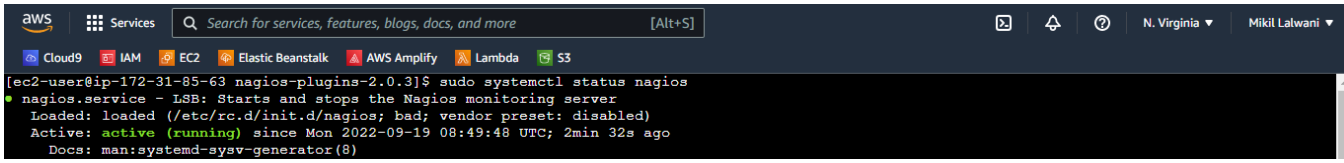
Steps:

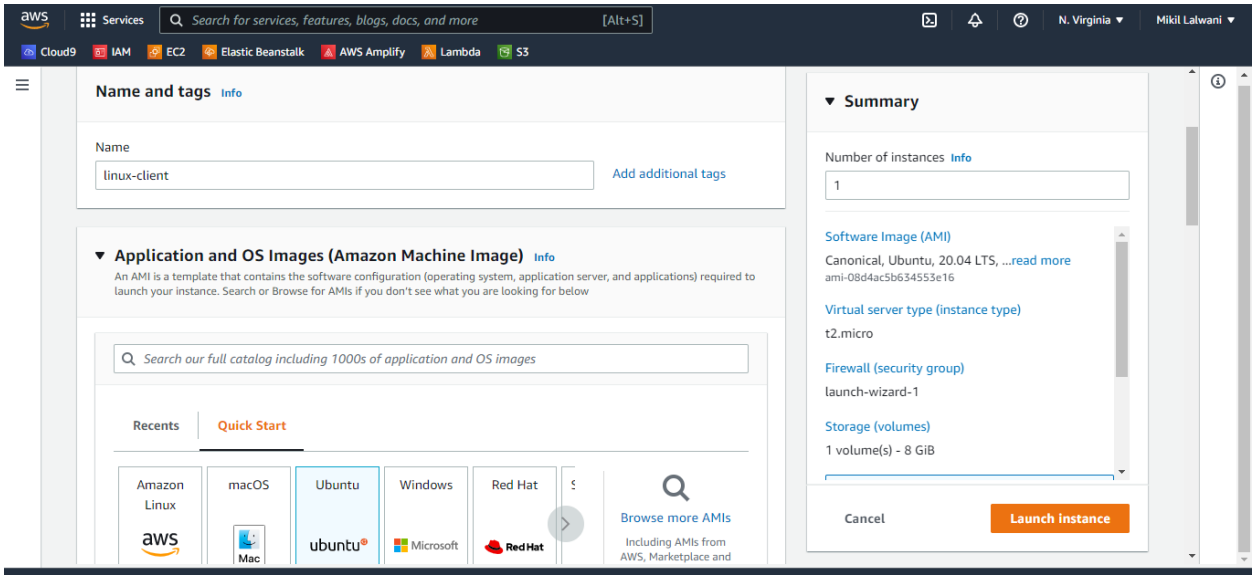
Prerequisites: AWS Free Tier, Nagios Server running on Amazon Linux Machine.

