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Cacti On CentOS 6.7

Cacti คือ เครื่องมือ หรือโปรแกรมสำหรับตรวจสอบระบบเครือข่าย (Network Monitoring) และแสดงผลพร้อมออกมาในรูปแบบของกราฟ เหมาะสำหรับการดำเนินงานด้านธุรกิจ IT โดยโปรแกรม Cacti เป็นโปรแกรมฟรี (Open Source) โดยโปรแกรม Cacti มีการทำงานร่วมกับโปรแกรม RRDTool สำหรับการจัดการด้านข้อมูลที่เชื่อมโยงกับข้อมูล CPU Load, Network Bandwidth เป็นต้น โดยโปรแกรม Cacti นั้นสามารถตรวจสอบระบบเครือข่ายได้หลากหลายชนิด และหลายหลายรูปแบบ เช่น network bandwidth utilization, CPU load, running processes, disk space และอื่น ๆ อีกมากมาย โดยตัว Cacti สามารถติดตั้งได้ในตัว Linux ต่างๆได้เช่น Ubuntu , CentOS เป็นต้น


โปรแกรม และ Service ที่จำเป็นต่อการติดตั้ง Cacti

1. **Apache** คือ Web Server ทำหน้าที่ให้บริการ และแสดงผลข้อมูลผ่านโปรแกรมเว็บเบราว์เซอร์
2. **PHP** คือ ภาษาที่ใช้สำหรับการสร้างกราฟ โดยใช้งานร่วมกับ RRDTool
3. **MySQL** คือ ฐานข้อมูลที่จัดเก็บข้อมูลต่าง ๆ ของระบบเครือข่าย
4. **PHP-SNMP** คือ Extension สำหรับการทำงาน SNMP บน PHP
5. **NET-SNMP** คือ Protocol สำหรับบริหาร และจัดการเครือข่าย
6. **RRDTool** คือ ฐานข้อมูลที่ใช้สำหรับการเชื่อมโยงกับ CPU load, Network Bandwidth และอื่น ๆ

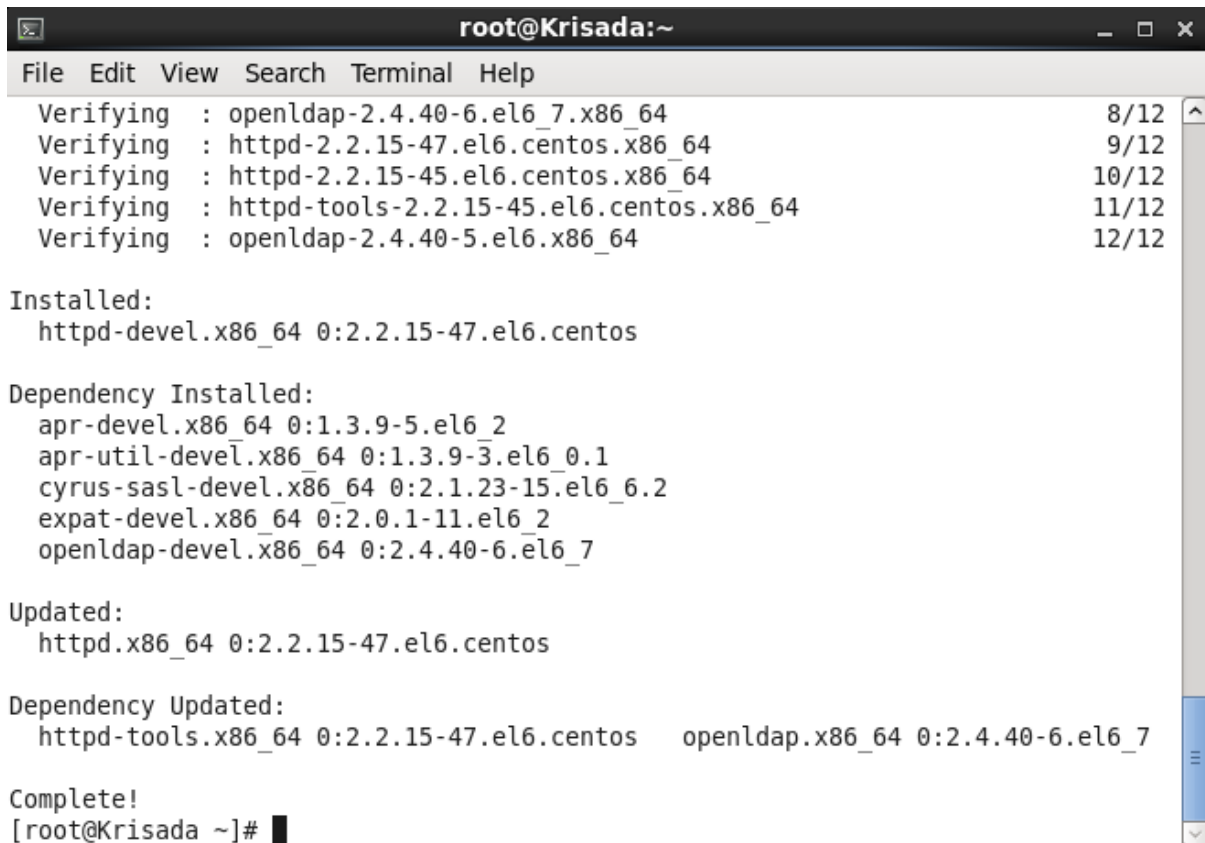
ติดตั้ง Cacti (Network Monitoring) บน Linux CentOS 6.7

