



DevOps

Nagios: Monitoring

Trainer: Abhijith V G – AWS, eCommerce, Mobile & DevOps Architect



Certified

Developer - Associate



Nagios is useful for keeping an inventory of your servers, and making sure your critical services are **up and running**. Using a monitoring system, like Nagios, is essential for any production server environment.

Should you wish to manually install Nagios in Linux you can follow this link

<https://www.digitalocean.com/community/tutorials/how-to-install-nagios-4-and-monitor-your-servers-on-centos-7>

Above installation will also require a LAMP stack.

Nagios: Introduction and Installation - Compiling and installing

cd ~

curl -L -O <https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.1.1.tar.gz>

Extract the Nagios archive with this command:

tar xvf nagios-*.tar.gz

Then change to the extracted directory:

cd nagios-*

Before building Nagios, we must configure it with this command:

./configure --with-command-group=nagcmd

Now compile Nagios with this command:

make all

Now we can run these make commands to install Nagios, init scripts, and sample configuration files:

sudo make install

sudo make install-commandmode

sudo make install-init

sudo make install-config

sudo make install-webconf

In order to issue external commands via the web interface to Nagios, we must add the web server user, apache, to the nagcmd group:

sudo usermod -G nagcmd apache

Nagios: Introduction and Installation - Obtaining Nagios

1. We use docker with Nagios to get nagios up and running!
2. Using docker image from <https://hub.docker.com/r/jasonrivers/nagios/>

docker run -d --name nagios -p 25 -p 80 jasonrivers/nagios:latest

docker ps (to find the port address to browse)

docker exec -ti nagios bash

3. Browse <http://localhost:PORT/nagios>

username: nagiosadmin

password: nagios

4. Should you wish to change the password

htpasswd -c /opt/nagios/etc/htpasswd.users nagiosadmin

```
[Gayatris-MacBook-Air:DevOps gayatri$ docker run -d --name nagios -p 25 -p 80 jasonrivers/nagios:latest
Unable to find image 'jasonrivers/nagios:latest' locally
latest: Pulling from jasonrivers/nagios
```

```
Digest: sha256:af90e7a1c72f14f430817317a4d8b4370c149c3a0f90ee99d19c8c22d839431d
```

```
Status: Downloaded newer image for jasonrivers/nagios:latest
```

```
6714e8cbe0da752fe2f35e28406b11c7537880b9aef8de2e9e3de8ce3b797cdd
```

```
[Gayatris-MacBook-Air:DevOps gayatri$ docker ps
```

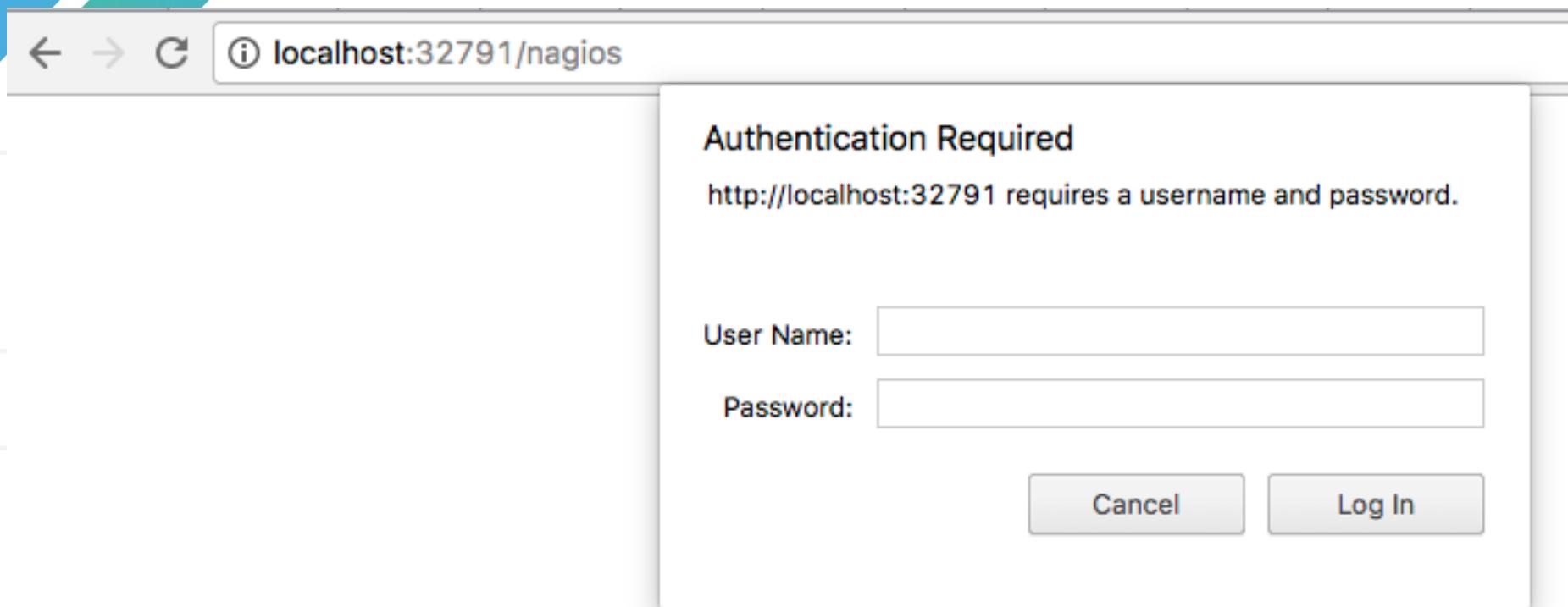
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
6714e8cbe0da	jasonrivers/nagios:latest	"/usr/local/bin/st..."	9 seconds ago	Up 7 seconds	0.0.0.0:32769->25/tcp, 0.0.0.0:32768->80/tcp	nagios

```
[Gayatris-MacBook-Air:DevOps gayatri$ docker exec -ti nagios bash
```

```
root@6714e8cbe0da:/#
```

Nagios: Introduction and Installation - Obtaining Nagios

1. <http://localhost:32791/nagios> (username: nagiosadmin password: admin)



Nagios: Introduction and Installation - Obtaining Nagios

1. This is Nagios Dashboard

The screenshot shows the Nagios Core 4.3.2 dashboard. On the left, a sidebar menu includes General (Home, Documentation), Current Status (Tactical Overview, Map (Legacy), Hosts, Services, Host Groups, Service Groups, Problems, Reports), and Reports (Availability, Trends (Legacy), Alerts, History, Summary, Histogram (Legacy), Notifications). A search bar is also present. The main content area features the Nagios Core logo and a message: "Process running with PID 198". It displays the version information: "Nagios® Core™ Version 4.3.2" and the date "May 09, 2017". A blue box highlights "Check for updates". Below this, a message states "A new version of Nagios Core is available! Visit nagios.org to download Nagios 4.3.4." Three download links are shown: Nagios XI (Easy Configuration Advanced Reporting), Nagios Log Server (Monitor and analyze logs from anywhere), and Nagios Network Analyzer (Real-time netflow and bandwidth analysis). At the bottom, sections for "Get Started" and "Quick Links" provide links to Nagios Library, Nagios Labs, and Nagios Exchange.

