

Don Bosco Institute of Technology, Mumbai 400070

Department of Information Technology

Experiment 10: Nagios

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Aim: To perform Port, Service monitoring, Windows/Linux server monitoring using Nagios

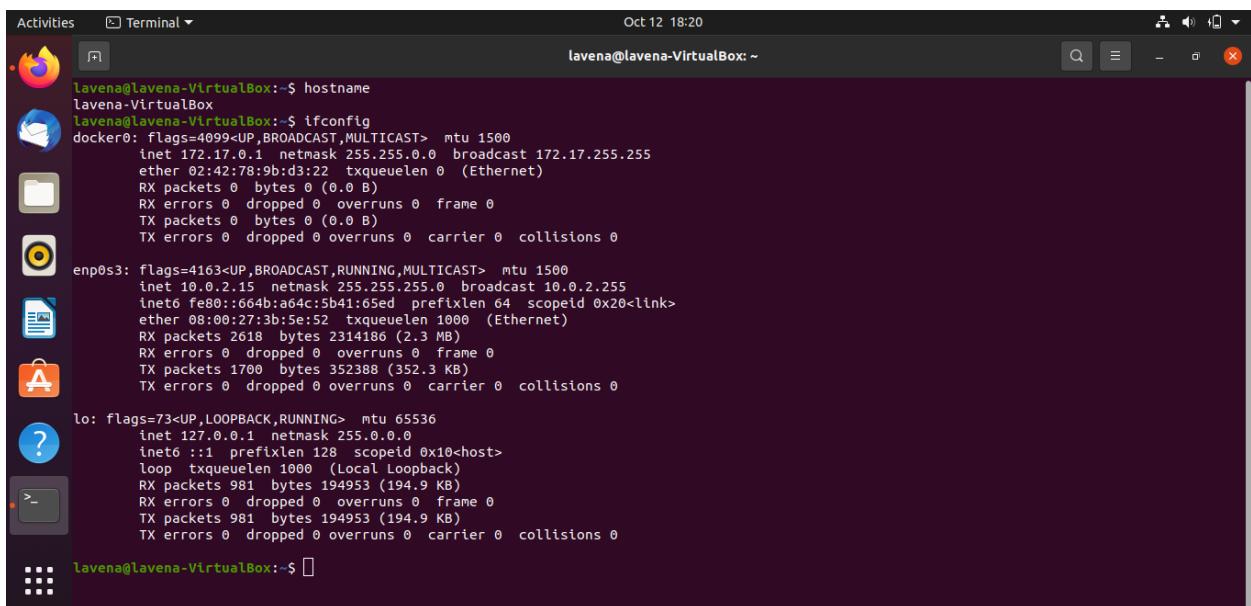
Prerequisite: Install Nagios Server

Used server:

Nagios Server: 172.12.0.1

Nagios Client: 172.12.0.1

Step 1 : Check Hostname and IP of Linux Host



```

Activities Terminal Oct 12 18:20
lavena@lavena-VirtualBox:~$ hostname
lavena-VirtualBox
lavena@lavena-VirtualBox:~$ ifconfig
docker0: flags=4099<UP,BROADCAST,MULTICAST mtu 1500
        inet 172.17.0.1 netmask 255.255.0.0 broadcast 172.17.255.255
              ether 02:42:78:9b:d3:22 txqueuelen 0 (Ethernet)
        RX packets 0 bytes 0 (0.0 B)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 0 bytes 0 (0.0 B)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST mtu 1500
        inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
              inet6 fe80::664b:a64c:5b41:65ed prefixlen 64 scopeid 0x20<link>
        ether 08:00:27:3b:5e:52 txqueuelen 1000 (Ethernet)
        RX packets 2618 bytes 2314186 (2.3 MB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 1700 bytes 352388 (352.3 KB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING mtu 65536
        inet 127.0.0.1 netmask 255.0.0.0
              inet6 ::1 prefixlen 128 scopeid 0x10<host>
        loop txqueuelen 1000 (Local Loopback)
        RX packets 981 bytes 194953 (194.9 KB)
        RX errors 0 dropped 0 overruns 0 frame 0
        TX packets 981 bytes 194953 (194.9 KB)
        TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lavena@lavena-VirtualBox:~$ 

```

Step 2: Install NRPE and Nagios Plugins

```

lavena@lavena-VirtualBox:~$ sudo apt install nagios-nrpe-server nagios-plugins -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
Note, selecting 'monitoring-plugins' instead of 'nagios-plugins'
The following packages were automatically installed and are no longer required:
  linux-headers-5.15.0-46-generic linux-hwe-5.15-headers-5.15.0-46 linux-image-5.15.0-46-generic linux-modules-5.15.0-46-generic
  linux-modules-extra-5.15.0-46-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  libdbi libnet-snmp-perl libpq5 libradoscli4 libtirpc-common libtirpc3 monitoring-plugins-basic monitoring-plugins-common
  monitoring-plugins-standard python3-crypto python3-gpg python3-samba python3-tdb rpcbind samba-common samba-common-bin samba-dsdb-modules
  smbclient snmp
Suggested packages:
  libdigest-hmac-perl libio-socket-inet6-perl icinga | icinga2 nagios-plugins-contrib fping postfix | sendmail-bin
  | exim4-daemon-heavy | exim4-daemon-light qstat xinetd | inetd heimdal-clients python3-markdown python3-dnspython cifs-utils
The following NEW packages will be installed:
  libdbi libnet-snmp-perl libpq5 libradoscli4 libtirpc-common libtirpc3 monitoring-plugins monitoring-plugins-basic
  monitoring-plugins-common monitoring-plugins-standard nagios-nrpe-server python3-crypto python3-gpg python3-samba python3-tdb rpcbind
  samba-common samba-common-bin samba-dsdb-modules smbclient snmp
0 upgraded, 21 newly installed, 0 to remove and 0 not upgraded.
Need to get 5,790 kB of archives.
After this operation, 35.3 MB of additional disk space will be used.
Get:1 http://in.archive.ubuntu.com/ubuntu focal/universe amd64 nagios-nrpe-server amd64 4.0.0-2ubuntu1 [359 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 libtirpc-common all 1.2.5-1ubuntu0.1 [7,712 B]
Get:3 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 libtirpc3 amd64 1.2.5-1ubuntu0.1 [77.9 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu focal/main amd64 rpcbind amd64 1.2.5-8 [42.8 kB]
Get:5 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 samba-common all 2:4.13.17-dfsg-0ubuntu1.20.04.1 [69.1 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 smbclient amd64 2:4.13.17-dfsg-0ubuntu1.20.04.1 [402 kB]
Get:7 http://in.archive.ubuntu.com/ubuntu focal/main amd64 libdbi amd64 0.9.0-5 [27.3 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu focal/universe amd64 libnet-snmp-perl all 6.0.1-5 [87.5 kB]
Get:9 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 libpq5 amd64 12.12-0ubuntu0.20.04.1 [117 kB]

```

Step 3: Edit /etc/nagios/nrpe.cfg file to configure the NRPE agent using command

\$ sudo vim /etc/nagios/nrpe.cfg

```

# PORT NUMBER
# Port number we should wait for connections on.
# NOTE: This must be a non-privileged port (i.e. > 1024).
# NOTE: This option is ignored if NRPE is running under either inetd or xinetd
server_port=5666

# SERVER ADDRESS
# Address that nrpe should bind to in case there are more than one interface
# and you do not want nrpe to bind on all interfaces.
# NOTE: This option is ignored if NRPE is running under either inetd or xinetd
#server_address=127.0.0.1

# LISTEN QUEUE SIZE
# Listen queue size (backlog) for serving incoming connections.
# You may want to increase this value under high load.
#listen_queue_size=5

# NRPE USER
# This determines the effective user that the NRPE daemon should run as.
:set nd]

```

Step 4: Find and edit line 62 – add server address

(Press I to insert)

```

Activities Terminal Oct 12 18:47
lavena@lavena-VirtualBox: ~
lavena@lavena-VirtualBox: ~

51
52 server_port=5666
53
54
55
56 # SERVER ADDRESS
57 # Address that nrpe should bind to in case there are more than one interface
58 # and you do not want nrpe to bind on all interfaces.
59 # NOTE: This option is ignored if NRPE is running under either inetd or xinetd
60
61 #server_address=127.0.0.1
62 server_address=172.17.0.1
63
64
65 # LISTEN QUEUE SIZE
66 # Listen queue size (backlog) for serving incoming connections.
67 # You may want to increase this value under high load.
68
69 #listen_queue_size=5
70
71
72
73 # NRPE USER
74 # This determines the effective user that the NRPE daemon should run as.
75 # You can either supply a username or a UID.
76 #
77 # NOTE: This option is ignored if NRPE is running under either inetd or xinetd
78
-- INSERT --

