Nagios

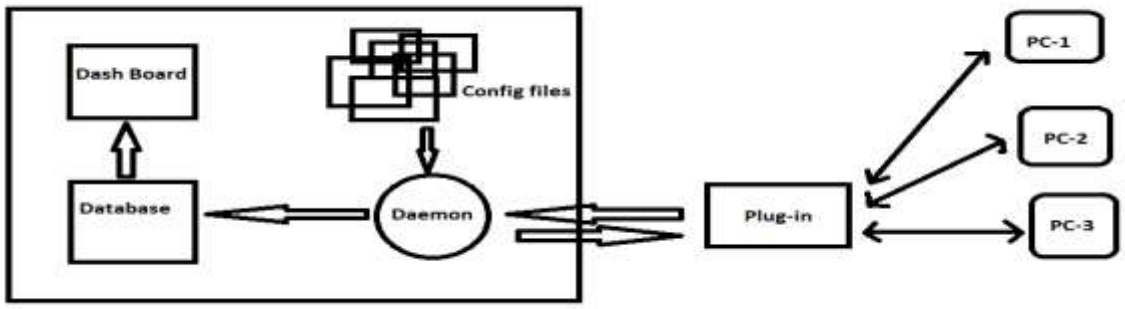
Why monitoring tool?

- High Availability
- Reduce downtime
- We can monitor by using:
- Scripts
- Tool

Why Nagios??

- Oldest & Latest
- Stable
- So many Plug-ins
- Own Database
- Monitoring & Alerting

Architecture of Nagios



How does it works?

- Mention all details in config files
- Daemon read those details what data to be collected
- Daemon use NRPE plug-in to collect data form nodes and stores in its own database
- Finally displays in dashboard

Important to note

- Plug-ins
- Can use open source (Community plug-ins)
- Can write your own

Pre-requisites

- httpd (Browser)
- php (dashboard)
- GCC & GD (compilers) (To convert raw code into binaries)
- makefile (to build)
- perl (script)

Important points

Main configuration file

- /usr/local/nagios/etc/nagios.cfg

All monitoring things called as "Services"

eg: 5 servers - 3 checks each

You have to monitor 5*3 = 15 services

While define plug-ins, can set Upper & Lower limit of monitoring range.

Things to mention for each server in config files

- Username & Password
- Service
- IP address
- Upper & Lower threshold

Dashboard overview

In dashboard, you can see

Hosts - down
- unreachable
- recovery
- none

Services - warning
- unknown
- critical
- recovery

How does it works??

- To monitor remote machines
- Install NRPE (Nagios Remote Plug-in Executor) on server
- Use check-by-ssh plugin (this plugin has to be in remote machines)
- libexec folder(where plugins will be stored)
- NRPE plugin in nagios server will go to client by ssh & invoke check-by-ssh plugin
- Grouping - Servers(Host group)
  - Services(Service group)

Nagios Installation

- yum install -y httpd httpd-tools php gcc glibc glibc-common gd gd-devel make net-snmp
- useradd nagios
- groupadd nagcmd
- usermod -G nagcmd nagios
- usermod -G nagcmd apache
- mkdir /root/nagios

- cd /root/nagios
- wget https://assets.nagios.com/downloads/nagioscore/releases/nagios-4.3.4.tar.gz
- wget https://nagios-plugins.org/download/nagios-plugins-2.2.1.tar.gz
- tar -xvf nagios-4.3.4.tar.gz
- tar -xvf nagios-plugins-2.2.1.tar.gz
- ls -l
- cd nagios-4.3.4/
- ./configure --with-command-group=nagcmd
- make all
- make install
- make install-init
- make install-commandmode
- make install-config
- make install-webconf
- htpasswd -s -c /usr/local/nagios/etc/htpasswd.users nagiosadmin
- service httpd start
- systemctl start httpd.service
- cd /root/nagios

- cd nagios-plugins-2.2.1/
- ./configure --with-nagios-user=nagios --with-nagios-group=nagios
- make
- make install
- /usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg
- chkconfig --add nagios
- chkconfig --level 35 nagios on
- chkconfig --add httpd
- systemctl enable nagios
- systemctl enable httpd
- service nagios start
- systemctl start nagios.service
- PublicIP/nagios (in browser)
- nagiosadmin(user name)
- password

Directory Structure

- /usr/local/nagios/bin - binary files
- /usr/local/nagios/sbin - CGI files (to get web page)

- /usr/local/nagios/libexec - plugins
- /usr/local/nagios/share - PHP Files
- /usr/local/nagios/etc - configuration files
- /usr/local/nagios/var - logs
- /usr/local/nagios/var/status.dat(file) - database

main configuration file

- */usr/local/nagios/etc/nagios.cfg*

/usr/local/nagios/etc/objects/localhost.cfg (hosts information)

/usr/local/nagios/etc/objects/contacts.cfg (whom to be informed(emails))

/usr/local/nagios/etc/objects/timeperiods.cfg (at what time to monitor)

/usr/local/nagios/etc/objects/templates.cfg (templates)