

Monitoring Asterisk-1.4 with SNMP v3 on the Slackware 11.

This is a documentation to monitor the asterisk with SNMP version 3 on the Slackware 11.

First of all, I want to thank Matt Gibson for his help... He was very important to do this configuration. Thank`s very much Matt!!!!

The first step is to install the SNMP package in your slackware.

1 – SNMP Configuration

For this, get the package net-snmp and then install it. (in my tests I used net-snmp-5.4a-i486-1kjz.tgz)

```
#installpkg net-snmp-5.4a-i486-1kjz.tgz
```

After you need to configure the snmp. This configuration will apply just for local host to get informations from snmp in the version 1 and 2 of SNMP. And after we will configure an user snmp version 3 to get this informations from others machines, because it gives us more security. Put it in the file /etc/snmp/snmpd.conf.

```
-----  
com2sec      local          localhost          private  
group local  v1                local  
group local  v2c              local  
group local  usm                local  
view all    included .1          80  
access local      ""    any    noauth exact all  all all  
# turn on agent master  
master agentx  
agentXperms 0660 0550 root root  
-----
```

** Make sure that are you run your asterisk with user and group root.

Edit the script rc.snmpd in the /etc/rc.d for start snmpd turning on agent master. Modify the line that start snmpd to this:

```
-----  
snmpd -c /etc/snmp/snmpd.conf -p /var/run/snmpd.pid -x /var/agentx/master  
-----
```

And coment the line that starts the snmptrap.

```
-----  
# snmptrapd -a -Lf "$STRAPLOG"  
-----
```

Then, we need to add the folder /var/agentx and the file master.

```
# mkdir /var/agentx
```

```
# touch /var/agentx/master
```

After starts the snmp with the following command:

```
#!/etc/rc.d/rc.snmpd start
```

See the log file (/var/log/snmpd.log) to verify if it starts right. If yes, stop it with the command:

```
#!/etc/rc.d/rc.snmpd stop
```

After this is necessary to install the following perl module. Do this with the command:

```
#perl -MCPAN -e "install Net::SNMP"
```

After to finish it, We can add a SNMP user version 3. We can do this with the following command:

```
#net-snmp-config --create-snmpv3-user -ro -a MD5 -A PASSWORD USERNAME
```

Now, we can start snmpd to do some tests.

```
#!/etc/rc.d/rc.snmpd start
```

In the version 1 and 2 we can do it with these following command:

```
#snmpwalk -v 1 -c private localhost sysUpTime
```

```
#snmpwalk -v 2c -c private localhost sysUpTime
```

To test the security, do this command in other machine in you network:

```
#snmpwalk -v 1 -c private IP_SERVER_SNMP sysUpTime
```

In the version 3 we can do the following command to test it:

```
#snmpwalk -v 3 -u USERNAME -l authNoPriv -a MD5 -A PASSWORD localhost  
sysUpTime
```

These commands in the version 3 have to work in all machines inside your network. And it shows something look like it:

```
#DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (38645) 0:06:26.45
```

2 – Asterisk Configuration

Install the Asterisk with snmp suport.

```
#tar -xvzf asterisk-1.4.x.tar.gz  
#cd asterisk-1.4.x  
#make menuselect
```

Go to:

---> 8. Resource Modules

And choice:

[*] 15. res_snmp

After this save it with “x” and install asterisk with the following commands:

```
#make  
#make install  
#make samples
```

After to finish the instalation go to asterisk folder configuration. (/etc/asterisk/)

Edit res_snmp.conf and uncomment the following lines:

```
-----  
[general]  
subagent = yes  
enabled = yes  
-----
```

Start the asterisk with the following command and wait to see if will happen an error message:

```
#asterisk -vvvvvvvvvvvvvvvvvcg
```

Copy the files asterisk-mib.txt and digium-mib.txt that are in the asterisk source to /usr/share/snmp/mibs.

```
#cd asterisk-1.4.x  
#cp doc/asterisk-mib.txt /usr/share/snmp/mibs  
#cp doc/digium-mib.txt /usr/share/snmp/mibs
```

Now, do this command:

```
#export MIBS=+ASTERISK-MIB
```

And add it to /etc.rc.d/rc.local to run whenever the system starts.

After we can test if the Asterisk MIB is avaiable to get informations. Do this in local host and others hosts in your network with the following command:

```
#snmpwalk -v 3 -u USERNAME -l authNoPriv -a MD5 -A PASSWORD  
IP_SERVER_SNMP asterisk
```

If all worked you can now monitoring the Asterisk with SNMP version 3 by your favorite program (eg: Cacti or MRTG) or by linux prompt. It is possible to monitoring some informations about Asterisk as this:

*The NuFone Network's Open H.323
Channel Driver Skinny
Client Control Protocol (Skinny)
Zapata Telephony Driver
Session Initiation Protocol (SIP)
Standard Linux Telephony API Driver
OSS Console Channel Driver
Local Proxy Channel Driver
Inter Asterisk eXchange Driver (Ver 2)
Gtalk Channel Driver
Feature Proxy Channel Driver
Call Agent Proxy Channel*

I hope to help somebody with this documentation as I was helped for Matt Gibson documantation.
(<http://www.voippbreak.ca/archives/382>)

Thank`s All

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