

Snmpd_&_mrtg

SNMPD - Simple Network Management Protocol Daemon to respond to SNMP requests
MRTG - Multi Router Traffic Grapher

MRTG uses SNMPD to collect information on the Network Traffic of a Computer/ Router.

Contents

- 1 Setup Network Traffic Monitoring:
- 2 SNMPD Config on Client
- 3 MRTG Config on SERVER
- 4 Additional Info and Debugging
- 5 SNMP and APC UPSs

Setup Network Traffic Monitoring:

apt-get some tools and choose defaults:

```
apt-get install mrtg
apt-get install snmpd //Daemon Storing Data
apt-get install snmp //Daemon Collecting Data from various devices/servers
```

SNMPD Config on Client

Edit /etc/snmp/snmpd.conf and change the following:

```
change:
agentAddress udp:127.0.0.1:161
to:
agentAddress udp:161

change:
rocommunity public default -V systemonly
to:
# rocommunity public default -V systemonly

change:
#rocommunity public localhost
to:
rocommunity public localhost

add:
rocommunity public ip.address.of.snmp.monitoring.server
```

~~Removing as it was old sarge/etch config~~

```
com2sec paranoid default public
#com2sec readonly default public
#com2sec readwrite default private
to:
```

Snmpd_&_mrtg

```
#com2sec paranoid default public
com2sec readonly 127.0.0.1 public
#com2sec readwrite default private
```

Edit /etc/default/snmpd and change the following:

```
SNMPDOPTS='-Lsd -Lf /dev/null -p /var/run/snmpd.pid 127.0.0.1'
to
SNMPDOPTS='-Lsd -Lf /dev/null -p /var/run/snmpd.pid'
```

Restart the snmpd server:

```
/etc/init.d/snmpd restart
```

MRTG Config on SERVER

Edit /etc/mrtg.cfg and add/replace with the following:

```
# Global configuration
WorkDir: /var/www/mrtg
WriteExpires: Yes

#For every machine
Target[name-of-machine]: 2:public@127.0.0.1
MaxBytes[name-of-machine]: 1250000
Title[name-of-machine]:
PageTop[name-of-machine]:
<TABLE>
<TR><TD>System:</TD><TD>kartbuilding on phidebian</TD></TR>
<TR><TD>Maintainer:</TD> <TD>Stephen Burke</TD></TR>
<TR><TD>Description:</TD><TD>Debian PC</TD></TR>
<TR><TD>Max Speed:</TD><TD>10 Mbits/s</TD></TR>
<TR><TD>Ip:</TD><TD>136.201.1.250</TD></TR>
</TABLE>
#Above table html info to be in 1 space.
```

Run mrtg manually a few time to place logs - it will give errors on first 3-5 runs. There is an entry placed in /etc/cron.d for mrtg to take over then.

```
./mrtg -c /etc/mrtg.cfg
```

In the "Target" line you see the number 2 we found before, and in "MaxBytes" we have set how many bytes the device maximum can transfer (10Mbit * 1000000bit/Mbit / 8byte/bit = 1250000byte).

Additional Info and Debugging

snmpd listens on ipaddress:161 where 161 is udp. The following iptables firewall rule is needed:

```
iptables -A INPUT -p udp --dport 161 -j ACCEPT
```

Helpful Info To generate an Automatic mrtg config:

Snmpd_ &_ mrtg

```
cfgmaker public@ipaddress >> /etc/mrtg.cfg
```

To check snmb Info:

```
snmpwalk -v 1 -OS -c public localhost
```

Information got from:

<http://apt-get.dk/mrts/>

<http://www.netadmintools.com/art390.html>

<http://myitforum.com/articles/16/view.asp?id=3928>

<http://www.debianhelp.co.uk/mrtg.htm>

SNMP and APC UPSs

No final configs have been written.

snmpwalk on a UPS will not reveal all the information. Try the following to get more information:

```
snmpwalk -v 1 -c public Network_Name_of_UPS .1
```

Here are the relevant links (rare) which have been found:

<https://lists.oetiker.ch/pipermail/mrtg/2005-May/030094.html>

<http://www.cuddletech.com/articles/snmp/node13.html>

[http://www.linuxhomenetworking.com/wiki/index.php/Quick_HOWTO : Ch23 : Advanced MRTG for Linux](http://www.linuxhomenetworking.com/wiki/index.php/Quick_HOWTO:_Ch23:_Advanced_MRTG_for_Linux)

<http://www.skolelinux.no/~klaus/sarge/x3579.html>