

**Aim:** Nagios.

**Objectives:**

- Set up Nagios on Ubuntu
- Monitor a Windows machine using Nagios
- Access the Nagios Dashboard

**Tools Used:** Virtual box, Ubuntu , Nagios

**Concepts:**

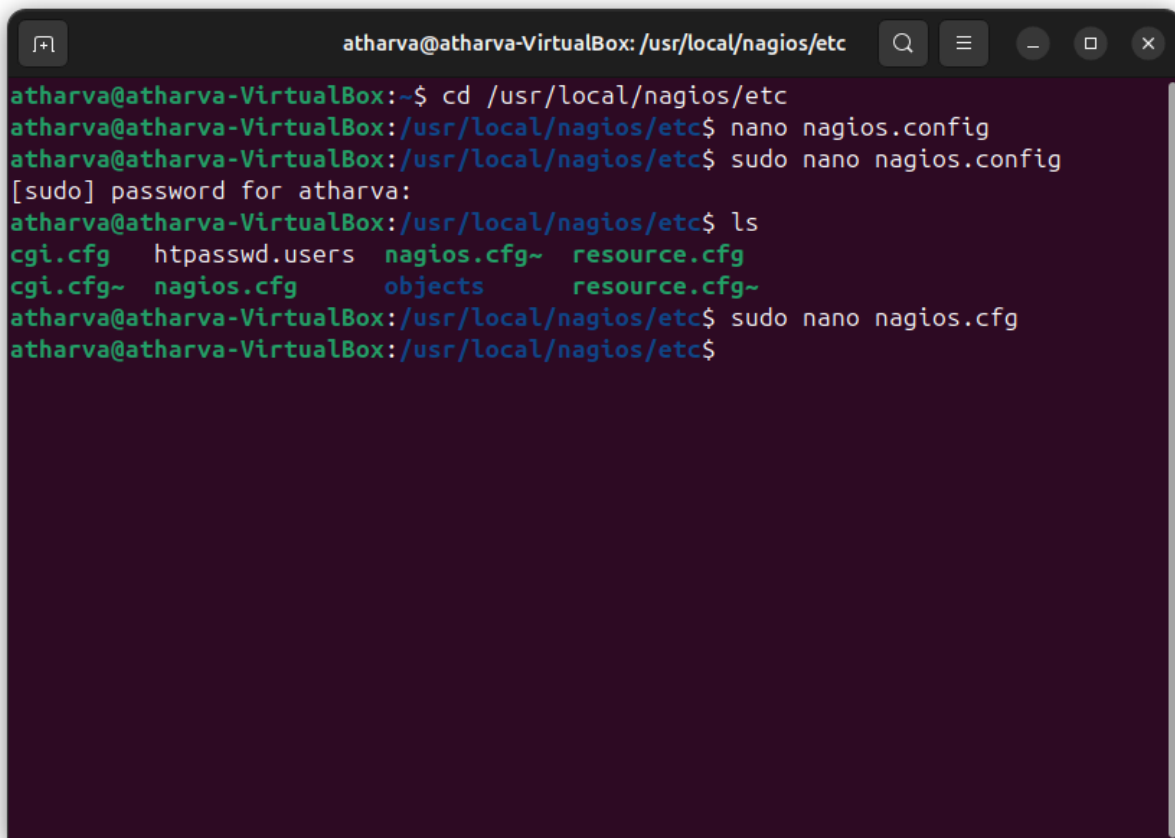
Network Monitoring, Nagios Configuration, IP & Hostname Identification, Service Management

**Problem Statement:** To monitor a Windows machine using Nagios installed on Ubuntu.

**Process:**

Step 1: Check for the Nagios Directory.

