Smokeping & Cacti

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What's the Difference?

There's definite overlap, but:

- **Smokeping**: A latency measurement and packet loss tool. Uses RRDtool to maintain it's data store. No remote daemons or services required:

  “SmokePing is a deluxe latency measurement tool. It can measure, store and display latency, latency distribution and packet loss. SmokePing uses RRDtool to maintain a longterm data-store and to draw pretty graphs, giving up to the minute information on the state of each network connection.”
What's the Difference?

• **Cacti**: Uses RRDtool, PHP and stores data in MySQL as well as supporting SNMP and graphing with MRTG.

“Cacti is a complete frontend to RRDTool, it stores all of the necessary information to create graphs and populate them with data in a MySQL database. The frontend is completely PHP driven. Along with being able to maintain Graphs, Data Sources, and Round Robin Archives in a database, cacti handles the data gathering. There is also SNMP support for those used to creating traffic graphs with MRTG.”
Installation

We'll install both products:

• Installation varies between flavors of Linux and UNIX.

• It's pretty easy to install these items under Ubuntu.

• You can do massive configuration of each. We'll do some to get you started!
Smokeping: Some Details

• Basic install is extremely easy:

  apt-get install smokeping

• Basic config file
  (/etc/smokeping/config) is simple, but you can get very complex very quickly:


  and, other configuration options:

Smokeping: The Install

1. sudo apt-get install smokeping
2. sudo apt-get install echoping
3. su - (to become root)
4. cd /etc/smokeping
5. mv config config.orig

Then we will grab a copy of our local Smokeping config file, install this and go over it.

6. scp inst@noc:/etc/smokeping/config /etc/smokeping/config
7. /etc/init.d/smokeping restart
Smokeping: Some Details
/etc/smokeing/config

• Check on latency of connection (ping)
• Check on web server uptime and performance

Latency

++ LocalMachine
menu = The NOC
title = The noc@apricot2008
host = localhost
Smokeping: More Details
/etc/smokeing/config

- **Performance/Uptime**

  ++ NOCsquid
  menu = The NOC Squid
  title = www-cache / HTTP for noc@apricot2008
  probe = EchoPingHttp
  host = localhost
  port = 8080
  url = http://localhost/
Smokeping: The Install

There are several more examples here:


If there is time we will play with /etc/smokeping/config to customize as you want and, maybe, to use some of the example described in the file linked above.
Smokeping: The Install

Once configured, then restart the service to build the directories with RRD data:

```
# /etc/init.d/smokeping restart
```

You can find your graphs and layout at:

http://hostname/cgi-bin/smokeping.cgi

Let's have a look at the config file…
cacti
cacti: The Install

Installation is a bit tricky... (as root):

apt-get install mysql-server-5.0

mysqladmin --user=root --password=instPass create cacti

apt-get install cacti

login with admin/admin then change
apt-get install mysql-server-5.0

Enter the same password we have used during the workshop for the `inst` account.
apt-get install cacti

WARNING: include path for php has changed!

libphp-adodb is no longer installed in /usr/share/adodb. New installation path is now /usr/share/php/adodb.

Please update your php.ini file. Maybe you must also change your web-server configuraton.

You can ignore this
apt-get install cacti

Please choose “Apache2” and then Ok.
apt-get install cacti

Choose “Yes” at this screen.
apt-get install cacti

Enter the same password you used when installing MySQL previously. This is your inst account password.
apt-get install cacti

Let's use the same *inst* password to keep things simple.
cacti: Next Steps

Next open a web browser on your machine and go to the address:

http://localhost/cacti

You will see the following screens...
apt-get install cacti

Cacti Installation Guide

Thanks for taking the time to download and install cacti, the complete graphing solution for your network. Before you can start making cool graphs, there are a few pieces of data that cacti needs to know.

Make sure you have read and followed the required steps needed to install cacti before continuing. Install information can be found for Unix and Win32-based operating systems.

Also, if this is an upgrade, be sure to reading the Upgrade information file.

Cacti is licensed under the GNU General Public License, you must agree to its provisions before continuing:

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This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

Click on “Next >>”
apt-get install cacti

Be sure “New Install is chosen and press the “Next >>” button.
apt-get install cacti

Hopefully your screen looks like this. If not, let your instructor know.

Press “Finish”
cacti: Initial Login

Please enter your Cacti user name and password below:

User Name: 
Password: 

Login

Initial login with:
User Name: admin
Password: admin
cacti: Change Password

*** Forced Password Change ***

Please enter a new password for cacti:

Password: ********
Confirm:  ********

Save

Use the same *inst* password to keep things simple for our workshop.
cacti: Finishing

As you can see the idea is to do the following:

- Define the devices you wish to monitor
- Define the graphs you wish to use for each device
- View and organize graphs as you want

Note that cacti takes advantage of snmp settings. As possible we'll set up some cacti graphs at this time.