

. ISCSI (INTERNET SMALL COMPUTER SYSTEM INTERFACE)

COMMAND

The iSCSI (Internet Small Computer System Interface) protocol allows for the communication and management of storage resources over a network. To interact with iSCSI targets, you typically use an iSCSI initiator software or command-line tools. The exact commands can vary depending on the operating system and the iSCSI initiator software you are using.

Here are the general steps to work with iSCSI:

1. Configure the iSCSI Target
 - Install and set up an iSCSI target software on the server or storage device that will act as the iSCSI target.

```
[root@server ~]# yum update
Updating Subscription Management repositories.
Last metadata expiration check: 5:08:15 ago on Fri 09 Jun 2023 11:06:22 AM IST.
Dependencies resolved.
Nothing to do.
Complete!
[root@server ~]# yum upgrade
Updating Subscription Management repositories.
Last metadata expiration check: 5:08:29 ago on Fri 09 Jun 2023 11:06:22 AM IST.
Dependencies resolved.
Nothing to do.
Complete!
```

```
[root@server ~]# lsblk
NAME      MAJ:MIN RM  SIZE RO TYPE MOUNTPOINTS
sda        8:0    0 20.5G  0 disk 
└─sda1     8:1    0   1G  0 part /boot
└─sda2     8:2    0 19.5G  0 part
  ├─rhel-root 253:0    0 17.5G  0 lvm   /
  └─rhel-swap 253:1    0  2.1G  0 lvm   [SWAP]
sdb        8:16   0   1G  0 disk 
sdc        8:32   0   2G  0 disk 
sr0       11:0   1 1024M 0 rom 

[root@server ~]#
[root@server ~]#
[root@server ~]# fdisk
fdisk: bad usage
Try 'fdisk --help' for more information.
[root@server ~]# fdisk -l

Disk /dev/sda: 20.52 GiB, 22030106624 bytes, 43027552 sectors
Disk model: VBOX HARDDISK
```

```
[root@server ~]# targetcli
targetcli shell version 2.1.53
Copyright 2011-2013 by Datera, Inc and others.
For help on commands, type 'help'.

/>
/>
/> ls
o- L ..... [....] [....]
o- backstores .. [Storage Objects: 0]
| o- block .. [Storage Objects: 0]
| o- fileio .. [Storage Objects: 0]
| o- pscsi .. [Storage Objects: 0]
| o- ramdisk .. [Storage Objects: 0]
o- iscsi .. [Targets: 0]
o- loopback .. [Targets: 0]
```

- Create virtual disks logical units of storage (LUNs) on the target, which will be shared with the initiators. Configure access controls and security settings on the target to control which initiators can connect and access the LUNs.

```
/> /iscsi/iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f/tpg1/luns create /backstores/block/  
ewlun  
Created LUN 0.  
>  
/> /iscsi/iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f/tpg1/luns create /backstores/block/  
ewlun1  
Created LUN 1.
```

```
/> /iscsi/iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f/tpg1/acls create iqn.2004-10.com.ubuntu:01:277c586dc5c  
Created Node ACL for iqn.2004-10.com.ubuntu:01:277c586dc5c  
Created mapped LUN 1.  
Created mapped LUN 0.
```

```
'> /backstores/block create newlun /dev/sdb  
Created block storage object newlun using /dev/sdb.  
> ls  
o- _ ..... [....]  
o- backstores ..... [....]  
| o- block ..... [Storage Objects: 1]  
| | o- newlun ..... [/dev/sdb (1.0GiB) write-thru deactivated]  
| | | o- alua ..... [ALUA Groups: 1]  
| | | o- default_tg_pt_gp ..... [ALUA state: Active/optimized]  
| o- fileio ..... [Storage Objects: 0]  
| o- pscsi ..... [Storage Objects: 0]  
| o- ramdisk ..... [Storage Objects: 0]  
o- iscsi ..... [Targets: 0]  
o- loopback ..... [Targets: 0]  
> /backstores/block create newlun1 /dev/sdc  
Created block storage object newlun1 using /dev/sdc.
```

```
/backstores> cd /  
> cd backstores/  
/backstores> cd block/  
/backstores/block> ls  
o- block ..... [Storage Objects: 2]  
| o- newlun ..... [/dev/sdb (1.0GiB) write-thru deactivated]  
| | o- alua ..... [ALUA Groups: 1]  
| | o- default_tg_pt_gp ..... [ALUA state: Active/optimized]  
o- newlun1 ..... [/dev/sdc (2.0GiB) write-thru deactivated]  
| o- alua ..... [ALUA Groups: 1]  
| o- default_tg_pt_gp .....
```

```
/> ls /
o- L ...
  o- backstores ...
    | o- block ...
      | | o- newlun ...
        | | | o- alua ...
          | | | | o- default_tg_pt_gp ...
        | | o- newlun1 ...
          | | | o- alua ...
            | | | | o- default_tg_pt_gp ...
        | o- fileio ...
        o- pscsi ...
        o- ramdisk ...
  o- iscsi ...
  o- iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f ...
    o- tpg1 ...
      o- acls ...
      o- luns ...
      o- portals ...

```

```
o- backstores ...
  o- block ...
    | o- newlun ...
      | | o- alua ...
        | | | o- default_tg_pt_gp ...
    | o- newlun1 ...
      | | o- alua ...
        | | | o- default_tg_pt_gp ...
  o- fileio ...
  o- pscsi ...
  o- ramdisk ...
  o- iscsi ...
  o- iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f ...
    o- tpg1 ...
      o- acls ...
        | o- iqn.2004-10.com.ubuntu:01:277c586dc5c ...
          | | o- mapped_lun0 ...
          | | o- mapped_lun1 ...
      o- luns ...
        | o- lun0 ...