\$cd /usr/local/nagios/etc

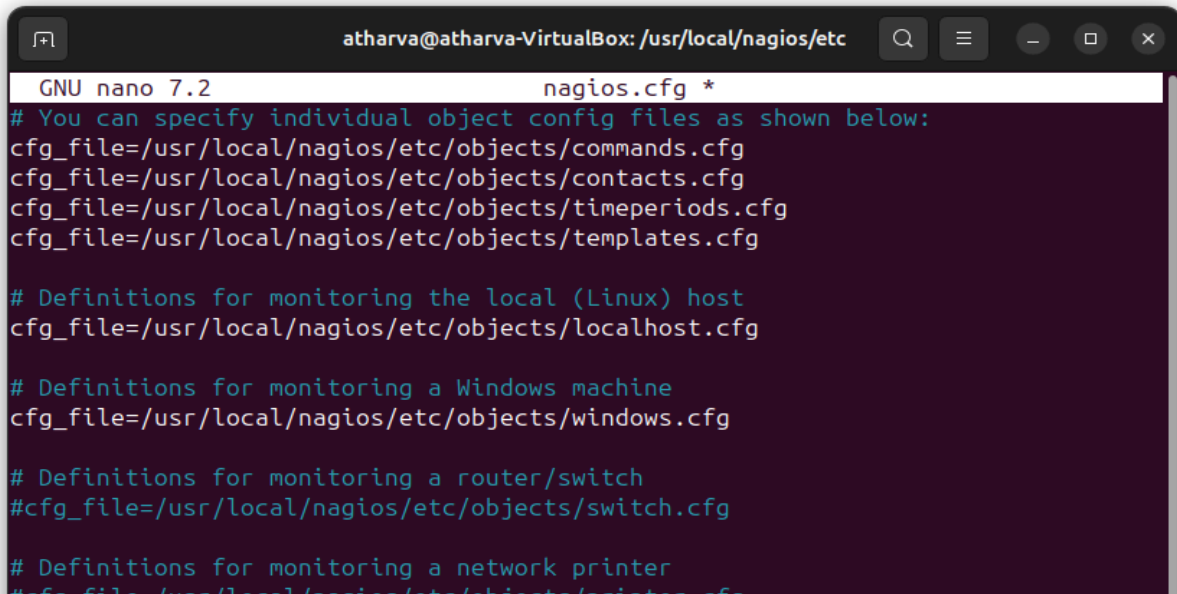
A terminal window titled 'atharva@atharva-VirtualBox: /usr/local/nagios/etc' with standard window controls. The terminal shows the following commands and output:

```
atharva@atharva-VirtualBox:~$ cd /usr/local/nagios/etc
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ nano nagios.config
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ sudo nano nagios.config
[sudo] password for atharva:
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ ls
cgi.cfg  htpasswd.users  nagios.cfg~  resource.cfg
cgi.cfg~  nagios.cfg      objects      resource.cfg~
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ sudo nano nagios.cfg
atharva@atharva-VirtualBox:/usr/local/nagios/etc$
```

Step 2: Open nagios.cfg file

\$nano nagios.cfg

Step 3: Remove the # sign for monitoring a windows machine.



```
atharva@atharva-VirtualBox: /usr/local/nagios/etc
GNU nano 7.2 nagios.cfg *
# You can specify individual object config files as shown below:
cfg_file=/usr/local/nagios/etc/objects/commands.cfg
cfg_file=/usr/local/nagios/etc/objects/contacts.cfg
cfg_file=/usr/local/nagios/etc/objects/timeperiods.cfg
cfg_file=/usr/local/nagios/etc/objects/templates.cfg

# Definitions for monitoring the local (Linux) host
cfg_file=/usr/local/nagios/etc/objects/localhost.cfg

# Definitions for monitoring a Windows machine
cfg_file=/usr/local/nagios/etc/objects/windows.cfg

# Definitions for monitoring a router/switch
#cfg_file=/usr/local/nagios/etc/objects/switch.cfg

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

Step 4: Go to your windows machine and use the below command to find the IP address of the machine and the host name as well. \$ipconfig /ALL

```
C:\Users\Darshan Bhare>ipconfig /ALL

Windows IP Configuration

Host Name . . . . . : LAPTOP-FSK67RV1
Primary Dns Suffix . . . . . :
Node Type . . . . . : Hybrid
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No

Ethernet adapter Ethernet:

Media State . . . . . : Media disconnected
Connection-specific DNS Suffix . :
Description . . . . . : Realtek Gaming GbE Family Controller
Physical Address. . . . . : 2C-58-B9-33-E3-B7
DHCP Enabled. . . . . : Yes
Autoconfiguration Enabled . . . . : Yes

Ethernet adapter Ethernet 3:

