

# Projet

Outils de supervision : Nagios

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## Introduction :

**Nagios** (anciennement appelé **Netsaint**) est une application permettant la surveillance système et réseau. Elle surveille les hôtes et services spécifiés, alertant lorsque les systèmes ont des dysfonctionnements et quand ils repassent en fonctionnement normal. C'est un logiciel libre sous licence GPL.

C'est un programme modulaire qui se décompose en trois parties :

- 1/Le moteur de l'application qui vient ordonnancer les tâches de supervision.
- 2/L'interface web, qui permet d'avoir une vue d'ensemble du système d'information et des possibles anomalies.
- 3/Les sondes (appelées greffons ou *plugins*), une centaine de mini programmes que l'on peut compléter en fonction des besoins de chacun pour superviser chaque service ou ressource disponible sur l'ensemble des ordinateurs ou éléments réseaux du SI.

## Réseau à surveiller

Le réseau à surveiller est un petit réseau local constitué de :

- 2 serveurs Linux offrant respectivement les services DHCP , DNS
- 1 machine cliente Linux
- 1 machine de surveillance Nagios

## 1ère partie :

# Installation et configuration de Nagios

On va travailler avec une machine ubuntu 14.04

## 1/Installation

Installation du paquet avec la commande ci-dessous

```
root@localhost:/etc/apache2# cd ..
root@localhost:/etc# apt-get install wget build-essential apache2 php5 php5-gd libgd-dev unzip
```

Pour installer et utiliser cet outil de monitoring, il est nécessaire d'avoir un serveur Web avec un module PHP : le logiciel Apache est alors recommandé.

## 2/Configuration

### Ajouter des utilisateurs

La première chose à faire est d'ajouter des utilisateurs qui pourront se connecter à l'interface web de Nagios

```
root@ubuntu:/home/yosr# sudo adduser nagios2
Adding user `nagios2' ...
Adding new group `nagios2' (1001) ...
Adding new user `nagios2' (1001) with group `nagios2' ...
Creating home directory `/home/nagios2' ...
Copying files from `/etc/skel' ...
Enter new UNIX password:
```

Maintenant on va créer un groupe **nagcmd** et ajouter l'utilisateur nagios à ce groupe ,

```
root@ubuntu:/opt/nagios-4.3.1# usermod -a -G nagcmd nagios
root@ubuntu:/opt/nagios-4.3.1# usermod -a -G nagcmd www-data
```

### Installation de nagios core service

Sous le répertoire **/opt** on va exécuter la commande suivante

```
root@ubuntu:/opt# wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.3.1.tar.gz
--2017-05-05 07:29:45-- https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.3.1.tar.gz
Resolving assets.nagios.com (assets.nagios.com)... 72.14.181.71, 2600:3c00::f03c:91ff:fedf:b821
Connecting to assets.nagios.com (assets.nagios.com)|72.14.181.71|:443... connect
ed.
HTTP request sent, awaiting response... 200 OK
Length: 11095797 (11M) [application/x-gzip]
Saving to: 'nagios-4.3.1.tar.gz'

100%[=====>] 11,095,797 61.2KB/s in 2m 53s

2017-05-05 07:32:40 (62.6 KB/s) - 'nagios-4.3.1.tar.gz' saved [11095797/11095797]

root@ubuntu:/opt#
```

Décompresser le répertoire avec la commande ci-dessous

```
root@ubuntu:/opt# tar xzf nagios-4.3.1.tar.gz
root@ubuntu:/opt# ls
nagios-4.3.1  nagios-4.3.1.tar.gz
```

Compiler avec la commande : **make**

```
root@ubuntu:/opt/nagios-4.3.1
Nagios user/group: nagios,nagios
Command user/group: nagios,nagcmd
Event Broker: yes
Install ${prefix}: /usr/local/nagios
Install ${includedir}: /usr/local/nagios/include/nagios
Lock file: ${prefix}/var/nagios.lock
Check result directory: ${prefix}/var/spool/checkresults
Init directory: /etc/init.d
Apache conf.d directory: /etc/apache2/sites-available
Mail program: /bin/mail
Host OS: linux-gnu
IOBroker Method: epoll

Web Interface Options:
-----
HTML URL: http://localhost/nagios/
CGI URL: http://localhost/nagios/cgi-bin/
Traceroute (used by WAP):

Review the options above for accuracy. If they look okay,
type 'make all' to compile the main program and CGIs.
root@ubuntu:/opt/nagios-4.3.1#
```

La commande : **make all**

```
root@ubuntu:/opt/nagios-4.3.1
please make sure that you:

- Look at the sample config files
- Read the documentation on the Nagios Library at:
  https://library.nagios.com

before you post a question to one of the mailing lists.
Also make sure to include pertinent information that could
help others help you. This might include:

- What version of Nagios you are using
- What version of the plugins you are using
- Relevant snippets from your config files
- Relevant error messages from the Nagios log file

For more information on obtaining support for Nagios, visit:
https://support.nagios.com

*****

Enjoy.
root@ubuntu:/opt/nagios-4.3.1#
```

La commande : **make install**

```

root@ubuntu: /opt/nagios-4.3.1
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/libexec
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/archives
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/var/spool/checkresults
chmod g+s /usr/local/nagios/var/spool/checkresults

*** Main program, CGIs and HTML files installed ***

You can continue with installing Nagios as follows (type 'make'
without any arguments for a list of all possible options):

    make install-init
        - This installs the init script in /etc/init.d

    make install-commandmode
        - This installs and configures permissions on the
          directory for holding the external command file

    make install-config
        - This installs sample config files in /usr/local/nagios/etc

make[1]: Leaving directory `/opt/nagios-4.3.1'
root@ubuntu: /opt/nagios-4.3.1#

```

La commande : **make install-init**

```

root@ubuntu: /opt/nagios-4.3.1# make install-init
/usr/bin/install -c -m 755 -d -o root -g root /etc/init.d
/usr/bin/install -c -m 755 -o root -g root daemon-init /etc/init.d/nagios

*** Init script installed ***

root@ubuntu: /opt/nagios-4.3.1#

```

La commande : **make install-config**

```

root@ubuntu: /opt/nagios-4.3.1
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
templates.cfg /usr/local/nagios/etc/objects/templates.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
commands.cfg /usr/local/nagios/etc/objects/commands.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
contacts.cfg /usr/local/nagios/etc/objects/contacts.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
timeperiods.cfg /usr/local/nagios/etc/objects/timeperiods.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
localhost.cfg /usr/local/nagios/etc/objects/localhost.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
windows.cfg /usr/local/nagios/etc/objects/windows.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
printer.cfg /usr/local/nagios/etc/objects/printer.cfg
/usr/bin/install -c -b -m 664 -o nagios -g nagios sample-config/template-object/
switch.cfg /usr/local/nagios/etc/objects/switch.cfg

*** Config files installed ***

Remember, these are *SAMPLE* config files. You'll need to read
the documentation for more information on how to actually define
services, hosts, etc. to fit your particular needs.

root@ubuntu: /opt/nagios-4.3.1#

```

La commande : **make install-commandmode**

```
root@ubuntu:/opt/nagios-4.3.1# make install-commandmode
/usr/bin/install -c -m 775 -o nagios -g nagcmd -d /usr/local/nagios/var/rw
chmod g+s /usr/local/nagios/var/rw
```

```
*** External command directory configured ***
```

```
root@ubuntu:/opt/nagios-4.3.1#
```

Maintenant on va copier le fichier eventhandlers sous le répertoire libexec

```
root@ubuntu:/opt/nagios-4.3.1# cp -R contrib/eventhandlers/ /usr/local/nagios/libexec/
root@ubuntu:/opt/nagios-4.3.1#
```

Attribuer à ce fichier l'utilisateur et le groupe nagios comme propriétaire

```
root@ubuntu:/opt/nagios-4.3.1# chown -R nagios:nagios /usr/local/nagios/libexec/eventhandlers
root@ubuntu:/opt/nagios-4.3.1#
```

Maintenant on va créer le fichier de configuration de nagios apache2.