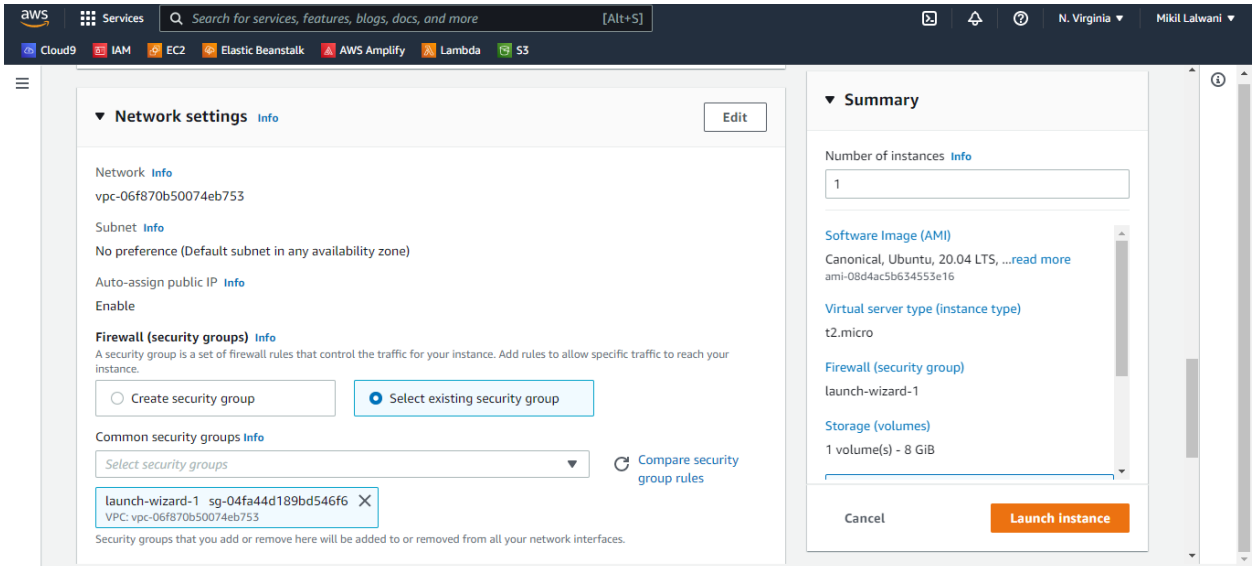
1. To Confirm that Nagios is running on the server side, run this sudo systemctl status nagios on the “NAGIOS HOST”.

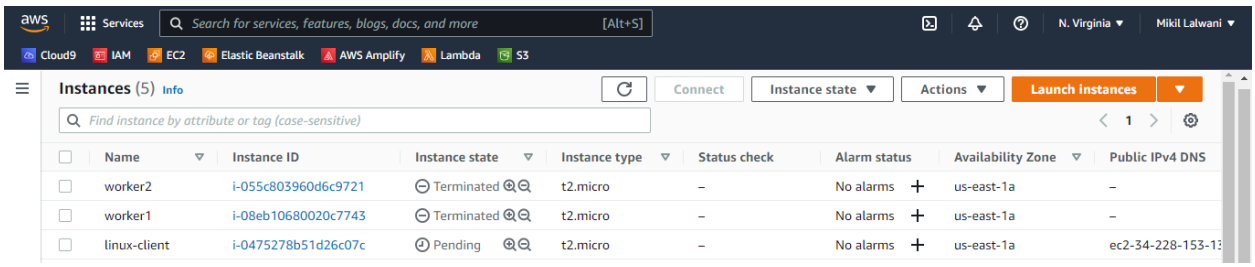



   You can proceed if you get this message.

2. Before we begin,
   To monitor a Linux machine, create an Ubuntu 20.04 server EC2 Instance in AWS.
   Provide it with the same security group as the Nagios Host and name it ‘linux-client’ alongside the host.
   For now, leave this machine as is, and go back to your nagios HOST machine.






3. On the server, run this command
   ps -ef | grep nagios

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ ps -ef | grep nagios
ec2-user   374  3639  0 09:00 pts/0    00:00:00 grep --color=auto nagios
nagios   32672     1  0 08:49 ?        00:00:00 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
nagios   32674 32672  0 08:49 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios   32675 32672  0 08:49 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios   32676 32672  0 08:49 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios   32677 32672  0 08:49 ?        00:00:00 /usr/local/nagios/bin/nagios --worker /usr/local/nagios/var/rw/nagios.qh
nagios   32678 32672  0 08:49 ?        00:00:00 /usr/local/nagios/bin/nagios -d /usr/local/nagios/etc/nagios.cfg
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$
```

i-08b8730a96386dae3 (nagios-host)

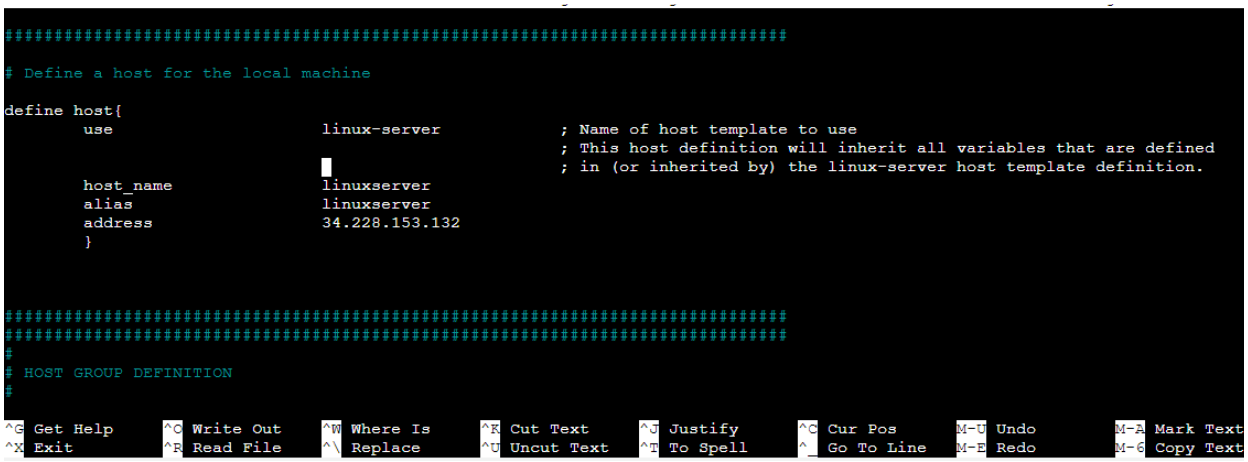
4. Become a root user and create 2 folders
   sudo su
   mkdir /usr/local/nagios/etc/objects/monitorhosts
   mkdir /usr/local/nagios/etc/objects/monitorhosts/linuxhosts