Nagios: Basic configuration - Creating a new host and service

Clicking the hosts link on the left we come to this page. There is only one host (localhost)

The screenshot shows the Nagios web interface at localhost:32791/nagios/. The left sidebar has a 'General' section with links to Home, Documentation, and Current Status. Under Current Status, there are links for Tactical Overview, Map (Legacy), Hosts, Services, Host Groups, Service Groups, and Problems. The main content area displays the 'Current Network Status' with last update information and a log in as 'nagiosadmin'. It also shows 'Host Status Totals' and 'Service Status Totals' with counts for Up, Down, Unreachable, Pending, Ok, Warning, Unknown, Critical, and Pending states. Below this is a table titled 'Host Status Details For All Host Groups' with one entry for 'localhost' which is UP. A message at the bottom says 'Results 1 - 1 of 1 Matching Hosts'.

Up	Down	Unreachable	Pending
1	0	0	0

Ok	Warning	Unknown	Critical	Pending
5	1	0	1	1

All Problems	All Types
0	1

All Problems	All Types
2	8

Host	Status	Last Check	Duration	Status Information
localhost	UP	09-18-2017 10:41:12	0d 0h 4m 7s	PING OK - Packet loss = 0%, RTA = 0.08 ms

Nagios: NRPE Monitoring - Enabling Remote Execution

Nagios Remote Plugin Executor (NRPE): NRPE allows you to remotely execute Nagios plugins on other Linux/Unix machines. This allows you to monitor remote machine metrics (disk usage, CPU load, etc.). *Each host that should be monitored by Nagios must have NRPE installed in it.*

```
docker run -ti --rm --name nrpe1 --hostname nrpe1 -P schogini/nagios-nrpe-ubuntu
```

```
SreeMacMin16GB:nrpe sree$ docker run -ti --rm --name nrpe1 --hostname nrpe1 -P schogini/nagios-nrpe-ubuntu
Unable to find image 'schogini/nagios-nrpe-ubuntu:latest' locally
latest: Pulling from schogini/nagios-nrpe-ubuntu
bae382666908: Already exists
29ede3c02ff2: Already exists
da4e69f33106: Already exists
8d43e5f5d27f: Already exists
b0de1abb17d6: Already exists
3581ba79d231: Pull complete
be71e0b4e418: Pull complete
Digest: sha256:c698d7c2d1a431c5db01e95c5676ef9989602dfa41edd03e5ac9bba09dadec36
Status: Downloaded newer image for schogini/nagios-nrpe-ubuntu:latest
root@nrpe1:/#
```

Nagios: NRPE Monitoring - Enabling Remote Execution

1. Find the Nagios server IP address

```
SreeMacMin16GB:nagios sree$ docker inspect nagios | grep IPA  
    "SecondaryIPAddresses": null,  
    "IPAddress": "172.17.0.2",  
    "MACAddress": "00:0c:29:1d:01:02"
```

2. On the NRPE Ubuntu prompt open the NRPE configuration file and add the Nagios server IP as below *nano /etc/nagios/nrpe.cfg*

```
# NOTE: This option is ignored if NRPE is running under either inetd or xinetd  
  
allowed_hosts=127.0.0.1,172.17.0.2
```

3. Restart NRPE: */etc/init.d/nagios-nrpe-server restart*

```
root@nrpel1:/# nano /etc/nagios/nrpe.cfg  
root@nrpel1:/# /etc/init.d/nagios-nrpe-server restart  
 * Stopping nagios-nrpe nagios-nrpe  
 * Starting nagios-nrpe nagios-nrpe  
root@nrpel1:/#
```

Nagios: NRPE Monitoring - Enabling Remote Execution

Check the connection from the NRPE host to Nagios server

1. Find out the IP Address of the NRPE host

```
ifconfig eth0| grep inet
    inet addr:172.17.0.3   Bcast:0.0.0.0   Mask:255.255.0.0
    inet6 addr: fe80::410:9ff%eth0 brd fe80::ff:feff%eth0 scope link
          preterface
          link-layer
          brd fe80::ff:feff%eth0
          mask 0000:0000:0000:0000:0000:0000:0000:0000
          media: autoselect
          status: active
          queueing discipline: pfifo_fast
          link-layer
          brd fe80::ff:feff%eth0
          mask 0000:0000:0000:0000:0000:0000:0000:0000
          media: autoselect
          status: active
          queueing discipline: pfifo_fast
```

2. On the Nagios server prompt enter this command

```
[root@6714e8cbe0da:/# /opt/nagios/libexec/check_nrpe -H 172.17.0.3
NRPE v2.15
root@6714e8cbe0da:/# ]
```

If we specify a wrong IP address or NRPE is not installed, error message will be as below

```
[root@6714e8cbe0da:/# /opt/nagios/libexec/check_nrpe -H 172.17.0.4
connect to address 172.17.0.4 port 5666: No route to host
connect to host 172.17.0.4 port 5666: No route to host
root@6714e8cbe0da:/# ]
```

Nagios: NRPE Monitoring - Enabling Remote Execution

Restart NRPE daemon

```
root@nrpel:/# /etc/init.d/nagios-nrpe-server restart
 * Stopping nagios-nrpe nagios-nrpe [ OK ]
 * Starting nagios-nrpe nagios-nrpe [ OK ]
root@nrpel:/#
```

Nagios: Basic configuration - Creating a new host and service

On the Nagios Server, create new configuration file:

nano /opt/nagios/etc/objects/hosts.cfg

```
define host {
    use      linux-server
    host_name    nrpel
    alias       nrpel
    address     172.17.0.3
}

define service {
    use      generic-service
    host_name    nrpel
    service_description PING
    check_command  check_ping!100.0,20%!500.0,60%
}
define service {
    use      generic-service
    host_name    nrpel
    service_description SSH
    check_command  check_ssh
    notifications_enabled 0
}
define service {
    use      generic-service
    host_name    nrpel
    service_description Current Load
    check_command  check_local_load!5.0,4.0,3.0!10.0,6.0,4.0
}
```

Nagios: Basic configuration - Creating a new host and service

On the Nagios server, edit */opt/nagios/etc/nagios.cfg*

And add a line like this pointing to the newly created hosts file.

```
cfg_file=/opt/nagios/etc/objects/contacts.cfg  
cfg_file=/opt/nagios/etc/objects/timeperiods.cfg  
cfg_file=/opt/nagios/etc/objects/templates.cfg  
# Gayatri added this line  
cfg_file=/opt/nagios/etc/objects/hosts.cfg
```