Ajouter dedans le fichier ci-dessous

```
root@ubuntu:/opt/nagios-4.3.1
<Directory "/usr/local/nagios/sbin">
    Options ExecCGI
    AllowOverride None
    Order allow,deny
    Allow from all
    AuthName "Restricted Area"
    AuthType Basic
    AuthUserFile /usr/local/nagios/etc/htpasswd.users
    Require valid-user
</Directory>

Alias /nagios "/usr/local/nagios/share"

<Directory "/usr/local/nagios/share">
    Options None
    AllowOverride None
    Order allow,deny
    Allow from all
    AuthName "Restricted Area"
    AuthType Basic
    AuthUserFile /usr/local/nagios/etc/htpasswd.users
    Require valid-user
</Directory>
root@ubuntu:/opt/nagios-4.3.1#
```

Les droits d'accès de l'interface web se gèrent avec htpasswd qui est un utilitaire fourni avec le serveur Apache.

Pour ajouter un utilisateur, on peut utiliser la commande suivante :

```
Setting up apache2-ssl (2.4.18-1ubuntu1.11) ...
root@ubuntu:/opt/nagios-4.3.1# htpasswd -c /usr/local/nagios/etc/htpasswd.users
nagiosadmin
New password:
Re-type new password:
Adding password for user nagiosadmin
root@ubuntu:/opt/nagios-4.3.1#
```

Une fois que les droits d'accès ont été indiqués, on peut se connecter avec notre nouvel utilisateur au travers de l'interface web.

Relancer le service apache2

```
root@ubuntu:/etc# service apache2 reload
* Reloading web server apache2
*
root@ubuntu:/etc# service apache2 restart
* Restarting web server apache2
[ OK ]
root@ubuntu:/etc# service apache2 start
* Starting web server apache2
*
root@ubuntu:/etc#
```

Après l'installation de nagios core service , on va installer Nagios plugins sous le répertoire /opt

```
root@ubuntu:/opt
root@ubuntu:/opt# wget http://www.nagios-plugins.org/download/nagios-plugins-2.1.4.tar.gz
--2017-05-05 08:13:53-- http://www.nagios-plugins.org/download/nagios-plugins-2.1.4.tar.gz
Resolving www.nagios-plugins.org (www.nagios-plugins.org)... 72.14.186.43
Connecting to www.nagios-plugins.org (www.nagios-plugins.org)|72.14.186.43|:80..
. connected.
HTTP request sent, awaiting response... 301 Moved Permanently
Location: http://nagios-plugins.org/download/nagios-plugins-2.1.4.tar.gz [following]
--2017-05-05 08:13:53-- http://nagios-plugins.org/download/nagios-plugins-2.1.4.tar.gz
Resolving nagios-plugins.org (nagios-plugins.org)... 72.14.186.43
Reusing existing connection to www.nagios-plugins.org:80.
HTTP request sent, awaiting response... 200 OK
Length: 2721216 (2.6M) [application/x-gzip]
Saving to: 'nagios-plugins-2.1.4.tar.gz'

100%[=====] 2,721,216 45.7KB/s in 44s

2017-05-05 08:14:37 (61.0 KB/s) - 'nagios-plugins-2.1.4.tar.gz' saved [2721216/2721216]
root@ubuntu:/opt#
```

Décompresser le répertoire

```
root@ubuntu:/opt# tar xzf nagios-plugins-2.1.4.tar.gz
root@ubuntu:/opt# cd nagios-plugins-2.1.4
root@ubuntu:/opt/nagios-plugins-2.1.4#
```

## Compilation

```

root@ubuntu: /opt/nagios-plugins-2.1.4
Checked 8 services.
Checked 1 hosts.
Checked 1 host groups.
Checked 0 service groups.
Checked 1 contacts.
Checked 1 contact groups.
Checked 24 commands.
Checked 5 time periods.
Checked 0 host escalations.
Checked 0 service escalations.
Checking for circular paths...
Checked 1 hosts
Checked 0 service dependencies
Checked 0 host dependencies
Checked 5 timeperiods
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@ubuntu: /opt/nagios-plugins-2.1.4#

```

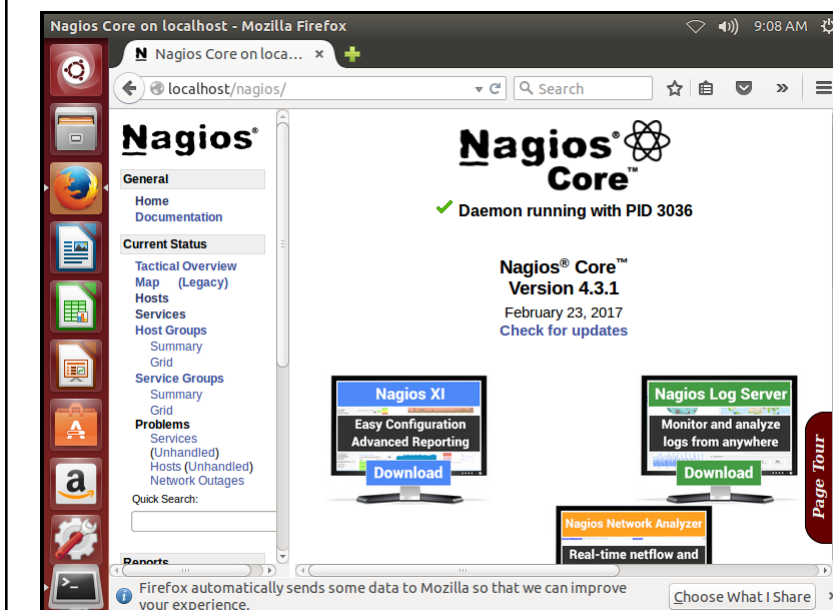
Main tenant on va redemarrer le service Nagios

```

root@localhost: /home/yosr# /etc/init.d/nagios restart
Running configuration check...
Stopping nagios:.. done.
Starting nagios: done.
root@localhost: /home/yosr# /etc/init.d/nagios status
nagios (pid 3036) is running...
root@localhost: /home/yosr#

```

Accéder au service Nagios à l'aide de l'interface graphique en tapant dans l'url  
<http://localhost/nagios>



## Section hosts

Core on localhost - Mozilla Firefox

Connecting... x +

localhost/nagios/

**Nagios®**

**General**

- Home
- Documentation

**Current Status**

- Tactical Overview
- Map (Legacy)
- Hosts**
- Services
- Host Groups
- Service Groups
- Problems

Quick Search:

**Current Network Status**

Last Updated: Fri May 5 09:40:26 PDT 2017  
Updated every 90 seconds  
Nagios® Core™ 4.3.1 - www.nagios.org  
Logged in as nagiosadmin