```
[ec2-user@ip-172-31-85-63 nagios-plugins-2.0.3]$ sudo su
[root@ip-172-31-85-63 nagios-plugins-2.0.3]# mkdir /usr/local/nagios/etc/objects/monitorhosts
[root@ip-172-31-85-63 nagios-plugins-2.0.3]# mkdir /usr/local/nagios/etc/objects/monitorhosts/linuxhosts
[root@ip-172-31-85-63 nagios-plugins-2.0.3]#
```

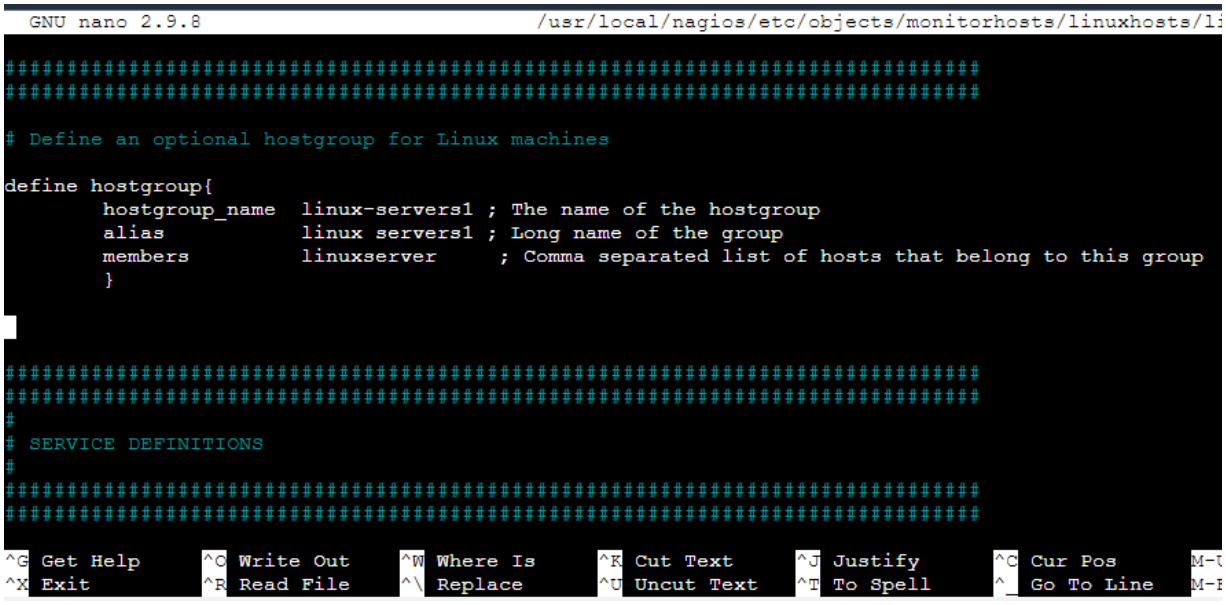
i-08b8730a96386dae3 (nagios-host)

5. Copy the sample localhost.cfg file to linuxhost folder
   cp /usr/local/nagios/etc/objects/localhost.cfg
   /usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg

6. Open linuxserver.cfg using nano and make the following changes
   nano
   /usr/local/nagios/etc/objects/monitorhosts/linuxhosts/linuxserver.cfg
   Change the hostname to linuxserver (EVERYWHERE ON THE FILE)
   Change address to the public IP address of your LINUX CLIENT.




   Change hostgroup_name under hostgroup to linux-servers1



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

7. Open the Nagios Config file and add the following line
   nano /usr/local/nagios/etc/nagios.cfg
   ##Add this line
   cfg_dir=/usr/local/nagios/etc/objects/monitorhosts/