Restart Nagios (after fixing the newly created hosts.cfg ownership)

```
chown nagios. /opt/nagios/etc/objects/hosts.cfg
```

Nagios: Basic configuration - Creating a new host and service

Refresh the Nagios Dashboard and click hosts to see the newly added NRPE1 Ubuntu host

The screenshot shows the Nagios web interface at localhost:32791/nagios/. The left sidebar contains navigation links for General, Home, Documentation, Current Status, Tactical Overview, Map (Legacy), Hosts, Services, Host Groups, Service Groups, Problems, and Quick Search. The main content area displays the following information:

- Current Network Status:** Last Updated: Mon Sep 18 11:53:40 UTC 2017, Updated every 90 seconds, Nagios® Core™ 4.3.2 - www.nagios.org, Logged in as `nagiosadmin`.
- Host Status Totals:** Up: 2, Down: 0, Unreachable: 0, Pending: 0. All Problems: 0, All Types: 2.
- Service Status Totals:** Ok: 6, Warning: 1, Unknown: 0, Critical: 1, Pending: 3. All Problems: 2, All Types: 11.
- Host Status Details For All Host Groups:** A table showing two hosts: localhost (UP) and nrpe1 (UP). Both hosts have a duration of 0d 0h 0m 10s+. Status Information: PING OK - Packet loss = 0%, RTA = 0.08 ms for localhost and PING OK - Packet loss = 0%, RTA = 0.80 ms for nrpe1.

Results 1 - 2 of 2 Matching Hosts

Nagios: NRPE - Monitoring local services on a remote machine with NRPE

Click on the link nrpe1 to get to the details

localhost:32791/nagios/

Nagios®

General

- Home
- Documentation

Current Status

- Tactical Overview
- Map (Legacy)
- Hosts
- Services
- Host Groups
 - Summary
 - Grid
- Service Groups
 - Summary
 - Grid
- Problems
- Services (Unhandled)
- Hosts (Unhandled)
- Network Outages

Quick Search:

Reports

- Availability
- Trends (Legacy)
- Alerts
 - History
 - Summary
 - Histogram (Legacy)
- Notifications
- Event Log

Host Information

Last Updated: Mon Sep 18 11:59:09 UTC 2017
Updated every 90 seconds
Nagios® Core™ 4.3.2 - www.nagios.org
Logged in as *nagiosadmin*

Host
nrpe1
(**nrpe1**)

Member of
No hostgroups

172.17.0.3

Host State Information

Host Status: **UP** (for 0d 0h 4m 30s)
Status Information: PING OK - Packet loss = 0%, RTA = 0.14 ms
Performance Data: rta=0.136000ms;3000.000000;5000.000000;0.000000 pl=0%;80;100;0
Current Attempt: 1/10 (HARD state)
Last Check Time: 09-18-2017 11:58:34
Check Type: ACTIVE
Check Latency / Duration: 0.004 / 4.146 seconds
Next Scheduled Active Check: 09-18-2017 12:03:39
Last State Change: 09-18-2017 11:54:39
Last Notification: N/A (notification 0)
Is This Host Flapping? **NO** (0.00% state change)
In Scheduled Downtime? **NO**
Last Update: 09-18-2017 11:59:06 (0d 0h 0m 3s ago)

Active Checks: **ENABLED**
Passive Checks: **ENABLED**
Obsessing: **ENABLED**
Notifications: **ENABLED**
Event Handler: **ENABLED**
Flap Detection: **ENABLED**

Host Commands

- Disable active checks of this host
- Re-schedule the next check of this host
- Submit passive check result for this host
- Stop accepting passive checks for this host
- Stop obsessing over this host
- Disable notifications for this host
- Send custom host notification
- Schedule downtime for this host
- Schedule downtime for all services on this host
- Disable notifications for all services on this host
- Enable notifications for all services on this host
- Schedule a check of all services on this host
- Disable checks of all services on this host
- Enable checks of all services on this host
- Disable event handler for this host
- Disable flap detection for this host
- Clear flapping state for this host

Add a new comment Delete all comments

Nagios: NRPE - Monitoring local services on a remote machine with NRPE

Clicking on the services link to see the details of the monitored services.

The screenshot shows the Nagios web interface at localhost:32791/nagios/. The left sidebar has a 'Current Status' section with links for 'Tactical Overview', 'Map (Legacy)', 'Hosts', 'Services', 'Host Groups', 'Service Groups', 'Problems', and 'Reports'. The main content area displays 'Current Network Status' with last update information and a log-in message. It also shows 'Host Status Totals' and 'Service Status Totals' with counts for Up, Down, Unreachable, Pending, Ok, Warning, Unknown, Critical, and Pending states. Below these are 'Display Filters' for Host and Service status types and properties, and a 'Limit Results' dropdown set to 100. The central part of the page is titled 'Service Status Details For All Hosts' and lists three services: 'localhost' with an HTTP service in WARNING state, and two 'nrpe1' hosts with SSH services in CRITICAL state. The results are labeled 'Results 1 - 3 of 3 Matching Services'.

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	HTTP	WARNING	09-18-2017 11:59:39	0d 1h 18m 55s	4/4	HTTP WARNING: HTTP/1.1 404 Not Found - 453 bytes in 0.001 second time
	SSH	CRITICAL	09-18-2017 12:01:32	0d 1h 17m 2s	4/4	connect to address 127.0.0.1 and port 22: Connection refused
nrpe1	SSH	CRITICAL	09-18-2017 12:00:58	0d 0h 4m 59s	3/3	connect to address 172.17.0.3 and port 22: Connection refused

Nagios: Restarting

1. NAGIOS Server Restart (It is best to kill Nagios first to prevent duplicate processes)

```
root@759406ada22e:/# kill -9 `ps aux| grep nagios| grep -v -e worker -e grep -e logd -e ping -e run|awk '{print $2}'`  
root@759406ada22e:/# service nagios restart  
Running configuration check...  
Stopping nagios:No lock file found in /usr/local/nagios/var/nagios.lock  
Starting nagios: done.  
root@759406ada22e:/# service nagios restart  
Running configuration check...  
Stopping nagios:.. done.  
Starting nagios: done.
```

2. NRPE Host (Client) Restart

```
root@nrpel:/# /etc/init.d/nagios-nrpe-server restart  
 * Stopping nagios-nrpe nagios-nrpe  
 * Starting nagios-nrpe nagios-nrpe  
root@nrpel:/#
```

Nagios: Basic configuration - Verifying configuration

The most basic step in debugging a Nagios Core configuration is to verify it. This is a very useful step to take before restarting the Nagios Core server to load an altered Configuration, else we would see: **CONFIG ERROR! Restart aborted.**

```
root@5d67f375a265:/# nagios -v /opt/nagios/etc/nagios.cfg
```

```
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
root@5d67f375a265:/#
```

Nagios: Basic configuration - Creating a new host group

HostGroups is used to group one or multiple hosts, and you will have the option to check all these hosts at one place or on a single page.

