Agent RMON2 Installation Tutorial

Débora Pandolfi Alves

debora@exatas.unisinos.br

Ricardo Nabinger Sanchez

rsanchez@exatas.unisinos.br

Lúcio Braga

lbraga@exatas.unisinos.br

Luciano Paschoal Gaspary

paschoal@exatas.unisinos.br

Universidade do Vale do Rio dos Sinos (UNISINOS)
Centro de Ciências Exatas e Tecnológicas, Brasil

http://mutuca.metropoa.tche.br

Step-by-Step Agent Installation

- Requisites

- Libpcap Installation

- Net-SNMP Installation

- RMON2 Agent Installation

- Net-SNMP Configuration

  - MIB files Installation

  - Net-SNMP Launch

- Test

Requisites

- To compile the RMON2 agent is necessary:
  - GNU C Compiler`(gcc)`
  - GNU Make Tool`(make)`
  - Superuser privileges to the monitoring

Libpcap Installation

- Download

  `http://www.tcpdump.org/release/libpcap-0.7.2.tar.gz`

- Extract, Compile and Install

  ```
  $ tar zxf libpcap-0.7.2.tar.gz
  $ cd libpcap-0.7.2
  $ configure
  $ make
  $ su
  (superuser password)
  # make install
  ```

Net-SNMP Installation

- Download – choose the current version
  ```
  http://www.net-snmp.org/download
  ```

- Patch Download
  ```
  http://mutuca.metropoa.tche.br/Downloads/config-
  dlmod.patch
  ```

- Extract, Compile and Install
  ```
  $ tar zxf net-snmp-5.0.9.tar.gz
  $ cd net-snmp-5.0.9
  $ patch -p0 < config-dlmod.patch
  ```

Net-SNMP Installation (continuation)

```
$ ./configure
...
Default version of SNMP to use (3): 2
System Contact Information (root@): root@localhost
System Location (unknown):
Location to write logfile (/var/log/snmpd.log):
Location to write persistent information (/var/net-snmp):

$ make
$ su
(superuser password)
# make install
```

RMON2 Agent Installation

- Download

  ```
  http://mutuca.metropoa.tche.br/Downloads/rmon2-
  0.2.3.tar.gz
  ```

- Extract, Compile and Install

  ```
  $ tar zxf rmon2-0.2.3.tar.gz
  $ cd rmon2-0.2.3
  $ make
  $ su
  (superuser password)
  # make install
  ```

RMON2 Agent Installation (continuation)

- It is possible to allow other users (which is not the superuser) use the RMON2 agent

```
# groupadd rmon2

# make install.suid
```

- To include the users in the group

```
# usermod  -G bin,sys,ftp,rmon2  joao
```

```
$ /usr/local/bin/snmpconf

Select the file type you wish to create:

(you can create more than one as you run this program)

    1:   snmpd.conf

    2:   snmptrapd.conf

    3:   snmp.conf

Other options: quit


Select File: 1
```

- Select a configuration section for snmpd.conf that you wish to create:

  ...

  Select section: **2 (Access Control Setup)**

- This section defines who is allowed to talk to your running snmp agent.

  ...

  Select section: **3 (a SNMPv1/SNMPv2c read-only access community name)**

- Configuring: rocommunity
  The community name to add read-only access for: **public**
  [**RETURN** for all]:
  [**RETURN** for no-restriction]:

- This section defines who is allowed to talk to your running snmp agent.
  ...
  Select section: **4 (a SNMPv1/SNMPv2c read-write access community name)**

- Configuring: rwcommunity
  Enter the community name to add read-write access for:
  private
  [**RETURN** for all]:
  [**RETURN** for no-restriction]:

- Select section: **finished**

- Select a configuration section for snmpd.conf that you wish to create:
  ...
  Select section: **5 (Extending the Agent)**

Net-SNMP Configuration ^{(4/4)}

- You can extend the snmp agent to have it return information that you yourself define.
  ...
  Select section: **6 (dynamically extend the agent using a shared-object)**

- Configuring: dlmod
  Enter the name of the module: **rmon2**
  Enter the path to the rmon2 module: **/usr/lib/rmon2.so**

- Select section: **finished**

- Select section: **finished**

- Select File: **quit**

- The following files were created: **snmpd.conf**
  These files should be moved to **/usr/local/share/snmp/** if you want them used by everyone on the system.

MIBs not included in Net-SNMP

- Download the files
  ```
  http://www.simpleweb.org/ietf/mibs/modules/IETF/txt
  /RMON2-MIB
  http://www.simpleweb.org/ietf/mibs/modules/IETF/txt
  /TOKEN-RING-RMON-MIB
  ```

- Copy the file to the MIBs Net-SNMP repository
  ```
  # cp RMON2-MIB /usr/share/snmp/mibs/
  # cp TOKEN-RING-RMON /usr/share/snmp/mibs/
  ```

Launching Net-SNMP

- The `snmpd` daemon can just be launched by a authorized user (superuser or user member from group with permission)

- To launch the SNMP agent

  `# snmpd`

- To analyse the logs file on search of error messages, the file must be in `/var/log/snmpd.log`

  `# cat /var/log/snmpd.log`

Test

- To produce network traffic

- To require a whole output from the agent.
  ```
  $ export MIBS=+RMON2-MIB
  $ snmpwalk -c public -v 2c 127.0.0.1 rmon
  ```

  To search through all the RMON group we use the `snmpwalk` command, the fit community and the host to be required.