```

Step 5: Find and edit line 106: add allowed host

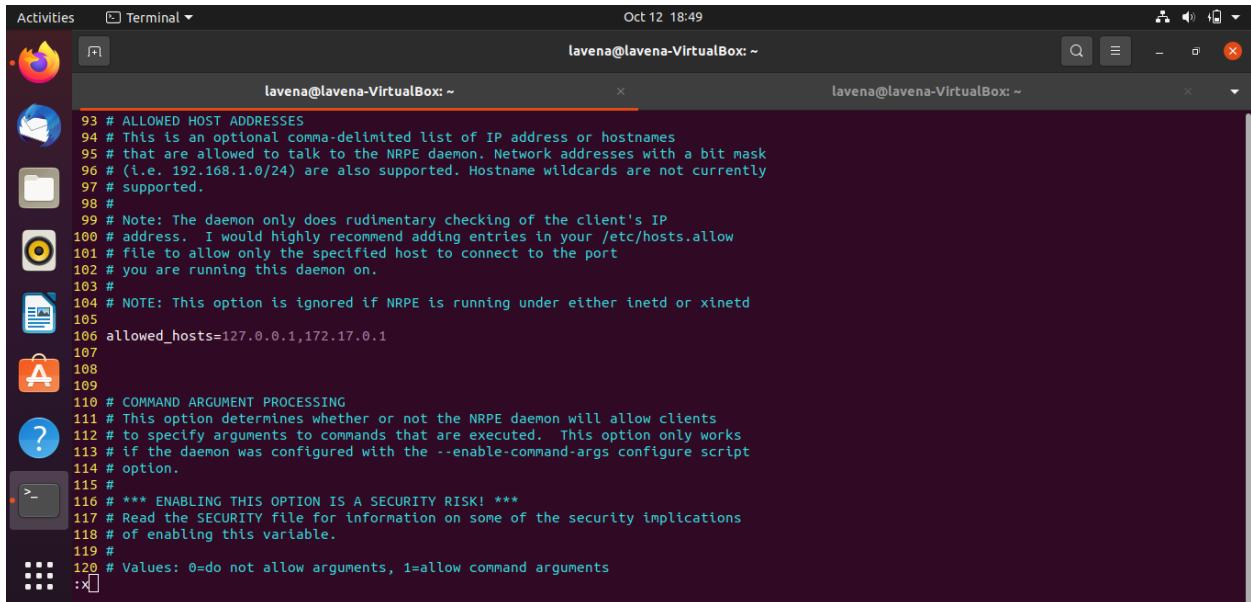
```

Activities Terminal Oct 12 18:49
lavena@lavena-VirtualBox: ~
lavena@lavena-VirtualBox: ~

93 # ALLOWED HOST ADDRESSES
94 # This is an optional comma-delimited list of IP address or hostnames
95 # that are allowed to talk to the NRPE daemon. Network addresses with a bit mask
96 # (i.e. 192.168.1.0/24) are also supported. Hostname wildcards are not currently
97 # supported.
98 #
99 # Note: The daemon only does rudimentary checking of the client's IP
100 # address. I would highly recommend adding entries in your /etc/hosts.allow
101 # file to allow only the specified host to connect to the port
102 # you are running this daemon on.
103 #
104 # NOTE: This option is ignored if NRPE is running under either inetd or xinetd
105
106 allowed_hosts=127.0.0.1,172.17.0.1
107
108
109
110 # COMMAND ARGUMENT PROCESSING
111 # This option determines whether or not the NRPE daemon will allow clients
112 # to specify arguments to commands that are executed. This option only works
113 # if the daemon was configured with the --enable-command-args configure script
114 # option.
115 #
116 # *** ENABLING THIS OPTION IS A SECURITY RISK! ***
117 # Read the SECURITY file for information on some of the security implications
118 # of enabling this variable.
119 #
120 # Values: 0=do not allow arguments, 1=allow command arguments
-- INSERT --

```

Step 6: Press Esc to exit Insert mode and type :x and press enter to save and exit the file



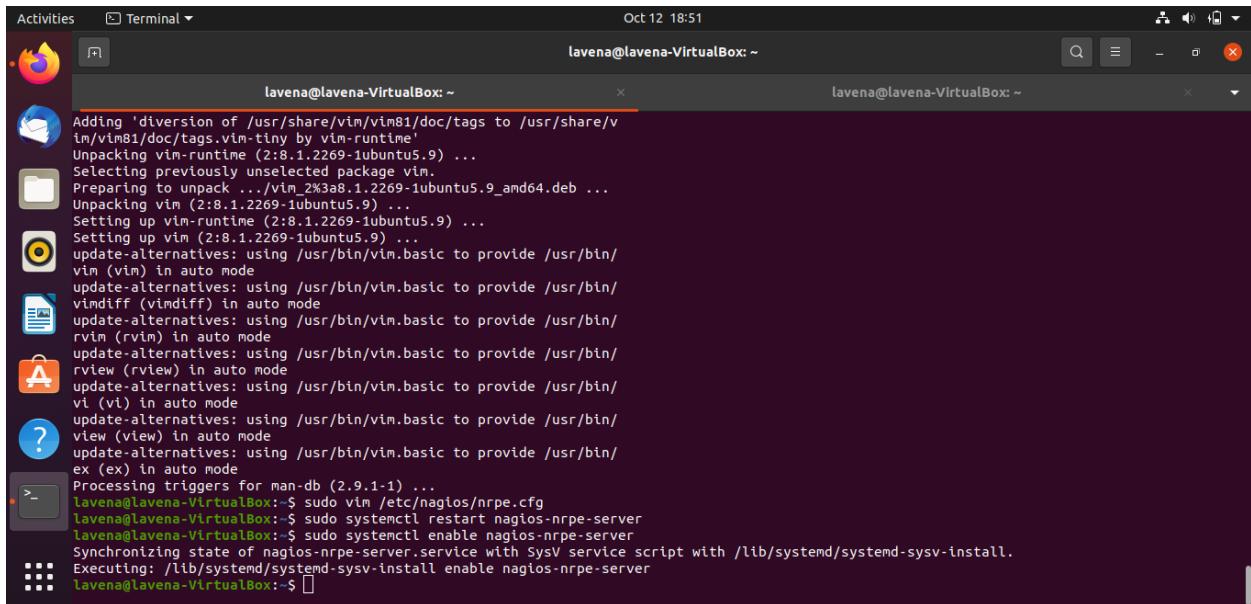
```

Oct 12 18:49
lavena@lavena-VirtualBox: ~

93 # ALLOWED HOST ADDRESSES
94 # This is an optional comma-delimited list of IP address or hostnames
95 # that are allowed to talk to the NRPE daemon. Network addresses with a bit mask
96 # (i.e. 192.168.1.0/24) are also supported. Hostname wildcards are not currently
97 # supported.
98 #
99 # Note: The daemon only does rudimentary checking of the client's IP
100 # address. I would highly recommend adding entries in your /etc/hosts.allow
101 # file to allow only the specified host to connect to the port
102 # you are running this daemon on.
103 #
104 # NOTE: This option is ignored if NRPE is running under either inetd or xinetd
105
106 allowed_hosts=127.0.0.1,172.17.0.1
107
108
109
110 # COMMAND ARGUMENT PROCESSING
111 # This option determines whether or not the NRPE daemon will allow clients
112 # to specify arguments to commands that are executed. This option only works
113 # if the daemon was configured with the --enable-command-args configure script
114 # option.
115 #
116 # *** ENABLING THIS OPTION IS A SECURITY RISK! ***
117 # Read the SECURITY file for information on some of the security implications
118 # of enabling this variable.
119 #
120 # Values: 0=do not allow arguments, 1=allow command arguments
:x

```

Step 7: Restart and enable NRPE services to make the changes active



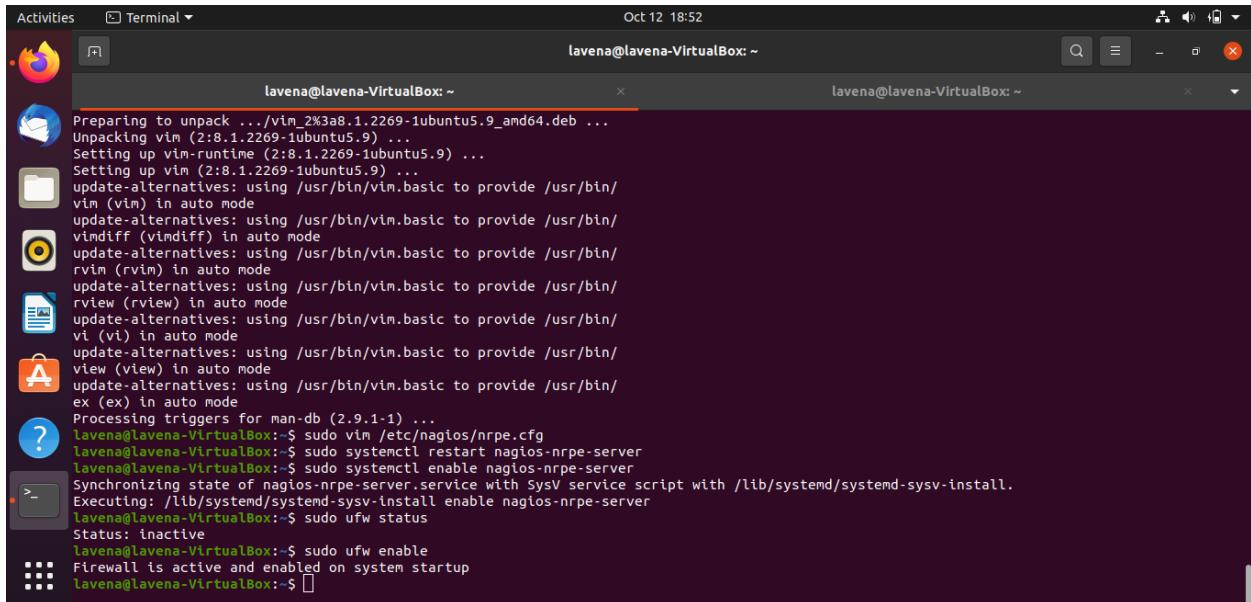
```

Oct 12 18:51
lavena@lavena-VirtualBox: ~

Adding 'diversion of /usr/share/vim/vim81/doc/tags to /usr/share/vim/vim81/doc/tags.vim-tiny by vim-runtime'
Unpacking vim-runtime (2:8.1.2269-1ubuntu5.9) ...
Selecting previously unselected package vim.
Preparing to unpack .../vim_2%3a8.1.2269-1ubuntu5.9_amd64.deb ...
Unpacking vim (2:8.1.2269-1ubuntu5.9) ...
Setting up vim-runtime (2:8.1.2269-1ubuntu5.9) ...
Setting up vim (2:8.1.2269-1ubuntu5.9) ...
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimdiff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in auto mode
Processing triggers for man-db (2.9.1-1) ...
lavena@lavena-VirtualBox:~$ sudo vim /etc/nagios/nrpe.cfg
lavena@lavena-VirtualBox:~$ sudo systemctl restart nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo systemctl enable nagios-nrpe-server
Synchronizing state of nagios-nrpe-server.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nagios-nrpe-server
lavena@lavena-VirtualBox:~$ 