ost:32791/nagios/

Current Network Status

Last Updated: Tue Sep 19 05:59:34 UTC 2017
Updated every 90 seconds
Nagios® Core™ 4.3.2 - www.nagios.org
Logged in as nagiosadmin

[View Service Status Detail For All Host Groups](#)
[View Host Status Detail For All Host Groups](#)
[View Status Summary For All Host Groups](#)
[View Status Grid For All Host Groups](#)

Host Status Totals

Up	Down	Unreachable	Pending
2	0	0	0
All Problems		All Types	
0	2		

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
8	1	0	2	0
All Problems		All Types		
3		11		

Service Overview For All Host Groups

Linux Servers (linux-servers)							
Host	Status	Services	Actions				
localhost	UP	<table><tr><td>6 OK</td></tr><tr><td>1 WARNING</td></tr><tr><td>1 CRITICAL</td></tr></table>	6 OK	1 WARNING	1 CRITICAL		
6 OK							
1 WARNING							
1 CRITICAL							

Nagios: Basic configuration - Creating a new host group

```
[root@5d67f375a265:/# nano /opt/nagios/etc/objects/hosts.cfg
```

```
define hostgroup {
    hostgroup_name  srees-servers ; The name of the hostgroup
    alias           Srees Linux Servers ; Long name of the group
    members         nrpe1      ; Comma separated list of hosts that belong to this group
}

define host {
    use            linux-server
    host_name      nrpe1
    alias          nrpe1
    address        172.17.0.3
}

define service {
    use            generic-service
```

Nagios: Basic configuration - Creating a new host group

Remember to restart your nagios service to see the new host group

localhost:32791/nagios/

Current Network Status
Last Updated: Tue Sep 19 06:07:19 UTC 2017
Updated every 90 seconds
Nagios® Core™ 4.3.2 - www.nagios.org
Logged in as nagiosadmin

[View Service Status Detail For All Host Groups](#)
[View Host Status Detail For All Host Groups](#)
[View Status Summary For All Host Groups](#)
[View Status Grid For All Host Groups](#)

Host Status Totals

Up	Down	Unreachable	Pending
2	0	0	0

[All Problems](#) [All Types](#)

Service Status Totals

Ok	Warning	Unknown	Critical	Pending
8	1	0	2	0

[All Problems](#) [All Types](#)

Service Overview For All Host Groups

Linux Servers (linux-servers)				Srees Linux Servers (srees-servers)								
Host	Status	Services	Actions	Host	Status	Services	Actions					
localhost	UP	<table border="1"><tr><td>6 OK</td></tr><tr><td>1 WARNING</td></tr><tr><td>1 CRITICAL</td></tr></table>	6 OK	1 WARNING	1 CRITICAL		nrpe1	UP	<table border="1"><tr><td>2 OK</td></tr><tr><td>1 CRITICAL</td></tr></table>	2 OK	1 CRITICAL	
6 OK												
1 WARNING												
1 CRITICAL												
2 OK												
1 CRITICAL												

Nagios: Basic configuration - Creating a new service group

Creating a Service Groups will allow us to make meaningful groups out of a set of arbitrary services, so that we can view the status of all those services in a separate area.

```
[root@5d67f375a265:/# nano /opt/nagios/etc/objects/servicegroups.cfg
```

```
define servicegroup{
    servicegroup_name      mailservices
    alias                  Mail Services
}
define servicegroup{
    servicegroup_name      sshservices
    alias                  SSH Services
}
define servicegroup{
    servicegroup_name      pingservices
    alias                  PING Services
}
```

Nagios: Basic configuration - Creating a new service group

```
[root@5d67f375a265:/# nano /opt/nagios/etc/objects/hosts.cfg
```

```
define service {
    use          generic-service
    host_name    nrpe1
    service_description PING
    check_command  check_ping!100.0,20%!500.0,60%
    servicegroups pingservices
}
define service {
    use          generic-service
    host_name    nrpe1
    service_description SSH
    check_command  check_ssh
    notifications_enabled 0
    servicegroups sshservices
}
```

Nagios: Basic configuration - Creating a new service group

```
[root@5d67f375a265:/# nano /opt/nagios/etc/nagios.cfg  
cfg_file=/opt/nagios/etc/objects/templates.cfg  
# Gayatri added this line  
cfg_file=/opt/nagios/etc/objects/hosts.cfg  
cfg_file=/opt/nagios/etc/objects/servicegroups.cfg
```

Groups

Service Overview For All Service Groups

Ping services (pingservices)				SSH services (sshservices)			
Host	Status	Services	Actions	Host	Status	Services	Actions
localhost	UP	1 OK		localhost	UP	1 CRITICAL	
nrpe1	UP	1 OK		nrpe1	UP	1 CRITICAL	

Nagios: Basic configuration - Creating a new e-mail contact

Let us create a new contact with which hosts and services can interact, chiefly to inform them of hosts or services changing states. By default, we have one user created.

localhost:32791/nagios/

General

Home Documentation

Current Status

Tactical Overview Map (Legacy) Hosts Services Host Groups Summary Grid

Service Groups Summary Grid

Problems Services (Unhandled) Hosts (Unhandled) Network Outages

Quick Search:

Reports

Configuration
Last Updated: Tue Sep 19 05:24:32 UTC 2017
Nagios® Core™ 4.3.2 - www.nagios.org
Logged in as *nagiosadmin*

Object Type: Contacts Show Only: Update

Contact Name	Alias	Email Address	Pager Address/Number	Minimum Importance	Service Notification Options	Host Notification Options	Service Notification Period	Host Notification Period	Service Notification Commands	Host Notification Commands	Retention Options
nagiosadmin	Nagios Admin	nagios@localhost		0	Unknown, Warning, Critical, Recovery, Flapping, Downtime	Down, Unreachable, Recovery, Flapping, Downtime	24x7	24x7	notify-service-by-email	notify-host-by-email	Status Information, Non-Status Information

Nagios: Basic configuration - Creating a new e-mail contact

```
root@5d67f375a265:/# nano /opt/nagios/etc/objects/contacts.cfg
root@5d67f375a265:/# 

# 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                nagios@localhost       ; <***** CHANGE THIS TO YOUR EMAIL ADDRESS *****
}
define contact{
    contact_name          gsaadmin              ; Short name of user
    use                   generic-contact        ; Inherit default values from generic-contact template (defined above)
    alias                GSA Nagios Admin      ; Full name of user
    email                gayatri@schogini.com   ; Email address
    contactgroups         testusers             ; Contact groups
}
define contact{
    contact_name          user1                 ; Short name of user
    use                   generic-contact        ; Inherit default values from generic-contact template (defined above)
    alias                User-1 Nagios Test    ; Full name of user
    email                user1@schogini.com    ; Email address
    contactgroups         testusers             ; Contact groups
}
```

Nagios: Basic configuration - Creating a new e-mail contact

Restart the Nagios service. You should be able to see the new contacts you created.