1. ติดตั้ง Apache ด้วยคำสั่ง

```
yum install httpd httpd-devel
```



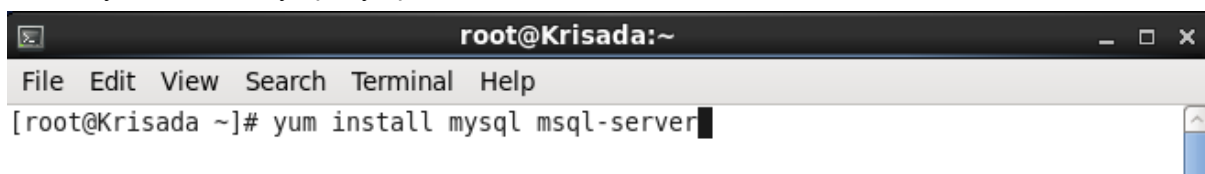
```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# yum install httpd httpd-devel
```



```
root@Krisada:~  
File Edit View Search Terminal Help  
Verifying : openldap-2.4.40-6.el6_7.x86_64 8/12  
Verifying : httpd-2.2.15-47.el6.centos.x86_64 9/12  
Verifying : httpd-2.2.15-45.el6.centos.x86_64 10/12  
Verifying : httpd-tools-2.2.15-45.el6.centos.x86_64 11/12  
Verifying : openldap-2.4.40-5.el6.x86_64 12/12  
  
Installed:  
httpd-devel.x86_64 0:2.2.15-47.el6.centos  
  
Dependency Installed:  
apr-devel.x86_64 0:1.3.9-5.el6_2  
apr-util-devel.x86_64 0:1.3.9-3.el6_0.1  
cyrus-sasl-devel.x86_64 0:2.1.23-15.el6_6.2  
expat-devel.x86_64 0:2.0.1-11.el6_2  
openldap-devel.x86_64 0:2.4.40-6.el6_7  
  
Updated:  
httpd.x86_64 0:2.2.15-47.el6.centos  
  
Dependency Updated:  
httpd-tools.x86_64 0:2.2.15-47.el6.centos openldap.x86_64 0:2.4.40-6.el6_7  
  
Complete!  
[root@Krisada ~]#
```

2. ติดตั้ง MySQL ด้วยคำสั่ง

```
yum install mysql mysql-server
```



```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# yum install mysql mysql-server
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
Installing:  
mysql          x86_64          5.1.73-5.el6_6          base          894 k  
  
Transaction Summary  
=====
```

Install	1 Package(s)
---------	--------------

```
-----  
Total download size: 894 k  
Installed size: 2.4 M  
Is this ok [y/N]: y  
Downloading Packages:  
mysql-5.1.73-5.el6_6.x86_64.rpm | 894 kB 00:00  
Running rpm_check_debug  
Running Transaction Test  
Transaction Test Succeeded  
Running Transaction  
  Installing : mysql-5.1.73-5.el6_6.x86_64 1/1  
  Verifying  : mysql-5.1.73-5.el6_6.x86_64 1/1  
  
Installed:  
mysql.x86_64 0:5.1.73-5.el6_6  
  
Complete!  
[root@Krisada ~]#
```

3.ติดตั้ง PHP, PHP-SNMP

yum install php-pear php-common php-gd php-devel php php-mbstring php-cli php-mysql