```

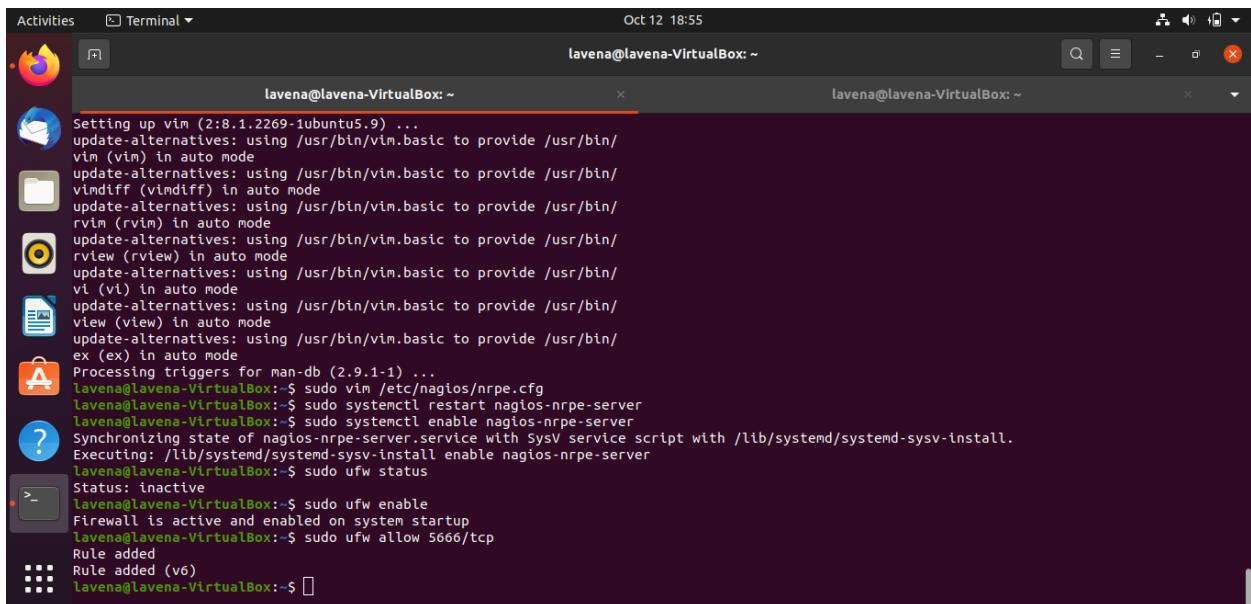
Step 8: Check UFW Firewall status and enable UFW



```

Preparing to unpack .../vim_2k3a8.1.2269-1ubuntu5.9_amd64.deb ...
Unpacking vim (2:8.1.2269-1ubuntu5.9) ...
Setting up vim-runtime (2:8.1.2269-1ubuntu5.9) ...
Setting up vim (2:8.1.2269-1ubuntu5.9) ...
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimdiff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in auto mode
Processing triggers for man-db (2.9.1-1) ...
lavena@lavena-VirtualBox:~$ sudo vim /etc/nagios/nrpe.cfg
lavena@lavena-VirtualBox:~$ sudo systemctl restart nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo systemctl enable nagios-nrpe-server
Synchronizing state of nagios-nrpe-server.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: inactive
lavena@lavena-VirtualBox:~$ sudo ufw enable
Firewall is active and enabled on system startup
lavena@lavena-VirtualBox:~$ 
```

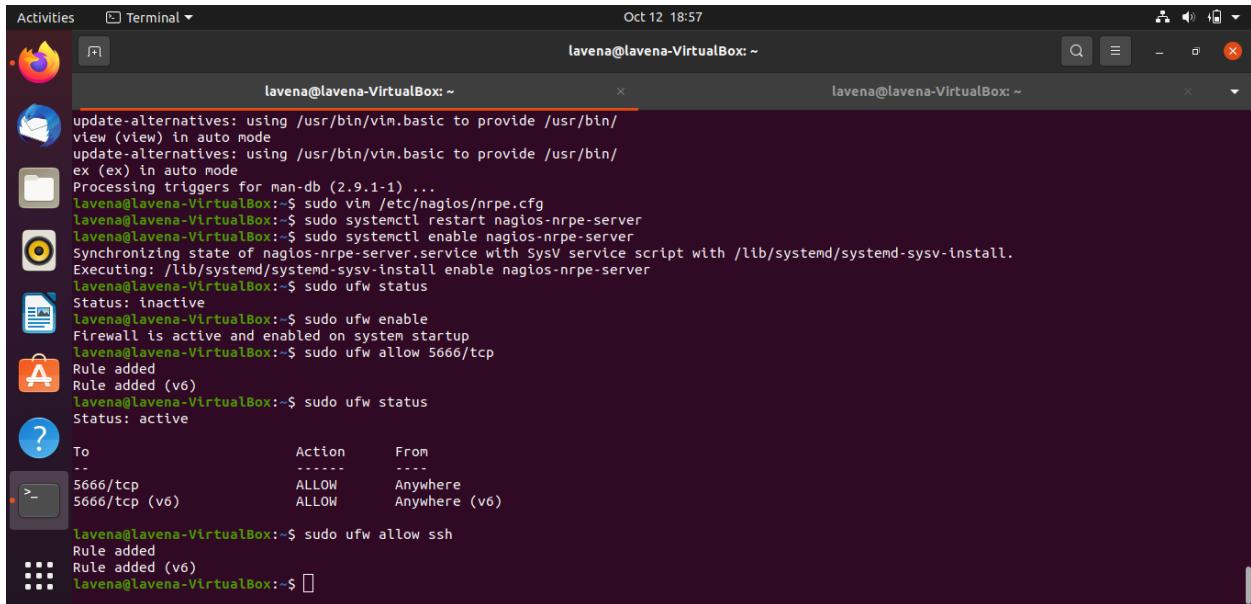
Step 9: By default, Nagios NRPE agent listens on port 5666. You need to open 5666 on your Firewall



```

Setting up vim (2:8.1.2269-1ubuntu5.9) ...
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vim (vim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vimdiff (vimdiff) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rvim (rvim) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/rview (rview) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/vi (vi) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/view (view) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/ex (ex) in auto mode
Processing triggers for man-db (2.9.1-1) ...
lavena@lavena-VirtualBox:~$ sudo vim /etc/nagios/nrpe.cfg
lavena@lavena-VirtualBox:~$ sudo systemctl restart nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo systemctl enable nagios-nrpe-server
Synchronizing state of nagios-nrpe-server.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: inactive
lavena@lavena-VirtualBox:~$ sudo ufw enable
Firewall is active and enabled on system startup
lavena@lavena-VirtualBox:~$ sudo ufw allow 5666/tcp
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ 
```

Step 10: Verify that the port has been allowed. Also don't forget to allow port ssh Firewall to remote access.



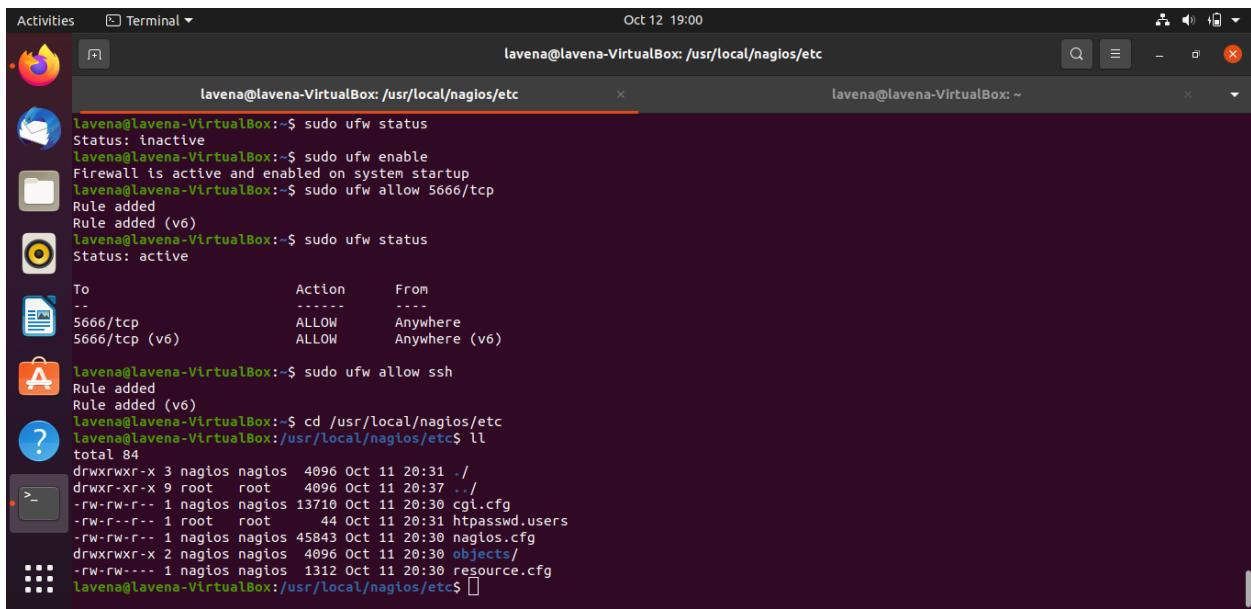
```
Oct 12 18:57
lavena@lavena-VirtualBox: ~

update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/
view (view) in auto mode
update-alternatives: using /usr/bin/vim.basic to provide /usr/bin/
ex (ex) in auto mode
Processing triggers for man-db (2.9.1-1) ...
lavena@lavena-VirtualBox:~$ sudo vim /etc/nagios/nrpe.cfg
lavena@lavena-VirtualBox:~$ sudo systemctl restart nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo systemctl enable nagios-nrpe-server
Synchronizing state of nagios-nrpe-server.service with sysv service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable nagios-nrpe-server
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: inactive
lavena@lavena-VirtualBox:~$ sudo ufw enable
Firewall is active and enabled on system startup
lavena@lavena-VirtualBox:~$ sudo ufw allow 5666/tcp
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: active
To           Action   From
--           ----    ---
5666/tcp      ALLOW    Anywhere
5666/tcp (v6) ALLOW    Anywhere (v6)

lavena@lavena-VirtualBox:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ 
```

We have successfully installed and configured NRPE agent on Remote Linux Host.