General

Home Documentation

Current Status

Tactical Overview

Map (Legacy)

Hosts

Services

Host Groups

Summary

Grid

Service Groups

Summary

Grid

Problems

Services (Unhandled)

Hosts (Unhandled)

Network Outages

Quick Search:

Configuration

Last Updated: Fri Nov 24 11:38:24 UTC 2017

Nagios® Core™ 4.3.4 - www.nagios.org

Logged in as [nagiosadmin](#)

Object Type:

Show Only:

Object Type:

Contacts											
Contact Name	Alias	Email Address	Pager Address/Number	Minimum Importance	Service Notification Options	Host Notification Options	Service Notification Period	Host Notification Period	Service Notification Commands	Host Notification Commands	Retention Options
gsaadmin	GSA Nagios Admin	gayatri@schogini.com		0	Unknown, Warning, Critical, Recovery, Flapping, Downtime	Down, Unreachable, Recovery, Flapping, Downtime	24x7	24x7	notify-service-by-email	notify-host-by-email	Status Information, Non-Status Information
nagiosadmin	Nagios Admin	nagios@localhost		0	Unknown, Warning, Critical, Recovery, Flapping, Downtime	Down, Unreachable, Recovery, Flapping, Downtime	24x7	24x7	notify-service-by-email	notify-host-by-email	Status Information, Non-Status Information
user1	User-1 Nagios Test	user1@schogini.com		0	Unknown, Warning, Critical, Recovery, Flapping, Downtime	Down, Unreachable, Recovery, Flapping, Downtime	24x7	24x7	notify-service-by-email	notify-host-by-email	Status Information, Non-Status Information

Nagios: Basic configuration - Creating a new contact group

Let us create a new contactgroup into which we can add our contacts. Like hostgroups and servicegroups, contactgroups mostly amount to convenient shortcuts.

```
[root@5d67f375a265:/# nano /opt/nagios/etc/objects/contacts.cfg
```

```
define contactgroup{
    contactgroup_name      admins
    alias                  Nagios Administrators
    members                nagiosadmin
}
define contactgroup{
    contactgroup_name      testusers
    alias                  Nagios Test Users
}
```

```
define contact {
    contact_name           sree
    alias                  Administrator of NRPE Clients
    email                 sree@schogini.com
    host_notification_commands  notify-host-by-email
    host_notification_options   d,u,r
    host_notification_period     24x7
    service_notification_commands  notify-service-by-email
    service_notification_options   w,u,c,r
    service_notification_period     24x7
    contactgroups testusers
}
```

Contact Groups

Group Name	Description	Contact Members
admins	Nagios Administrators	nagiosadmin
testusers	Nagios Test Users	sree

Nagios: Basic configuration - Creating a new time period

Let us add a new time period definition to the Nagios Core configuration to allow us to set up monitoring for hosts and services only during weekdays.

There's a default time period configuration called “*workhours*” that would almost suit us, except that it doesn't include the evenings. So, we'll make a new one from scratch!

```
[root@5d67f375a265:/# nano /opt/nagios/etc/objects/timeperiods.cfg
```

```
define timeperiod {
    timeperiod_name  weekdays
    alias            Weekdays
    monday          00:00-24:00
    tuesday         00:00-24:00
    wednesday       00:00-24:00
    thursday        00:00-24:00
    friday          00:00-24:00
}
```

Time Periods				
Name	Alias/Description	Exclusions	Days/Dates	Times
24x7	24 Hours A Day, 7 Days A Week	sunday		00:00:00 - 24:00:00
		tuesday		00:00:00 - 24:00:00
		wednesday		00:00:00 - 24:00:00
		thursday		00:00:00 - 24:00:00
		friday		00:00:00 - 24:00:00
		saturday		00:00:00 - 24:00:00
		december 25		00:00:00 - 00:00:00
		july 4		00:00:00 - 00:00:00
		january 1		00:00:00 - 00:00:00
		thursday 4 november		00:00:00 - 00:00:00
		monday 1 september		00:00:00 - 00:00:00
		monday -1 may		00:00:00 - 00:00:00
		sunday		00:00:00 - 24:00:00
		monday		00:00:00 - 24:00:00
		tuesday		00:00:00 - 24:00:00
		wednesday		00:00:00 - 24:00:00
		thursday		00:00:00 - 24:00:00
		friday		00:00:00 - 24:00:00
		saturday		00:00:00 - 24:00:00
none	No Time Is A Good Time			
us-holidays	U.S. Holidays			
		january 1		00:00:00 - 00:00:00
		july 4		00:00:00 - 00:00:00
		december 25		00:00:00 - 00:00:00
		monday -1 may		00:00:00 - 00:00:00
		monday 1 september		00:00:00 - 00:00:00
		thursday 4 november		00:00:00 - 00:00:00
		monday		00:00:00 - 24:00:00
		tuesday		00:00:00 - 24:00:00
		wednesday		00:00:00 - 24:00:00
		thursday		00:00:00 - 24:00:00
		friday		00:00:00 - 24:00:00
		monday		09:00:00 - 17:00:00
		tuesday		09:00:00 - 17:00:00
		wednesday		09:00:00 - 17:00:00
		thursday		09:00:00 - 17:00:00
		friday		09:00:00 - 17:00:00
weekdays	Weekdays			
workhours	Normal Work Hours			

Nagios: Plugins and commands - Finding and installation of a Plugin

- Firstly, since we have the Nagios Core Plugins set installed, we'll check to see if any of the plugins available in it apply directly to our problem.

```
root@5d67f375a265:/# ls /opt/nagios/libexec/
check_apt      check_disk      check_game      check_ircd      check_mrtg      check_nttp      check_oracle    check_rpc      check_swap    mibs
check_breeze   check_disk_smb  check_hpjd      check_jabber   check_mrtgtraf  check_nttps    check_overcr   check_sensors  check_tcp     negate
check_by_ssh   check_dns       check_http      check_ldap     check_mssql_database.py  check_nrpe     check_pgsql    check_simap   check_time   urlize
check_clamd   check_dummy     check_icmp     check_ldaps    check_mssql_server.py  check_nt       check_ping    check_smtp   check_time   utils.pm
check_cluster  check_file_age  check_ide_smart  check_load    check_mysql    check_ntp      check_pop     check_snmp   check_time   utils.sh
check_dbi      check_flexlm   check_ifoperstatus  check_log     check_mysql_query  check_ntp_peer  check_procs   check_spop   check_time   check_ups
check_dhcp     check_fping    check_ifstatus   check_mailq   check_nagios   check_ntp_time  check_radius  check_ssh    check_time   check_uptime
check_dig      check_ftp      check_imap      check_mem_pl  check_ncpa.py   check_ntp_time  check_real    check_ssl    check_time   check_users
root@5d67f375a265:/#
```

