

SNMP exercises, part 1
interERLab / AIT March 2008

1. Getting packages

```
# apt-get install snmp
# apt-get install snmpd
# apt-get install mbrowse
```

2. GET and WALK

To control that your SNMP installation works:

- The backbone router and net routers

```
# snmpstatus -c 1nterl4b -v1 10.10.10.10
# snmpstatus -c 1nterl4b -v1 10.10.11.1
# snmpstatus -c 1nterl4b -v1 10.10.11.2
```

- The network switches:

```
# snmpstatus -c 1nterl4b -v1 10.10.1.253
# snmpstatus -c 1nterl4b -v1 10.10.2.253
```

- Try to snmpwalk different parts of these equipments' MIBs:

```
# snmpwalk -c 1nterl4b -v1 10.10.?? 1.3.6.1.4.1.9.9.13.1.3 | more
# ...
```

a) Do all the devices answer ?

b) Do you notice anything important about the OID on the output ?

3. Configuration of snmpd

- Edit the following file:

```
# vi /etc/snmp/snmpd.conf
```

Comment the line (ADD '#' in front):

```
com2sec paranoid default public
```

And UNcomment the line (REMOVE the '#' in front):

```
#com2sec readonly default public
```

Edit the file /etc/default/snmpd, and find the line:

```
SNMPDOPTS='-Lsd -Lf /dev/null -u snmp -I -smux -p /var/run/snmpd.pid 127.0.0.1'
```

Remove 127.0.0.1 at the end, so you have:

```
SNMPDOPTS='-Lsd -Lf /dev/null -u snmp -I -smux -p /var/run/snmpd.pid'
```

- Restart snmpd

```
# /etc/init.d/snmpd stop
# /etc/init.d/snmpd start
```

4. Check that snmpd is working:

```
# snmpstatus -c public -v1 localhost
```

- What do you observe ?

5. Check now that you can run snmpstatus against your neighbor's server:

- Find out what your neighbor's IP is, ask them to run:

```
# ifconfig eth0
```

(your IP is 10.10.X.Y where X is 1 or 2, and Y is between 1 and 10.

- Check snmp against their machine:

```
# snmpstatus -c public -v1 10.10.X.Y
```

6. Adding MIBs

Remember when you ran:

```
# snmpwalk -c 1nterl4b -v1 10.10.11.1 1.3.6.1.4.1.9.9.13.1.3 | more
```

If you noticed, the SNMP client (snmpwalk) couldn't interpret all the OIDs coming back from the Agent:

```
SNMPv2-SMI::enterprises.9.9.13.1.3.1.3.1 = Gauge32: 39
```

```
SNMPv2-SMI::enterprises.9.9.13.1.3.1.3.2 = Gauge32: 50
```

```
SNMPv2-SMI::enterprises.9.9.13.1.3.1.3.3 = Gauge32: 34
```

What is '9.9.13.1.3.1.3' ?

To be able to interpret this information, we need to download extra mibs...

- Download the following files to your machine (NOTE: FTP access to Cisco.com doesn't work well from AIT, the normal URL is:

```
ftp://ftp.cisco.com/pub/mibs/v2/CISCO-SMI.my
```

```
ftp://ftp.cisco.com/pub/mibs/v2/CISCO-ENVMON-MIB.my
```

... but this time we download them from the local webserver)

```
# cd /usr/share/snmp/mibs
```

```
# wget http://noc/mibs/CISCO-SMI.my
```

```
# wget http://noc/mibs/CISCO-ENVMON-MIB.my
```

- Create the file /usr/share/snmp/snmp.conf, and put into it:

```
mibdirs /usr/share/snmp/mibs
```

```
mibs ALL
```

This tells the snmp* commands that they should load ALL mibs in the mibdir /usr/share/snmp/mibs

Save the file, quit.

Now, try again:

```
# snmpwalk -c 1nterl4b -v1 10.10.11.1 1.3.6.1.4.1.9.9.13.1.3 | more
```

What do you notice ?