```

2. Connect to and use the iSCSI Target

- After successfully establishing a session, the initiator will see the shared LUNs presented by the target as block devices. Format and mount the iSCSI LUNs on the initiator's operating system, treating them like locally attached storage. Use the iSCSI LUNs for storing data, running applications, or any other purpose for which block-level storage is needed.

```
o- backstores ..... [ ... ]
| o- block ..... [Storage Objects: 2]
| | o- newlun ..... [/dev/sdb (1.0GiB) write-thru activated]
| | o- alua ..... [ALUA Groups: 1]
| | | o- default_tg_pt_gp ..... [ALUA state: Active/optimized]
| | o- newlun1 ..... [/dev/sdc (2.0GiB) write-thru activated]
| | | o- alua ..... [ALUA Groups: 1]
| | | | o- default_tg_pt_gp ..... [ALUA state: Active/optimized]
| o- fileio ..... [Storage Objects: 0]
| o- pscsi ..... [Storage Objects: 0]
| o- ramdisk ..... [Storage Objects: 0]
o- iscsi ..... [Targets: 1]
| o- iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f ..... [TPGs: 1]
| | o- tpg1 ..... [no-gen-acls, no-auth]
| | | o- acls ..... [ACLs: 1]
| | | | o- iqn.2004-10.com.ubuntu:01:277c586dc5c ..... [Mapped LUNs: 2]
| | | | | o- mapped_lun0 ..... [lun0 block/newlun (rw)]
| | | | | o- mapped_lun1 ..... [lun1 block/newlun1 (rw)]
| | | o- luns ..... [LUNs: 2]
| | | | o- lun0 ..... [block/newlun (/dev/sdb) (default_tg_pt_gp)]
| | | | o- lun1 ..... [block/newlun1 (/dev/sdc) (default_tg_pt_gp)]
```

3. Configure the iSCSI Initiator

- Install and set up an iSCSI initiator software on the client or host that will access the iSCSI target. Configure the initiator's network settings, including the IP address or hostname of the target. Discover the iSCSI target using the target's IP address or hostname. Authenticate and establish a session with the target using appropriate credentials, if required by the target.

```
o- backstores ..... [ ... ]
| o- block ..... [Storage Objects: 2]
| | o- newlun ..... [/dev/sdb (1.0GiB) write-thru activated]
| | o- alua ..... [ALUA Groups: 1]
| | | o- default_tg_pt_gp ..... [ALUA state: Active/optimized]
| | o- newlun1 ..... [/dev/sdc (2.0GiB) write-thru activated]
| | | o- alua ..... [ALUA Groups: 1]
| | | | o- default_tg_pt_gp ..... [ALUA state: Active/optimized]
| o- fileio ..... [Storage Objects: 0]
| o- pscsi ..... [Storage Objects: 0]
| o- ramdisk ..... [Storage Objects: 0]
o- iscsi ..... [Targets: 1]
| o- iqn.2003-01.org.linux-iscsi.server.x8664:sn.d78ea6a6655f ..... [TPGs: 1]
| | o- tpg1 ..... [no-gen-acls, no-auth]
| | | o- acls ..... [ACLs: 1]
| | | | o- iqn.2004-10.com.ubuntu:01:277c586dc5c ..... [Mapped LUNs: 2]
| | | | | o- mapped_lun0 ..... [lun0 block/newlun (rw)]
| | | | | o- mapped_lun1 ..... [lun1 block/newlun1 (rw)]
| | | o- luns ..... [LUNs: 2]
| | | | o- lun0 ..... [block/newlun (/dev/sdb) (default_tg_pt_gp)]
| | | | o- lun1 ..... [block/newlun1 (/dev/sdc) (default_tg_pt_gp)]
```

```
/> saveconfig
Configuration saved to /etc/target/saveconfig.json
/>
/>
/> exit
Global pref auto_save_on_exit=true
Last 10 configs saved in /etc/target/backup/.
Configuration saved to /etc/target/saveconfig.json
```

```
[root@server ~]# firewall
firewall-cmd      firewalld          firewall-offline-cmd
[root@server ~]# firewall-
firewall-cmd      firewall-offline-cmd
[root@server ~]# firewall-cmd --
Display all 101 possibilities? (y or n)^C
[root@server ~]#
[root@server ~]#
[root@server ~]#
[root@server ~]#
[root@server ~]# firewall-cmd --permanent --add-service=iscsi-target --zone=public
success
[root@server ~]# firewall-cmd --reload
success
```

```
root@himanshu-Inspiron-15-3511:~# cat /etc/iscsi/initiatorname.iscsi
## DO NOT EDIT OR REMOVE THIS FILE!
## If you remove this file, the iSCSI daemon will not start.
## If you change the InitiatorName, existing access control lists
## may reject this initiator. The InitiatorName must be unique
## for each iSCSI initiator. Do NOT duplicate iSCSI InitiatorNames.
InitiatorName=iqn.2004-10.com.ubuntu:01:277c586dc5c
```

- ISCSI initiator = yum install -y iscsi-initiator-utils
- iscsi -m discovery -t sendtargets -p <enter server ip >
- ISCSIADM -m node -T <set the iSCSI qualified name (IQN) number > and <set the server ip >

. install nginx on server

The short form of NGINX stands for "Engine X." NGINX is a popular open-source web server software known for its high performance, scalability, and robustness. It can also function as a reverse proxy server, load balancer, and HTTP cache. The name NGINX is derived from "Engine X" to emphasise its efficient and powerful nature.