**Host Status Totals**

Up	Down	Unreachable	Pending	Ok	Warning	Unknown
1	0	0	0	7	0	0

**Service Status Totals**

All Problems	All Types	All Problems
0	1	1

**Host Status Details For All Host Groups**

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	05-05-2017 09:36:04	0d 1h 20m 32s	PING OK - Packet loss = 0%, RTA = 0.08 ms

Results 1 - 1 of 1 Matching Hosts

Looking up www.youtube.com...  
Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share

## Des details sur la machine localhost

File Edit View History Bookmarks Tools Help

Connecting... x +

localhost/nagios/

**Nagios®**

**General**

- Home
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**Current Status**

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- Map (Legacy)
- Hosts**
- Services
- Host Groups
- Service Groups
- Problems

Quick Search:

**Host Information**

Last Updated: Fri May 5 09:48:04 PDT 2017  
Updated every 90 seconds  
Nagios® Core™ 4.3.1 - www.nagios.org  
Logged in as nagiosadmin

**Host State Information**

**Host Status:** UP (for 0d 1h 28m 10s)

**Status Information:** PING OK - Packet loss = 0%, RTA = 0.08 ms

**Performance Data:** rta=0.084000ms; 3000.000000; 5000.000000; 0.000000; pl=0%:80:100:0

**Current Attempt:** 1/10 (HARD state)

**Last Check Time:** 05-05-2017 09:46:12

**Check Type:** ACTIVE

**Host Commands**

- Locate host on map
- 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
- Disable notifications for all services
- Enable notifications for all services
- Schedule a check of all services on this host

Read localhost

Looking up www.youtube.com...  
Firefox automatically sends some data to Mozilla so that we can improve your experience. Choose What I Share



## 2ème partie :

### Configuration de monitoring

Pour vouloir monitorer un serveur, il n'est pas nécessaire d'installer le logiciel sur chaque dispositif, en effet l'installer sur un serveur Nagios séparé est amplement suffisant. A partir de là vous pouvez simplement configurer quel système ou quel processeur doit être surveillé. Tout cela s'articule autour des quatre composants ou objets suivants :

**Hôte** : en tant que hôte, vous définissez les serveurs, bases de données et appareils, etc. du réseau que vous souhaitez surveiller. L'indicateur le plus important pour un hôte est l'adresse IP respective.

**Services** : avec ce composant vous pouvez définir quelles caractéristiques de l'hôte Nagios doit vérifier. Cela peut aussi être les services en cours d'exécution sur l'hôte (http, FTP, etc.), des attributs internes comme l'espace disque disponible mais aussi des caractéristiques physiques comme la température de votre matériel.

**Commandes** : avec ce volet vous contrôlez la séquence de monitoring. Vous pouvez configurer la façon dont la surveillance des hôtes et des services doit être conçu et quand Nagios doit vous avertir quand un évènement se produit.

**Contacts** : avec la définition des contacts, Nagios peut alors envoyer des notifications à des contacts administratifs via un email, un message texte ou encore un message vocal.

Même si Nagios n'est pas installé sur les différents hôtes, les plugins (qui vérifient les données internes) fonctionnent eux directement sur les hôtes

**NRPE** (Nagios Remote Plugin Executor) est un agent de supervision qui vous permet de récupérer les informations à distance. Son principe de fonctionnement est simple : il suffit d'installer le démon sur la machine distante et de l'interroger à partir du serveur Nagios.

## 1/Serveur DNS

Installer les plugins nrpe avec la commande ci-dessous

```
root@ubuntu:/home/insat# apt-get install nagios-nrpe-server nagios-plugins

Creating config file /etc/nagios-plugins/config/flexia.cfg with new version
Creating config file /etc/nagios-plugins/config/fping.cfg with new version
Creating config file /etc/nagios-plugins/config/games.cfg with new version
Creating config file /etc/nagios-plugins/config/httpd.cfg with new version
Creating config file /etc/nagios-plugins/config/iftstatus.cfg with new version
Creating config file /etc/nagios-plugins/config/ldap.cfg with new version
Creating config file /etc/nagios-plugins/config/mailq.cfg with new version
Creating config file /etc/nagios-plugins/config/mrtg.cfg with new version
Creating config file /etc/nagios-plugins/config/mysql.cfg with new version
Creating config file /etc/nagios-plugins/config/netware.cfg with new version
Creating config file /etc/nagios-plugins/config/nt.cfg with new version
Creating config file /etc/nagios-plugins/config/pgsql.cfg with new version
Creating config file /etc/nagios-plugins/config/radius.cfg with new version
Creating config file /etc/nagios-plugins/config/rpc-nfs.cfg with new version
Creating config file /etc/nagios-plugins/config/smp.cfg with new version
Paramétrage de nagios-plugins (4.5-2ubuntu1) ...
Paramétrage de perl-modules (5.18.2-2ubuntu1.1) ...
Paramétrage de perl (5.18.2-2ubuntu1.1) ...
Paramétrage de libnet-snmp-perl (6.0.1-2) ...
Traitement déclenché pour libc-bin (2.19-0ubuntu6) ...
Traitement déclenché pour ureadahead (0.100.0-16) ...
root@ubuntu:/home/insat# _
```

La commande qui nous donne le nom de notre filesystem est : **df -h /**

```
root@ubuntu:/home/insat# df -h /
Sys. de fichiers Taille Utilisé Dispo Util% Monté sur
/dev/sda1      2,9G  1,2G  1,6G  42% /
root@ubuntu:/home/insat#
```

Modifier quelques lignes du fichier de configuration de NRPE

```
root@ubuntu:/home/insat# nano /etc/nagios/nrpe.cfg
```

```
server_address=192.168.163.150
```

On met l'adresse IP de notre serveur DNS

```
allowed_hosts=192.168.163.142
```

On met l'adresse IP de notre service Nagios

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

command[check_users]=usr/lib/nagios/plugins/check_users -u 5 -c 10
command[check_load]=usr/lib/nagios/plugins/check_load -u 15,10,5 -c 30,25,20
command[check_hdd1]=usr/lib/nagios/plugins/check_disk -u 20% -c 10% -p /dev/sda1
command[check_zombie_procs]=usr/lib/nagios/plugins/check_procs -u 5 -c 10 -s Z
command[check_total_procs]=usr/lib/nagios/plugins/check_procs -u 150 -c 200
```

On modifie la 3ème ligne avec le nom de notre filesystem

Puis on redémarre avec la commande suivante

```
root@ubuntu:/home/insat# service nagios-nrpe-server restart
* Stopping nagios-nrpe nagios-nrpe [ OK ]
* Starting nagios-nrpe nagios-nrpe [ OK ]
root@ubuntu:/home/insat#
```

Dans la machine Nagios :

Installer les plugins

```
root@localhost:/home/yosr# curl -L -O http://nagios-plugins.org/download/nagios-
plugins-2.1.1.tar.gz
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 2614k 100 2614k 0 0 135k 0 0:00:19 0:00:19 --:--:-- 29578
root@localhost:/home/yosr#
```

Décompresser le répertoire

