



**Semester: V**  
**Academic Year: 2022-23**  
**Class / Branch: TE IT**  
**Subject: Advanced Devops Lab (ADL)**  
**Name of Instructor: Prof. Vishal Badgujar**

**Name of Student: Shreya Sonawale**  
**Student ID: 23104134**

---

## EXPERIMENT NO. 10

**Aim: To perform Port, Service monitoring, Linux server monitoring using Nagios.**

### Step 1 – Configure NRPE on Linux Host

Follow the below steps to install and configure NRPE on client machine and check connectivity with Nagios server.

#### Step 1.1 – Install NRPE

```
manjusha@apsit:~$ sudo apt-get install nagios-nrpe-server nagios-plugins
```

#### Step 1.2 – Configure NRPE

After successfully installing NRPE service, Edit nrpe configuration file /etc/nagios/nrpe.cfg in your favorite editor and add your nagios service ip in allowed hosts.

```
manjusha@apsit:~$ sudo nano /etc/nagios/nrpe.cfg
```

```
allowed_hosts=127.0.0.1, 192.168.64.3, 192.168.1.100
```

Where **192.168.1.100** is your Nagios server ip address.

After making above changes in nrpe configuration file, Lets restart NRPE service as per your system

```
manjusha@apsit:~$ sudo /etc/init.d/nagios-nrpe-server restart  
ng
```



PARSHVANATH CHARITABLE TRUST'S

**A. P. SHAH INSTITUTE OF TECHNOLOGY**

**Department of Information Technology**

**(NBA Accredited)**



### Step 1.3 – Verify Connectivity from Nagios

Now run the below command from Nagios server to make sure your nagios is able to connect nrpe client on remote Linux system. Here **192.168.64.3** is your remote Linux system ip.

```
manjusha@apsit:~$ /usr/local/nagios/libexec/check_nrpe -H 192.168.64.3
NRPE v2.15
```

### Step 2 – Add Linux Host in Nagios

First create a configuration file using below values. for example you Linux hosts ip is . We also need to define a service with host. So add a ping check service, which will continuously check that host is up or not.

```
manjusha@apsit:~$ sudo nano /usr/local/nagios/etc/servers/MyLinuxHost001.cfg
```

```
define host {
    use                linux-server
    host_name          Linux_Host_001
    alias              Linux Host 001
    address             192.168.64.3
    register           1
}
define service{
    host_name          Linux_Host_001
    service_description PING
    check_command      check_ping!100.0,20%!500.0,60%
    max_check_attempts 2
    check_interval     2
    retry_interval     2
    check_period       24x7
    check_freshness    1
    contact_groups     admins
    notification_interval 2
    notification_period 24x7
    notifications_enabled 1
    register           1
}
```

