

Apricot 2008 Network Management Workshop MRTG / RRD Tool / NFSen Lab Documents

MRTG

In 12 Steps

1. Install MRTG

```
# apt-get install mrtg
```

2. Create the /etc/mrtg directory

```
$ sudo mkdir /etc/mrtg
```

3. Find out the SNMP Community String - apric0t08

4. Find the IP / name of the Device

- gw.mgmt.conference.apricot.net

- or one of the other routers and switches (169.223.2.51, .52, .53, .54, 158 and .222)

5. Run cfgmaker (all command in same line, or paste with \ included)

```
# /usr/bin/cfgmaker --output=/etc/mrtg/router.mrtg --global 'workdir: /var/www/mrtg' \  
--global 'options[_]: growright,bits' apric0t08@gw.mgmt.conference.apricot.net
```

Make the workdir if necessary:

```
# mkdir -p /var/www/mrtg/
```

6. View the mrtg configuration file created by cfgmaker, you can make changes and see the results, if you want (/etc/mrtg/router.mrtg)

7. Use indexmaker to create HTML files

```
# /usr/bin/indexmaker --output=/var/www/mrtg/device.html /etc/mrtg/router.mrtg
```

8. Run MRTG command (ignore the error and run 3 times)

```
# /usr/bin/mrtg /etc/mrtg/router.mrtg
```

9. put the above command in a script

```
# echo '/usr/bin/mrtg /etc/mrtg/router.mrtg' > /etc/mrtg/mrtgscript  
# chmod +x /etc/mrtg/mrtgscript
```

NOTE: on systems with UTF-8 as the default locale, this will cause problems – you need to explicitly specify: 'env LANG=C /usr/bin/mrtg /etc/mrtg/router.mrtg' when running the script.

10. Edit the crontab and insert the command to be run every 5 minutes

```
# crontab -e  
0-59/5 * * * * /etc/mrtg/mrtgscript
```

11. Load the browser through webserver

<http://localhost/mrtg/>

12. Go for Tea / come back and see if your graph is moving.

RRDTool

```
# apt-get install rrdtool  
# apt-get install librrdp-perl  
# apt-get install librrds-perl
```

Add in your MRTG Configuration file

```
# vi /etc/mrtg/router.mrtg  
; add below Workdir
```

LogFormat: rrdtool

[go to </var/www/mrtg/> and see how the .rrd files have been created]

NFdump

[NFdump is the flow collector]

0. Basic Debian packages for compilation

```
# apt-get install build-essential  
# apt-get install flex  
# apt-get install bison
```

1. Now install nfdump

```
# apt-get install nfdump
```

Installed tools are :

nfcapd nfdump nfreplay nfexpire nftest nfgem

NFSen

1. Now get nfsen

```
$ wget http://superb-west.dl.sourceforge.net/sourceforge/nfsen/nfsen-1.2.4.tar.gz
```

2. Setting up NfSen

```
$ tar -xzf nfsen-1.2.4.tar.gz
```

```
$ cd nfsen-1.2.4
```

```
$ cd etc
```

Edit the nfsen-dist.conf:

- set the basedir variable

```
$BASEDIR = "/var/nfsen";
```

- set the users:

```
$USER = "netflow"
```

```
$WWWUSER = 'www-data'
```

```
$WWWGROUP = 'www-data'
```

- add sources:

```
%sources = (  
'apricot10nm' => { 'port' => '2005', 'col' => '#0000ff' },  
);
```

```
//// 'ident' => { 'port' => '<portnum>', 'col' => '<colour>' }
```

- set the path for the PREFIX where to find the nfdump tools:

```
# nfdump tools path
```

```
$PREFIX = '/usr/bin';
```

- set the buffer size to something small, so we see data quickly

```
# Receive buffer size for nfcapd - see man page nfcapd(1)
```

```
$BUFFLEN = 2000;
```

save and exit

3. Create a netflow user on the system.

```
# useradd -d /var/netflow -G www-data -m -s /bin/false netflow
```

4. Initiating nfsen

```
#cp nfsen-dist.conf nfsen.conf  
#cd ..
```

```
# perl install.pl etc/nfsen.conf
```

[press 'yes' to the perl prompt]

5. Starting Nfsen

```
# cd /var/nfsen/bin  
# ./nfsen.rc start
```

(You can add the nfsen.rc startup script to /etc/init.d/rc.local or somewhere similar to start it at bootup.)

Watch your browser at <http://localhost/nfsen/nfsen.php>

Thank you.