Step 11: Go to /usr/local/nagios/etc/ and use command ll



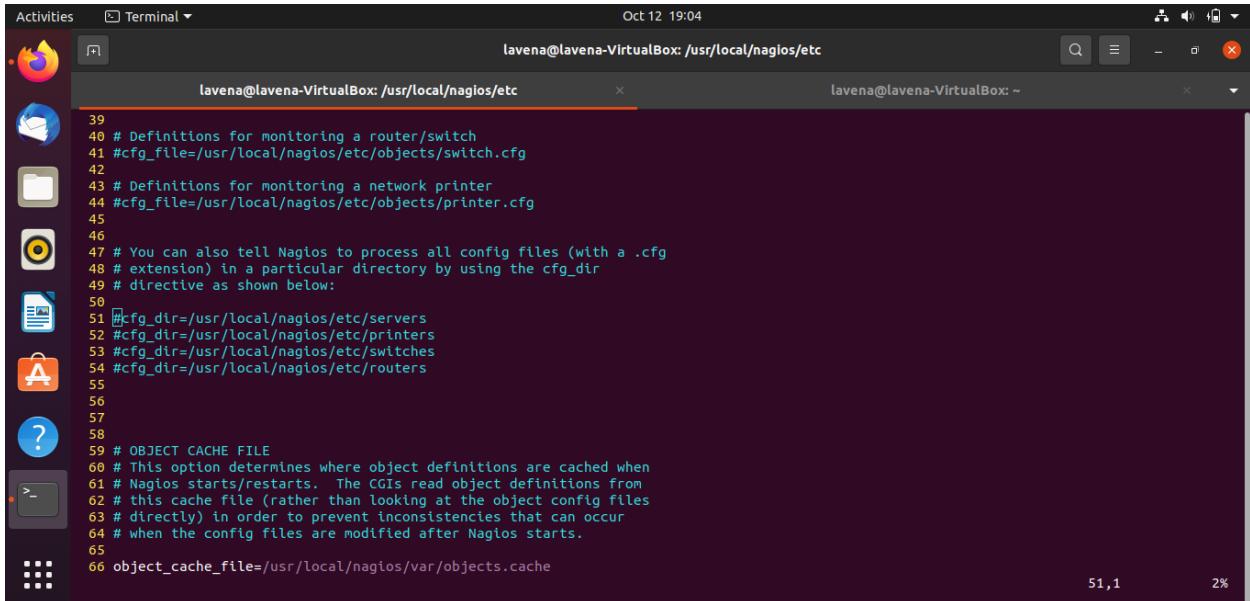
```
Oct 12 19:00
lavena@lavena-VirtualBox: /usr/local/nagios/etc

lavena@lavena-VirtualBox:~$ sudo ufw status
Status: active
lavena@lavena-VirtualBox:~$ sudo ufw enable
Firewall is active and enabled on system startup
lavena@lavena-VirtualBox:~$ sudo ufw allow 5666/tcp
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: active
To           Action   From
--           ----    ---
5666/tcp      ALLOW    Anywhere
5666/tcp (v6) ALLOW    Anywhere (v6)

lavena@lavena-VirtualBox:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ cd /usr/local/nagios/etc
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ ll
total 84
drwxrwxr-x 3 nagios nagios 4096 Oct 11 20:31 .
drwxr-xr-x 9 root  root  4096 Oct 11 20:37 ..
-rw-r--r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root  root   44 Oct 11 20:31 htpasswd.users
-rw-r--r-- 1 nagios nagios 45843 Oct 11 20:30 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
-rw-r----- 1 nagios nagios 1312 Oct 11 20:30 resource.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ 
```

Step 12: If there is no ‘servers’ folder, then create one to store all server host configuration. Using command

\$ sudo vim nagios.cfg



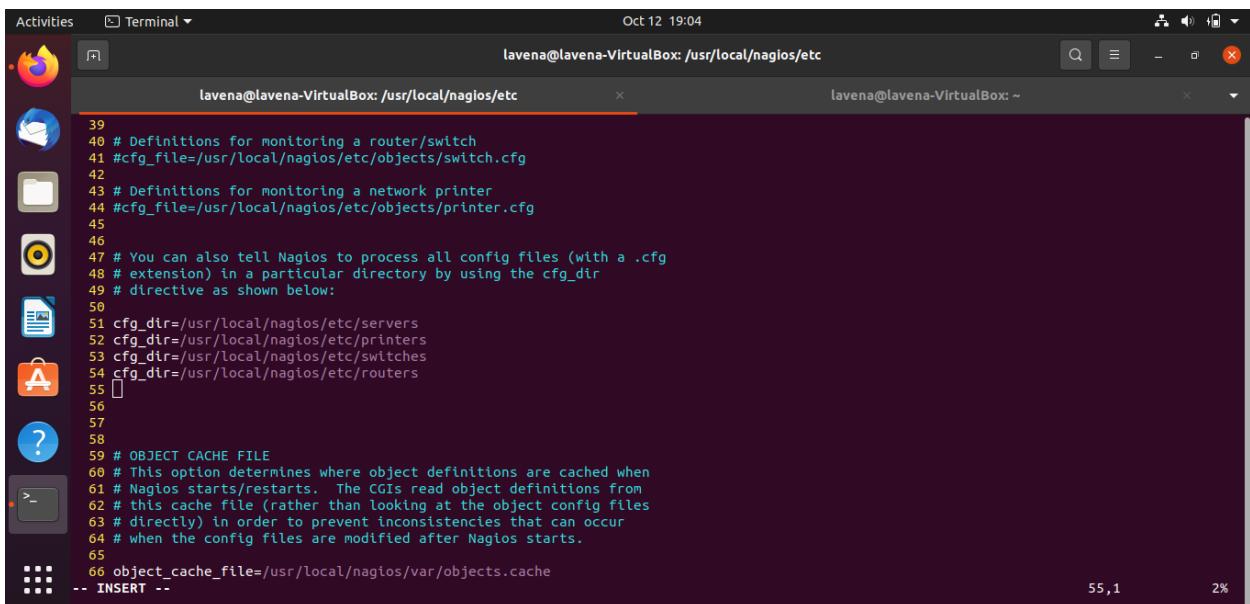
```

Activities Terminal Oct 12 19:04
lavena@lavena-VirtualBox: /usr/local/nagios/etc
lavena@lavena-VirtualBox: ~

39
40 # Definitions for monitoring a router/switch
41 #cfg_file=/usr/local/nagios/etc/objects/switch.cfg
42
43 # Definitions for monitoring a network printer
44 #cfg_file=/usr/local/nagios/etc/objects/printer.cfg
45
46
47 # You can also tell Nagios to process all config files (with a .cfg
48 # extension) in a particular directory by using the cfg_dir
49 # directive as shown below:
50
51 #cfg_dir=/usr/local/nagios/etc/servers
52 #cfg_dir=/usr/local/nagios/etc/printers
53 #cfg_dir=/usr/local/nagios/etc/switches
54 #cfg_dir=/usr/local/nagios/etc/routers
55
56
57
58
59 # OBJECT CACHE FILE
60 # This option determines where object definitions are cached when
61 # Nagios starts/restarts. The CGIs read object definitions from
62 # this cache file (rather than looking at the object config files
63 # directly) in order to prevent inconsistencies that can occur
64 # when the config files are modified after Nagios starts.
65
66 object_cache_file=/usr/local/nagios/var/objects.cache

```

Step 13: add the following lines



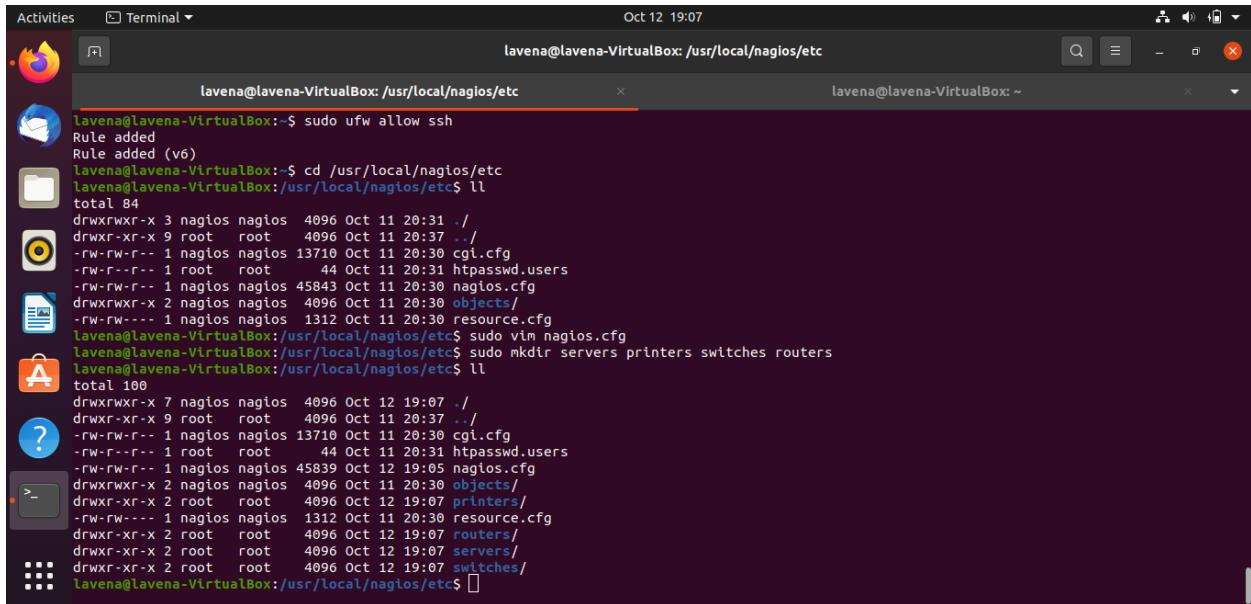
```

Activities Terminal Oct 12 19:04
lavena@lavena-VirtualBox: /usr/local/nagios/etc
lavena@lavena-VirtualBox: ~

39
40 # Definitions for monitoring a router/switch
41 #cfg_file=/usr/local/nagios/etc/objects/switch.cfg
42
43 # Definitions for monitoring a network printer
44 #cfg_file=/usr/local/nagios/etc/objects/printer.cfg
45
46
47 # You can also tell Nagios to process all config files (with a .cfg
48 # extension) in a particular directory by using the cfg_dir
49 # directive as shown below:
50
51 cfg_dir=/usr/local/nagios/etc/servers
52 cfg_dir=/usr/local/nagios/etc/printers
53 cfg_dir=/usr/local/nagios/etc/switches
54 cfg_dir=/usr/local/nagios/etc/routers
55
56
57
58
59 # OBJECT CACHE FILE
60 # This option determines where object definitions are cached when
61 # Nagios starts/restarts. The CGIs read object definitions from
62 # this cache file (rather than looking at the object config files
63 # directly) in order to prevent inconsistencies that can occur
64 # when the config files are modified after Nagios starts.
65
66 object_cache_file=/usr/local/nagios/var/objects.cache
-- INSERT --

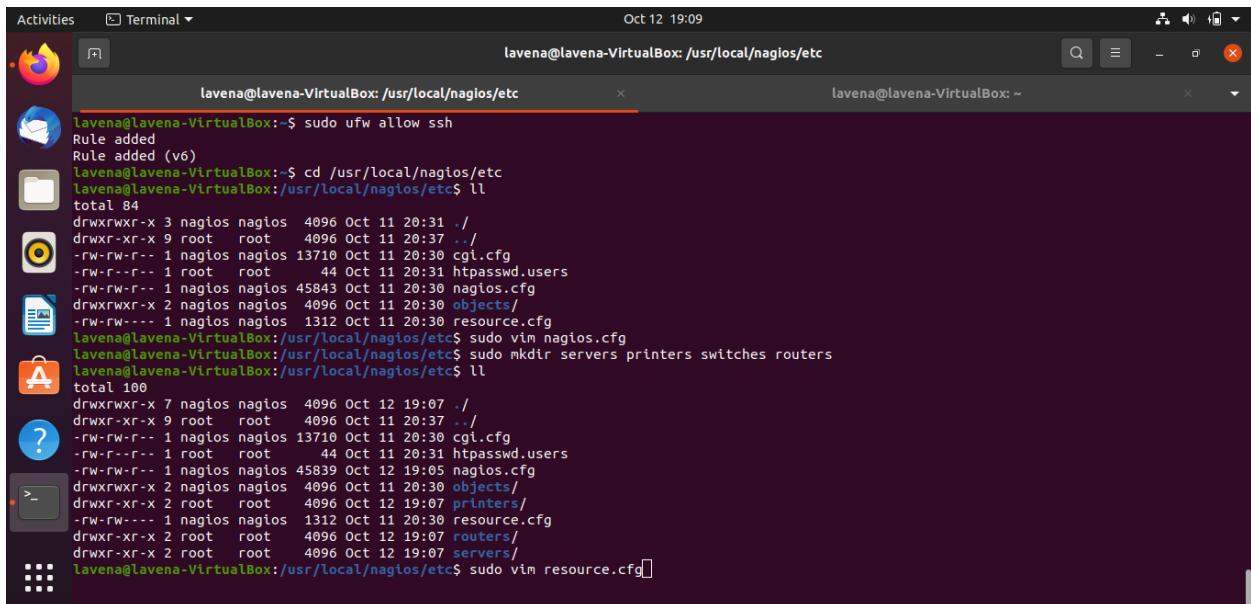
```