```
root@localhost:/home/yosr# tar xvf nagios-plugins-*.tar.gz
```

```
root@localhost:/home/yosr#
nagios-plugins-2.1.1/plugins-scripts/t/
nagios-plugins-2.1.1/plugins-scripts/t/check_ifoperstatus.t
nagios-plugins-2.1.1/plugins-scripts/t/check_rpc.t
nagios-plugins-2.1.1/plugins-scripts/t/check_file_age.t
nagios-plugins-2.1.1/plugins-scripts/t/check_disk_smb.t
nagios-plugins-2.1.1/plugins-scripts/t/check_ifstatus.t
nagios-plugins-2.1.1/plugins-scripts/t/utliti.t
nagios-plugins-2.1.1/plugins-scripts/check_mailq.pl
nagios-plugins-2.1.1/plugins-scripts/check_wave.pl
nagios-plugins-2.1.1/plugins-scripts/check_lrdd.pl
nagios-plugins-2.1.1/plugins-scripts/utliti.sh.in
nagios-plugins-2.1.1/plugins-scripts/check_ifstatus.pl
nagios-plugins-2.1.1/plugins-scripts/check_sensors.sh
nagios-plugins-2.1.1/pkg/
nagios-plugins-2.1.1/pkg/fedora/
nagios-plugins-2.1.1/pkg/fedora/requires
nagios-plugins-2.1.1/pkg/solaris/
nagios-plugins-2.1.1/pkg/solaris/preinstall
nagios-plugins-2.1.1/pkg/solaris/solpkg
nagios-plugins-2.1.1/pkg/solaris/pkginfo.tn
nagios-plugins-2.1.1/pkg/solaris/pkginfo
nagios-plugins-2.1.1/pkg/redhat/
nagios-plugins-2.1.1/pkg/redhat/requires
root@localhost:/home/yosr#
```

```

root@localhost:/home/yosr# cd nagios-plugins-*
root@localhost:/home/yosr/nagios-plugins-2.1.1#

root@localhost:/home/yosr/nagios-plugins-2.1.1# ./configure --with-nagios-user=nagios --with-nagios-group=nagios --with-openssl
root@localhost:/home/yosr/nagios-plugins-2.1.1#
config.status: creating test.pl
config.status: creating pkg/solaris/pkginfo
config.status: creating po/Makefile.in
config.status: creating config.h
config.status: executing depfiles commands
config.status: executing libtool commands
config.status: executing po-directories commands
config.status: creating po/POTFILES
config.status: creating po/Makefile
--with-apt-get-command: /usr/bin/apt-get
--with-ping6-command: /bin/ping6 -n -U -w %d -c %d %s
--with-ping-command: /bin/ping -n -U -w %d -c %d %s
--with-ipv6: yes
--with-mysql: no
--with-openssl: no
--with-gnutls: no
--enable-extra-opts: yes
--with-perl: /usr/bin/perl
--enable-perl-modules: no
--with-cgiurl: /nagios/cgi-bin
--with-trusted-path: /usr/local/sbin:/usr/local/bin:/sbin:/bin:/u
sr/sbin:/usr/bin
--enable-libtap: no
root@localhost:/home/yosr/nagios-plugins-2.1.1#

```

## Compilation

La commande **make**

```

root@localhost:/home/yosr/nagios-plugins-2.1.1# make
root@localhost:/home/yosr/nagios-plugins-2.1.1#
sizeof(data), ntohs(packet.icp->icmp_id), ntohs(packet.icp->icmp_seq),
packet.icp->icmp_cksum, host->name);
^
check_icmp.c: In function 'main':
check_icmp.c:406:8: warning: ignoring return value of 'setuid', declared with at
tribute warn_unused_result [-Wunused-result]
    setuid(getuid());
    ^
mv -f .deps/check_icmp.Tpo .deps/check_icmp.Po
/bin/bash ../libtool --tag=CC --mode=link gcc -DNP_VERSION="2.1.1" -g -O2 -L
-L -o check_icmp check_icmp.o ../plugins/netutils.o ../plugins/utls.o ../lib/li
bnagiosplug.a ../gl/libgnu.a -lnsl -lresolv -lnsl -lresolv -lpthread -ldl
libtool: link: gcc -DNP_VERSION="2.1.1" -g -O2 -o check_icmp check_icmp.o ../p
lugins/netutils.o ../plugins/utls.o -L ../lib/libnagiosplug.a ../gl/libgnu.a
-lnsl -lresolv -lpthread -ldl
make[2]: Leaving directory `/home/yosr/nagios-plugins-2.1.1/plugins-root'
Making all in po
make[2]: Entering directory `/home/yosr/nagios-plugins-2.1.1/po'
make[2]: Nothing to be done for 'all'.
make[2]: Leaving directory `/home/yosr/nagios-plugins-2.1.1/po'
make[2]: Entering directory `/home/yosr/nagios-plugins-2.1.1'
make[2]: Leaving directory `/home/yosr/nagios-plugins-2.1.1'
make[1]: Leaving directory `/home/yosr/nagios-plugins-2.1.1'
root@localhost:/home/yosr/nagios-plugins-2.1.1#

```

### La commande : make install

```

root@localhost:/home/yosr/nagios-plugins-2.1.1# sudo make install
root@localhost:/home/yosr/nagios-plugins-2.1.1
s.mo
installing de.gmo as /usr/local/nagios/share/locale/de/LC_MESSAGES/nagios-plugin
s.mo
if test "nagios-plugins" = "gettext-tools"; then \
    /bin/mkdir -p /usr/local/nagios/share/gettext/po; \
    for file in Makefile.in.in remove-potcdate.sin    Makevars.template; d
o \
        /usr/bin/install -c -o nagios -g nagios -m 644 ./sfile \
        /usr/local/nagios/share/gettext/po/sfile; \
    done; \
    for file in Makevars; do \
        rm -f /usr/local/nagios/share/gettext/po/sfile; \
    done; \
    else \
        : ; \
    fi
LibreOffice Impress |trejectory '/home/yosr/nagios-plugins-2.1.1/po'
make[1]: Entering directory '/home/yosr/nagios-plugins-2.1.1'
make[2]: Entering directory '/home/yosr/nagios-plugins-2.1.1'
make[2]: Nothing to be done for 'install-exec-am'.
make[2]: Nothing to be done for 'install-data-am'.
make[2]: Leaving directory '/home/yosr/nagios-plugins-2.1.1'
make[1]: Leaving directory '/home/yosr/nagios-plugins-2.1.1'
root@localhost:/home/yosr/nagios-plugins-2.1.1#

```

### Téléchargement des plugins NRPE

```

root@localhost:/home/yosr# curl -L -O http://downloads.sourceforge.net/project/n
agios/nrpe-2.x/nrpe-2.15/nrpe-2.15.tar.gz

```

% Total	% Received	% Xferd	Average Dload	Speed Upload	Time Total	Time Spent	Time Left	Current Speed
0	349	0	0	0	--:--:--	0:00:01	--:--:--	0
100	409k	100	409k	0	0	0:00:07	--:--:--	107k

### Décompression