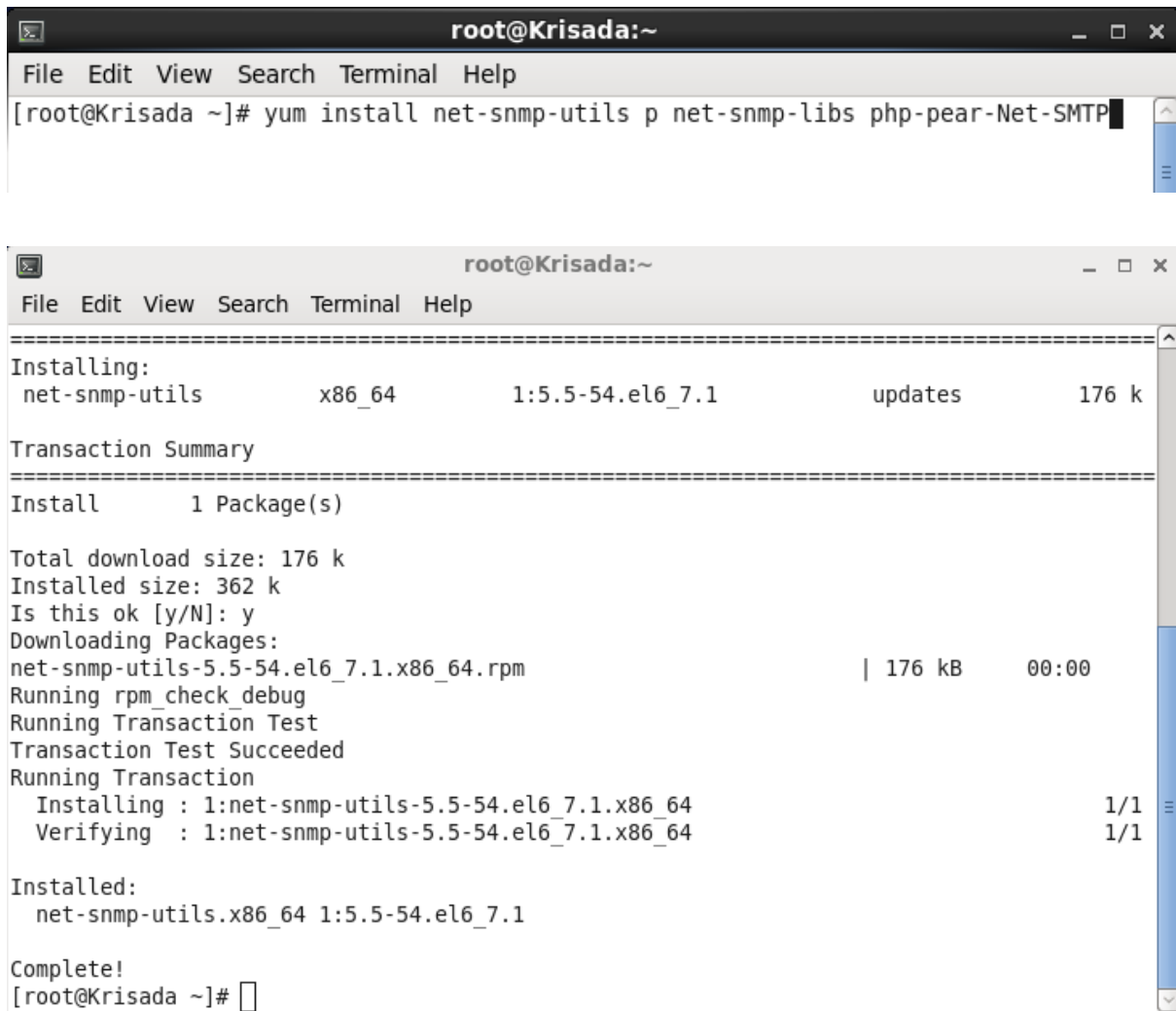
php-snmp

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# yum install php-pear php-common php-gd php-de-vel php-mbstring phhp-cli php-mysql php-snmp
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
Verifying : php-common-5.3.3-46.el6_6.x86_64 7/12  
Verifying : 1:net-snmp-libs-5.5-54.el6_7.1.x86_64 8/12  
Verifying : php-mbstring-5.3.3-46.el6_6.x86_64 9/12  
Verifying : php-mysql-5.3.3-46.el6_6.x86_64 10/12  
Verifying : 1:net-snmp-5.5-54.el6_7.1.x86_64 11/12  
Verifying : 1:net-snmp-libs-5.5-54.el6.x86_64 12/12  
  
Installed:  
php-common.x86_64 0:5.3.3-46.el6_6 php-gd.x86_64 0:5.3.3-46.el6_6 php-mbstring.x86_64 0:5.3.3-46.el6_6  
php-mysql.x86_64 0:5.3.3-46.el6_6 php-pear.noarch 1:1.9.4-4.el6 php-snmp.x86_64 0:5.3.3-46.el6_6  
  
Dependency Installed:  
libXpm.x86_64 0:3.5.10-2.el6 net-snmp.x86_64 1:5.5-54.el6_7.1 php-cli.x86_64 0:5.3.3-46.el6_6  
php-pdo.x86_64 0:5.3.3-46.el6_6  
  
Dependency Updated:  
net-snmp-libs.x86_64 1:5.5-54.el6_7.1  
  
Complete!  
[root@Krisada ~]#
```

4.ติดตั้ง NET-SNMP

```
yum install net-snmp-utils p net-snmp-libs php-pear-Net-SMTP
```



```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# yum install net-snmp-utils p net-snmp-libs php-pear-Net-SMTP  
=====
```

Installing:	Architecture	Version	Source	Size
net-snmp-utils	x86_64	1:5.5-54.el6_7.1	updates	176 k

```
=====
```

Transaction Summary

```
=====
```

Install	Package(s)
1	Package(s)

```
=====
```

Total download size: 176 k
Installed size: 362 k
Is this ok [y/N]: y
Downloading Packages:
net-snmp-utils-5.5-54.el6_7.1.x86_64.rpm | 176 kB 00:00
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction

Installing	Package	Progress
1	net-snmp-utils-5.5-54.el6_7.1.x86_64	1/1
Verifying	1:net-snmp-utils-5.5-54.el6_7.1.x86_64	1/1

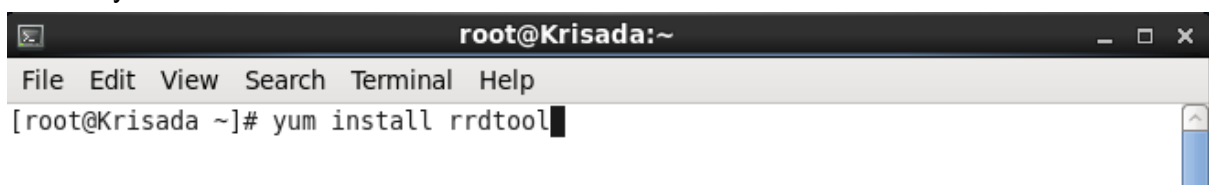
```
=====
```

Installed:
net-snmp-utils.x86_64 1:5.5-54.el6_7.1