Step 14: Create directory of server



```

Activities Terminal Oct 12 19:07
lavena@lavena-VirtualBox: /usr/local/nagios/etc
lavena@lavena-VirtualBox:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ cd /usr/local/nagios/etc
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ ll
total 84
drwxrwxr-x 3 nagios nagios 4096 Oct 11 20:31 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ..
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw-r-- 1 nagios nagios 45843 Oct 11 20:30 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
-rw-rw---- 1 nagios nagios 1312 Oct 11 20:30 resource.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo vim nagios.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo mkdir servers printers switches routers
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ ll
total 100
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:07 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ..
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1312 Oct 11 20:30 resource.cfg
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ 
```



```

Activities Terminal Oct 12 19:09
lavena@lavena-VirtualBox: /usr/local/nagios/etc
lavena@lavena-VirtualBox:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ cd /usr/local/nagios/etc
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ ll
total 84
drwxrwxr-x 3 nagios nagios 4096 Oct 11 20:31 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ..
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw-r-- 1 nagios nagios 45843 Oct 11 20:30 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
-rw-rw---- 1 nagios nagios 1312 Oct 11 20:30 resource.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo vim nagios.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo mkdir servers printers switches routers
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ ll
total 100
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:07 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ..
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1312 Oct 11 20:30 resource.cfg
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo vim resource.cfg 
```

Activities Terminal Oct 12 19:12 lavena@lavena-VirtualBox: /usr/local/nagios/etc

```

11 # a different directory in the future, you can just update one or two
12 # $USERx$ macros, instead of modifying a lot of command definitions.
13 #
14 # The CGIs will not attempt to read the contents of resource files, so
15 # you can set restrictive permissions (600 or 660) on them.
16 #
17 # Nagios supports up to 256 $USERx$ macros ($USER1$ through $USER256$)
18 #
19 # Resource files may also be used to store configuration directives for
20 # external data sources like MySQL...
21 #
22 ######
23
24 # Sets $USER1$ to be the path to the plugins
25 #$USER1$=/usr/local/nagios/libexec
26 $USER1$=/usr/lib/nagios/plugins[]
27 # Sets $USER2$ to be the path to event handlers
28 #$USER2$=/usr/local/nagios/libexec/eventhandlers
29
30 # Store some usernames and passwords (hidden from the CGIs)
31 #$USER3$=someuser
32 #$USER4$=somepassword
33
~-
~-
~-
~-
~-
-- INSERT --

```

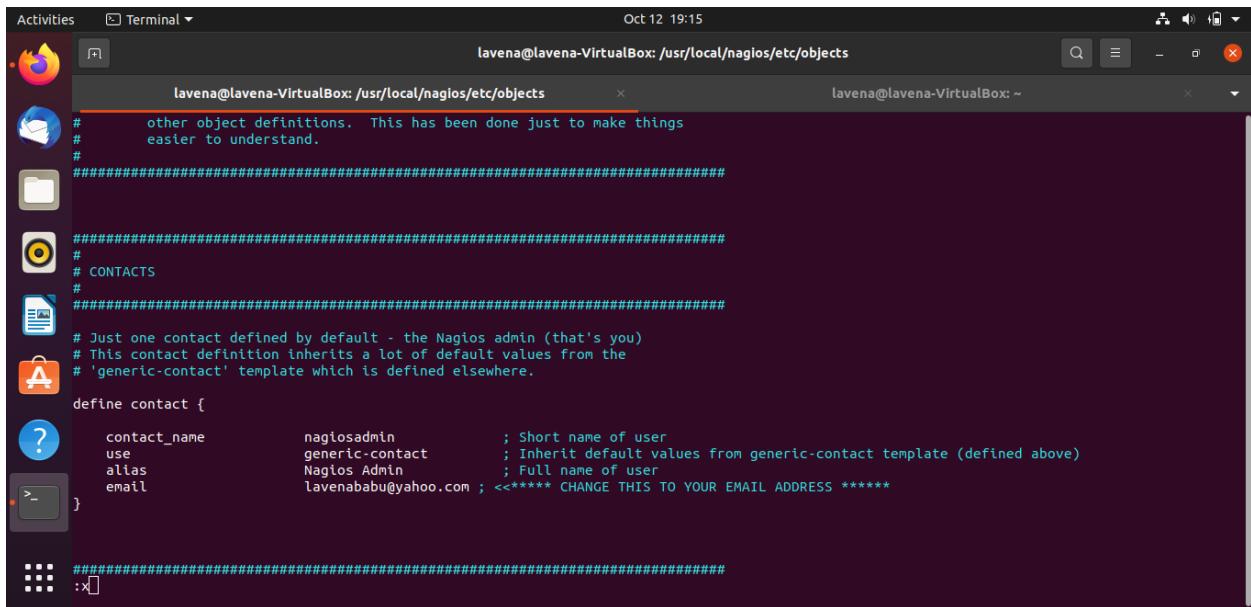
26,32 Bot

Activities Terminal Oct 12 19:13 lavena@lavena-VirtualBox: /usr/local/nagios/etc

```

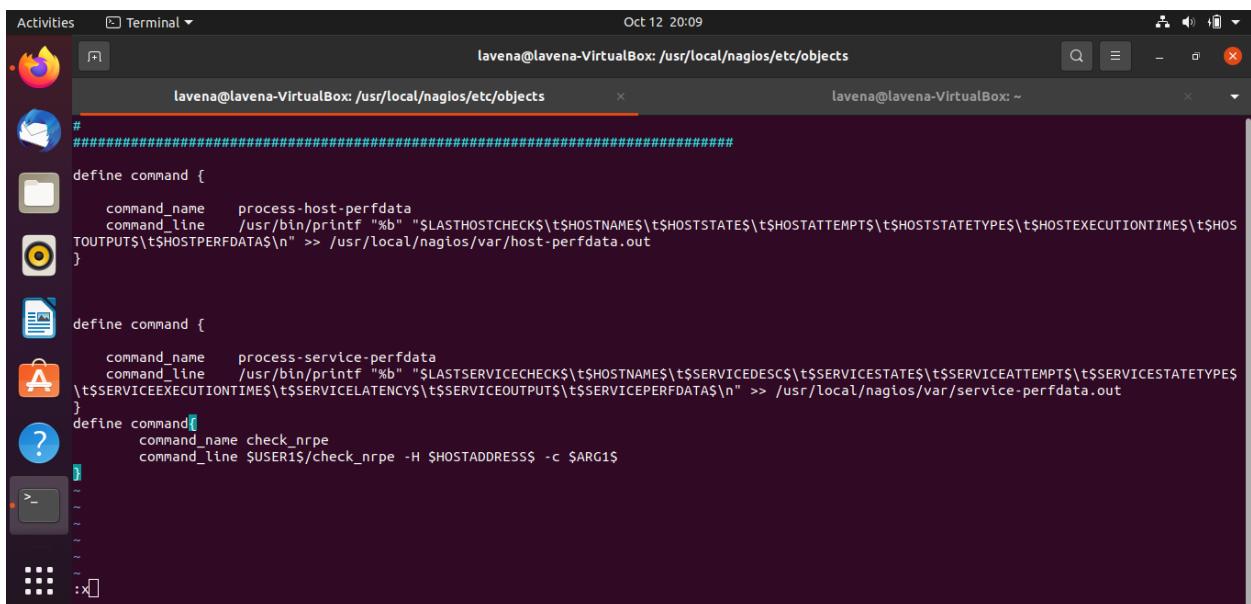
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ../
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-rf-r-- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1312 Oct 11 20:30 resource.cfg
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo vim resource.cfg

[1]+ Stopped sudo vim resource.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo vim resource.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ sudo vim resource.cfg
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ ll
total 112
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 ../
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ../
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-rf-r-- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 11 20:30 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-rf---- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox:/usr/local/nagios/etc$ cd objects/
```



