Smokeping/Cacti/Munin

SANOG 10 Workshop
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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.
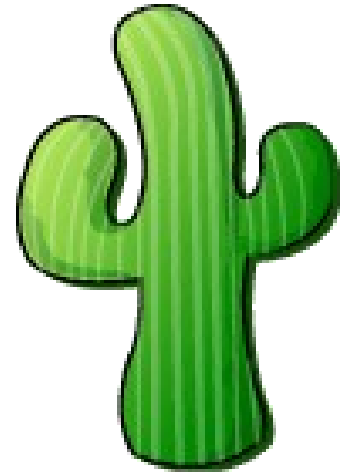
"Cacti is a complete frontend to RRDTool, it stores all of the necessary information to create graphs and populate them with data in a MySQL database. The frontend is completely PHP driven. Along with being able to maintain Graphs, Data Sources, and Round Robin Archives in a database, cacti handles the data gathering. There is also SNMP support for those used to creating traffic graphs with MRTG."

What's the Difference?

- **Munin:** Uses RRDtool and Perl. Designed to monitor systems with a master/node architecture:

Munin surveys all your computers and remembers what it sees. It presents all the information in in graphs through a web interface. Using Munin you can easily monitor the performance of your computers, networks, SANs, and quite possibly applications as well. It makes it easy to see how you're doing capacity wise on all limited resources.

It uses RRDTool and is written in Perl. Munin has a master/node architecture in which the master connects to all the nodes at regular intervals and asks them for sdata. It then stores the data in RRD files. One of the main goals has been ease of creating new plugins (graphs).*

*Updates to text by me.

Installation

We'll install all three products:

- Installation varies between flavors of Linux and UNIX.

- It's pretty easy to 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:**

  http://oss.oetiker.ch/smokeping/doc/smokeping_examples.en.html

  and, other configuration options:

  http://oss.oetiker.ch/smokeping/doc/smokeping_config.en.html

Smokeping: Some Details

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

Latency

```
++ LocalMachine

menu = The NOC

title = The NOC@sanog10

host = localhost
```

Smokeping: More Details

- ## **Performance/Uptime**

```
++ NOCsquid

menu = The NOC Squid

title = www-cache / HTTP for noc@sanog10

probe = EchoPingHttp

host = localhost

port = 8080

url = http://localhost/
```

Smokeping: The Install

1. `su –` (root password)

2. `apt-get install smokeping`

3. `apt-get install echoping`

4. `cd /etc/smokeping`

5. `cp config config.orig`

- Edit config as you want it, maybe:
  - to ping noc
  - to ping some site outside the workshop
  - to check on a service

Smokeping: The Install

If you'd like a config file to start with...

http://oss.oetiker.ch/smokeping/doc/smokeping_examples.en.html

We already noted this... A local example:

```
scp root@noc:/etc/smokeping/config /etc/smokeping/config.new
```

To actually use it:

```
cd /etc/smokeping

cp config config.old

cp config.new config

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

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

cacti

cacti: The Install

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

```
apt-get install mysql-server-5.0

mysqladmin --user=root create cacti

apt-get install cacti

login with admin/admin then change
```

apt-get install cacti

You can ignore this

apt-get install cacti

apt-get install cacti

apt-get install cacti


```
Package configuration




                    ┌─────────────┤ Configuring cacti ├─────────────┐
                    │ Please provide a password for cacti to register with the database │
                    │ server.  If left blank, a random password will be generated for you. │
                    │                                                                       │
                    │ MySQL application password for cacti:                                 │
                    │                                                                       │
                    │ _____ │
                    │                                                                       │
                    │         <Ok>                              <Cancel>                    │
                    │                                                                       │
                    └───────────────────────────────────────────────────────────────────────┘
```

apt-get install cacti

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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```

Next >>

apt-get install cacti

apt-get install cacti

apt-get install cacti