**: Steps to Install Cacti on Cent OS :**

Login to the Server where you want to install Cacti

Enable EPEL with the following command:

rpm –Uvh http:// download.fedora.redhat.com/pub/epel/5/i386/epel-release-5-4.noarch.rpm

yum update

**Configure accurate timezone:**

ln –sf /usr/share/zoneinfo/UTC /etc/localtime ## for Universal Coordinated Time

ln -sf /usr/share/zoneinfo/EST /etc/localtime ## for Eastern Standard Time

ln -sf /usr/share/zoneinfo/US/Central /etc/localtime ## for American Central time (including DST)

ln -sf /usr/share/zoneinfo/US/Eastern /etc/localtime ## for American Eastern (including DST)

**Install Dependencies**

yum install net-snmp net-snmp-utils mysql-server httpd php php-mysql php-cli php-snmp rrdtool-perl wget

**Configuring SNMPD**

**File:***/etc/sysconfig/snmpd.options*

OPTIONS="-Lsd -Lf /dev/null -p /var/run/snmpd.pid -a 192.168.169.170"

**File:***/etc/snmp/snmpd.conf*

com2sec readonly localhost Bucknell

You need to restart snmpd any time /etc/snmp/snmpd.conf is modified. Run the following commands to start the SNMPD daemon and ensure that it will run following the next boot cycle:

/etc/init.d/snmpd restart

chkconfig snmpd on

**Installing Cacti**

To install the Cacti package from the distribution software repositories, issue the following command:

yum install cacti

You will need to accept the EPEL repository key, and install all packages as recommended. Before we can begin using Cacti we must first configure MySQL. Use the following commands to start the MySQL server, ensure that it will run following boot, and enter the secure installation configuration process:

/etc/init.d/mysqld start

chkconfig mysqld on

mysql\_secure\_installation

Your MySQL instance does not have a root password when installed, but you will want to set a secure password, remove anonymous users, disallow root logins, and remove all of the test databases. Finally accept the invitation to reload all privilege tables and you will return to the root prompt. Issue the following command to enter the MySQL prompt and create a database and MySQL user for Cacti:

mysql -u root -p

Supply the requested password and issue the following SQL statements at the mysql> prompt.

CREATE DATABASE cactidb;

CREATE USER 'cactiuser'@localhost IDENTIFIED BY 'c@t1u53r';

GRANT ALL PRIVILEGES ON cactidb.\* TO 'cactiuser'@localhost;

exit

Before we can begin to configure Cacti in the conventional manner, we must set up the database by issuing the following commands:

cd /opt/

wget http://svn.cacti.net/viewvc/cacti/tags/0.8.7e/cacti.sql?view=co

mv cacti.sql\?view\=co cacti.sql

mysql -u cactiuser -p cactidb < cacti.sql

Enter the password created above (e.g. c@t1u53r) and press return. Now edit the /etc/cacti/db.php file to include the relevant settings as in the example below:

**File excerpt:***/etc/cacti/db.php*

$database\_type = "mysql";

$database\_default = "cactidb";

$database\_hostname = "localhost";

$database\_username = "cactiuser";

$database\_password = "c@t1u53r";

$database\_port = "3306";

Issue the following command to start Apache if you have not already:

/etc/init.d/httpd start

If you would like to ensure that Apache will start following the next boot cycle, issue the following command:

chkconfig httpd on

From this point we'll continue the configuration of Cacti through the browser. By default, the Cacti interface only accepts traffic from the local interface. Modify /etc/httpd/conf.d/cacti.conf to allow traffic to your local machine's IP address, as in the following example:

**File excerpt:***/etc/httpd/conf.d/cacti.conf*

<Directory /usr/share/cacti/>

Order Deny,Allow

Deny from all

Allow from 193.194.195.196

</Directory>

Where 193.194.195.196 is the IP address of your *local* Internet connection. Conversely you can copy the **entire** contents of the /etc/httpd/conf.d/cacti.conf into a **virtual hosting directive** and provide **authentication based access control**. When you have completed the modification of cacti.conf be sure to restart Apache to ensure that the settings will take effect. Issue the following command:

/etc/init.d/httpd restart

Visit the domain you have pointed at your Linode, or your Linode's IP address, and add /cacti. If you've inserted the contents of /etc/httpd/conf.d/cacti.conf into a virtual host, visit the location of that virtual host, with /cacti appended. Follow the instructions shown on each page. Make sure to select RRDTool 1.2.x in the "RRDTool Utility Version" drop down. You should be able to continue through these pages into the login page without alteration.

At the login screen, enter admin/admin for the username/password combination. You'll be prompted to change your password on the next screen. At this point, Cacti is installed and ready to be configured.

**Configuring Cacti**

At this point Cacti will contain an entry for localhost, which we'll need to modify. Click the "Console" tab in the top left corner, and select "Create Devices for network". Click the "Localhost" entry to begin making the needed changes. Select the Host Template drop down and pick the "ucd/net SNMP Host". Scroll down to SNMP Options and click the drop down box for SNMP Version, selecting "Version 1". Enter "public" in the box for the "SNMP Community" field. The "Associated Graph Templates" section allows you to add additional graphs. Hit "Save" to keep the changes.

Click "Settings" under "Configuration" in the left menu bar and set your "SNMP Version" to "Version 1" in the drop down box. Type the name of your community for the "SNMP Community" (in this example, "Bucknell") and save. To run the data poller to collect data for the first time, issue the following command:

php /usr/share/cacti/cmd.php

Since you want Cacti to collect data automatically, we'll use the "cron" tool to regularly poll for new data. Issue the following commands to to install cron and create a new cron, or regular scheduled task:

yum install vixie-cron vim-minimal

crontab -e

Now insert the following line:

**File excerpt:***crontab*

\*/5 \* \* \* \* /usr/bin/php /usr/share/cacti/poller.php > /dev/null 2>&1

**Configuring Client Machines**

This section is optional and for those looking to use Cacti to monitor additional devices. These steps are written for other CentOS-based distributions, but with modification, will work on any flavor of Linux. You will need to follow these instructions for each client machine you'd like to monitor with Cacti. Client machines need an SNMP daemon in order to serve Cacti information. First, install snmp and snmpd on the client:

yum install net-snmp

Next we'll need to modify the /etc/snmp/snmpd.conf file with the name of our community. Run the following commands to backup your existing snmpd.conf file and replace the contents with the name of your community:

mv /etc/snmp/snmpd.conf /etc/snmp/old.snmpd.conf

echo "rocommunity mycommunity" > /etc/snmp/snmpd.conf

Note that the format is "rocommunity community\_name", where community\_name is the name of the community you originally used with Cacti, e.g. Bucknell. If you're monitoring a CentOS machine and you need to configure which interface SNMPD binds to you must edit the /etc/sysconfig/snmpd.options file. Append any IP address needed to the end of the following line, and uncomment it by removing the # at the begining if needed. You should not need to edit this file.

**File:***/etc/sysconfig/snmpd.options*

OPTIONS='-Lsd -Lf /dev/null -I -smux -p /var/run/snmpd.pid'

Finally, restart the SNMP daemon to ensure that your changes to these files will take effect:

/etc/init.d/snmpd restart

Issue the following command to ensure that SNMP will restart following the next reboot cycle:

chkconfig snmpd on