Nagios: Plugins and commands - Finding and installation of a Plugin

2. Visit Nagios Plugins Exchange <https://exchange.nagios.org/directory/Plugins>

← → C Secure | <https://exchange.nagios.org/directory/Plugins/System-Metrics/CPU-Usage>



Home Directory About

Home | Directory | Plugins | System Metrics | CPU Usage and Load | Check CPU Idle (by Nestor@Toront)

Check CPU Idle (by Nestor@Toront)

Submit review | Recommend | Print |

Rating ★★★★☆ 0 votes

Favoured: 0

Current Version v1.3

Last Release Date 2015-08-21

Compatible With • Nagios 3.x

Owner Nestor

Hits 2325

Files:	File	Description
	check_cpu_idle.sh	version 1.3

```
[root@5d67f375a265:~]# wget "https://exchange.nagios.org/components/com_mtree/attachment.php?link_id=6506&cf_id=24" -O /opt/nagios/libexec/check_cpu_idle
--2017-11-22 15:06:18-- https://exchange.nagios.org/components/com_mtree/attachment.php?link_id=6506&cf_id=24
Resolving exchange.nagios.org (exchange.nagios.org)... 66.228.58.94, 2600:3c02::ffff:fedf:d653
Connecting to exchange.nagios.org (exchange.nagios.org)|66.228.58.94|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1376 (1.3K) [application/octet-stream]
Saving to: '/opt/nagios/libexec/check_cpu_idle'

/opt/nagios/libexec/check_cpu_idle          100%[=====] 1.34K --.-KB/s   in 0s

2017-11-22 15:06:19 (15.4 MB/s) - '/opt/nagios/libexec/check_cpu_idle' saved [1376/1376]

root@5d67f375a265:~#
```

Nagios: Plugins and commands - Finding and installation of a Plugin

```
[root@5d67f375a265:/# chmod 755 /opt/nagios/libexec/check_cpu_idle
[root@5d67f375a265:/# chown nagios.nagios /opt/nagios/libexec/check_cpu_idle
[root@5d67f375a265:/# /opt/nagios/libexec/check_cpu_idle
check_cpu_idle.sh - Nagios Plugin for checking CPU idle percentage

Usage: check_cpu_idle.sh -w <warnlevel> -c <critlevel>
      = warnlevel and critlevel is warning and critical value for alerts. It send alert if idle is less than the value

EXAMPLE: /usr/lib64/nagios/plugins/check_bandwidth.sh -w 30 -c 20
        = This will send warning alert when idle percentage is less than 30% and critical alert when less than 20%
```

```
[root@5d67f375a265:/# /opt/nagios/libexec/check_cpu_idle -w 30 -c 20
OK - CPU Idle = 98 %|CPU Idle=98;;;;
root@5d67f375a265:/# ]
```

Nagios: Plugins and commands

```
[root@5d67f375a265:/# /opt/nagios/libexec/check_ping -H 172.17.0.2 -w 1.0,80.0% -c 2.0,90.0%
PING OK - Packet loss = 0%, RTA = 0.08 ms|rta=0.082000ms;1.000000;2.000000;0.000000 pl=0%;80;90;0
root@5d67f375a265:/# ]
```

Nagios: Plugins and commands - Removing a plugin

1. Check if there is any configuration file using the plugin. If so, remove it.

```
grep -R check_local_load /opt/nagios/etc
```

```
define service {
    use          generic-service
    host_name    nrpe1
    service_description Current Load
    check_command check_local_load!5.0,4.0,3.0!10.0,6.0,4.0
}
```

2. Delete the plugin file and restart nagios (DO NOT execute this command.)

```
cd /opt/nagios/libexec
```

```
rm check_local_load
```

```
/opt/nagios/bin/nagios -v /opt/nagios/etc/nagios.cfg
```

```
service nagios restart
```

Nagios: Plugins and commands - Creating a new command

```
[root@5d67f375a265:/# nano /opt/nagios/etc/objects/commands.cfg  
root@5d67f375a265:/#
```

```
define command {  
    command_name check_sree1  
    command_line $USER1$/check_rsync -H $HOSTADDRESS$  
}
```

```
root@5d67f375a265:/# nagios -v /opt/nagios/etc/nagios.cfg
```

If the validation passes and the server restarts successfully, we should be able to use the check_sree1 command in any service definition.

Nagios: Plugins and commands - Customizing commands

nano commands.cfg

Find a command the “check_http” command section and duplicate it

Alter the duplicated section to look like this

```
define command {  
    command_name  check_http_altport  
    command_line  $USER1$/check_http -H $HOSTADDRESS$ -p 8080 $ARG1$  
}
```

Then, use it in a service like this and then, validate and restart Nagios

nano hosts.cfg

```
define service{  
    use          generic-service  
    host_name    nrpe1  
    service_description  Custom Command - Check HTTP on Port 8080  
    check_command   check_http_altport  
    servicegroups   pingservices  
}
```

Nagios: Using Nagios GUI - Scheduling downtimes

This is useful for elegantly suppressing notifications for some predictable period of time; a very good example is when servers require downtime to be upgraded, or to have their hardware checked.

Step 1: Ensure these configuration values are set.

```
root@5d67f375a265:/# grep check_ex /opt/nagios/etc/nagios.cfg
check_external_commands=1
root@5d67f375a265:/# cat /opt/nagios/etc/cgi.cfg | grep authorized_for
authorized_for_system_information=nagiosadmin
authorized_for_configuration_information=nagiosadmin
authorized_for_system_commands=nagiosadmin
authorized_for_all_services=nagiosadmin
authorized_for_all_hosts=nagiosadmin
authorized_for_all_service_commands=nagiosadmin
authorized_for_all_host_commands=nagiosadmin
#authorized_for_read_only=user1,user2
root@5d67f375a265:/#
```

Nagios: Using Nagios GUI - Scheduling downtimes

Step 2: Configure the downtime for the service/host

The screenshot shows the Nagios Core 4.3.2 interface at localhost:32791/nagios/. On the left, the navigation menu includes General, Home, Documentation, Current Status, Tactical Overview, Map, Hosts, Services, Host Groups, Service Groups, Problems, and Quick Search. A blue arrow points from the 'Host Groups' item in the menu to the 'Host Groups' section in the main content area. Another blue arrow points from the 'Service Groups' item in the menu to the 'Service Groups' section in the main content area.

Current Network Status: Last Updated: Wed Sep 20 09:06:12 UTC 2017. Up: 2, Down: 0, Unreachable: 0. Nagios® Core™ 4.3.2 - www.nagios.org. Logged in as **nagiosadmin**.

Host Status: 2 Up, 0 Down, 0 Unreachable. All Problems: 0.

Host: Host: localhost Status: UP Last Check: 09-20-2017 09:06:34. IP: 172.17.0.3.