Connection-specific DNS Suffix . :
Description . . . . . : VirtualBox Host-Only Ethernet Adapter
Physical Address. . . . . : 0A-00-27-00-00-0A
DHCP Enabled. . . . . : No
Autoconfiguration Enabled . . . . : Yes
Link-local IPv6 Address . . . . . : fe80::8a31:835f:4d2a:5b46%10(Preferred)
```

Step 5: While defining a service, rename the hostname as mentioned in your windows machine for all the defined services. Replace all the host\_name with your windows machine host\_name. Also replace the address with IP address of windows machine

```
atharva@atharva-VirtualBox: /usr/local/nagios/etc/objects
atharva@atharva-VirtualBox:~$ cd /usr/local/nagios/etc
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ nano nagios.config
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ sudo nano nagios.config
[sudo] password for atharva:
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ ls
cgi.cfg  httppasswd.users  nagios.cfg~  resource.cfg
cgi.cfg~  nagios.cfg  objects  resource.cfg~
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ sudo nano nagios.cfg
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ sudo nano nagios.cfg
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ ls
cgi.cfg  httppasswd.users  nagios.cfg~  resource.cfg
cgi.cfg~  nagios.cfg  objects  resource.cfg~
atharva@atharva-VirtualBox:/usr/local/nagios/etc$ cd objects/
atharva@atharva-VirtualBox:/usr/local/nagios/etc/objects$ ls
commands.cfg  localhost.cfg  switch.cfg  timeperiods.cfg
commands.cfg~  localhost.cfg~  switch.cfg~  timeperiods.cfg~
contacts.cfg  printer.cfg  templates.cfg  windows.cfg
contacts.cfg~  printer.cfg~  templates.cfg~  windows.cfg~
atharva@atharva-VirtualBox:/usr/local/nagios/etc/objects$ sudo nano windows.cfg
```

```
GNU nano 7.2 windows.cfg
#####

# Define a host for the Windows machine we'll be monitoring
# Change the host_name, alias, and address to fit your situation

define host {

    use                windows-server                ; Inherit default values fr>
    host_name          LAPTOP-FSK67RV1                ; The name we're giving to >
    alias              My Windows Server              ; A longer name associated >
    address            192.168.56.1                    ; IP address of the host
}
```

Step 6: Use the below command to identify the address on which Nagios is running:

```
$ip addr show
```

```
$service nagios start
```

```
$service apache2 start
```

```
atharva@atharva-VirtualBox: /usr/local/nagios/etc/objects
atharva@atharva-VirtualBox:/usr/local/nagios/etc/objects$ ip addr show
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 08:00:27:85:11:e9 brd ff:ff:ff:ff:ff:ff
    inet 10.0.2.15/24 brd 10.0.2.255 scope global dynamic noprefixroute enp0s3
        valid_lft 84454sec preferred_lft 84454sec
3: br-47b724050ff3: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default
    link/ether 02:42:73:9d:51:f7 brd ff:ff:ff:ff:ff:ff
    inet 172.18.0.1/16 brd 172.18.255.255 scope global br-47b724050ff3
        valid_lft forever preferred_lft forever
4: docker0: <NO-CARRIER,BROADCAST,MULTICAST,UP> mtu 1500 qdisc noqueue state DOWN group default
```

Step 7: Go to browser and open Nagios Dashboard in the browser. 172.18.0.1/nagios

The screenshot shows the Nagios web interface in a browser window. The address bar displays "172.17.0.1/nagios/". The interface includes a sidebar with navigation links, a top status bar, and a main content area with a table of host details.

**Host Status Details For All Host Groups**

Host	Status	Last Check	Duration	Status Information
LAPTOP-FSK67RV1	UP	03-28-2025 09:13:07	0d 0h 5m 31s	PING OK - Packet loss = 0%, RTA = 1.78 ms
localhost	UP	03-28-2025 09:10:42	0d 14h 38m 52s	PING OK - Packet loss = 0%, RTA = 0.13 ms

Results 1 - 2 of 2 Matching Hosts

**Conclusion:** Nagios provides an efficient way to monitor system health and network resources. By configuring it to monitor a Windows machine, we gain real-time insights and alerts for better system management. This setup enhances proactive system administration.