

# Smokeying & 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:

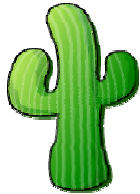
*"SmokePing is a deluxe latency measurement tool. It can measure, store and display latency, latency distribution and packet loss. SmokePing uses RRDtool to maintain a longterm data-store and to draw pretty graphs, giving up to the minute information on the state of each network connection."*



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# 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."*

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# Installation

## We'll install both 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!

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## Smokeying: Some Details

- **Basic install is extremely easy:**

```
apt-get install smokeying
```

- **Basic config file (/etc/smokeying/config) is simple, but you can get very complex very quickly:**

[http://oss.oetiker.ch/smokeying/doc/smokeying\\_examples.en.html](http://oss.oetiker.ch/smokeying/doc/smokeying_examples.en.html)

and, other configuration options:

[http://oss.oetiker.ch/smokeying/doc/smokeying\\_config.en.html](http://oss.oetiker.ch/smokeying/doc/smokeying_config.en.html)

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## Smokeying: The Install

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

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

6. `scp inst@noc:/etc/smokeying/config /etc/smokeying/config`
7. `/etc/init.d/smokeying restart`

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## Smokeying: Some Details

`/etc/smokeying/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
```

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## Smokeying: More Details

`/etc/smokeying/config`

- **Performance/Uptime**

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

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## Smokeping: The Install

There are several more examples here:

[http://oss.oetiker.ch/smokeping/doc/smokeping\\_examples.en.html](http://oss.oetiker.ch/smokeping/doc/smokeping_examples.en.html)

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>

Lets have a look at the config file...

## cacti: The Install

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

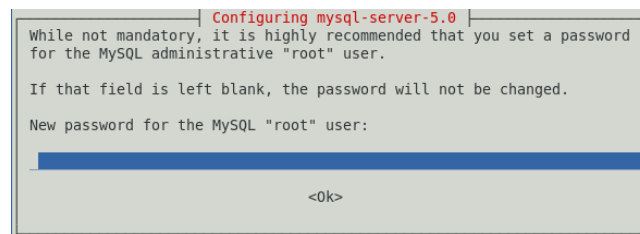
```
apt-get install mysql-server-5.0
```

```
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

```
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

```
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>
```

Please choose "Apache2" and then Ok.

## apt-get install cacti

```
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>
```

Choose "Yes" at this screen.

## apt-get install cacti

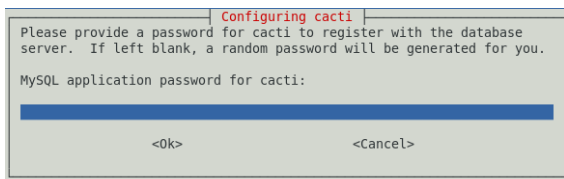
```
Configuring cacti
What is the password for the administrative account with which this
package should create its MySQL database and user?

Password of your database's administrative user:

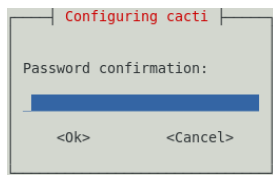
<Ok> <Cancel>
```

Enter the same password you used when installing MySQL previously. This is your *inst* account password.

# apt-get install cacti



then...



Let's use the same *inst* password to keep things simple.

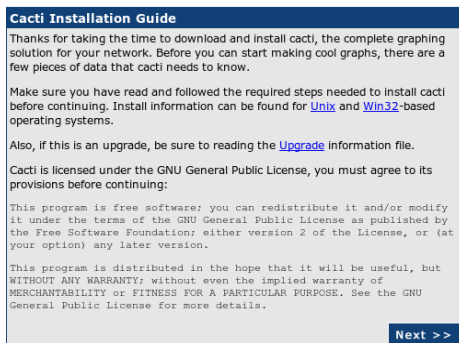
# cacti: Next Steps

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

`http://localhost/cacti`

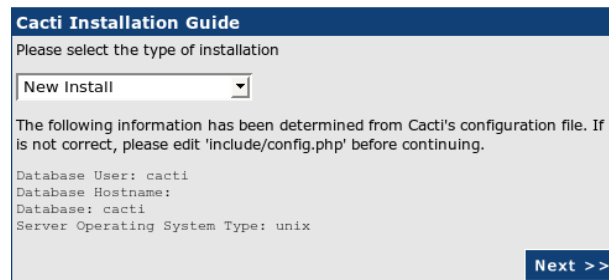
You will see the following screens...

# apt-get install cacti



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



## User Login

Please enter your Cacti user name and password below:

User Name:

Password:

Initial login with:

User Name: *admin*

Password: *admin*

# cacti: Change Password



## User Login

\*\*\* Forced Password Change \*\*\*

Please enter a new password for cacti:

Password:

Confirm:

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.