Host State Information: Last check: 09-20-2017 09:06:34. K - Packet loss = 0%, RTA = 0.14 ms. 15000ms;3000.000000;5000.000000;0.000000 pl=0%;80;100;0 ARD state: 017 09:05:41. 4.160 seconds. 017 09:10:45. 017 11:54:39. lification 0. 0.00% state change. Last check: 017 09:06:18 (0d 0h 0m 5s ago).

Host Commands:

- Disable active checks of this host
- Re-schedule the next check of this host
- Submit passive check result for this host
- Stop accepting passive checks for this host
- Stop obsessing over this host
- Disable notifications for this host
- Send custom host notification
- Schedule downtime for this host
- Schedule downtime for all services on this host
- Disable notifications for all services on this host
- Enable notifications for all services on this host
- Schedule a check of all services on this host
- Disable checks of all services on this host
- Enable checks of all services on this host

Command Options:

Host Name: nrpe1
Author (Your Name): Nagios Admin
Comment:

Triggered By: N/A

Start Time: 09-20-2017 09:06:34
End Time: 09-20-2017 11:06:34
Type: Fixed

If Flexible, Duration: 2 Hours 0 Minutes

Child Hosts: Do nothing with child hosts

Command Description:

Commit Reset

Nagios: Using Nagios GUI - Generating reports

Reports Menu

host:32791/nagios/

Hostgroup Availability Report
Last Updated: Wed Sep 20 09:09:03 UTC 2017
Nagios® Core™ 4.3.2 - www.nagios.org
Logged in as nagiosadmin

All Hostgroups

09-13-2017 09:09:03 to 09-20-2017 09:09:03
Duration: 7d 0h 0m 0s

First assumed host state: Unspecified First assumed service state: Unspecified
Report period: Backtracked archives: 4
Last 7 Days Update

[Availability report completed in 0 min 0 sec]

Hostgroup 'linux-servers' Host State Breakdowns:

Host	% Time Up	% Time Down	% Time Unreachable	% Time Undetermined
localhost	5.447% (100.000%)	0.000% (0.000%)	0.000% (0.000%)	94.553%
Average	5.447% (100.000%)	0.000% (0.000%)	0.000% (0.000%)	94.553%

Hostgroup 'srees-servers' Host State Breakdowns:

Host	% Time Up	% Time Down	% Time Unreachable	% Time Undetermined
nrpe1	5.447% (100.000%)	0.000% (0.000%)	0.000% (0.000%)	94.553%
Average	5.447% (100.000%)	0.000% (0.000%)	0.000% (0.000%)	94.553%

Nagios: Using Nagios GUI - Configuring notification

The screenshot shows two pages from the Nagios GUI. On the left is the 'Contact Notifications' page, which displays system status and logs. On the right is the 'All Contacts' page, which lists hosts and services with their corresponding details. A blue arrow points from the 'Information' column of the 'All Contacts' table to the log file entry in the terminal window below.

Contact Notifications
Last Updated: Fri Nov 24 12:20:09 UTC 2017
Nagios® Core™ 4.3.4 - www.nagios.org
Logged in as **nagiosadmin**

All Contacts
Latest Archive ← Log File Navigation
Fri Nov 24 00:00:00 UTC 2017 to Present..
File: /opt/nagios/var/nagios.log

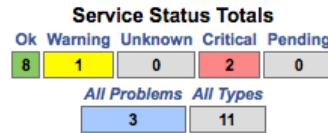
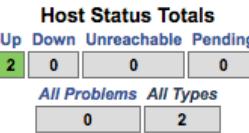
Host	Service	Type	Time	Contact	Notification Command	Information
nrpe1	Custom Command - Check HTTP on Port 8080	CRITICAL	11-24-2017 12:15:41	nagiosadmin	notify-service-by-email	connect to address 172.17.0.3 and port 8080: Connection refused

```
[root@5d67f375a265:~]# cat /opt/nagios/var/nagios.log | tail
[1511525405] wproc: Successfully registered manager as @wproc with query handler
[1511525405] wproc: Registry request: name=Core Worker 17428;pid=17428
[1511525405] wproc: Registry request: name=Core Worker 17427;pid=17427
[1511525405] wproc: Registry request: name=Core Worker 17426;pid=17426
[1511525405] wproc: Registry request: name=Core Worker 17425;pid=17425
[1511525405] Successfully launched command file worker with pid 17429
[1511525501] SERVICE ALERT: nrpe1;Custom Command - Check HTTP on Port 8080;CRITICAL;SOFT;1;connect to address 172.17.0.3 and port 8080: Connection refused
[1511525621] SERVICE ALERT: nrpe1;Custom Command - Check HTTP on Port 8080;CRITICAL;SOFT;2;connect to address 172.17.0.3 and port 8080: Connection refused
[1511525741] SERVICE ALERT: nrpe1;Custom Command - Check HTTP on Port 8080;CRITICAL;HARD;3;connect to address 172.17.0.3 and port 8080: Connection refused
[1511525741] SERVICE NOTIFICATION: nagiosadmin;nrpe1;Custom Command - Check HTTP on Port 8080;CRITICAL;notify-service-by-email;connect to address 172.17.0.3 and port 8080: Connection refused
[root@5d67f375a265:~]
```

Nagios: Using Nagios GUI - Configuring checks

Current Network Status
Last Updated: Wed Sep 20 09:16:41 UTC 2017
Updated every 90 seconds
Nagios® Core™ 4.3.2 - www.nagios.org
Logged in as nagiosadmin

[View Service Status Detail For All Host Groups](#)
[View Status Overview For All Host Groups](#)
[View Status Summary For All Host Groups](#)
[View Status Grid For All Host Groups](#)



Host Status Details For All Host Groups

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	09-20-2017 09:15:19	1d 22h 34m 54s	PING OK - Packet loss = 0%, RTA = 0.78 ms
nrpe1	UP	09-20-2017 09:15:49	1d 21h 22m 2s	PING OK - Packet loss = 0%, RTA = 0.16 ms

Results: 2 of 2 Matching Hosts

Commands

Manage active checks of this host

- (L) Re-schedule the next check of this host
- (?) Submit passive check result for this host
- (X) Stop accepting passive checks for this host
- (X) Stop obsessing over this host
- (X) Disable notifications for this host
- (n) Send custom host notification

Nagios: Using Nagios GUI - Managing Flapping

```
[root@759406ada22e:/usr/local/nagios/etc/objects# grep flap /usr/local/nagios/etc/nagios.cfg
# of flap detection and event handlers for hosts to be retained, you
# and detect hosts and services that are "flapping".
# host or service is flapping, it will temporarily suppress
# flapping. Flap detection is very experimental, so read
# Values: 1 = enable flap detection
#         0 = disable flap detection (default)
enable_flap_detection=1
# Read the HTML documentation on flap detection for
# has no effect if flap detection is disabled
low_service_flap_threshold=5.0
high_service_flap_threshold=20.0
low_host_flap_threshold=5.0
high_host_flap_threshold=20.0
root@759406ada22e:/usr/local/nagios/etc/objec
```

The host or service itself has the `enable_flap_detection` directive set to 1 in its own definition.