- To install Nginx on a server running Ubuntu, you can follow these steps:

1. Update the package lists for upgrades and new installations:
 - sudo apt update

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt update
sudo apt upgrade
[sudo] password for himanshu:
Hit:1 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:5 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11 Metadata [102 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP-11 Metadata [272 kB]
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP-11 Metadata [41.6 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 DEP-11 Metadata [940 B]
Get:9 http://in.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metadata [7,964 B]
Get:10 http://in.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 DEP-11 Metadata [16.9 kB]
Get:11 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 DEP-11 Metadata [22.0 kB]
Fetched 800 kB in 2s (331 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following package was automatically installed and is no longer required:
  libept1.6.0
Use 'sudo apt autoremove' to remove it.
Get more security updates through Ubuntu Pro with 'esm-apps' enabled:
  libavdevice58 libdcmtk16 ffmpeg libopenexr25 libpostproc55
  libmagickcore-6.q16-6-extra libavcodec58 libmagickwand-6.q16-6 libavutil56
  libswscale5 libmagickcore-6.q16-6 libswresample3 imagemagick-6-common
  libavformat58 libavfilter7
Learn more about Ubuntu Pro at https://ubuntu.com/pro
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
himanshu@himanshu-Inspiron-15-3511:~$
```

2. Install Nginx by running the following command

- sudo apt install nginx

```
Reading packages... done.  
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt install nginx  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
nginx is already the newest version (1.18.0-6ubuntu14.3).  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
himanshu@himanshu-Inspiron-15-3511:~$ █
```

3. During the installation, you may be prompted to confirm the installation and provide your password. Press 'Y' and hit Enter to proceed. After the installation is complete, Nginx should start automatically. You can verify its status by running:

- sudo Systemctl status nginx

```
himanshu@himanshu-Inspiron-15-3511: $ sudo systemctl status nginx  
● nginx.service - A high performance web server and a reverse proxy server  
  Loaded: loaded (/lib/systemd/system/nginx.service; enabled; vendor preset: enabled)  
  Active: active (running) since Sat 2023-06-03 11:53:16 IST; 3min 24s ago  
    Docs: man:nginx(8)  
   Process: 21807 ExecStartPre=/usr/sbin/nginx -t -q -g daemon on; master_process on; (code=exited, status=0/SUCCESS)  
   Process: 21808 ExecStart=/usr/sbin/nginx -g daemon on; master_process on; (code=exited, status=0/SUCCESS)  
 Main PID: 21809 (nginx)  
    Tasks: 5 (limit: 9138)  
   Memory: 3.7M  
     CPU: 14ms  
    CGroup: /system.slice/nginx.service  
           ├─21809 "nginx: master process /usr/sbin/nginx -g daemon on; master_process on;"  
           ├─21810 "nginx: worker process" └─21811 "nginx: worker process"  
           ├─21812 "nginx: worker process" └─21813 "nginx: worker process"  
  
Jun 03 11:53:16 himanshu-Inspiron-15-3511 systemd[1]: Starting A high performance web server and a reverse proxy server...  
Jun 03 11:53:16 himanshu-Inspiron-15-3511 systemd[1]: Started A high performance web server and a reverse proxy server.  
himanshu@himanshu-Inspiron-15-3511: $
```

- Open a web browser and enter your server's IP address or domain name. You should see the default Nginx welcome page, confirming that Nginx is successfully installed. By default, Nginx's main configuration file is located at /etc/nginx/nginx.conf. You can modify this file to customise Nginx's behaviour according to your requirements.

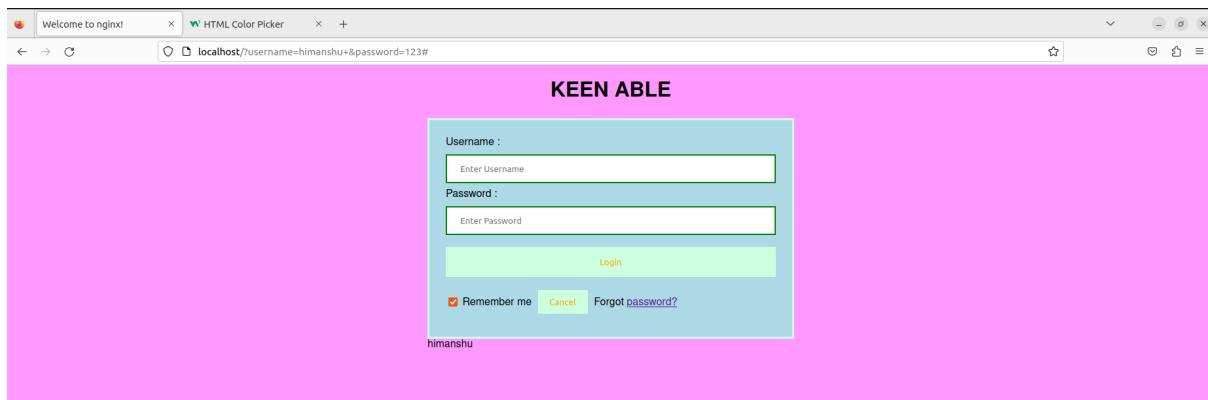
```
himanshu@himan: ~
```

```
        }
    button:hover {
        opacity: 0.7;
    }
.cancelbtn {
    width: auto;
    padding: 10px 18px;
    margin: 10px 5px;
}

.container {
    padding: 25px;
    background-color: lightblue;
}
</style>
</head>
<body>
    <center> <h1> KEEN ABLE </h1> </center>
    <form>
        <div class="container">
            <label>Username : </label>
            <input type="text" placeholder="Enter Username" name="username">
            <label>Password : </label>
            <input type="password" placeholder="Enter Password" name="password">
            <button type="submit">Login</button>
            <input type="checkbox" checked="checked"> Remember me
            <button type="button" class="cancelbtn"> Cancel</button>
            Forgot <a href="#">_password? </a>
        </div>
    </form>
    <p>himanshu</p>
</body>
</html>
```