```
#cfg_file=/usr/local/nagios/etc/objects/switch.cfg

# Definitions for monitoring a network printer
#cfg_file=/usr/local/nagios/etc/objects/printer.cfg


# You can also tell Nagios to process all config files (with a .cfg
# extension) in a particular directory by using the cfg_dir
# directive as shown below:

#cfg_dir=/usr/local/nagios/etc/servers
#cfg_dir=/usr/local/nagios/etc/printers
#cfg_dir=/usr/local/nagios/etc/switches
#cfg_dir=/usr/local/nagios/etc/routers
cfg_dir=/usr/local/nagios/etc/objects/monitorhosts/



# OBJECT CACHE FILE
# This option determines where object definitions are cached when
```

8. Verify the configuration files
   sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

```
[root@ip-172-31-85-63 nagios-plugins-2.0.3]# sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg

Nagios Core 4.0.8
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Last Modified: 08-12-2014
License: GPL

Website: http://www.nagios.org
Reading configuration data...
   Read main config file okay...
Warning: Duplicate definition found for service 'Root Partition' on host 'linuxserver' (config file '/usr/local/nagios/etc/objects/monitorhosts/linuxh
osts/linuxserver.cfg', starting on line 64)
   Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
       Checked 15 services.
       Checked 2 hosts.
       Checked 2 host groups.
       Checked 0 service groups.
       Checked 1 contacts.
       Checked 1 contact groups.
```

   You are good to go if there are no errors.

9. Restart the nagios service

service nagios restart

Now it is time to switch to the client machine.

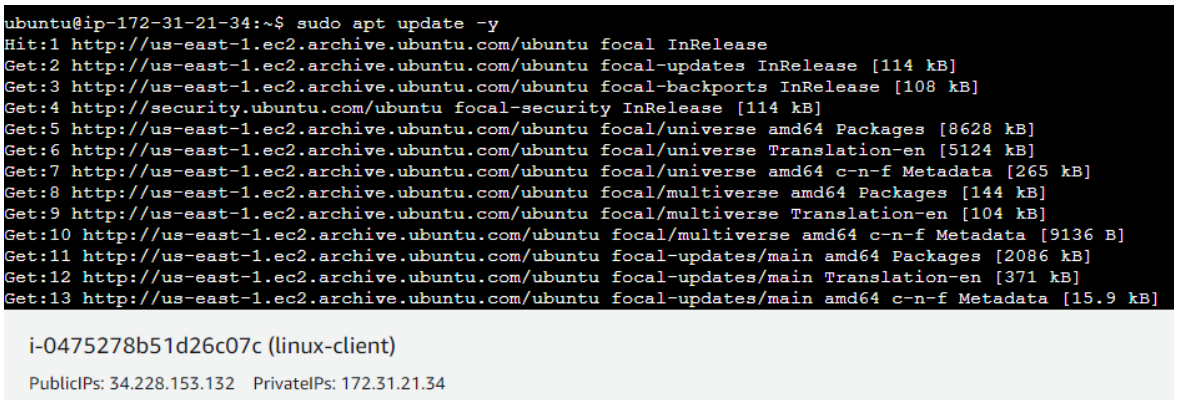
10. SSH into the machine or simply use the EC2 Instance Connect feature.

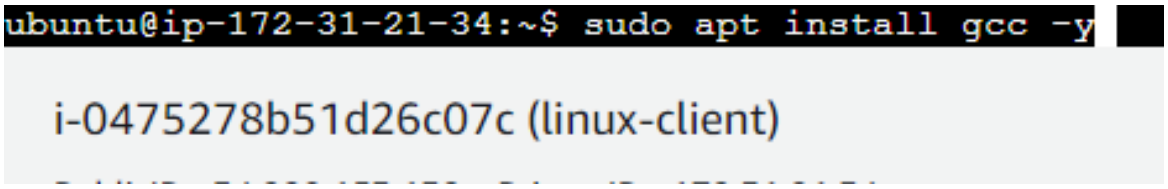
11. Make a package index update and install gcc, nagios-nrpe-server and the plugins.

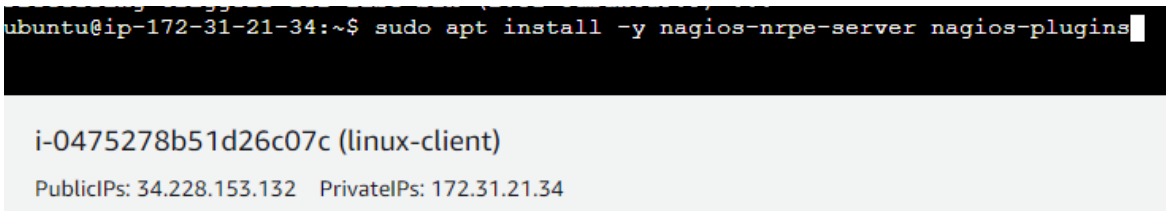
    sudo apt update -y

    sudo apt install gcc -y

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




12. Open nrpe.cfg file to make changes.

    sudo nano /etc/nagios/nrpe.cfg

    Under allowed_hosts, add your nagios host IP address like so

13. Restart the NRPE server

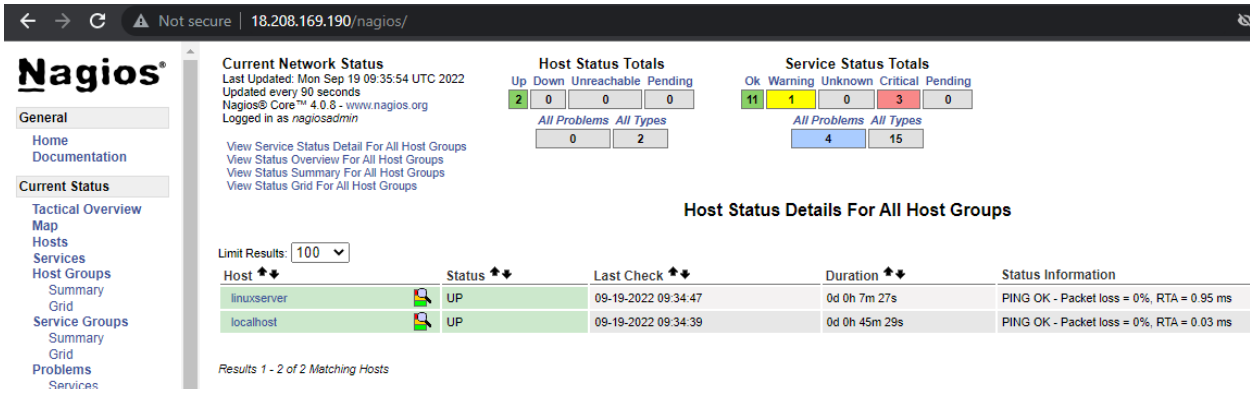
    sudo systemctl restart nagios-nrpe-server