```

root@localhost:/home/yosr# tar xvf nrpe-*.tar.gz

```

```

root@localhost:/home/yosr#
nrpe-2.15/nrpe.spec.in
nrpe-2.15/package/
nrpe-2.15/package/solaris/
nrpe-2.15/package/solaris/Makefile.in
nrpe-2.15/package/solaris/pkg/
nrpe-2.15/package/solaris/pkg/i.config
nrpe-2.15/package/solaris/pkg/nrpe
nrpe-2.15/package/solaris/pkg/nrpe.xml
nrpe-2.15/package/solaris/pkg/postinstall
nrpe-2.15/package/solaris/pkg/preinstall
nrpe-2.15/package/solaris/pkg/r.config
nrpe-2.15/sample-config/
nrpe-2.15/sample-config/nrpe.cfg.in
nrpe-2.15/sample-config/nrpe.xinetd.in
nrpe-2.15/src/
nrpe-2.15/src/Makefile.in
nrpe-2.15/src/acl.c
nrpe-2.15/src/check_nrpe.c
nrpe-2.15/src/nrpe.c
nrpe-2.15/src/snprintf.c
nrpe-2.15/src/utlis.c
nrpe-2.15/subst.in
nrpe-2.15/update-version
root@localhost:/home/yosr#

```

```

root@localhost:/home/yosr# cd nrpe-*
root@localhost:/home/yosr/nrpe-2.15#

root@localhost:/home/yosr/nrpe-2.15# ./configure --enable-command-args --with-nagios-user=nagios --with-nagios-group=nagios --with-ssl=/usr/bin/openssl --with-ssl-lib=/usr/lib/x86_64-linux-gnu
root@localhost:/home/yosr/nrpe-2.15#
config.status: creating init-script.debian
config.status: creating init-script.suse
config.status: creating nrpe.spec
config.status: creating sample-config/nrpe.cfg
config.status: creating sample-config/nrpe.xinetd
config.status: creating include/config.h
config.status: include/config.h is unchanged

*** Configuration summary for nrpe 2.15 09-06-2013 ***:

General Options:
-----
NRPE port:      5666
NRPE user:      nagios
NRPE group:     nagios
Nagios user:    nagios
Nagios group:   nagios

Review the options above for accuracy.  If they look okay,
type 'make all' to compile the NRPE daemon and client.

root@localhost:/home/yosr/nrpe-2.15#

```

```

root@localhost:/home/yosr/nrpe-2.15# make all

root@localhost:/home/yosr/nrpe-2.15#
./nrpe.c:1766:8: warning: ignoring return value of 'write', declared with attribute warn_unused_result [-Wunused-result]
    write(fd,pbuf,strlen(pbuf));
    ^
gcc -g -O2 -I/usr/include/openssl -I/usr/include -DHAVE_CONFIG_H -I../include -I../include -o check_nrpe ./check_nrpe.c ./utils.c -L/usr/lib/x86_64-linux-gnu -lssl -lcrypto -lnsl
./check_nrpe.c: In function 'main':
./check_nrpe.c:276:4: warning: format '%d' expects argument of type 'int', but argument 3 has type 'long unsigned int' [-Wformat=]
    printf("CHECK_NRPE: Receive underflow - only %d bytes received (%d expected)\n",bytes_to_recv,sizeof(receive_packet));
    ^
make[1]: Leaving directory '/home/yosr/nrpe-2.15/src'

*** Compile finished ***

If the NRPE daemon and client compiled without any errors, you
can continue with the installation or upgrade process.

Read the PDF documentation (NRPE.pdf) for information on the next
steps you should take to complete the installation or upgrade.

root@localhost:/home/yosr/nrpe-2.15#

```

La commande : **make install**

```
root@localhost:/home/yosr/nrpe-2.15# make install
cd ./src/ && make install
make[1]: Entering directory `/home/yosr/nrpe-2.15/src'
make install-plugin
make[2]: Entering directory `/home/yosr/nrpe-2.15/src'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/libexec
/usr/bin/install -c -m 775 -o nagios -g nagios check_nrpe /usr/local/nagios/libexec
make[2]: Leaving directory `/home/yosr/nrpe-2.15/src'
make install-daemon
make[2]: Entering directory `/home/yosr/nrpe-2.15/src'
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/bin
/usr/bin/install -c -m 775 -o nagios -g nagios nrpe /usr/local/nagios/bin
make[2]: Leaving directory `/home/yosr/nrpe-2.15/src'
make[1]: Leaving directory `/home/yosr/nrpe-2.15/src'
```

La commande : **make install-xinetd**

```
root@localhost:/home/yosr/nrpe-2.15# make install-xinetd
/usr/bin/install -c -m 644 sample-config/nrpe.xinetd /etc/xinetd.d/nrpe
root@localhost:/home/yosr/nrpe-2.15#
```

La commande : **make install-daemon-config**

```
root@localhost:/home/yosr/nrpe-2.15# make install-daemon-config
/usr/bin/install -c -m 775 -o nagios -g nagios -d /usr/local/nagios/etc
/usr/bin/install -c -m 644 -o nagios -g nagios sample-config/nrpe.cfg /usr/local/nagios/etc
root@localhost:/home/yosr/nrpe-2.15#
```

```
root@localhost:/home/yosr/nrpe-2.15# nano /etc/xinetd.d/nrpe
```

Ajouter l'adresse IP de la machine nagios dans la ligne `only_from`

```
GNU nano 2.2.6      File: /etc/xinetd.d/nrpe

# default: on
# description: NRPE (Nagios Remote Plugin Executor)
service nrpe
{
    flags             = REUSE
    socket_type       = stream
    port              = 5666
    wait              = no
    user               = nagios
    group              = nagios
    server             = /usr/local/nagios/bin/nrpe
    server_args        = -c /usr/local/nagios/etc/nrpe.cfg --inetd
    log_on_failure     += USERID
    disable            = no
    only_from          = 127.0.0.1 192.168.163.142
}

[ Read 16 lines ]
^G Get Help  ^O WriteOut  ^R Read File ^Y Prev Page ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is  ^V Next Page ^U UnCut Text ^T To Spell
```

Redémarrer xinetd

```
root@localhost:/home/yosr/nrpe-2.15# service xinetd restart
xinetd stop/waiting
xinetd start/running, process 36901
root@localhost:/home/yosr/nrpe-2.15#
```

Ouvrir le fichier ci-dessous

```
root@localhost:/home/yosr/nrpe-2.15# nano /usr/local/nagios/etc/nagios.cfg
```

Décommenter la 1ère ligne

```
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
```

Créer le répertoire suivant

```
root@localhost:/home/yosr/nrpe-2.15# mkdir /usr/local/nagios/etc/servers
```

```
root@localhost:/home/yosr/nrpe-2.15# nano /usr/local/nagios/etc/objects/contacts.cfg
GNU nano 2.2.6 File: /usr/local/nagios/etc/objects/contacts.cfg Modified
#####
# Just one contact defined by default - the Nagios admin (that's you)
# This contact definition inherits a lot of default values from the 'generic.cfg'
# template which is defined elsewhere.
define contact{
    contact_name    nagiosadmin          ; Short name of S
    use              generic-contact      ; Inherit default
    alias            Nagios Admin         ; Full name of S
    email            hadriyos@yahoo.fr    ; <***** CHANGES
}
#####
^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is   ^V Next Page  ^U UnCut Text ^I To Spell
```

Dans le fichier /usr/local/nagios/etc/objects/commands.cfg

Ajouter la commande check\_dns

```
root@localhost:/home/yosr/nrpe-2.15# nano /usr/local/nagios/etc/objects/commands.cfg
```

```
define command{
    command_name check_nrpe
    command_line $USER1$/check_nrpe -H $HOSTADDRESS$ -c $ARG1$
}
define command{
    command_name    check_dns
    command_line    $USER1$/check_dns -H dev1.asr.com -s $HOSTADDRESS$
}
```