In the latter case, the configuration for the host or service might look similar to the following code snippet:

```
define host {
    ...
        flap_detection_enabled 1
}
define service {
    ...
        flap_detection_enabled 1
}
```

Nagios: Using Nagios GUI - Managing Flapping

HOST STATE INFORMATION

Host Status:	UP (for 1d 22h 40m 1s)
Status Information:	PING OK - Packet loss = 0%, RTA = 0.14 ms
Performance Data:	rta=0.136000ms;3000.000000;5000.000000;0.000000 pl=0%;80;
Current Attempt:	1/10 (HARD state)
Last Check Time:	09-20-2017 09:21:16
Check Type:	ACTIVE
Check Latency / Duration:	0.001 / 4.148 seconds
Next Scheduled Active Check:	09-20-2017 09:26:20
Last State Change:	09-18-2017 10:41:47
Last Notification:	N/A (notification 0)
Is This Host Flapping?	NO (0.00% state change)
In Scheduled Downtime?	NO
Last Update:	09-20-2017 09:21:43 (0d 0h 0m 5s ago)

Active Checks:	ENABLED
Passive Checks:	ENABLED
Obsessing:	ENABLED
Notifications:	ENABLED
Event Handler:	ENABLED
Flap Detection:	ENABLED



Host Comments

Add a new comment Delete all comments

Nagios: NRPE Monitoring - Setting the listening address for NRPE

```
root@nrpel:/# cat /etc/nagios/nrpe.cfg| grep server
server_port=5666
#server_address=127.0.0.1
```

Nagios: NRPE Monitoring - Setting allowed client hosts for NRPE

```
[root@nrpe1: # cat /etc/nagios/nrpe.cfg| grep allowed
# that are allowed to talk to the NRPE daemon. Network addresses with a bit mask
allowed_hosts=127.0.0.1,172.17.0.2
root@nrpe1: #
```

Nagios: NRPE Monitoring - Creating new NRPE command definitions securely

Let now see how to securely create new command definitions for nrpe to run upon request by a monitoring server. We need to do this because even if we have a huge set of plugins installed on our target host running nrpe, the daemon will only run commands defined in its configuration.

```
root@nrpel1:# cat /etc/nagios/nrpe.cfg| grep -e ^command -e "^#command"
command_timeout=60
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_hdal]=/usr/lib/nagios/plugins/check_disk -w 20% -c 10% -p /dev/hdal
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
#command[check_users]=/usr/lib/nagios/plugins/check_users -w $ARG1$ -c $ARG2$
#command[check_load]=/usr/lib/nagios/plugins/check_load -w $ARG1$ -c $ARG2$
#command[check_disk]=/usr/lib/nagios/plugins/check_disk -w $ARG1$ -c $ARG2$ -p $ARG3$
#command[check_procs]=/usr/lib/nagios/plugins/check_procs -w $ARG1$ -c $ARG2$ -s $ARG3$
root@nrpel1:#
```

Nagios: NRPE Monitoring - Creating new NRPE command definitions securely

```
[root@nrpel1: # /usr/lib/nagios/plugins/check_swap -w 10% -c 5%
SWAP OK - 99% free (3954 MB out of 3997 MB) | swap=3954MB;399;199;0;3997
```

```
[root@nrpel1: # nano /etc/nagios/nrpe.cfg
```

```
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/hda1
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
command[check_swap]=/usr/lib/nagios/plugins/check_swap -w 10% -c 5%
```

```
[root@nrpel1: # /etc/init.d/nagios-nrpe-server restart
 * Stopping nagios-nrpe nagios-nrpe
 * Starting nagios-nrpe nagios-nrpe
 * [ ok ]
```

Nagios: NRPE Monitoring - Creating new NRPE command definitions securely

Before enabling the command in nrpe.cfg

```
[root@5d67f375a265:/# /opt/nagios/libexec/check_nrpe -H 172.17.0.3 -c check_swap  
NRPE: Command 'check_swap' not defined  
root@5d67f375a265:/# ]
```

After enabling the command in nrpe.cfg

```
[root@5d67f375a265:/# /opt/nagios/libexec/check_nrpe -H 172.17.0.3 -c check_swap  
SWAP OK - 100% free (3997 MB out of 3997 MB) |swap=3997MB;399;199;0;3997  
root@5d67f375a265:/# ]
```

Nagios: NRPE Monitoring - Creating a custom NRPE script

```
[root@nrpe1:/# nano /usr/lib/nagios/plugins/check_sree1
```

```
#!/bin/bash
VERSION='1.00'
#Association ARGUMENT if required
ARG=$1
#<insert shell script commands to verify an operations and create a description>
#<and a results. For example DESCRIPTION="something" and RESULT="ok|warning|critical|unknown">

DESCRIPTION="Srees sample description"
RESULTS=ok

[ $# -ne 0 ] && RESULTS=$1

case "${RESULTS}" in
'ok')
    echo "OK - ${DESCRIPTION}"
    exit 0
;;
'warning')
    echo "WARNING - ${DESCRIPTION}"
    exit 1
;;
'failed')
    echo "CRITICAL - ${DESCRIPTION}"
    exit 2
;;
'unknown')
    echo "UNKNOWN - ${DESCRIPTION}"
    exit 3
;;
esac
```

Nagios: NRPE Monitoring - Creating a custom NRPE script

```
[root@nrpel1:~]# chmod 755 /usr/lib/nagios/plugins/check_sree1
[root@nrpel1:~]# chown nagios.nagios /usr/lib/nagios/plugins/check_sree1
[root@nrpel1:~]# /usr/lib/nagios/plugins/check_sree1
OK - Srees sample description
root@nrpel1:~]
```

Now in the same way we can add this as a new command:

```
[root@nrpel1:~]# nano /etc/nagios/nrpe.cfg
```

```
# The following examples use hardcoded command arguments...

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/hda1
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
command[check_swap]=/usr/lib/nagios/plugins/check_swap -w 10% -c 5%
command[check_sree1]=/usr/lib/nagios/plugins/check_sree1 ok
```

Nagios: NRPE Monitoring - Creating a custom NRPE script

```
[root@nrpel:/# /etc/init.d/nagios-nrpe-server restart
 * Stopping nagios-nrpe nagios-nrpe
 * Starting nagios-nrpe nagios-nrpe
root@nrpel:/# ]
```

```
[root@5d67f375a265:/# /opt/nagios/libexec/check_nrpe -H 172.17.0.3 -c check_gsa1
OK - GSA sample description
root@5d67f375a265:/# ]
```

1. Launch Nagios GUI using Docker
2. Launch an Ubuntu Server and install NRPE
3. Connect this server as a host to be monitored in Nagios
4. Experiment with the demonstrations given in this presentation and become familiar with the GUI



Cognixia

THANK YOU

