# 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 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: 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:

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...



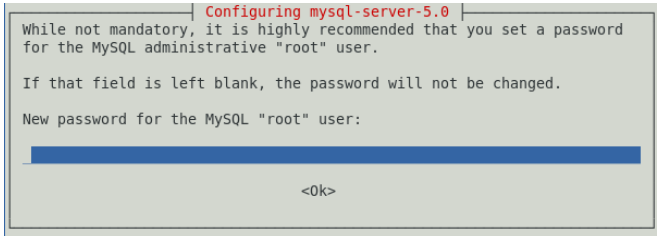
# cacti: The Install

**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
```

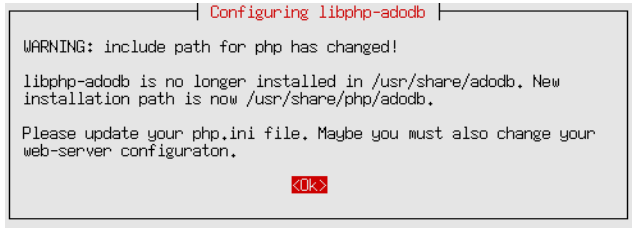


# apt-get install mysql-server-5.0




Enter the same password we have used during the workshop for the *inst* account.

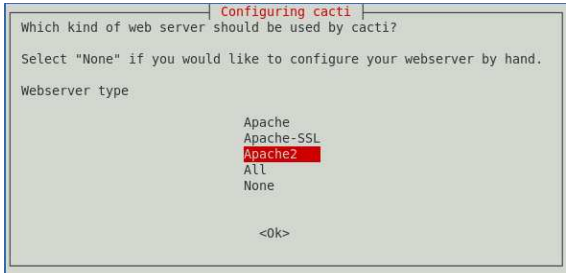
# apt-get install cacti




You can ignore this



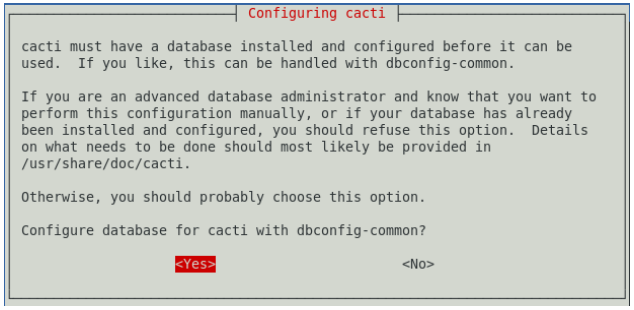
# apt-get install cacti




Please choose "Apache2" and then Ok.



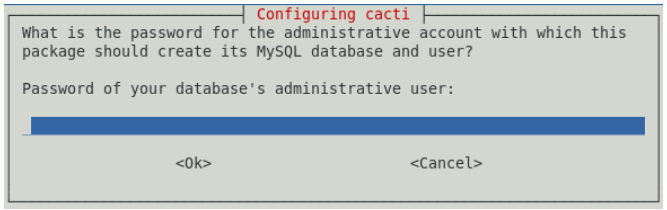
# apt-get install cacti




Choose "Yes" at this screen.

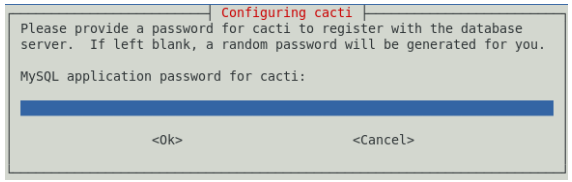


# apt-get install cacti



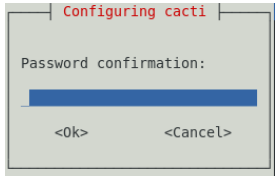

Enter the same password you used when installing MySQL previously. This is your *inst* account password.

# apt-get install cacti




then...

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






# cacti: Next Steps

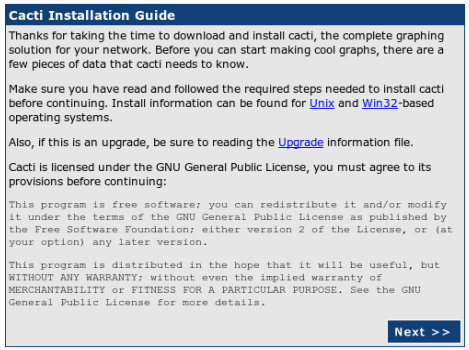
**Next open a web browser on your machine and go to the address:**

**`http://localhost/cacti`**

**You will see the following screens...**



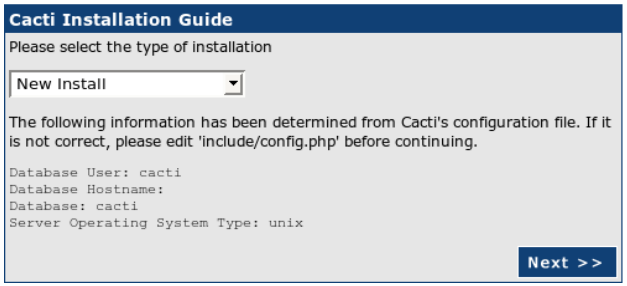
# apt-get install cacti




Click on “Next >>”

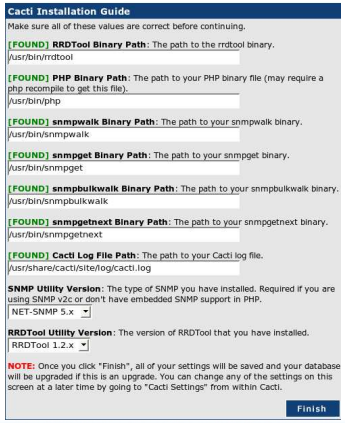


# apt-get install cacti




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

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: ********

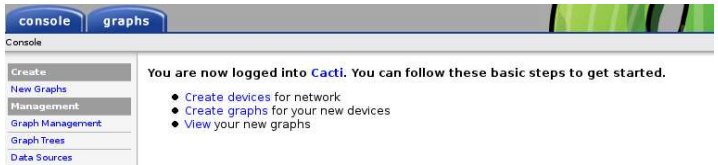
Confirm: ********

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.