```
^G Get Help  ^O WriteOut  ^R Read File  ^Y Prev Page  ^K Cut Text   ^C Cur Pos
^X Exit      ^J Justify   ^W Where Is   ^V Next Page  ^U UnCut Text ^I To Spell
```

```
# 'check_local_load' command definition
define command{
    command_name    check_local_load
    command_line     $USER1$/check_load -w $ARG1$ -c $ARG2$
}

# 'check_local_procs' command definition
define command{
    command_name    check_local_procs
    command_line     $USER1$/check_procs -w $ARG1$ -c $ARG2$ -s $ARG3$
}

# 'check_local_users' command definition
define command{
    command_name    check_local_users
    command_line     $USER1$/check_users -w $ARG1$ -c $ARG2$
}

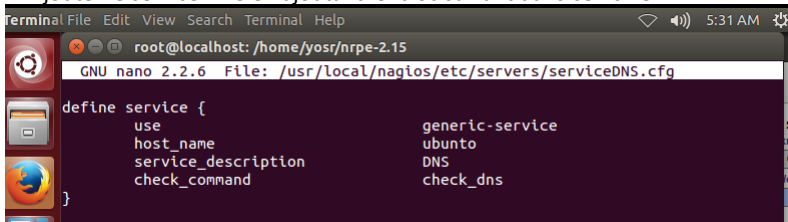
# 'check_local_swap' command definition
define command{
    command_name    check_local_swap
    command_line     $USER1$/check_swap -w $ARG1$ -c $ARG2$
}
```

J'ai pas compris comment je doit configurer les paramètres !!

Ajouter le fichier /usr/local/nagios/etc/servers/serviceDNS.cfg

```
root@localhost: /home/yosr/nrpe-2.15# nano /usr/local/nagios/etc/servers/serviceDNS.cfg
```

Ajouter le service DNS en ajoutant le bloc suivant dans ce fichier

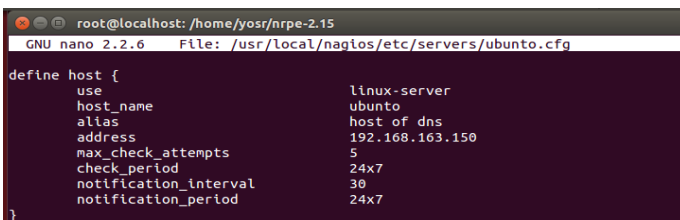


```
define service {
    use                generic-service
    host_name           ubuntu
    service_description DNS
    check_command       check_dns
}
```

Ajouter le fichier /usr/local/nagios/etc/servers/ubuntu.cfg

```
root@localhost: /home/yosr/nrpe-2.15# nano /usr/local/nagios/etc/servers/ubuntu.cfg
```

Ajouter le host dont le nom est ubuntu sur lequel on a installé le serveur DNS



```
define host {
    use                linux-server
    host_name           ubuntu
    alias              host of dns
    address            192.168.163.150
    max_check_attempts 5
    check_period        24x7
    notification_interval 30
    notification_period 24x7
}
```



Ainsi que la surveillance du serveur DNS sur la machine Ubuntu , on veut surveiller charge Processeur , mémoire d'échange (swap) , disque dur , nombre d'utilisateurs connectés et processus en cours , donc on doit ajouter ces services dans le fichier `/usr/local/nagios/etc/servers/serviceDNS.cfg`

```
GNU nano 2.2.6 File: /usr/local/nagios/etc/servers/serviceDNS.cfg Modified
define service {
    use                generic-service
    host_name          ubuntu
    service_description DNS
    check_command       check_dns
}
define service {
    use                generic-service
    host_name          ubuntu
    service_description disk
    check_command       check_local_disk
}
define service {
    use                generic-service
    host_name          ubuntu
    service_description load
    check_command       check_local_load
}
define service {
    use                generic-service
    host_name          ubuntu
    service_description users
    check_command       check_local_users
}
define service {
    use                generic-service
    host_name          ubuntu
    service_description swap
    check_command       check_local_swap
}
```

### Vérification des fichiers