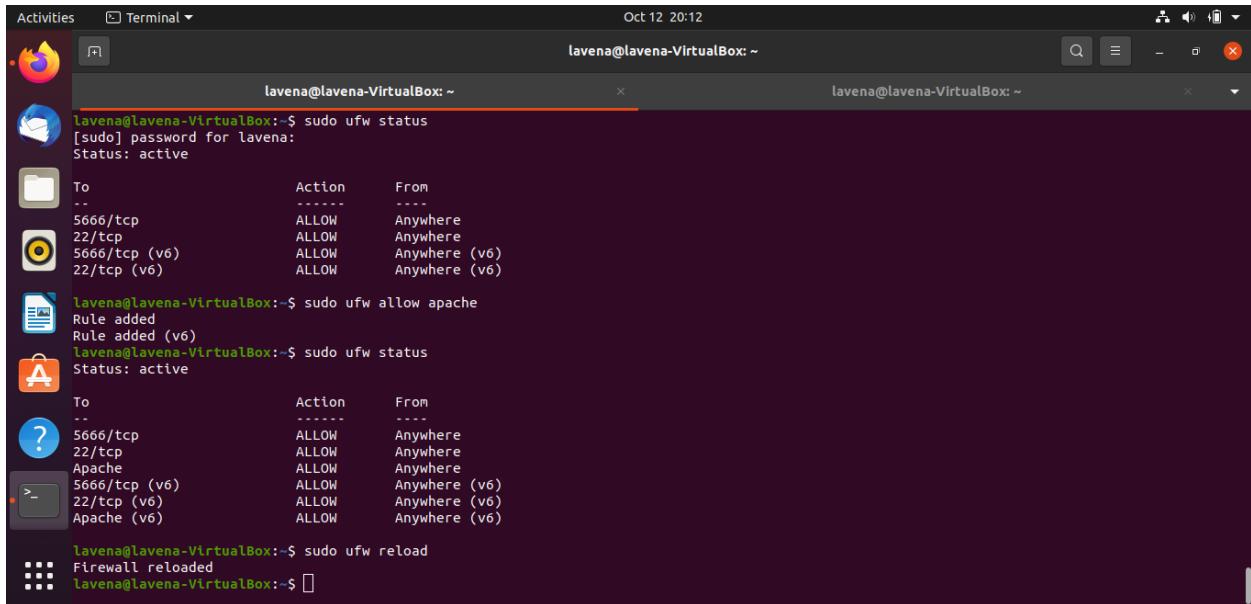
Activities Terminal Oct 12 19:15

```
lavena@lavena-VirtualBox: /usr/local/nagios/etc/objects
# other object definitions. This has been done just to make things
# easier to understand.
#
#####
#
# CONTACTS
#
#####
# Just one contact defined by default - the Nagios admin (that's you)
# This contact definition inherits a lot of default values from the
# 'generic-contact' template which is defined elsewhere.
define contact {
    contact_name      nagiosadmin      ; Short name of user
    use               generic-contact   ; Inherit default values from generic-contact template (defined above)
    alias             Nagios Admin    ; Full name of user
    email             lavenababu@yahoo.com ; <<***** CHANGE THIS TO YOUR EMAIL ADDRESS *****
}
#####
:x[]
```



Activities Terminal Oct 12 20:09

```
lavena@lavena-VirtualBox: /usr/local/nagios/etc/objects
#
#####
define command {
    command_name  process-host-perfdata
    command_line  /usr/bin/printf "%b" "$LASTHOSTCHECK\$\$HOSTNAME\$\$HOSTSTATE\$\$HOSTATTEMPTS\$\$HOSTSTATETYPE\$\$HOSTEXECUTIONTIME\$\$HOSTPERFDATA\$n" >> /usr/local/nagios/var/host-perfdata.out
}
define command {
    command_name  process-service-perfdata
    command_line  /usr/bin/printf "%b" "$LASTSERVICECHECK\$\$HOSTNAME\$\$SERVICEDESC\$\$SERVICESTATE\$\$SERVICEATTEMPTS\$\$SERVICESTATETYPE\$\$SERVICEEXECUTIONTIME\$\$SERVICELATENCY\$\$SERVICEOUTPUT\$\$SERVICEPERFDATA\$n" >> /usr/local/nagios/var/service-perfdata.out
}
define command{
    command_name check_nrpe
    command_line $USER1$/check_nrpe -H $HOSTADDRESS$ -c $ARG1$
```



Activities Terminal Oct 12 20:12

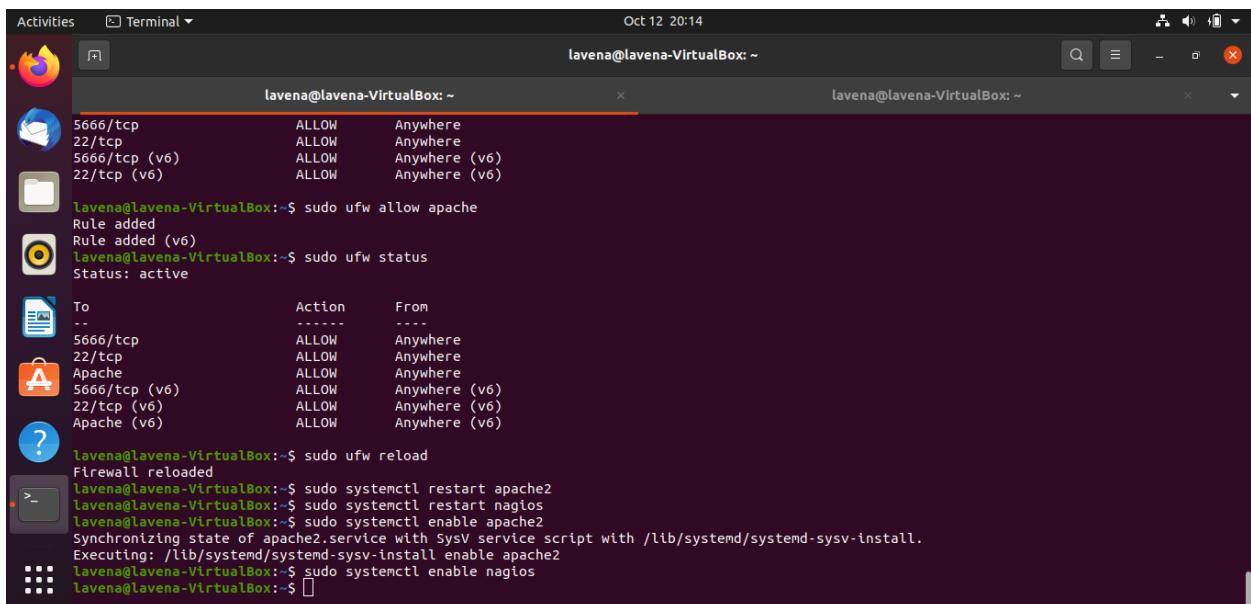
```
lavena@lavena-VirtualBox:~$ sudo ufw status
[sudo] password for lavena:
Status: active

To           Action    From
--          ----     ---
5666/tcp      ALLOW     Anywhere
22/tcp        ALLOW     Anywhere
5666/tcp (v6) ALLOW     Anywhere (v6)
22/tcp (v6)   ALLOW     Anywhere (v6)

lavena@lavena-VirtualBox:~$ sudo ufw allow apache
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: active

To           Action    From
--          ----     ---
5666/tcp      ALLOW     Anywhere
22/tcp        ALLOW     Anywhere
Apache        ALLOW     Anywhere
5666/tcp (v6) ALLOW     Anywhere (v6)
22/tcp (v6)   ALLOW     Anywhere (v6)
Apache (v6)   ALLOW     Anywhere (v6)

lavena@lavena-VirtualBox:~$ sudo ufw reload
Firewall reloaded
lavena@lavena-VirtualBox:~$ 
```



Activities Terminal Oct 12 20:14

```
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: active

To           Action    From
--          ----     ---
5666/tcp      ALLOW     Anywhere
22/tcp        ALLOW     Anywhere
5666/tcp (v6) ALLOW     Anywhere (v6)
22/tcp (v6)   ALLOW     Anywhere (v6)

lavena@lavena-VirtualBox:~$ sudo ufw allow apache
Rule added
Rule added (v6)
lavena@lavena-VirtualBox:~$ sudo ufw status
Status: active

To           Action    From
--          ----     ---
5666/tcp      ALLOW     Anywhere
22/tcp        ALLOW     Anywhere
Apache        ALLOW     Anywhere
5666/tcp (v6) ALLOW     Anywhere (v6)
22/tcp (v6)   ALLOW     Anywhere (v6)
Apache (v6)   ALLOW     Anywhere (v6)

lavena@lavena-VirtualBox:~$ sudo ufw reload
Firewall reloaded
lavena@lavena-VirtualBox:~$ sudo systemctl restart apache2
lavena@lavena-VirtualBox:~$ sudo systemctl restart nagios
lavena@lavena-VirtualBox:~$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
lavena@lavena-VirtualBox:~$ sudo systemctl enable nagios
lavena@lavena-VirtualBox:~$ 
```