```
himanshu@himan: ~
```

```
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
body {
    width: 35em;
    margin: 0 auto;
    font-family: Tahoma, Verdana, Arial, sans-serif;
}
</style>
</head>
<body>
<meta name="viewport" content="width=device-width, initial-scale=1">
<title> www.keenable.com </title>
<style>
Body {
    font-family: Calibri, Helvetica, sans-serif;
    background-color: #ff99ff;
}
button {
    background-color: #ccffdd;
    width: 100%;
    color: orange;
    padding: 15px;
    margin: 10px 0px;
    border: none;
    cursor: pointer;
}
form {
    border: 3px solid #ccffff;
}
input[type=text], input[type=password] {
    width: 100%;
    margin: 8px 0;
    padding: 12px 20px;
    display: inline-block;
}
```



. Install Haproxy

HAProxy stands for High Availability Proxy. It is a free and open-source software solution that provides high availability, load balancing, and proxying for TCP and HTTP-based applications. HAProxy acts as an intermediary between clients and servers, distributing incoming requests across multiple backend servers to optimise performance, ensure fault tolerance, and improve overall system reliability. It is widely used in web application deployments to handle traffic management and ensure efficient resource utilisation.

- To install HAProxy on a server running Ubuntu, you can follow these steps
 1. Update System Packages
 - sudo apt update

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt update
Hit:1 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 https://download.docker.com/linux/ubuntu jammy InRelease
Get:3 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:5 https://deb.nodesource.com/node_18.x jammy InRelease
Get:6 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP-11 Metadata [41.4 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11 Metadata [102 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 DEP-11 Metadata [22.0 kB]
Get:10 http://in.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP-11 Metadata [272 kB]
Get:11 http://in.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 DEP-11 Metadata [940 B]
Get:12 http://in.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metadata [7,960 B]
Get:13 http://in.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 DEP-11 Metadata [16.8 kB]
Fetched 799 kB in 8s (103 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
himanshu@himanshu-Inspiron-15-3511:~$
```

2. Install HAProxy

- `sudo apt install haproxy`

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt install haproxy
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Suggested packages:
  vim-haproxy haproxy-doc
The following NEW packages will be installed:
  haproxy
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 1,803 kB of archives.
After this operation, 4,028 kB of additional disk space will be used.
Get:1 https://ppa.launchpadcontent.net/vbernat/haproxy-2.6/ubuntu jammy/main amd64 haproxy amd64 2.6.13-1ppa1~jammy [1,803 kB]
Fetched 1,803 kB in 4s (452 kB/s)
Selecting previously unselected package haproxy.
(Reading database ... 293306 files and directories currently installed.)
Preparing to unpack .../haproxy_2.6.13-1ppa1~jammy_amd64.deb ...
Unpacking haproxy (2.6.13-1ppa1~jammy) ...
Setting up haproxy (2.6.13-1ppa1~jammy) ...
Created symlink /etc/systemd/system/multi-user.target.wants/haproxy.service → /lib/systemd/system/haproxy.service.
Processing triggers for rsyslog (8.2112.0-2ubuntu2.2) ...
Processing triggers for man-db (2.10.2-1) ...
```

```
All packages are up to date.
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt install nginx
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
nginx is already the newest version (1.18.0-6ubuntu14.3).
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
himanshu@himanshu-Inspiron-15-3511:~$
```

3. Configure HAProxy:

- The main configuration file for HAProxy is located at /etc/haproxy/haproxy.cfg. You can edit this file using a text editor such as Nano or Vim:
- sudo vim /etc/haproxy/haproxy.cfg

```
cp: cannot stat '/etc/haproxy.cfg': No such file or directory
himanshu@himanshu-Inspiron-15-3511:~$ 
himanshu@himanshu-Inspiron-15-3511:~$ 
himanshu@himanshu-Inspiron-15-3511:~$ sudo cp /etc/haproxy/haproxy.cfg /etc/haproxy/haproxy.cfg.bak
himanshu@himanshu-Inspiron-15-3511:~$ 
himanshu@himanshu-Inspiron-15-3511:~$ 
himanshu@himanshu-Inspiron-15-3511:~$ 
himanshu@himanshu-Inspiron-15-3511:~$ sudo vim /etc/haproxy/haproxy.cfg
himanshu@himanshu-Inspiron-15-3511:~$ sudo vim /etc/haproxy/haproxy.cfg
```

```
# Default SSL material locations
ca-base /etc/ssl/certs
crt-base /etc/ssl/private

# See: https://ssl-config.mozilla.org/#server=haproxy&server-version=2.0.3&config=intermediate
ssl-default-bind-ciphers ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-SHA256:ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-AES256-GCM-SHA384
ssl-default-bind-ciphersuites TLS_AES_128_GCM_SHA256:TLS_AES_256_GCM_SHA384:TLS_CHACHA20_POLY1305_SHA256
ssl-default-bind-options ssl-min-ver TLSv1.2 no-tls-tickets

defaults
    log     global
    mode    http
    option  httplog
    option  dontlognull
    timeout connect 5000
    timeout client 50000
    timeout server 50000
    errorfile 400 /etc/haproxy/errors/400.http
    errorfile 403 /etc/haproxy/errors/403.http
    errorfile 408 /etc/haproxy/errors/408.http
    errorfile 500 /etc/haproxy/errors/500.http
    errorfile 502 /etc/haproxy/errors/502.http
    errorfile 503 /etc/haproxy/errors/503.http
    errorfile 504 /etc/haproxy/errors/504.http

frontend http_front
    bind *:80
    stats uri /haproxy?stats
    default_backend http_back

backend http_back
    balance roundrobin
    server web1 192.168.0.101:80 check
    server web2 192.168.0.102:80 check
"/etc/haproxy/haproxy.cfg" 45L, 1500B
```

45,1 Bot

4. Restart HAProxy

- sudo service haproxy restart

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo systemctl start haproxy
himanshu@himanshu-Inspiron-15-3511:~$ sudo systemctl enable haproxy
Synchronizing state of haproxy.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable haproxy
himanshu@himanshu-Inspiron-15-3511:~$ sudo systemctl status haproxy.service
```

