

Testing SNMP Connectivity from the NMIS Server with snmpwalk

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Introduction

NMIS is heavily dependant on [SNMP](#) for collecting information. If you are having some sort of SNMP configuration or connectivity issues, one of the easiest things to do is to run an SNMPWALK command from the Unix shell.

Using Shell Access to do an SNMPWALK

To do this, SSH to your NMIS server, it is important to do this from the NMIS server itself because it ensures that any access control you have from Firewalls or other security controls is part of the testing.

The command to test SNMP with is:

Test SNMP V2C first.

```
snmpwalk -v 2c -c COMMUNITY_STRING IPADDRESS_HOST system
```

If SNMPv2c does not work, try SNMP v1, we have found there are some vendors still not supporting SNMP v1

```
snmpwalk -v 1 -c COMMUNITY_STRING IPADDRESS_HOST system
```

The command result for something working would look like this:

```
[keiths@nmisdev64 kaos]$ snmpwalk -v 2c -c GOODCOMMUNITY kaos system
SNMPv2-MIB::sysDescr.0 = STRING: Hardware: Intel64 Family 6 Model 15 Stepping 6 AT/AT COMPATIBLE - Software:
Windows Version 6.1 (Build 7601 Multiprocessor Free)
SNMPv2-MIB::sysObjectID.0 = OID: SNMPv2-SMI::enterprises.311.1.1.3.1.1
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (40604629) 4 days, 16:47:26.29
SNMPv2-MIB::sysContact.0 = STRING: dc_admin@opmantek.com
SNMPv2-MIB::sysName.0 = STRING: kaos
SNMPv2-MIB::sysLocation.0 = STRING: Head Office
SNMPv2-MIB::sysServices.0 = INTEGER: 79
```

The command result for something NOT working would look like this:

```
[keiths@nmisdev64 kaos]$ snmpwalk -v 2c -c BADCOMMUNITY kaos system
Timeout: No Response from kaos
```

If you are using SNMPv3, have a look at the [WIKI article on SNMPv3 and Cisco Devices](#).

Using the NMIS GUI to do SNMP WALK

Access the SNMP Tool

Access the SNMP Tool from the menu "Network Tools -> SNMP Tool"

The screenshot shows the NMIS 8.4.3G interface. At the top, there are four dropdown menus: NMIS Tenants, NMIS Servers, NMIS Modules, and NMIS8. Below these is a green navigation bar with tabs: Network Status, Network Performance, Network Tools, Reports, Service Desk, System, and Quick Select. The Network Tools tab is selected. On the left, there's a sidebar with Metrics, 8Hr Summary, and a chart showing a Metric at 99%. The main area under Network Tools contains links for Ping, Traceroute, SNMP Tool (which is highlighted in green), and IP Tools.

Select a Node and MIB to Check

Select the node you wish to test, and you can select a MIB from the list or enter an OID or mib name in the box.

This screenshot shows the SNMP Tool search interface. It has fields for 'Select node' (set to 'asgard'), 'Select name' (empty), and 'old' (set to 'ifTable'). A 'Go' button is visible on the right.

Review the Results

See what happened.

This screenshot shows the results of the SNMP query for 'ifTable' on node 'asgard'. The results are displayed in a table with three columns: 'ifIndex' (OID), 'ifDescr' (OID), and 'ifType' (OID). The table lists 22 entries, each corresponding to a network interface on the node.

ifIndex	ifDescr	ifType
1.3.6.1.2.1.2.2.1.1.1		1
1.3.6.1.2.1.2.2.1.1.2		2
1.3.6.1.2.1.2.2.1.1.3		3
1.3.6.1.2.1.2.2.1.1.4		4
1.3.6.1.2.1.2.2.1.1.6		6
1.3.6.1.2.1.2.2.1.1.7		7
1.3.6.1.2.1.2.2.1.1.8		8
1.3.6.1.2.1.2.2.1.1.9		9
1.3.6.1.2.1.2.2.1.1.10		10
1.3.6.1.2.1.2.2.1.1.11		11
1.3.6.1.2.1.2.2.1.2.1		FastEthernet0/0
1.3.6.1.2.1.2.2.1.2.2		FastEthernet0/1
1.3.6.1.2.1.2.2.1.2.3		Serial0/0/0
1.3.6.1.2.1.2.2.1.2.4		Null0
1.3.6.1.2.1.2.2.1.2.6		Loopback0
1.3.6.1.2.1.2.2.1.2.7		Tunnel0
1.3.6.1.2.1.2.2.1.2.8		Dialer1
1.3.6.1.2.1.2.2.1.2.9		Dialer1194
1.3.6.1.2.1.2.2.1.2.10		Virtual-Access1
1.3.6.1.2.1.2.2.1.2.11		Virtual-Access2
1.3.6.1.2.1.2.2.1.3.1		6
1.3.6.1.2.1.2.2.1.3.2		6
1.3.6.1.2.1.2.2.1.3.3		22