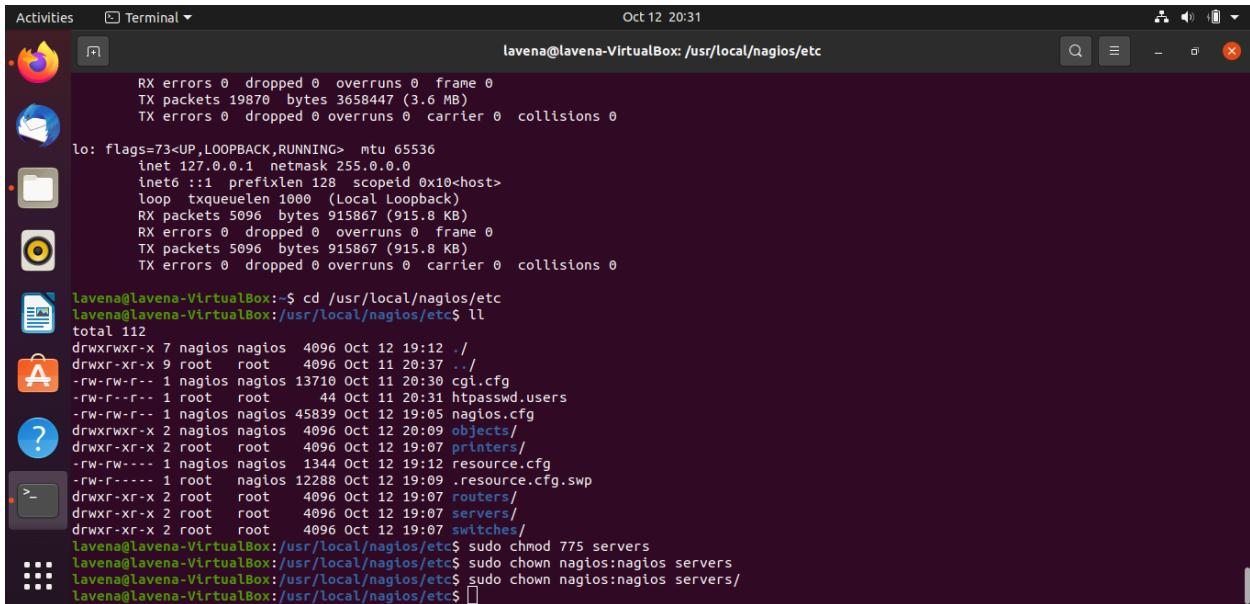
```
Activities Terminal Oct 12 20:16
lavena@lavena-VirtualBox: ~
lavena@lavena-VirtualBox:~$ sudo ufw reload
Firewall reloaded
lavena@lavena-VirtualBox:~$ sudo systemctl restart apache2
lavena@lavena-VirtualBox:~$ sudo systemctl restart nagios
lavena@lavena-VirtualBox:~$ sudo systemctl enable apache2
Synchronizing state of apache2.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable apache2
lavena@lavena-VirtualBox:~$ sudo systemctl enable nagios
lavena@lavena-VirtualBox:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
     Active: active (running) since Wed 2022-10-12 20:13:35 IST; 2min 9s ago
       Docs: https://httpd.apache.org/docs/2.4/
          Main PID: 15770 (apache2)
             Tasks: 6 (limit: 5676)
            Memory: 10.1M
           CGroup: /system.slice/apache2.service
                   ├─15770 /usr/sbin/apache2 -k start
                   ├─15771 /usr/sbin/apache2 -k start
                   ├─15772 /usr/sbin/apache2 -k start
                   ├─15773 /usr/sbin/apache2 -k start
                   ├─15774 /usr/sbin/apache2 -k start
                   └─15775 /usr/sbin/apache2 -k start

Oct 12 20:13:35 lavena-VirtualBox systemd[1]: Starting The Apache HTTP Server...
Oct 12 20:13:35 lavena-VirtualBox apachectl[15769]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using lavena-VirtualBox for Port 80
Oct 12 20:13:35 lavena-VirtualBox systemd[1]: Started The Apache HTTP Server.
lines 1-18/18 (END)
```

```
Activities Terminal Oct 12 20:17
lavena@lavena-VirtualBox: ~
lavena@lavena-VirtualBox:~$ sudo systemctl status nagios
● nagios.service - Nagios Core 4.4.6
   Loaded: loaded (/lib/systemd/system/nagios.service; enabled; vendor preset: enabled)
     Active: active (running) since Wed 2022-10-12 20:14:01 IST; 3min 27s ago
       Docs: https://www.nagios.org/documentation
          Main PID: 15787 (nagios)
             Tasks: 6 (limit: 5676)
            Memory: 2.2M
           CGroup: /system.slice/nagios.service
                   ├─15787 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
                   ├─15788 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   ├─15789 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   ├─15790 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   ├─15791 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
                   └─15792 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg

Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: qh: Socket '/usr/local/nagios/var/rw/nagios.qh' successfully initialized
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: qh: core query handler registered
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: qh: echo service query handler registered
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: qh: help for the query handler registered
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: wproc: Successfully registered manager as @wproc with query handler
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: wproc: Registry request: name=Core Worker 15789;pid=15789
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: wproc: Registry request: name=Core Worker 15791;pid=15791
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: wproc: Registry request: name=Core Worker 15790;pid=15790
Oct 12 20:14:01 lavena-VirtualBox nagios[15787]: wproc: Registry request: name=Core Worker 15788;pid=15788
Oct 12 20:14:02 lavena-VirtualBox nagios[15787]: Successfully launched command file worker with pid 15792
lavena@lavena-VirtualBox:~$
```

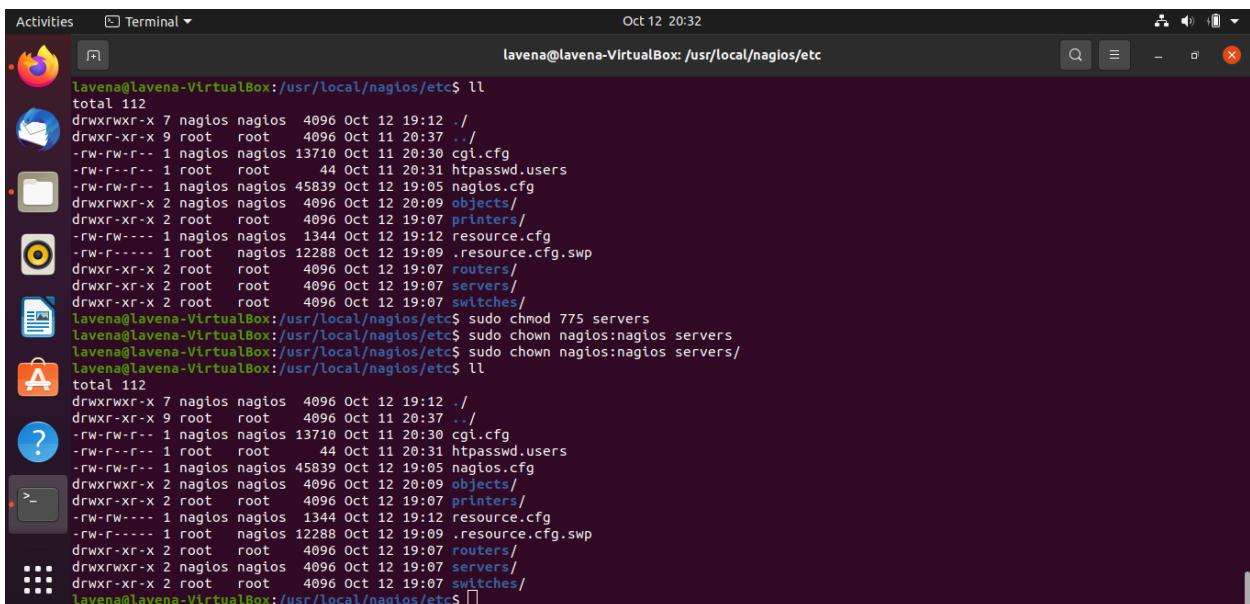
Step 15: Change permission on servers folder



```

Activities Terminal Oct 12 20:31
lavena@lavena-VirtualBox: /usr/local/nagios/etc
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ ll
total 112
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ../
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 htaccess.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:09 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-r----- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chmod 775 servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chown nagios:nagios servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chown nagios:nagios servers/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ 

```



```

Activities Terminal Oct 12 20:32
lavena@lavena-VirtualBox: /usr/local/nagios/etc
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ ll
total 112
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ../
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 htaccess.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:09 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-r----- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chmod 775 servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chown nagios:nagios servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chown nagios:nagios servers/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ ll
total 112
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ../
-rw-rw-r-- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r--r-- 1 root root 44 Oct 11 20:31 htaccess.users
-rw-rw-r-- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:09 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-r----- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 nagios nagios 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ 

```

Step 16: Go to servers directory and create a new configuration called “HG211.cfg” for define Remote Linux Host. Open and add the following content:-

```
#Replace :
# host_name = Your-Hostname
# alias = Your-Alias
# address = Your-IP address of host

define host{
use                      linux-server
host_name                lavena-VirtualBox
alias                     SlaveDNS
address                   172.12.0.1
}

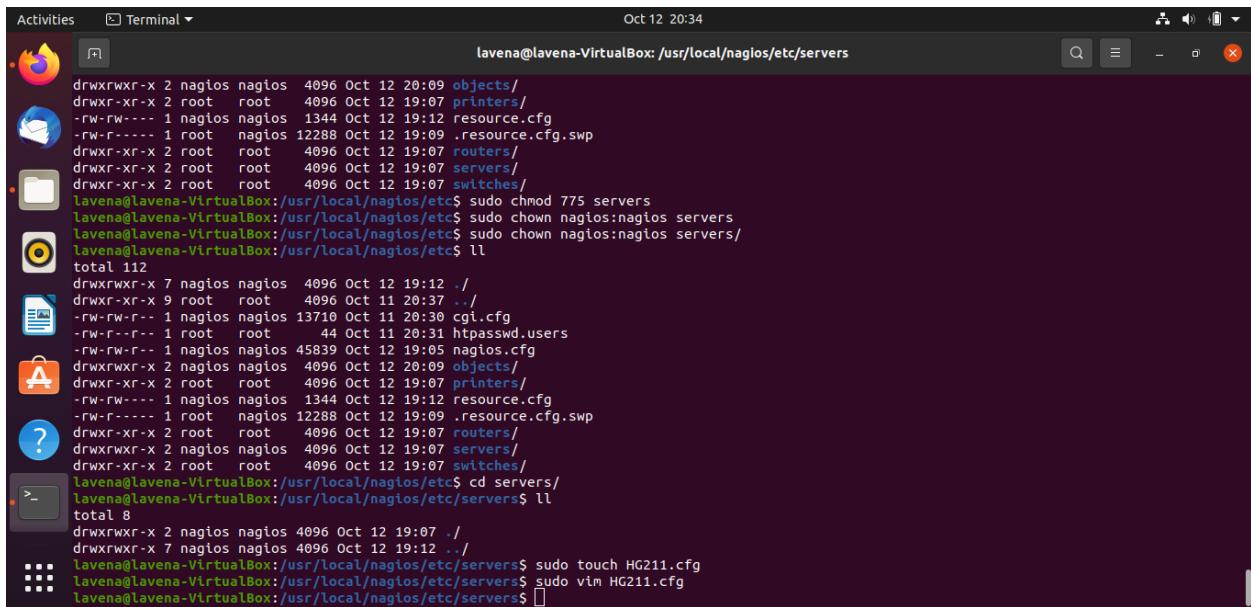
define service{
use                      local-service
host_name                lavena-VirtualBox
service_description        Root / Partition
check_command              check_nrpe!check_disk
}

define service{
use                      local-service
host_name                lavena-VirtualBox
service_description        /mnt Partition
check_command              check_nrpe!check_mnt_disk
}

define service{
use                      local-service
host_name                lavena-VirtualBox
service_description        Current Users
check_command              check_nrpe!check_users
}

define service{
use                      local-service
host_name                lavena-VirtualBox
service_description        Total Processes
check_command              check_nrpe!check_total_procs
}

define service{
use                      local-service
host_name                lavena-VirtualBox
service_description        Current Load
check_command              check_nrpe!check_load
}
```