5. Verify HAProxy:

- HAProxy should now be running on your server. You can check its status with the following command:
- `sudo service haproxy status`

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo systemctl status haproxy.service
● haproxy.service - HAProxy Load Balancer
   Loaded: loaded (/lib/systemd/system/haproxy.service; enabled; vendor preset: enabled)
   Active: active (running) since Sat 2023-06-03 14:50:39 IST; 12min ago
     Docs: man:haproxy(1)
           file:/usr/share/doc/haproxy/configuration.txt.gz
 Main PID: 58749 (haproxy)
    Tasks: 5 (limit: 9138)
   Memory: 39.2M
      CPU: 147ms
     CGroup: /system.slice/haproxy.service
             └─58749 /usr/sbin/haproxy -Ws -f /etc/haproxy/haproxy.cfg -p /run/haproxy.pid -S /run/haproxy-master.sock
                 ├─58751 /usr/sbin/haproxy -Ws -f /etc/haproxy/haproxy.cfg -p /run/haproxy.pid -S /run/haproxy-master.sock

Jun 03 14:50:39 himanshu-Inspiron-15-3511 systemd[1]: Starting HAProxy Load Balancer...
Jun 03 14:50:39 himanshu-Inspiron-15-3511 haproxy[58749]: [NOTICE] (58749) : New worker (58751) forked
Jun 03 14:50:39 himanshu-Inspiron-15-3511 haproxy[58749]: [NOTICE] (58749) : Loading success.
Jun 03 14:50:39 himanshu-Inspiron-15-3511 systemd[1]: Started HAProxy Load Balancer.
```

6. Check the web browser



. Install Nagios on Server

The short form "Nagios" stands for "Network Analyzer, General Inquirer, and Operator System." Nagios is an open-source monitoring system used for monitoring the health and performance of computer systems, networks, and infrastructure components. It provides alerting and notification capabilities to notify system administrators about potential issues or failures in real-time. Nagios is widely used in IT environments to ensure the availability and reliability of various resources.

- To install Nagios on a server running Ubuntu, you can follow these steps

1. Update the package lists on your server

- `sudo apt update`

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt update
Hit:1 http://in.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 https://download.docker.com/linux/ubuntu jammy InRelease
Get:3 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:5 https://deb.nodesource.com/node_18.x jammy InRelease
Get:6 http://in.archive.ubuntu.com/ubuntu jammy-backports InRelease [108 kB]
Get:7 http://security.ubuntu.com/ubuntu jammy-security/main amd64 DEP-11 Metadata [41.4 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu jammy-updates/main amd64 DEP-11 Metadata [102 kB]
Get:9 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 DEP-11 Metadata [22.0 kB]
Get:10 http://in.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 DEP-11 Metadata [272 kB]
Get:11 http://in.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 DEP-11 Metadata [940 B]
Get:12 http://in.archive.ubuntu.com/ubuntu jammy-backports/main amd64 DEP-11 Metadata [7,960 B]
Get:13 http://in.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 DEP-11 Metadata [16.8 kB]
Fetched 799 kB in 8s (103 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
himanshu@himanshu-Inspiron-15-3511:~$
```

2. Install the required dependencies

- `sudo apt install -y autoconf gcc libc6 make wget unzip apache2 php libapache2-mod-php7.4 libgd-dev`

```
himanshu@himanshu-Inspiron-15-3511:~$ sudo apt install -y autoconf gcc libc6 make wget unzip apache2 php libapache2-mod-php7.4 libgd-dev
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
gcc is already the newest version (4:11.2.0-1ubuntu1).
gcc set to manually installed.
make is already the newest version (4.3-4.1build1).
make set to manually installed.
wget is already the newest version (1.21.2-2ubuntu1).
apache2 is already the newest version (2.4.52-1ubuntu4.5).
libc6 is already the newest version (2.35-0ubuntu3.1).
unzip is already the newest version (6.0-26ubuntu3.1).
php is already the newest version (2:8.2+93+ubuntu20.04.1+deb.sury.org+2).
Some packages could not be installed. This may mean that you have
requested an impossible situation or if you are using the unstable
distribution that some required packages have not yet been created
or been moved out of Incoming.
The following information may help to resolve the situation:

The following packages have unmet dependencies:
 libgd-dev : Depends: libgd3 (= 2.3.0-2ubuntu2) but 2.3.3-9+ubuntu20.04.1+deb.sury.org+1 is to be installed
```

