cfg
```

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```
define service{
    name                http-port-80
    use                  generic-service
    host_name            nagiosclient1
    service_description  check HTTP Port 80
    check_command         check-http-port-80!-4!80!2.0!5.0!10:2
}
[root@nagiosserver services]#
```

```
/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
systemctl restart nagios
```

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Current Network Status
Last Updated: Mon Aug 17 03:07:13 UTC 2020
Updated every 90 seconds
Nagios® Core™ 4.1.1 - www.nagios.org
Logged in as nagiosadmin

View History For This Host
View Notifications For This Host
View Service 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
2	0	0	0	1

All Problems All Types

0 3

Service Status Details For Host 'nagiosclient1'

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
nagiosclient1	PING	OK	08-17-2020 03:02:41	0d 0h 4m 32s	1/3	PING OK - Packet loss = 0%, RTA = 0.63 ms
	SSH	OK	08-17-2020 03:04:01	0d 0h 3m 12s	1/3	SSH OK - OpenSSH_7.4 (protocol 2.0)
	check HTTP Port 80	PENDING	N/A	0d 0h 0m 13s+	1/3	Service check scheduled for Mon Aug 17 03:08:18 U

Results 1 - 3 of 3 Matching Services