```
ubuntu@ip-172-31-21-34:~$ sudo systemctl restart nagios-nrpe-server
ubuntu@ip-172-31-21-34:~$
```

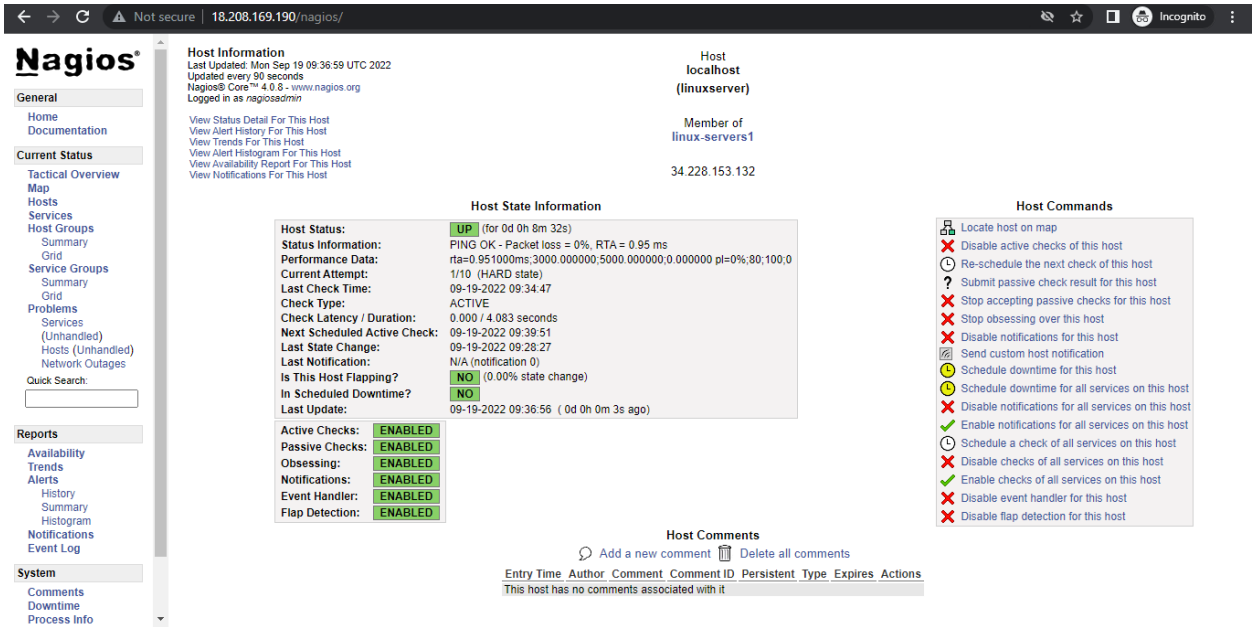
i-0475278b51d26c07c (linux-client)

PublicIPs: 34.228.153.132 PrivateIPs: 172.31.21.34

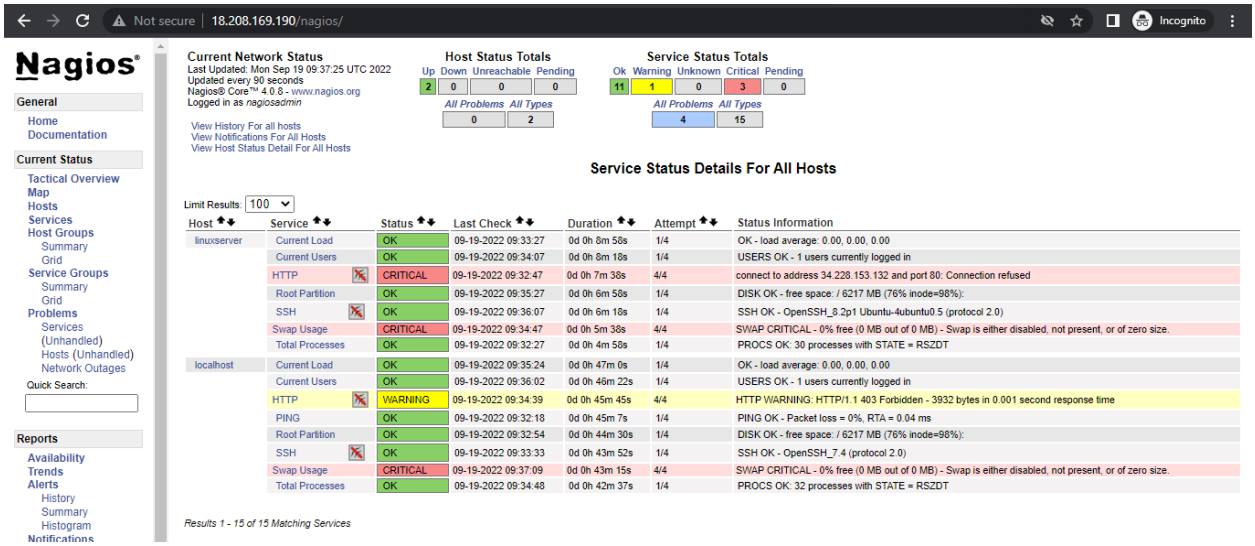
14. Now, check your nagios dashboard and you'll see a new host being added. Click on Hosts.




Click on linuxserver to see the host details




You can click Services to see all services and ports being monitored.




**As you can see, we have our linuxserver up and running. It is showing critical status on HTTP due to permission errors and swap because there is no partition created.**

**In this case, we have monitored -**
**Servers: 1 linux server**
**Services: swap**
**Ports: 22, 80 (ssh, http)**
**Processes: User status, Current load, total processes, root partition, etc.**

**Recommended Cleanup**

- Terminate both of your EC-2 instances to avoid charges.
- Delete the security group if you created a new one (it won't affect your bill, you may avoid it).