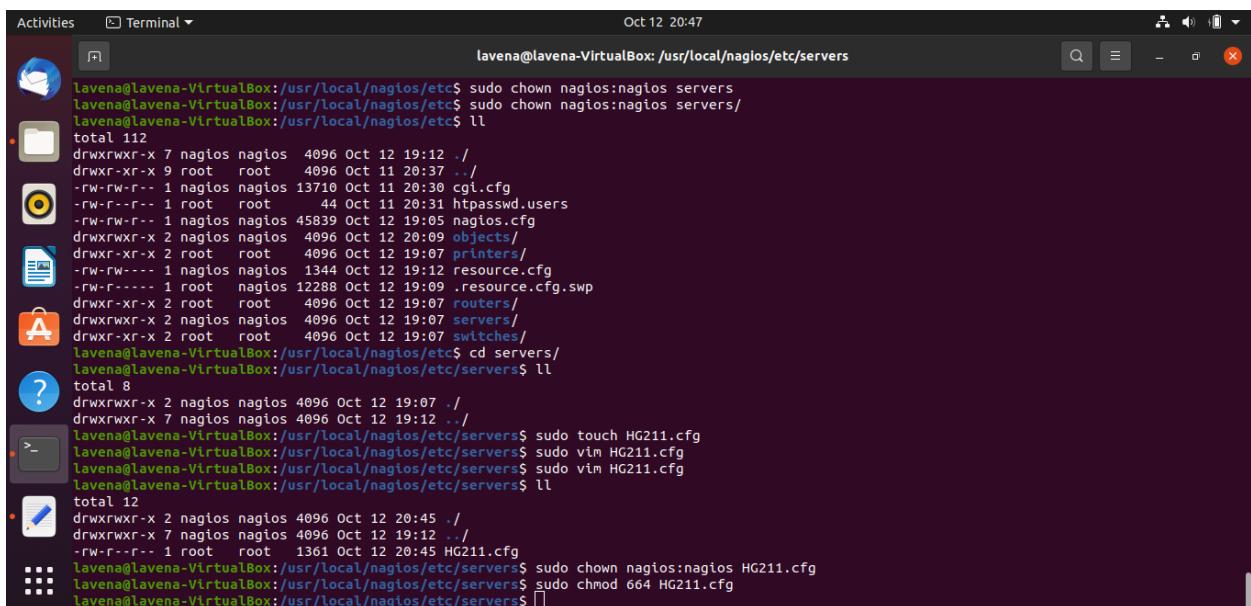


```

Activities Terminal Oct 12 20:34
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:09 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-r----- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chmod 775 servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chown nagios:nagios servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ sudo chown nagios:nagios servers/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ ll
total 112
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ..
-rw-rw---- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r----- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw---- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:09 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-r----- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxrwxr-x 2 nagios nagios 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ cd servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ ll
total 8
drwxrwxr-x 2 nagios nagios 4096 Oct 12 19:07 .
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 ..
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo touch HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo vim HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ 

```

Step 17: Change permission on HG211.cfg



```

Activities Terminal Oct 12 20:47
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers
drwxrwxr-x 2 nagios nagios 4096 Oct 12 19:07 .
drwxr-xr-x 9 root root 4096 Oct 11 20:37 ..
-rw-rw---- 1 nagios nagios 13710 Oct 11 20:30 cgi.cfg
-rw-r----- 1 root root 44 Oct 11 20:31 httpasswd.users
-rw-rw---- 1 nagios nagios 45839 Oct 12 19:05 nagios.cfg
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:09 objects/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 printers/
-rw-rw---- 1 nagios nagios 1344 Oct 12 19:12 resource.cfg
-rw-r----- 1 root nagios 12288 Oct 12 19:09 .resource.cfg.swp
drwxr-xr-x 2 root root 4096 Oct 12 19:07 routers/
drwxrwxr-x 2 nagios nagios 4096 Oct 12 19:07 servers/
drwxr-xr-x 2 root root 4096 Oct 12 19:07 switches/
lavena@lavena-VirtualBox: /usr/local/nagios/etc$ cd servers
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ ll
total 8
drwxrwxr-x 2 nagios nagios 4096 Oct 12 19:07 .
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 ..
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo touch HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo vim HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo vim HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ ll
total 12
drwxrwxr-x 2 nagios nagios 4096 Oct 12 20:45 .
drwxrwxr-x 7 nagios nagios 4096 Oct 12 19:12 ..
-rw-r----- 1 root root 1361 Oct 12 20:45 HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo chown nagios:nagios HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ sudo chmod 664 HG211.cfg
lavena@lavena-VirtualBox: /usr/local/nagios/etc/servers$ 

```

Step 18: Verify Nagios configuration file for any errors in Nagios server

```

Activities Terminal Oct 12 20:50
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

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Last Modified: 2020-04-28
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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 13 services.
    Checked 2 hosts.
    Checked 1 host groups.
    Checked 0 service groups.
    Checked 1 contacts.
    Checked 1 contact groups.
    Checked 25 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
    Checked 5 timperiods
  Checking global event handlers...

```

```

Activities Terminal Oct 12 20:51
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

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 13 services.
    Checked 2 hosts.
    Checked 1 host groups.
    Checked 0 service groups.
    Checked 1 contacts.
    Checked 1 contact groups.
    Checked 25 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
    Checked 5 timperiods
  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
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ 

```

Total warnings: 0

Total Errors: 0

Step 19: Restart Nagios server

```

Activities Terminal Oct 12 20:52
lavena@lavena-VirtualBox: / 

Running pre-flight check on configuration data...
Checking objects...
  Checked 13 services.
  Checked 2 hosts.
  checked 1 host groups.
  checked 0 service groups.
  Checked 1 contacts.
  Checked 1 contact groups.
  Checked 25 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
  checked 5 timperiods
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
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ sudo systemctl restart nagios
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ cd/
bash: cd/: No such file or directory
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ cd /
lavena@lavena-VirtualBox:/$ 

```

Step 20: Allow port 5666 on your Firewall

```

Activities Terminal Oct 12 20:53
lavena@lavena-VirtualBox: / 

Checked 2 hosts
Checked 0 service dependencies
Checked 0 host dependencies
checked 5 timperiods
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
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ sudo systemctl restart nagios
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ cd/
bash: cd/: No such file or directory
lavena@lavena-VirtualBox:/usr/local/nagios/etc/servers$ cd /
lavena@lavena-VirtualBox:/$ sudo ufw status
Status: active

To                         Action      From
--                         ----      ---
5666/tcp                   ALLOW      Anywhere
22/tcp                      ALLOW      Anywhere
Apache                      ALLOW      Anywhere
5666/tcp (v6)               ALLOW      Anywhere (v6)
22/tcp (v6)                 ALLOW      Anywhere (v6)
Apache (v6)                  ALLOW      Anywhere (v6)

lavena@lavena-VirtualBox:/$ sudo ufw allow 5666/tcp
Skipping adding existing rule
Skipping adding existing rule (v6)
lavena@lavena-VirtualBox:/$ 

```

Step 21: If faced error while viewing web interface, use command

```
$ sudo htpasswd /usr/local/nagios/etc/htpasswd.users nagiosadmin nagiosadmin
```

Use nagiosadmin as your username and password while logging in web interface.

```
lavena@lavena-VirtualBox: /usr/local/nagios/etc
# can issue shutdown and restart commands to Nagios via the
# command CGI (cmd.cgi). Users in this list can also change
# the program mode to active or standby. By default, *no one*
# has access to this unless you choose to not use authorization.
# You may use an asterisk (*) to authorize any user who has
# authenticated to the web server.

authorized_for_system_commands=nagiosadmin

# GLOBAL HOST/SERVICE VIEW ACCESS
# These two options are comma-delimited lists of all usernames that
# can view information for all hosts and services that are being
# monitored. By default, users can only view information
# for hosts or services that they are contacts for (unless you
# choose to not use authorization). You may use an asterisk (*) to
# authorize any user who has authenticated to the web server.

authorized_for_all_services=nagiosadmin,new_user
authorized_for_all_hosts=nagiosadmin,new_user

# GLOBAL HOST/SERVICE COMMAND ACCESS
# These two options are comma-delimited lists of all usernames that
# can issue host or service related commands via the command
# CGI (cmd.cgi) for all hosts and services that are being monitored.
# By default, users can only issue commands for hosts or services
# that they are contacts for (unless you choose to not use
# authorization). You may use an asterisk (*) to authorize any
-- INSERT --
```

Step 22: Check Nagios web interface, Host under Current Status.

Host Status Totals				Service Status Totals			
Up	Down	Unreachable	Pending	Ok	Warning	Unknown	Critical
2	0	0	0	7	0	0	6
All Problems All Types				All Problems All Types			
0 2				6 13			

Host Status Details For All Host Groups				
Host	Status	Last Check	Duration	Status Information
lavena-VirtualBox	UP	10-13-2022 22:56:51	0d 0h 39m 33s	PING OK - Packet loss = 0%, RTA = 0.09 ms
localhost	UP	10-13-2022 22:58:21	2d 1h 6m 14s	PING OK - Packet loss = 0%, RTA = 0.10 ms

Reference: <https://www.youtube.com/watch?v=HOqA1zVEWSk>