3. Download the latest stable release of Nagios from the official website

- cd ~
- WGET
<https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.4.6.tar.gz>

```
nagios plugins-2.3.3/nagioscore/nagios-4.4.6$ cd /tmp
hnmanshu@hnmanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ wget https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz
--2023-06-05 14:10:02- https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz
Resolving nagios-plugins.org (nagios-plugins.org)... 45.56.123.251
Connecting to nagios-plugins.org (nagios-plugins.org)|45.56.123.251|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2782610 (2.7M) [application/x-gzip]
Saving to: 'nagios-plugins-2.3.3.tar.gz'

nagios-plugins-2.3.3.tar.gz    100%[=====] 2.65M 1.32MB/s   in 2.0s

2023-06-05 14:10:05 (1.32 MB/s) - 'nagios-plugins-2.3.3.tar.gz' saved [2782610/2782610]

hnmanshu@hnmanshu-Inspiron-15-3511:/tmp$ tar -zvxf nagios-plugins-2.3.3.tar.gz
nagios-plugins-2.3.3/
nagios-plugins-2.3.3/perlmods/
nagios-plugins-2.3.3/perlmods/Config-Tiny-2.14.tar.gz
nagios-plugins-2.3.3/perlmods/parent-0.226.tar.gz
nagios-plugins-2.3.3/perlmods/Test-Simple-0.98.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.tn
nagios-plugins-2.3.3/perlmods/version-0.9903.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.am
nagios-plugins-2.3.3/perlmods/Module-Runtime-0.013.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Metadata-1.000014.tar.gz
nagios-plugins-2.3.3/perlmods/Params-Validate-1.08.tar.gz
nagios-plugins-2.3.3/perlmods/Class-Accessor-0.34.tar.gz
nagios-plugins-2.3.3/perlmods/Try-Tiny-0.18.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Implementation-0.07.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile
nagios-plugins-2.3.3/perlmods/Perl-OSType-1.003.tar.gz
nagios-plugins-2.3.3/perlmods/Install_order
nagios-plugins-2.3.3/perlmods/Nagios-Plugin-0.36.tar.gz
nagios-plugins-2.3.3/perlmods/Math-Calc-Units-1.07.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Build-0.4007.tar.gz
nagios-plugins-2.3.3/ABOUT-NLS
nagios-plugins-2.3.3/configure.ac
nagios-plugins-2.3.3/Makefile.tn
nagios-plugins-2.3.3/config.h.in
nagios-plugins-2.3.3/ChangeLog
nagios-plugins-2.3.3/LICENSE
```

4. Extract the downloaded archive

- tar -xvf nagios-4.4.6.tar.gz

```
nagios plugins-2.3.3/nagioscore/nagios-4.4.6$ cd /tmp
hnmanshu@hnmanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ wget https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz
--2023-06-05 14:10:02- https://nagios-plugins.org/download/nagios-plugins-2.3.3.tar.gz
Resolving nagios-plugins.org (nagios-plugins.org)... 45.56.123.251
Connecting to nagios-plugins.org (nagios-plugins.org)|45.56.123.251|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 2782610 (2.7M) [application/x-gzip]
Saving to: 'nagios-plugins-2.3.3.tar.gz'

nagios-plugins-2.3.3.tar.gz    100%[=====] 2.65M 1.32MB/s   in 2.0s

2023-06-05 14:10:05 (1.32 MB/s) - 'nagios-plugins-2.3.3.tar.gz' saved [2782610/2782610]

hnmanshu@hnmanshu-Inspiron-15-3511:/tmp$ tar -zvxf nagios-plugins-2.3.3.tar.gz
nagios-plugins-2.3.3/
nagios-plugins-2.3.3/perlmods/
nagios-plugins-2.3.3/perlmods/Config-Tiny-2.14.tar.gz
nagios-plugins-2.3.3/perlmods/parent-0.226.tar.gz
nagios-plugins-2.3.3/perlmods/Test-Simple-0.98.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.tn
nagios-plugins-2.3.3/perlmods/version-0.9903.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile.am
nagios-plugins-2.3.3/perlmods/Module-Runtime-0.013.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Metadata-1.000014.tar.gz
nagios-plugins-2.3.3/perlmods/Params-Validate-1.08.tar.gz
nagios-plugins-2.3.3/perlmods/Class-Accessor-0.34.tar.gz
nagios-plugins-2.3.3/perlmods/Try-Tiny-0.18.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Implementation-0.07.tar.gz
nagios-plugins-2.3.3/perlmods/Makefile
nagios-plugins-2.3.3/perlmods/Perl-OSType-1.003.tar.gz
nagios-plugins-2.3.3/perlmods/Install_order
nagios-plugins-2.3.3/perlmods/Nagios-Plugin-0.36.tar.gz
nagios-plugins-2.3.3/perlmods/Math-Calc-Units-1.07.tar.gz
nagios-plugins-2.3.3/perlmods/Module-Build-0.4007.tar.gz
nagios-plugins-2.3.3/ABOUT-NLS
nagios-plugins-2.3.3/configure.ac
nagios-plugins-2.3.3/Makefile.tn
nagios-plugins-2.3.3/config.h.in
nagios-plugins-2.3.3/ChangeLog
nagios-plugins-2.3.3/LICENSE
```

5. Change to the Nagios source directory

- cd nagios-4.4.6

```
himanshu@himanshu-Inspiron-15-3511:/tmp$ cd nagios-plugins-2.3.3/
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ ll
total 3484
drwxr-xr-x 15 himanshu himanshu 4096 Mar 11 2020 .
drwxrwxrwt 27 root      root    12288 Jun  5 14:10 ..
-rw-r--r--  1 himanshu himanshu 80541 Jan 16 2017 ABOUT-NLS
-rw-r--r--  1 himanshu himanshu 2332 Jan 16 2017 acinclude.m4
```

6. Run the configuration script

- ./configure --with-httpd-conf=/etc/apache2/sites-enabled

```
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo ./configure --with-nagios-user=nagios --with-nagios-group=nagios --with-openssl
checking for a BSD-compatible install... /usr/bin/install -c
checking whether build environment is sane... yes
checking for a thread-safe mkdir -p... /usr/bin/mkdir -p
checking for gawk... gawk
checking whether make sets $(MAKE)... yes
checking whether to disable maintainer-specific portions of Makefiles... yes
checking build system type... x86_64-unknown-linux-gnu
checking host system type... x86_64-unknown-linux-gnu
checking for gcc... gcc
checking for C compiler default output file name... a.out
checking whether the C compiler works... yes
```