```
Complete!  
[root@Krisada ~]#
```

5.ติดตั้ง RRDTool

```
yum install rrdtool
```



```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# yum install rrdtool
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
Is this ok [y/N]: y  
Downloading Packages:  
(1/2): dejavu-lgc-sans-mono-fonts-2.33-1.el6.noarch.rpm | 397 kB 00:00  
(2/2): rrdtool-1.3.8-7.el6.x86_64.rpm | 293 kB 00:00  
-----  
Total 226 kB/s | 690 kB 00:03  
Running rpm_check_debug  
Running Transaction Test  
Transaction Test Succeeded  
Running Transaction  
Installing : dejavu-lgc-sans-mono-fonts-2.33-1.el6.noarch 1/2  
/usr/share/fonts/dejavu: failed to write cache  
Installing : rrdtool-1.3.8-7.el6.x86_64 2/2  
Verifying : dejavu-lgc-sans-mono-fonts-2.33-1.el6.noarch 1/2  
Verifying : rrdtool-1.3.8-7.el6.x86_64 2/2  
  
Installed:  
 rrdtool.x86_64 0:1.3.8-7.el6  
  
Dependency Installed:  
 dejavu-lgc-sans-mono-fonts.noarch 0:2.33-1.el6  
  
Complete!  
[root@Krisada ~]#
```

6.Start Service Apache และ MySQL ด้วยคำสั่ง

```
/etc/init.d/httpd start
```

```
/etc/init.d/mysqld start
```

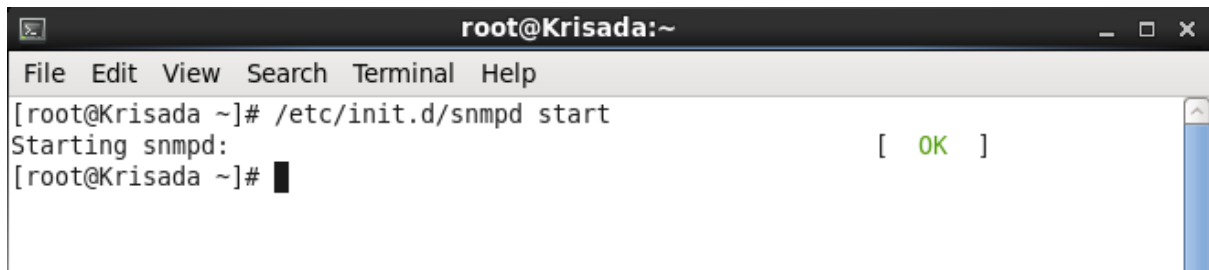
```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# /etc/init.d/httpd start  
Starting httpd: httpd: apr_sockaddr_info_get() failed for Krisada  
httpd: Could not reliably determine the server's fully qualified domain name, us  
ing 127.0.0.1 for ServerName  
  
[ OK ]
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# /etc/init.d/mysqld start  
Initializing MySQL database: WARNING: The host 'Krisada' could not be looked up  
with resolveip.  
This probably means that your libc libraries are not 100 % compatible  
with this binary MySQL version. The MySQL daemon, mysqld, should work  
normally with the exception that host name resolving will not work.  
This means that you should use IP addresses instead of hostnames  
when specifying MySQL privileges !  
Installing MySQL system tables...  
OK  
Filling help tables...  
OK  
  
To start mysqld at boot time you have to copy  
support-files/mysql.server to the right place for your system  
  
PLEASE REMEMBER TO SET A PASSWORD FOR THE MySQL root USER !  
To do so, start the server, then issue the following commands:  
  
/usr/bin/mysqladmin -u root password 'new-password'  
/usr/bin/mysqladmin -u root -h Krisada password 'new-password'  
  
Alternatively you can run:  
/usr/bin/mysql_secure_installation
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
  
/usr/bin/mysqladmin -u root password 'new-password'  
/usr/bin/mysqladmin -u root -h Krisada password 'new-password'  
  
Alternatively you can run:  
/usr/bin/mysql_secure_installation  
  
which will also give you the option of removing the test  
databases and anonymous user created by default. This is  
strongly recommended for production servers.  
  
See the manual for more instructions.  
  
You can start the MySQL daemon with:  
cd /usr ; /usr/bin/mysqld_safe &  
  
You can test the MySQL daemon with mysql-test-run.pl  
cd /usr/mysql-test ; perl mysql-test-run.pl  
  
Please report any problems with the /usr/bin/mysqlbug script!  
  
Starting mysqld: [ OK ]  
[root@Krisada ~]# [ OK ]
```

7. Start Service SNMP ด้วยคำสั่ง

`/etc/init.d/snmpd start`



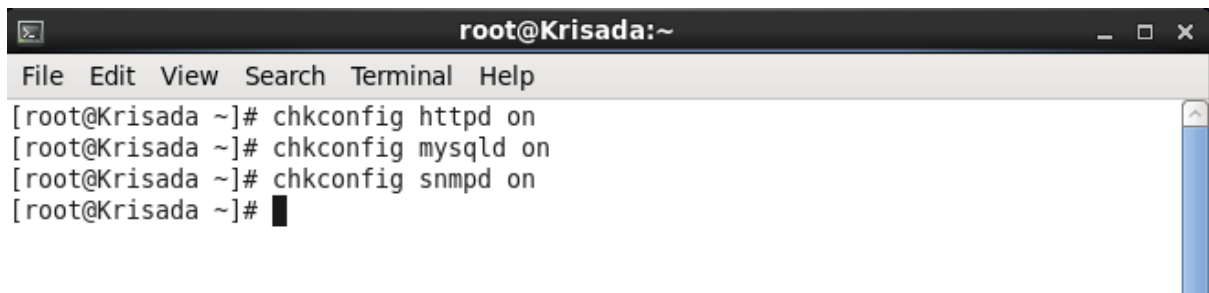
```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# /etc/init.d/snmpd start  
Starting snmpd: [ OK ]  
[root@Krisada ~]#
```

ตั้งค่าให้ apache mysql snmp ทำงานทุกครั้งเมื่อเปิดเครื่อง ด้วยคำสั่ง

`chkconfig httpd on`

`chkconfig mysqld on`

`chkconfig snmpd on`