```
root@localhost:/home/yosr/nrpe-2.15# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
root@localhost: /usr/local/nagios/libexec
Read main config file okay...
Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
  Checked 13 services.
  Checked 2 hosts.
  Checked 1 host groups.
  Checked 0 service groups.
  Checked 1 contacts.
  Checked 1 contact groups.
  Checked 26 commands.
  Checked 5 time periods.
  Checked 0 host escalations.
  Checked 0 service escalations.
Checking for circular paths...
  Checked 2 hosts
  Checked 0 service dependencies
  Checked 0 host dependencies
  Checked 5 timeperiods
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@localhost:/usr/local/nagios/libexec#
```

**Nagios Core on localhost - Mozilla Firefox**

Current Network Status  
Last Updated: Sun May 7 07:51:40 PDT 2017  
Updated every 90 seconds  
Nagios® Core™ 4.3.1 - www.nagios.org  
Logged in as nagiosadmin

**Host Status Totals**

Up	Down	Unreachable	Pending
2	0	0	0

**Service Status Totals**

Ok	Warning	Unknown	Critical	Pending
8	0	0	1	0

**Service Status Details For All Hosts**

Limit Results: 100

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	05-07-2017 07:47:50	1d 20h 29m 17s	1/4	OK - load average: 0.37, 0.23, 0.15
localhost	Current Users	OK	05-07-2017 07:49:04	1d 20h 28m 39s	1/4	USERS OK - 2 users currently logged in
localhost	HTTP	OK	05-07-2017 07:50:18	1d 20h 28m 2s	1/4	HTTP OK: HTTP/1.1 200 OK - 11783 bytes in 0.017 second response time
localhost	PING	OK	05-07-2017 07:46:32	1d 20h 27m 24s	1/4	PING OK - Packet loss = 0%, RTA = 0.07 ms
localhost	Root Partition	OK	05-07-2017 07:49:56	1d 20h 26m 47s	1/4	DISK OK - free space: / 13846 MB (76% inode=84%)
localhost	SSH	CRITICAL	05-07-2017 07:48:27	1d 20h 26m 9s	4/4	connect to address 127.0.0.1 and port 22: Connection refused
localhost	Swap Usage	OK	05-07-2017 07:50:55	1d 20h 25m 32s	1/4	SWAP OK - 77% free (779 MB out of 1021 MB)
localhost	Total Processes	OK	05-07-2017 07:50:55	1d 20h 24m 54s	1/4	PROCS OK: 86 processes with STATE = RSZDT
ubuntu	DNS	OK	05-07-2017 07:49:23	0d 0h 12m 17s	1/3	DNS OK: 0.138 seconds response time. dev1.asr.com returns 192.168.163.152

Results 1 - 9 of 9 Matching Services

Le serveur DNS sur la machine Ubuntu fonctionne correctement

**Nagios Core on localhost - Mozilla Firefox**

Current Network Status  
Last Updated: Sun May 7 05:26:28 PDT 2017  
Updated every 90 seconds  
Nagios® Core™ 4.3.1 - www.nagios.org  
Logged in as nagiosadmin

**Host Status Totals**

Up	Down	Unreachable	Pending
2	0	0	0

**Service Status Totals**

Ok	Warning	Unknown
8	0	0

**Host Status Details For All Host Groups**

Limit Results: 100

Host	Status	Last Check	Duration	Status Information
localhost	UP	05-07-2017 05:21:40	1d 18h 4m 5s	PING OK - Packet loss = 0%, RTA = 0.07 ms
ubuntu	UP	05-07-2017 05:24:10	0d 0h 4m 19s	PING OK - Packet loss = 0%, RTA = 0.64 ms

Results 1 - 2 of 2 Matching Hosts

La machine Ubuntu est en marche ( up)

## Des détails sur le serveur DNS

Nagios Core on localhost - Mozilla Firefox

Nagios Core on localhost - Nagios Core on localhost

localhost/nagios/

**Nagios**

Service Information

Last Updated: Sun May 7 07:49:40 PDT 2017  
Updated every 90 seconds  
Nagios Core™ 4.3.1 - www.nagios.org  
Logged in as nagiosadmin

Service  
DNS  
On Host  
host of dns  
(ubuntu)  
Member of  
No servicegroups.  
192.168.163.150

View Information For This Host  
View Status Detail For This Host  
View Alert History For This Service  
View Trends For This Service  
View Alert Histogram For This Service  
View Availability Report For This Service  
View Notifications For This Service

Service State Information

Current Status: **OK** (for 0d 0h 10m 17s)  
Status Information: DNS OK: 0.138 seconds response time. dev1.asr.com returns 192.168.163.152  
Performance Data: time=0.138066s;0.000000  
Current Attempt: 1/3 (HARD state)  
Last Check Time: 05-07-2017 07:49:23  
Check Type: ACTIVE  
Check Latency / Duration: 0.001 / 0.238 seconds  
Next Scheduled Check: 05-07-2017 07:59:23  
Last State Change: 05-07-2017 07:39:23  
Last Notification: N/A (notification 0)  
Is This Service Flapping? **YES** (28.49% state change)  
In Scheduled Downtime? **NO**  
Last Update: 05-07-2017 07:49:31 (0d 0h 0m 9s ago)

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

Service Commands

- ✗ Disable active checks of this service
- ⌚ Re-schedule the next check of this service
- 🔍 Submit passive check result for this service
- ✗ Stop accepting passive checks for this service
- ✗ Stop obsessing over this service
- ✗ Disable notifications for this service
- 📧 Send custom service notification
- 🕒 Schedule downtime for this service
- ✗ Disable event handler for this service
- ✗ Disable flap detection for this service
- ✗ Clear flapping state for this service

Service Comments

Add a new comment Delete all comments

Entry Time Author Comment

Comment ID Persistent Type Expires Actions

## Des détails sur la machine Ubuntu

Nagios Core on localhost - Mozilla Firefox

Nagios Core on localhost - Nagios Core on localhost

localhost/nagios/

**Nagios**

Host Information

Last Updated: Sun May 7 05:34:16 PDT 2017  
Updated every 90 seconds  
Nagios Core™ 4.3.1 - www.nagios.org  
Logged in as nagiosadmin

Host  
host of dns  
(ubuntu)  
Member of  
No hostgroups  
192.168.163.150

View Status Detail For This Host  
View Alert History For This Host  
View Trends For This Host  
View Alert Histogram For This Host  
View Availability Report For This Host  
View Notifications For This Host

Host State Information

Host Status: **UP** (for 0d 0h 12m 7s)  
Status Information: PING OK - Packet loss = 0%, RTT = 0.59 ms  
Performance Data: rta=0.590000ms;2000.000000;5000.000000;0.000000;0.000000;80;100;0  
Current Attempt: 1/5 (HARD state)  
Last Check Time: 05-07-2017 05:29:14  
Check Type: ACTIVE  
Check Latency / Duration: 0.002 / 4.002 seconds  
Next Scheduled Active Check: 05-07-2017 05:34:18  
Last State Change: 05-07-2017 05:22:09  
Last Notification: N/A (notification 0)  
Is This Host Flapping? **NO** (0.00% state change)  
In Scheduled Downtime? **NO**  
Last Update: 05-07-2017 05:34:13 (0d 0h 0m 3s ago)

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

Host Commands

- 📍 Locate host on map
- ✗ 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

Host Comments

Add a new comment Delete all comments

Entry Time Author Comment Comment ID Persistent Type Expires Actions

This host has no comments associated with it

On surveille le serveur DNS , le disque dur , le nombre d'utilisateurs connectés , la mémoire swap , le processeur sur la machine Ubuntu

The screenshot shows the Nagios Core web interface in a Mozilla Firefox browser. The interface displays the following information:

- Current Network Status:** Last Updated: Sun May 7 08:53:27 PDT 2017. Updated every 90 seconds. Nagios Core™ 4.3.1 - www.nagios.org. Logged in as nagiosadmin.
- Host Status Totals:**

Up	Down	Unreachable	Pending
2	0	0	0
- Service Status Totals:**

Ok	Warning	Unknown	Critical	Pending
7	0	3	3	0
- Service Status Details For All Hosts:**

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	05-07-2017 08:52:50	1d 21h 31m 4s	1/4	OK - load average: 0.01, 0.08, 0.13
localhost	Current Users	OK	05-07-2017 08:49:04	1d 21h 30m 26s	1/4	USERS OK - 2 users currently logged in
localhost	HTTP	OK	05-07-2017 08:50:18	1d 21h 29m 48s	1/4	HTTP OK: HTTP/1.1 200 OK - 11783 bytes in 0.003 second response time
localhost	PING	OK	05-07-2017 08:51:32	1d 21h 29m 11s	1/4	PING OK - Packet loss = 0%, RTA = 0.14 ms
localhost	Root Partition	CRITICAL	05-07-2017 08:52:56	0d 0h 8m 31s	4/4	DISK CRITICAL - /run/user/1000/gfs is not accessible: Permission denied
localhost	SSH	CRITICAL	05-07-2017 08:48:27	1d 21h 27m 56s	4/4	connected to address 127.0.0.1 and port 22: Connection refused
localhost	Swap Usage	OK	05-07-2017 08:50:55	1d 21h 27m 19s	1/4	SWAP OK - 77% free (777 MB out of 1021 MB)
localhost	Total Processes	OK	05-07-2017 08:50:55	1d 21h 26m 43s	1/4	PROCS OK: 85 processes with STATE = RSLZDT
ubuntu	DNS	OK	05-07-2017 08:49:23	0d 1h 14m 4s	1/3	DNS OK: 0.004 seconds response time: dev.las.com returns 192.168.163.152
ubuntu	disk	CRITICAL	05-07-2017 08:44:57	0d 0h 8m 30s	3/3	DISK CRITICAL - /run/user/1000/gfs is not accessible: Permission denied
ubuntu	load	UNKNOWN	05-07-2017 08:46:01	0d 0h 21m 26s	3/3	Warning threshold must be float or float triplet!
ubuntu	swap	UNKNOWN	05-07-2017 08:47:05	0d 0h 20m 22s	3/3	check_swap: Warning threshold must be integer or percentage!
ubuntu	users	UNKNOWN	05-07-2017 08:48:09	0d 0h 19m 18s	3/3	check_users: Warning threshold must be a positive integer

## 2/ Serveur DHCP

Installation des plugins NRPE