7. Compile and install Nagios

- make all

```

com tg status: creating package etc
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo make
make all-recursive
make[1]: Entering directory '/tmp/nagios-plugins-2.3.3'
Making all in gl
make[2]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
rm -f alloca.h-t alloca.h && \
{ echo '/* DO NOT EDIT! GENERATED AUTOMATICALLY! */'; \
  cat ./alloca.in.h; \
} > alloca.h-t && \
mv -f alloca.h-t alloca.h
rm -f c++defs.h-t c++defs.h && \
sed -n -e '/_GL_CXXDEFS/, $p' \
< ../build-aux/snippet/c++defs.h \
> c++defs.h-t && \
mv c++defs.h-t c++defs.h
rm -f warn-on-use.h-t warn-on-use.h && \
sed -n -e '/^.\ ifndef/, $p' \
< ../build-aux/snippet/warn-on-use.h \
> warn-on-use.h-t && \
mv warn-on-use.h-t warn-on-use.h
rm -f argc-nonnull.h-t argc-nonnull.h && \

```

- sudo make install

```

make[1]: Leaving directory '/tmp/nagios-plugins-2.3.3'
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo make install
Making install in gl
make[1]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
make install-recursive
make[2]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
make[3]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
make[4]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
if test yes = no; then \
  case 'linux-gnu' in \
    darwin[56]*) \
      need_charset_alias=true ;; \
    darwin* | cygwin* | mingw* | pw32* | cegcc*) \
      need_charset_alias=false ;; \
  *) \
    need_charset_alias=true ;; \
  esac ; \
else \
  need_charset_alias=false ; \
fi ; \
if $need_charset_alias; then \
  /bin/bash ../build-aux/mkinstalldirs /usr/local/nagios/lib ; \
fi ; \
if test -f /usr/local/nagios/lib/charset.alias; then \
  sed -f ref-add.sed /usr/local/nagios/lib/charset.alias > /usr/local/nagios/lib/charset.tmp ; \
  /usr/bin/install -c -o nagios -g nagios -m 644 /usr/local/nagios/lib/charset.tmp /usr/local/nagios/lib/charset.alias ; \
  rm -f /usr/local/nagios/lib/charset.tmp ; \
else \
  if $need_charset_alias; then \
    sed -f ref-add.sed charset.alias > /usr/local/nagios/lib/charset.tmp ; \
    /usr/bin/install -c -o nagios -g nagios -m 644 /usr/local/nagios/lib/charset.tmp /usr/local/nagios/lib/charset.alias ; \
    rm -f /usr/local/nagios/lib/charset.tmp ; \
  fi ; \
fi

```

- sudo make install-init
- sudo make install-commandmode
- sudo make install-config

8. Configure the Apache web server to work with Nagios:

- sudo make install-webconf

```
make[1]: Leaving directory '/tmp/nagios-plugins-2.3.3'
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo make install
Making install in gl
make[1]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
make  install-recurse
make[2]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
make[3]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
make[4]: Entering directory '/tmp/nagios-plugins-2.3.3/gl'
if test yes = no; then \
  case 'linux-gnu' in \
    darwin[56]*) \
      need_charset_alias=true ;; \
    darwin* | cygwin* | mingw* | pw32* | cegcc*) \
      need_charset_alias=false ;; \
  *) \
    need_charset_alias=true ;; \
  esac ; \
else \
  need_charset_alias=false ; \
fi ; \
if $need_charset_alias; then \
  /bin/bash ../build-aux/mkinstalldirs /usr/local/nagios/lib ; \
fi ; \
if test -f /usr/local/nagios/lib/charset.alias; then \
  sed -f ref-add.sed /usr/local/nagios/lib/charset.alias > /usr/local/nagios/lib/charset.tmp ; \
  /usr/bin/install -c -o nagios -g nagios -m 644 /usr/local/nagios/lib/charset.tmp /usr/local/nagios/lib/charset.alias ; \
  rm -f /usr/local/nagios/lib/charset.tmp ; \
else \
  if $need_charset_alias; then \
    sed -f ref-add.sed charset.alias > /usr/local/nagios/lib/charset.tmp ; \
    /usr/bin/install -c -o nagios -g nagios -m 644 /usr/local/nagios/lib/charset.tmp /usr/local/nagios/lib/charset.alias ; \
    rm -f /usr/local/nagios/lib/charset.tmp ; \
  fi ; \
fi
```

9. Create a user account for accessing the Nagios web interface:

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

```

himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo /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 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

```

10. Start the Apache web server

- sudo Systemctl restart apache2

```

himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo systemctl enable --now nagios
Created symlink /etc/systemd/system/multi-user.target.wants/nagios.service → /lib/systemd/system/nagios.service.
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo systemctl restart apache2
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo systemctl status nagios.service
nagios.service          named-resolvconf.service  named.service

```

```

himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo systemctl status apache2.service
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2023-06-05 14:12:58 IST; 40s ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 88706 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUCCESS)
 Main PID: 88710 (apache2)
   Tasks: 56 (limit: 9138)
    Memory: 5.8M
      CPU: 31ms
     CGroup: /system.slice/apache2.service
             └─88710 /usr/sbin/apache2 -k start
                 ├─88711 /usr/sbin/apache2 -k start
                 ├─88712 /usr/sbin/apache2 -k start
                 ├─88713 /usr/sbin/apache2 -k start

Jun 05 14:12:58 himanshu-Inspiron-15-3511 systemd[1]: Starting The Apache HTTP Server...
Jun 05 14:12:58 himanshu-Inspiron-15-3511 apachectl[88709]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 127.0.1.1. Set the 'ServerName' or 'ServerAlias' directive in the VirtualHost configuration