```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# chkconfig httpd on  
[root@Krisada ~]# chkconfig mysqld on  
[root@Krisada ~]# chkconfig snmpd on  
[root@Krisada ~]#
```

8. ติดตั้ง EPEL Repository เพื่อใช้สำหรับการติดตั้ง Cacti ด้วยคำสั่ง

สำหรับ **CentOS 32bit**

`wget http://download.fedoraproject.org/pub/epel/6/i386/epel-release-6-8.noarch.rpm`

`rpm -ivh epel-release-6-8.noarch.rpm`

สำหรับ **CentOS 64bit**

`wget http://download.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm`

`rpm -ivh epel-release-6-8.noarch.rpm`


```

root@Krisada:~
File Edit View Search Terminal Help
[root@Krisada ~]# wget http://download.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm
--2015-10-12 21:59:44-- http://download.fedoraproject.org/pub/epel/6/x86_64/epel-release-6-8.noarch.rpm
Resolving download.fedoraproject.org... 152.19.134.142, 67.219.144.68, 209.132.181.16, ...
Connecting to download.fedoraproject.org|152.19.134.142|:80... connected.
HTTP request sent, awaiting response... 302 Found
Location: http://mirrors.bestthaihost.com/epel/6/x86_64/epel-release-6-8.noarch.rpm [following]
--2015-10-12 21:59:49-- http://mirrors.bestthaihost.com/epel/6/x86_64/epel-release-6-8.noarch.rpm
Resolving mirrors.bestthaihost.com... 103.233.192.20, 2401:1a80::219:b9ff:fefa:5d85
Connecting to mirrors.bestthaihost.com|103.233.192.20|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 14540 (14K) [application/x-redhat-package-manager]
Saving to: "epel-release-6-8.noarch.rpm"

100%[=====>] 14,540      34.2K/s   in 0.4s

2015-10-12 21:59:52 (34.2 KB/s) - "epel-release-6-8.noarch.rpm" saved [14540/14540]

[root@Krisada ~]# rpm -ivh epel-release-6-8.noarch.rpm
warning: epel-release-6-8.noarch.rpm: Header V3 RSA/SHA256 Signature, key ID 0608b895: NOKEY
Preparing...
 1:epel-release      ##### [100%]
[root@Krisada ~]#

```

9.ติดตั้งโปรแกรม Cacti ด้วยคำสั่ง

yum install cacti

```

root@Krisada:~
File Edit View Search Terminal Help
[root@Krisada ~]# yum install cacti
Loaded plugins: fastestmirror, refresh-packagekit, security
Setting up Install Process
Loading mirror speeds from cached hostfile
epel/metalink | 5.2 kB 00:00
 * base: mirrors.thzhost.com
 * epel: free.nchc.org.tw
 * extras: mirrors.thzhost.com
 * updates: mirrors.thzhost.com
epel | 4.3 kB 00:00
epel/primary_db | 5.7 MB 00:32
Resolving Dependencies
--> Running transaction check
---> Package cacti.noarch 0:0.8.8b-7.el6 will be installed
--> Processing Dependency: php for package: cacti-0.8.8b-7.el6.noarch
--> Running transaction check
---> Package php.x86_64 0:5.3.3-46.el6_6 will be installed
--> Finished Dependency Resolution

Dependencies Resolved

=====
Package Arch Version Repository Size
=====

```

```
root@Krisada:~
File Edit View Search Terminal Help
Importing GPG key 0x0608B895:
  Userid : EPEL (6) <epel@fedoraproject.org>
  Package: epel-release-6-8.noarch (installed)
  From   : /etc/pki/rpm-gpg/RPM-GPG-KEY-EPEL-6
Is this ok [y/N]: y
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
Warning: RPMDB altered outside of yum.
  Installing : php-5.3.3-46.el6_6.x86_64      1/2
  Installing : cacti-0.8.8b-7.el6.noarch     2/2
  Verifying  : php-5.3.3-46.el6_6.x86_64     1/2
  Verifying  : cacti-0.8.8b-7.el6.noarch     2/2

Installed:
  cacti.noarch 0:0.8.8b-7.el6

Dependency Installed:
  php.x86_64 0:5.3.3-46.el6_6

Complete!
[root@Krisada ~]#
```

10.กำหนด Username และ Password ให้กับ MySQL (ตัวอย่างกำหนดรหัสผ่านเป็น 1234)

```
mysqladmin -u root password 1234
```

```
root@Krisada:~
File Edit View Search Terminal Help
[root@Krisada ~]# mysqladmin -u root password 1234
[root@Krisada ~]#
```

11.สร้างฐานข้อมูลและชื่อผู้ใช้ของ Cacti ด้วยคำสั่ง

```
mysql -u root -p
```

```
mysql> create database cacti;
```

```
mysql> GRANT ALL ON *.* TO cacti@localhost IDENTIFIED BY '1234';
```

```
mysql> FLUSH privileges;
```

```
mysql> quit;
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 3  
Server version: 5.1.73 Source distribution  
  
Copyright (c) 2000, 2013, Oracle and/or its affiliates. All rights reserved.  
  
Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> create database cacti;  
Query OK, 1 row affected (0.02 sec)
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 8  
Server version: 5.1.73 Source distribution  
  
Copyright (c) 2000, 2013, Oracle and/or its affiliates. All rights reserved.  
  
Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> use cacti;  
Database changed  
mysql> GRANT ALL ON *.* TO cacti@localhost IDENTIFIED BY '1234';  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> FLUSH privileges;  
Query OK, 0 rows affected (0.01 sec)  
  
mysql> quit;  
Bye  
[root@Krisada ~]# █
```

12.ติดตั้ง Cacti Tables ใน MySQL โดยรันคำสั่งแล้วดู path ที่แสดงผลออกมา

```
rpm -ql cacti | grep cacti.sql
```

ผลลัพธ์ (อาจจะแตกต่างกันไปตาม version)

```
/usr/share/doc/cacti-0.8.8b/cacti.sql
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# rpm -ql cacti |grep cacti.sql  
/usr/share/doc/cacti-0.8.8b/cacti.sql  
[root@Krisada ~]#
```

จากนั้นรันคำสั่งต่อไปโดย path และชื่อไฟล์จะต้องเหมือนกับผลลัพธ์ด้านบน

```
mysql -u cacti -p cacti < /usr/share/doc/cacti-0.8.8b/cacti.sql
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# mysql -u cacti -p cacti < /usr/share/doc/cacti-0.8.8b/cacti.sql
```

13.แก้ไขค่าการเชื่อมต่อฐานข้อมูลของโปรแกรม Cacti ด้วยคำสั่ง

```
vi /etc/cacti/db.php
```

```
root@Krisada:~  
File Edit View Search Terminal Help  
[root@Krisada ~]# vi /etc/cacti/db.php
```

แก้ไขค่าต่าง ๆ (ตัวอย่างกำหนดรหัสผ่านเป็น 1234)

```
$database_type = "mysql";  
$database_default = "cacti";  
$database_hostname = "localhost";  
$database_username = "cacti";  
$database_password = "1234";  
$database_port = "3306";  
$database_ssl = false;
```

```
| Cacti: The Complete RRDtool-based Graphing Solution |
+-----+
| This code is designed, written, and maintained by the Cacti Group. See |
| about.php and/or the AUTHORS file for specific developer information. |
+-----+
| http://www.cacti.net/ |
+-----+
*/

/* make sure these values reflect your actual database/host/user/password */
$database_type = "mysql";
$database_default = "cacti";
$database_hostname = "localhost";
$database_username = "cacti";
$database_password = "1234";
$database_port = "3306";
$database_ssl = false;

/*
Edit this to point to the default URL of your Cacti install
ex: if your cacti install as at http://serverip/cacti/ this
would be set to /cacti/
*/
```

14.แก้ไขให้เข้าถึงโปรแกรม Cacti จากทุก ๆ IP Address ด้วยคำสั่ง

```
vi /etc/httpd/conf.d/cacti.conf
```

```
root@Krisada:~
File Edit View Search Terminal Help
[root@Krisada ~]# vi /etc/httpd/conf.d/cacti.conf
```

แก้ไขเป็น

```
Alias /cacti /usr/share/cacti
<Directory /usr/share/cacti/>
order allow,deny
allow from all
</Directory>
```

```
*cacti.conf (/etc/httpd/conf.d) - gedit
File Edit View Search Tools Documents Help
* Open Save Undo
*cacti.conf x
# On httpd 2.2, change "Allow from localhost" to "Allow from all".
Alias /cacti /usr/share/cacti
<Directory /usr/share/cacti/>
  <IfModule mod_authz_core.c>
    # httpd 2.4
    Require host localhost
  </IfModule>
  <IfModule !mod_authz_core.c>
    # httpd 2.2
    Order deny,allow
    Deny from all
    Allow from all
  </IfModule>
</Directory>
<Directory /usr/share/cacti/install>
  # mod_security overrides.
  # Uncomment these if you use mod_security.
  # allow POST of application/x-www-form-urlencoded during install
  #SecRuleRemoveById 960010
Plain Text Tab Width: 8 Ln 23, Col 31 INS
```

15.Restart Service Apache

`/etc/init.d/httpd restart`

```
root@Krisada:~
File Edit View Search Terminal Help
[root@Krisada ~]# /etc/init.d/httpd restart
Stopping httpd: [ OK ]
Starting httpd: httpd: apr_sockaddr_info_get() failed for Krisada
httpd: Could not reliably determine the server's fully qualified domain name, us
ing 127.0.0.1 for ServerName [ OK ]
[root@Krisada ~]#
```

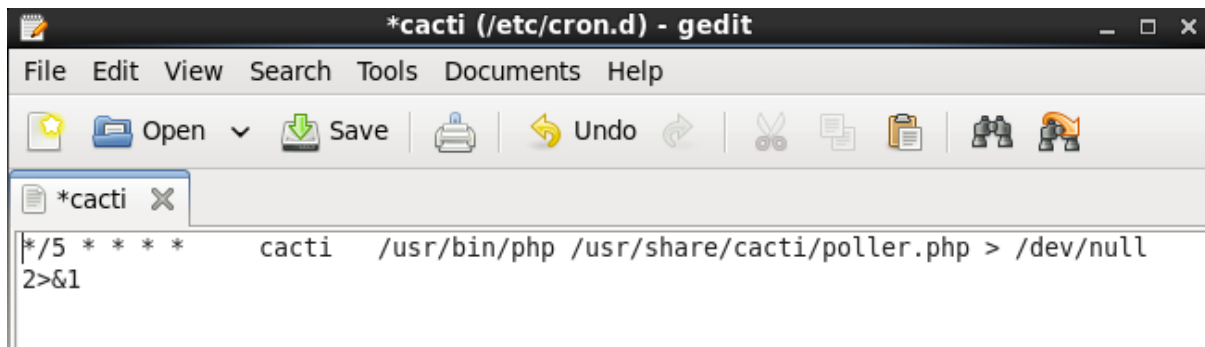
16.แก้ไข Cron สำหรับ Cacti

`vi /etc/cron.d/cacti`