```
root@ubuntu:/home/insat# apt-get install nagios-nrpe-server nagios-plugins

Creating config file /etc/nagios-plugins/config/flexln.cfg with new version
Creating config file /etc/nagios-plugins/config/fping.cfg with new version
Creating config file /etc/nagios-plugins/config/games.cfg with new version
Creating config file /etc/nagios-plugins/config/httpd.cfg with new version
Creating config file /etc/nagios-plugins/config/ifstatus.cfg with new version
Creating config file /etc/nagios-plugins/config/ldap.cfg with new version
Creating config file /etc/nagios-plugins/config/mailq.cfg with new version
Creating config file /etc/nagios-plugins/config/mrtg.cfg with new version
Creating config file /etc/nagios-plugins/config/mysqld.cfg with new version
Creating config file /etc/nagios-plugins/config/netware.cfg with new version
Creating config file /etc/nagios-plugins/config/nt.cfg with new version
Creating config file /etc/nagios-plugins/config/pgsql.cfg with new version
Creating config file /etc/nagios-plugins/config/radius.cfg with new version
Creating config file /etc/nagios-plugins/config/rpc-nfs.cfg with new version
Creating config file /etc/nagios-plugins/config/smp.cfg with new version
Paramétrage de nagios-plugins (4.5-3ubuntu1) ...
Paramétrage de perl-modules (5.18.2-2ubuntu1.1) ...
Paramétrage de perl (5.18.2-2ubuntu1.1) ...
Paramétrage de libnet-smp-perl (0.0.1-2) ...
Traitement déclenché pour libc-bin (2.19-0ubuntu6) ...
Traitement déclenché pour ureadahead (0.100.0-16) ...
root@ubuntu:/home/insat#
```

Modifier quelques lignes du fichier de configuration de NRPE

```
allowed_hosts=192.168.163.142
```

Adresse IP de la machine Nagios

```
server_address=192.168.163.160_
```

Adresse IP de la machine serveur DHCP

```
# The following examples use hardcoded command arguments...
command[check_users]=usr/lib/nagios/plugins/check_users -u 5 -c 10
command[check_load]=usr/lib/nagios/plugins/check_load -u 15,10,5 -c 30,25,20
command[check_hda1]=usr/lib/nagios/plugins/check_disk -u 20% -c 10% -p /dev/sda1
command[check_zombie_procs]=usr/lib/nagios/plugins/check_procs -u 5 -c 10 -s Z
command[check_total_procs]=usr/lib/nagios/plugins/check_procs -u 150 -c 200
```

Redémarrer le service NRPE

```
root@ubuntuDHCP:/home/insat# service nagios-nrpe-server restart
* Stopping nagios-nrpe nagios-nrpe [ OK ]
* Starting nagios-nrpe nagios-nrpe [ OK ]
root@ubuntuDHCP:/home/insat#
```

Dans la machine Nagios

Dans le fichier /usr/local/nagios/etc/objects/commands.cfg

Dans le bloc de la commande check\_dhcp , modifier la ligne suivante comme suit

```
# 'check_dhcp' command definition
define command{
    command_name    check_dhcp
    command_line     $USER1$/check_dhcp -s 192.168.163.160
}
```

-s adresse IP de  
serveur DHCP

Ajouter le fichier /usr/local/nagios/etc/servers/ubuntuDHCP.cfg

Editer le comme suit

```
GNU nano 2.2.6 File: /usr/local/nagios/etc/servers/ubuntuDHCP.cfg
```

```
define host {
    use                linux-server
    host_name          ubuntuDHCP
    alias              My DHCP server
    address             192.168.163.160
    max_check_attempts 5
    check_period        24x7
    notification_interval 30
    notification_period 24x7
}
```

Ajouter le fichier /usr/local/nagios/etc/servers/serviceDHCP.cfg

Editer le comme suit

```
GNU nano 2.2.6 File: /usr/local/nagios/etc/servers/serviceDHCP.cfg Modified
```

```
define service {
    use                generic-service
    host_name          ubuntuDHCP
    service_description swap
    check_command       check_dhcp
}
```

## Vérification des fichiers

```
root@localhost:/home/yosr/nrpe-2.15# /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
```

```
root@localhost: /usr/local/nagios/libexec
Read main config file okay...
Read object config files okay...

Running pre-flight check on configuration data...

Checking objects...
  Checked 14 services.
  Checked 3 hosts.
  Checked 1 host groups.
  Checked 0 service groups.
  Checked 1 contacts.
  Checked 1 contact groups.
  Checked 26 commands.
  Checked 5 time periods.
  Checked 0 host escalations.
  Checked 0 service escalations.
Checking for circular paths...
  Checked 3 hosts
  Checked 0 service dependencies
  Checked 0 host dependencies
  Checked 5 timeperiods
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@localhost:/usr/local/nagios/libexec#
```

On peut surveiller le serveur DHCP à l'aide de la commande suivante

```
root@localhost:/usr/local/nagios/libexec# ./check_dhcp -s 192.168.163.160
OK: Received 1 DHCPPOFFER(s), 1 of 1 requested servers responded, max lease time = 600 sec.
```

**Service Status Details For All Hosts**

Host	Service	Status	Last Check	Duration	Attempt	Status Information
localhost	Current Load	OK	05-07-2017 10:12:50	1d 22h 51m 42s	1/4	OK - load average: 0.19, 0.15, 0.11
localhost	Current Users	OK	05-07-2017 10:09:04	1d 22h 51m 4s	1/4	USERS OK - 2 users currently logged in
localhost	HTTP	OK	05-07-2017 10:10:18	1d 22h 50m 27s	1/4	HTTP OK: HTTP/1.1 200 OK - 11783 bytes in 0.001 second response time
localhost	PING	OK	05-07-2017 10:11:32	1d 22h 49m 49s	1/4	PING OK - Packet loss = 0%, RTT = 0.08 ms
localhost	Root Partition	CRITICAL	05-07-2017 10:12:56	0d 1h 29m 9s	4/4	DISK CRITICAL - /runuser/2000gifs is not accessible: Permission denied
localhost	SSH	CRITICAL	05-07-2017 10:13:27	1d 22h 48m 34s	4/4	connect to address 127.0.0.1 and port 22: Connection refused
localhost	Swap Usage	OK	05-07-2017 10:10:55	1d 22h 47m 57s	1/4	SWAP OK - 76% free (772 MB out of 1021 MB)
localhost	Total Processes	OK	05-07-2017 10:10:55	1d 22h 47m 19s	1/4	PROCS OK: 84 processes with STATE = RSZDT
ubuntu	DNS	OK	05-07-2017 10:13:23	0d 0h 20m 42s	1/3	DNS OK: 0.019 seconds response time: dev1.asr.com returns 192.168.163.152
ubuntu	disk	CRITICAL	05-07-2017 10:04:57	0d 1h 29m 8s	3/3	DISK CRITICAL - /runuser/2000gifs is not accessible: Permission denied
ubuntu	load	UNKNOWN	05-07-2017 10:06:01	0d 1h 42m 4s	3/3	Warning threshold must be float or float triplet!
ubuntu	swap	UNKNOWN	05-07-2017 10:07:05	0d 1h 41m 0s	3/3	check_swap: Warning threshold must be integer or percentage!
ubuntu	users	UNKNOWN	05-07-2017 10:08:09	0d 1h 39m 56s	3/3	check_users: Warning threshold must be a positive integer
ubuntuDHCP	dhcp	OK	05-07-2017 10:13:33	0d 0h 0m 32s	1/3	OK: Received 1 DHCPPOFFER(s), 1 of 1 requested servers responded, max lease time = 600 sec.

Le serveur DHCP fonctionne correctement