```

11. Verify the Nagios configuration

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

```
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo /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 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
```

12. Enable and start the Nagios service

- `sudo Systemctl enable Nagios`
- `sudo Systemctl start Nagios`

```

himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo /usr/bin/install -c -m 644 sample-config/httpd.conf /etc/apache2/sites-available/nagios.conf
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2enmod rewrite
Module rewrite already enabled
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2enmod rewrite
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2enmod rewrite
Module rewrite already enabled
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2enmod cgi
Your MPM seems to be threaded. Selecting cgid instead of cgi.
Module cgid already enabled
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2ensite nagios.conf
ERROR: Site nagios not properly enabled: /etc/apache2/sites-enabled/nagios.conf is a real file, not touching it
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2dismod rewrite
Module rewrite disabled.
To activate the new configuration, you need to run:
    systemctl restart apache2
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo systemctl restart apache2
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2dismod rewrite
Module rewrite already disabled
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2enmod rewrite
Enabling module rewrite.
To activate the new configuration, you need to run:
    systemctl restart apache2
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ systemctl restart apache2
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo systemctl restart apache2
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2enmod cgi
Your MPM seems to be threaded. Selecting cgid instead of cgi.
Module cgid already enabled
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo a2ensite nagios.conf
ERROR: Site nagios not properly enabled: /etc/apache2/sites-enabled/nagios.conf is a real file, not touching it
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ sudo vim /etc/apache2/sites-enabled/nagios.conf
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ 
himanshu@himanshu-Inspiron-15-3511:/tmp/nagioscore-nagios-4.4.6$ ls

```

```

himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo systemctl status nagios.service
● nagios.service - Nagios Core 4.4.6
   Loaded: loaded (/lib/systemd/system/nagios.service; enabled; vendor preset: enabled)
   Active: active (running) since Mon 2023-06-05 14:12:51 IST; 26s ago
     Docs: https://www.nagios.org/documentation
 Process: 88682 ExecStartPre=/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
 Process: 88683 ExecStart=/usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg (code=exited, status=0/SUCCESS)
 Main PID: 88684 (nagios)
   Tasks: 8 (limit: 9138)
  Memory: 2.6M
    CPU: 22ms
   CGroup: /system.slice/nagios.service
           ├─88684 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
           ├─88685 /usr/local/nagios/bin/nagios -worker /usr/local/nagios/var/rw/nagios.qh
           ├─88686 /usr/local/nagios/bin/nagios -worker /usr/local/nagios/var/rw/nagios.qh
           ├─88687 /usr/local/nagios/bin/nagios -worker /usr/local/nagios/var/rw/nagios.qh
           ├─88688 /usr/local/nagios/bin/nagios -worker /usr/local/nagios/var/rw/nagios.qh
           ├─88689 /usr/local/nagios/bin/nagios -worker /usr/local/nagios/var/rw/nagios.qh
           ├─88690 /usr/local/nagios/bin/nagios -worker /usr/local/nagios/var/rw/nagios.qh
           └─88692 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: qh: echo service query handler registered
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: qh: help for the query handler registered
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Successfully registered manager as @wproc with query handler
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Registry request: name=Core Worker 88685;pid=88685
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Registry request: name=Core Worker 88686;pid=88686
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Registry request: name=Core Worker 88688;pid=88688
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Registry request: name=Core Worker 88687;pid=88687
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Registry request: name=Core Worker 88689;pid=88689
Jun 05 14:12:51 himanshu-Inspiron-15-3511 nagios[88684]: wproc: Registry request: name=Core Worker 88690;pid=88690
Jun 05 14:12:52 himanshu-Inspiron-15-3511 nagios[88684]: Successfully launched command file worker with pid 88692
himanshu@himanshu-Inspiron-15-3511:/tmp/nagios-plugins-2.3.3$ sudo systemctl status apache2.service

```

13. Check the web browser

Nagios® Core™
Version
April 28, 2020
Check for updates

Warning: Automatic Update Checks are Disabled!
Disabling update checks presents a possible security risk. Visit nagios.org to check for updates manually or enable update checks in your Nagios config file.

A new version of Nagios Core is available!
Visit nagios.org to download Nagios.

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 Dev (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...

Copyright © 2010 - Nagios Core Development Team and Community Contributors. Copyright © 1998-2009 Eelke Gistad. See the THANKS file for more information on contributors.

Nagios is licensed under the GNU General Public License and is provided AS IS with NO WARRANTY OF ANY KIND, INCLUDING THE WARRANTY OF DESIGN, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. Nagios, Nagios Core and the Nagios logo are trademarks, servicemarks, registered trademarks or registered servicemarks owned by Nagios Enterprises, LLC. Use of the Nagios marks is governed by the trademark use restrictions.

Nagios® Not Found

The requested URL was not found on this server.

Apache/2.4.52 (Ubuntu) Server at 192.168.1.19 Port 80

General

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

Current Status

[/nac.cgi](#)
target=>Tactical Overview
[/status.html](#)
[/statusmap.cgi?host=all](#)
target=>Legacy
[/status.cgi?hostgroup=call&style=hostdetail](#)
target=>Host
[/status.cgi?hostcall](#)
target=>Services
[/status.cgi?hostgroup=all&style=service](#)
target=>Host Groups
[/status.cgi?hostgroup=all&style=grid](#)
target=>Summary
[/status.cgi?hostgroup=all&style=grid&summary](#)
target=>Grid
[/status.cgi?servicegroup=*](#)
style=grid
target=>Service Groups
[/status.cgi?servicegroup=*](#)
style=summary
target=>Summary