```
root@Krisada:~
File Edit View Search Terminal Help
[root@Krisada ~]# vi /etc/cron.d/cacti
```

เอา # ที่อยู่ข้างหน้าของประโยคออก

```
* /5 * * * * * cacti /usr/ .....
```

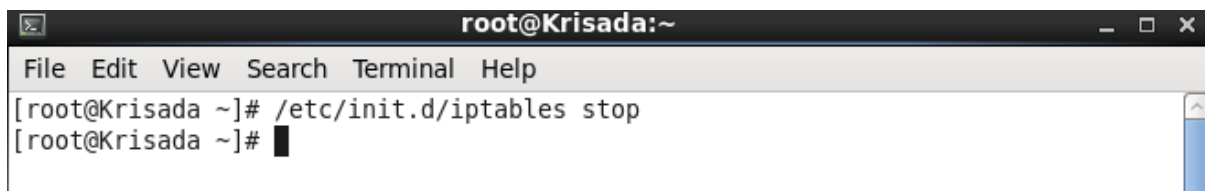


The screenshot shows a gedit window titled '*cacti (/etc/cron.d) - gedit'. The menu bar includes File, Edit, View, Search, Tools, Documents, and Help. The toolbar contains icons for Open, Save, Undo, and other standard editing functions. The main text area contains the following cron job entry:

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

17. ปิด Firewall (ปิดเพื่อการทดสอบเท่านั้น)

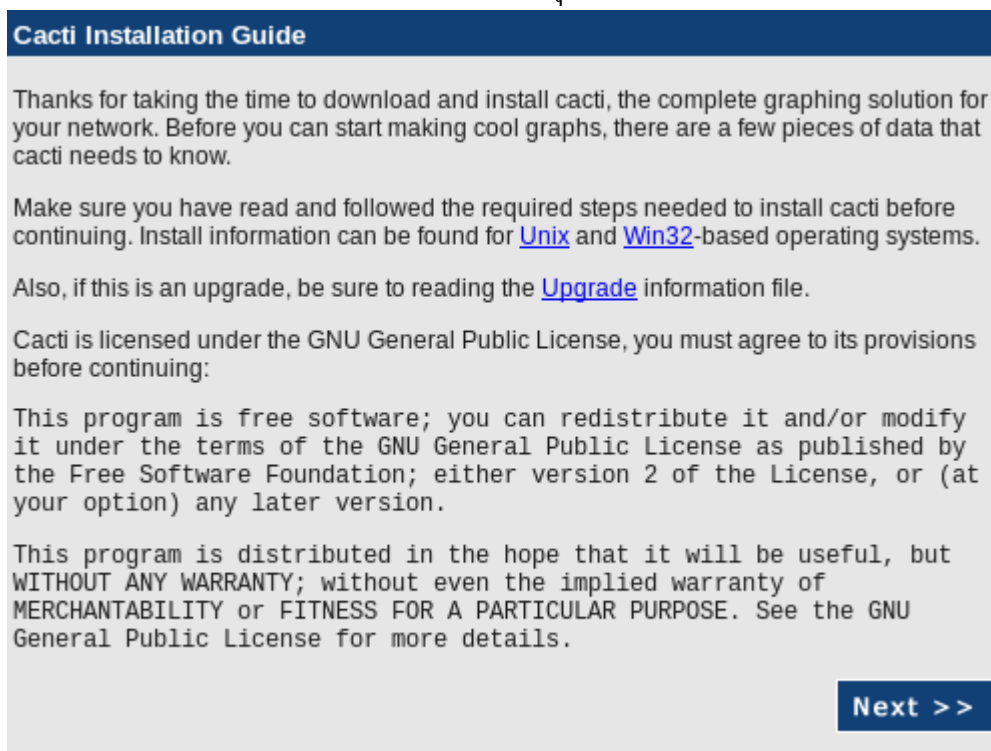
```
/etc/init.d/iptables stop
```



The screenshot shows a terminal window titled 'root@Krisada:~'. The terminal output shows the command being executed and the prompt returning:

```
[root@Krisada ~]# /etc/init.d/iptables stop  
[root@Krisada ~]# █
```

18. ติดตั้ง Cacti โดยเปิดโปรแกรมเว็บเบราว์เซอร์แล้วพิมพ์ <http://localhost/cacti> หรือ http://YOUR_IP_ADDRESS/cacti จากนั้นกดปุ่ม Next



The screenshot shows the 'Cacti Installation Guide' page. The title is 'Cacti Installation Guide'. The main text reads:

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:

This program is free software; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

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.

At the bottom right, there is a blue button labeled 'Next >>'.

19. เลือก New Install แล้วกดปุ่ม Next

Cacti Installation Guide

Please select the type of installation

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: localhost
Database: cacti
Server Operating System Type: unix

[Next >>](#)

20. ตรวจสอบค่าต่าง ๆ แล้วกดปุ่ม Finish

Cacti Installation Guide

Make sure all of these values are correct before continuing.

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

[OK: FILE FOUND]

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

[OK: FILE FOUND]

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

[OK: FILE FOUND]

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

[OK: FILE FOUND]

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

[OK: FILE FOUND]

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

[OK: FILE FOUND]

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

[OK: FILE FOUND]

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](#)

21. จะพบหน้าจอ Login ของ Cacti ให้กรอก admin / admin



User Login

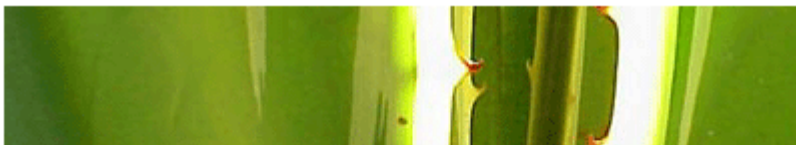
Please enter your Cacti user name and password below:

User Name:

Password:

Login

22. จากนั้นระบุ Password ใหม่ตามที่ต้องการ



User Login

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

Please enter a new password for cacti:

Password:

Confirm:

Save

23. เสร็จสิ้นการการติดตั้งโปรแกรม Cacti

console graphs

Console -> Devices Logged in as admin

Create

New Graphs Management

Graph Management

Graph Trees

Data Sources

Devices

Collection Methods

Data Queries

Data Input Methods

Templates

Graph Templates

Host Templates

Data Templates

Import/Export

Import Templates

Export Templates

Configuration

Settings

Plugin Management

Utilities

System Utilities

User Management

Logout User

Devices

Type: Any Status: Any Search: Rows per Page: 30 Go Clear

<< Previous Showing Rows 1 to 1 of 1 [1]

Description**	ID	Graphs	Data Sources	Status	In State	Hostname	Current (ms)	Average (ms)	Availability
Localhost	1	4	5	Up	-	127.0.0.1	0.06	0.06	100

<< Previous Showing Rows 1 to 1 of 1 [1]

Choose an action: Delete

console graphs settings

Graphs -> Tree Mode Logged in as admin

Default Tree

Graph Filters

Presets: Last Day From: 2015-10-11 23:30 To: 2015-10-12 23:30 1 Day Refresh Clear

Search: Graphs per Page: 10 Thumbnails: Go Clear

Showing All Graphs

Tree: Default Tree -> Host: Localhost

Graph Template: Linux - Memory Usage

Localhost - Memory Usage

Free Current: 73.13 k Average: 73.13 k Maximum: 73.13 k

Swap Current: 2.10 M Average: 2.10 M Maximum: 2.10 M

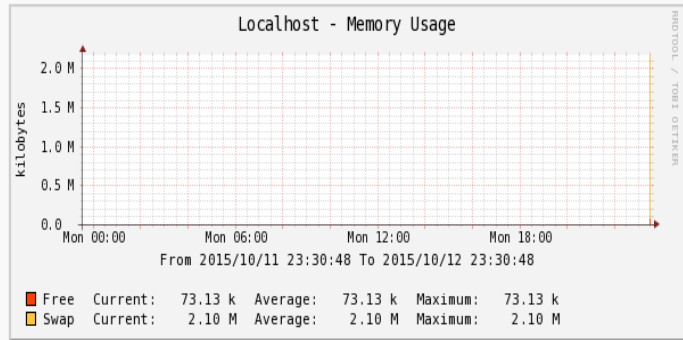
Graph Template: Unix - Load Average

Localhost - Load Average

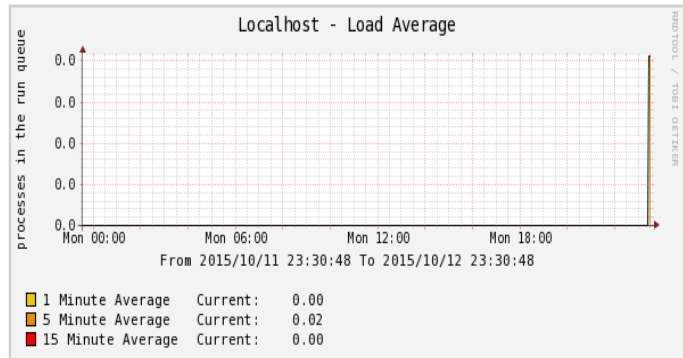
in the run queue

Tree:Default Tree-> Host:Localhost

Graph Template: Linux - Memory Usage

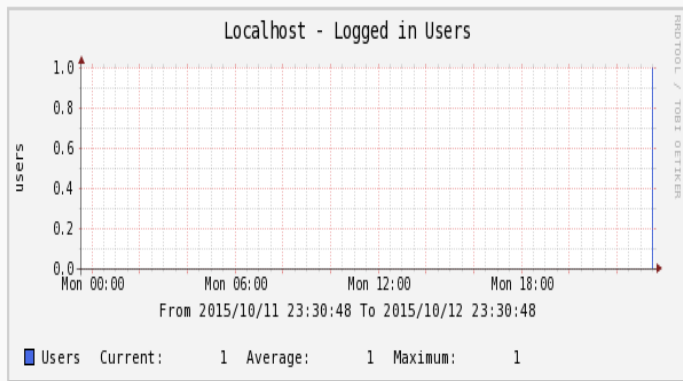


Graph Template: Unix - Load Average



Graph Template: Unix - Logged in Users

Graph Template: Unix - Logged in Users



Graph Template: Unix - Processes

