

Smokeping / Cacti / Munin



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What's the Difference?

There's definite overlap, but:

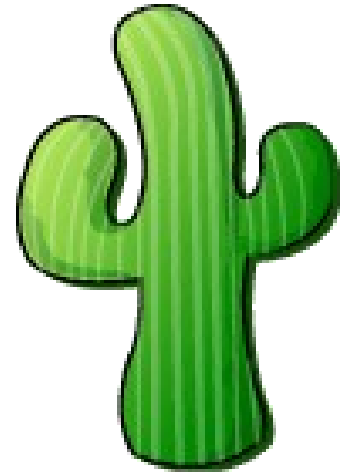
- **Smokeping:** A latency measurement and packet loss tool. Uses RRDtool to maintain it's data store. No remote daemons or services required:

"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

Package configuration

Configuring libphp-adodb

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.

<Ok>

You can ignore this

apt-get install cacti

Package configuration

Configuring cacti

cacti must have a database installed and configured before it can be used. If you like, this can be handled with dbconfig-common.

If you are an advanced database administrator and know that you want to perform this configuration manually, or if your database has already been installed and configured, you should refuse this option. Details on what needs to be done should most likely be provided in /usr/share/doc/cacti.

Otherwise, you should probably choose this option.

Configure database for cacti with dbconfig-common?

<Yes>

<No>

apt-get install cacti

Package configuration

Configuring cacti

What is the password for the administrative account with which this package should create its MySQL database and user?

Password of your database's administrative user:

<Ok>

<Cancel>

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

Package configuration

Configuring cacti

Which kind of web server should be used by cacti?

Select "None" if you would like to configure your webserver by hand.

Webserver type

Apache

Apache-SSL

Apache2

All

None

<Ok>

<Cancel>

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.

Next >>

apt-get install cacti

Cacti Installation Guide

Please select the type of installation

New Install ▼

The following information has been determined from Cacti's configuration file. If it is not correct, please edit 'include/config.php' before continuing.

Database User: cacti
Database Hostname:
Database: cacti
Server Operating System Type: unix

Next >>

apt-get install cacti

Cacti Installation Guide

Make sure all of these values are correct before continuing.

[FOUND] RRDTool Binary Path: The path to the rrdtool binary.

[FOUND] PHP Binary Path: The path to your PHP binary file (may require a php recompile to get this file).

[FOUND] snmpwalk Binary Path: The path to your snmpwalk binary.

[FOUND] snmpget Binary Path: The path to your snmpget binary.

[FOUND] snmpbulkwalk Binary Path: The path to your snmpbulkwalk binary.

[FOUND] snmpgetnext Binary Path: The path to your snmpgetnext binary.

[FOUND] Cacti Log File Path: The path to your Cacti log file.

SNMP Utility Version: The type of SNMP you have installed. Required if you are using SNMP v2c or don't have embedded SNMP support in PHP.

RRDTool Utility Version: The version of RRDTool that you have installed.

NOTE: Once you click "Finish", all of your settings will be saved and your database will be upgraded if this is an upgrade. You can change any of the settings on this screen at a later time by going to "Cacti Settings" from within Cacti.

Finish

apt-get install cacti



User Login

Please enter your Cacti user name and password below:

User Name:

Password:

Login