

SNMP exercises  
Network Management Tutorial

1. GET and WALK

To control that your SNMP installation works:

- The backbone router

```
> snmpstatus -c public -v2c 196.200.218.254
```

- The NOC server

```
> snmpstatus -c public -v2c 196.200.218.253
```

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

```
> snmpwalk -c public -v2c 196.200.218.254 1.3.6.1.4.1.9.9.13.1.3 | more
```

```
> snmpwalk -c public -v2c 196.200.218.253 1.3.6.1.4.1.9.9.13.1.3 | more
```

```
> snmpwalk -c public -v2c 196.200.218.254 hrStorage | more
```

```
> snmpwalk -c public -v2c 196.200.218.253 hrStorage | more
```

a) Do all the devices answer ?

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

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

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

```
> ifconfig em0 inet
```

(your IP is 196.200.218.X where X is the IP of the PC of your neighbor)

- Check snmp against their machine:

```
> snmpstatus -c public -v2c 196.200.218.X
```

6. SNMPwalk - the rest of MIB-II

- Try and run snmpwalk on the routers, switches, and other hosts in the network:

```
> snmpwalk -c public -v2c 196.200.218.X
```

Note the kind of information you can obtain.

```
> snmpwalk -c public -v2c 196.200.218.X ifDescr
```

```
> snmpwalk -c public -v2c 196.200.218.X ifTable
```

```
> snmpwalk -c public -v2c 196.200.218.X ifDescr
```

```
> snmpwalk -c public -v2c 196.200.218.X ifOperStatus
```

```
> snmpwalk -c public -v2c 196.200.218.X ifAdminStatus
```

```
> snmpwalk -c public -v2c 196.200.218.X if
```

7. Adding MIBs

Remember when you ran:

```
> snmpwalk -c public -v2c 196.200.218.254 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.9.9.13.1.3.1.2.40020 = STRING: "VTT 2 outlet
temperature"
SNMPv2-SMI::enterprises.9.9.13.1.3.1.2.40030 = STRING: "VTT 3 outlet
temperature"
```

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:

```
cd /usr/local/share/snmp/mibs
```

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

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

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

```
mibdirs /usr/local/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 public -v2c 196.200.218.254 1.3.6.1.4.1.9.9.13.1.3 | more
```

What do you notice ?