

How To Install Nagios On Ubuntu 12.10

Authored by: **ASPHostServer Administrator** [asphostserver@gmail.com]

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Step 1 - Spin up Ubuntu 12.10 x64 and add SWAP memory

To add 2GB of SWAP memory:

```
dd if=/dev/zero of=/swap bs=1024 count=2097152
mkswap /swap && chown root. /swap && chmod 0600 /swap && swapon /swap
echo /swap swap swap defaults 0 0 >> /etc/fstab
echo vm.swappiness = 0 >> /etc/sysctl.conf && sysctl -p
```

Step 2 - Install Packages on Monitoring Server

```
apt-get install -y nagios3 nagios-nrpe-plugin
usermod -a -G nagios www-data
chmod -R g+x /var/lib/nagios3/
sed -i 's/check_external_commands=0/check_external_commands=1/g'
/etc/nagios3/nagios.cfg
```

You will be prompted for MySQL root password, we chose "PassWord", you should change it to something stronger.

Step 3 - Set Password Protection

Set Nagios Admin Panel Password:

```
htpasswd -c /etc/nagios3/htpasswd.users nagiosadmin
service nagios3 restart && service apache2 restart
```

Make sure to keep this username as "nagiosadmin" - otherwise you would have to change /etc/nagios3/cgi.cfg and redefine authorized admin.

Now you can navigate over to your Nagios panel at <http://IP/nagios3> (<http://198.211.117.129/nagios3/> for our example): You will be prompted to enter your password, which you've specified in Step 3.

As you can see, we don't have any hosts currently being monitored, so lets set that up next.

Step 4 - Install NRPE on Clients

Now we should add our hosts that will be monitored by Nagios. For example, we will setup monitoring for cloudads.tk (198.211.117.101), which runs Ubuntu 12.10 as well.

From public ports, we can monitor ping, any open ports such as webserver, e-mail server, etc.

For internal services that are listening on localhost, such as MySQL, memcached, system services, we will need to use NRPE.

Step 4 - Install NRPE on Client

```
apt-get install -y nagios-plugins nagios-nrpe-server
```

This next step is where you get to specify any manual commands that Monitoring server can send via NRPE to these client hosts.

Make sure to change
allowed_hosts to your own values.

Edit **/etc/nagios/nrpe.cfg**

```
log_facility=daemon
pid_file=/var/run/nagios/nrpe.pid
server_port=5666
nrpe_user=nagios
nrpe_group=nagios
allowed_hosts=198.211.117.129
dont_blame_nrpe=1
debug=0
command_timeout=60
connection_timeout=300
include=/etc/nagios/nrpe_local.cfg
include_dir=/etc/nagios/nrpe.d/
command[check_users]=/usr/lib/nagios/plugins/check_users -w 5 -c 10
command[check_load]=/usr/lib/nagios/plugins/check_load -w 15,10,5 -c 30,25,20
command[check_hda1]=/usr/lib/nagios/plugins/check_disk -w 20% -c 10% -p /dev/vda
command[check_zombie_procs]=/usr/lib/nagios/plugins/check_procs -w 5 -c 10 -s Z
command[check_total_procs]=/usr/lib/nagios/plugins/check_procs -w 150 -c 200
```

Note:

In check_disk above, the partition being checked is /dev/vda - make sure your panel has the same partition by running

df -h /

You can also modify when to trigger warnings or critical alerts - above configuration sets Warning at 20% free disk space remaining, and Critical alert at 10% free space remaining.

We should also setup firewall rules to allow connections from our Monitoring server to those clients and drop everyone else:

```
iptables -N NRPE
iptables -I INPUT -s 0/0 -p tcp --dport 5666 -j NRPE
iptables -I NRPE -s 198.211.117.129 -j ACCEPT
iptables -A NRPE -s 0/0 -j DROP
/sbin/iptables-save
```

Now you can start NRPE on your client host:

```
service nagios-nrpe-server restart
```

Step 5 - Add Server Configurations on Monitoring Server

Back on our Monitoring server, we will have to create config files for each of our client servers:

All configs can be stored in **/etc/nagios3/conf.d** in individual **.cfg** files (for example:

/etc/nagios3/conf.d/cloudads.tk.cfg)

Edit **/etc/nagios3/conf.d/cloudads.tk.cfg** and add the following lines:

```
define host {
    use                generic-host
    host_name          cloudads.tk
    alias              cloudads.tk
    address            198.211.117.101
}
define service {
    use                generic-service
    host_name          cloudads.tk
    service_description PING
    check_command      check_ping!100.0,20%!500.0,60%
}
define service {
    use                generic-service
    host_name          cloudads.tk
    service_description SSH
    check_command      check_ssh
    notifications_enabled 0
}
```

```
define service {  
    use generic-service  
    host_name cloudads.tk  
    service_description Current Load  
    check_command check_load!5.0!4.0!3.0!10.0!6.0!4.0  
}
```

After you are done editing your config files, make sure to restart Nagios for changes to take effect:

```
service nagios3 restart
```

You can add more services to be monitored as desired, and even create your own Nagios plugins.

Step 6 - Monitor Hosts in Nagios

Navigate over to your Monitoring Server's IP address <http://IP/nagios> and enter password set in Step 2.

Now you should be able to see all the hosts and services.

And you are all done!