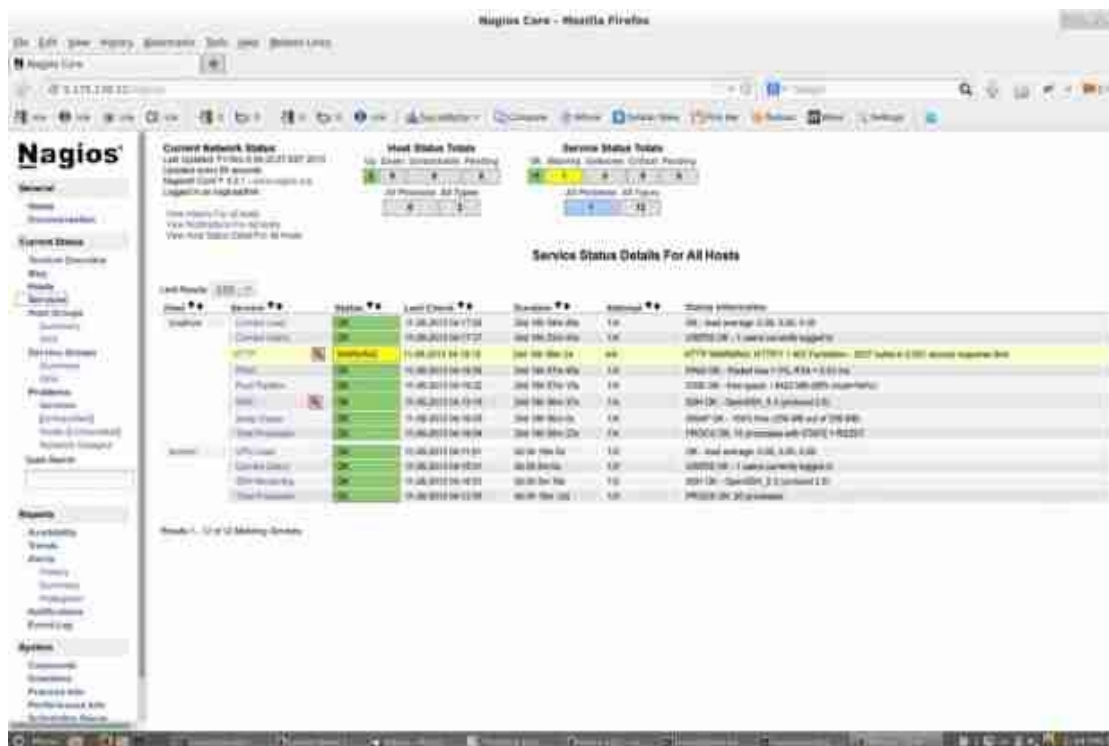


Now verify configuration files using following command. If there are no errors found in configuration, restart nagios service.

```
manjusha@apsit:~$ sudo nagios -v /usr/local/nagios/etc/nagios.cfg
manjusha@apsit:~$ sudo service nagios restart
```

### Step 3 – Check Host in Nagios Web Interface

Open your Nagios web interface and check for new Linux hosts added in Nagios core service.





PARSHVANATH CHARITABLE TRUST'S

# A. P. SHAH INSTITUTE OF TECHNOLOGY

Department of Information Technology

(NBA Accredited)



## Screenshots:

```
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ sudo /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
Nagios Core 4.4.3
Copyright (c) 2009-present Nagios Core Development Team and Community Contributors
Copyright (c) 1999-2009 Ethan Galstad
Last Modified: 2019-01-15
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.
```

```
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ sudo nano /etc/nagios/nrpe.cfg
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ sudo /etc/init.d/nagios-nrpe-server restart
[ ok ] Restarting nagios-nrpe-server (via systemctl): nagios-nrpe-server.service.
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ sudo /etc/init.d/nagios-nrpe-server restart
[ ok ] Restarting nagios-nrpe-server (via systemctl): nagios-nrpe-server.service.
```

```
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ sudo nano /usr/local/nagios/etc/servers/asmita.cfg
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ sudo service nagios restart
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt/nagios-plugins-2.2.1$ cd ..
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt$ cd /usr/local/nagios/etc/servers
bash: cd: /usr/local/nagios/etc/servers: No such file or directory
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/opt$ cd /usr
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr$ cd local
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local$ cd nagios
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios$ cd etc
```

```
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc$ cd objects
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc/objects$ sudo nano asmita.cfg
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc/objects$ sudo nano apsita.cfg
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc/objects$ sudo service nagios restart
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc/objects$ cd ..
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc$ ls
cgi.cfg  cgi.cfg~  httpasswd.users  nagios.cfg  nagios.cfg~  objects  resource.cfg  resource.cfg~
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc$ sudo nano nagios.cfg
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc$ sudo service nagios restart
apsit@apsit-HP-280-Pro-G6-Microtower-PC:/usr/local/nagios/etc$
```

**Conclusion:** We learned to perform Port, Service monitoring, Linux server monitoring using Nagios



PARSHVANATH CHARITABLE TRUST'S

**A. P. SHAH INSTITUTE OF TECHNOLOGY**

**Department of Information Technology**

**(NBA Accredited)**

