

FAQ Nx70 - SNMP explained

Introduction

On this page we would like to provide more details about the Nx70 SNMP and how to use a freeware tool for testing.

1. Download and install the freeware tool: <https://www.manageengine.com/products/mibbrowser-free-tool/>
2. N670 with the IP address 192.168.178.190
3. PC has the IP address: 192.168.178.14

From software 2.36 SNMP is disabled when the SNMP manager address = 0.0.0.0

Nx70 Settings

In the Nx70 web-interface go to: **SETTINGS - System - System log - SNMP statistics**

Enter the SNMP manager information, in this example my PC (192.168.178.14).

We used the default username and password.

SNMP statistics

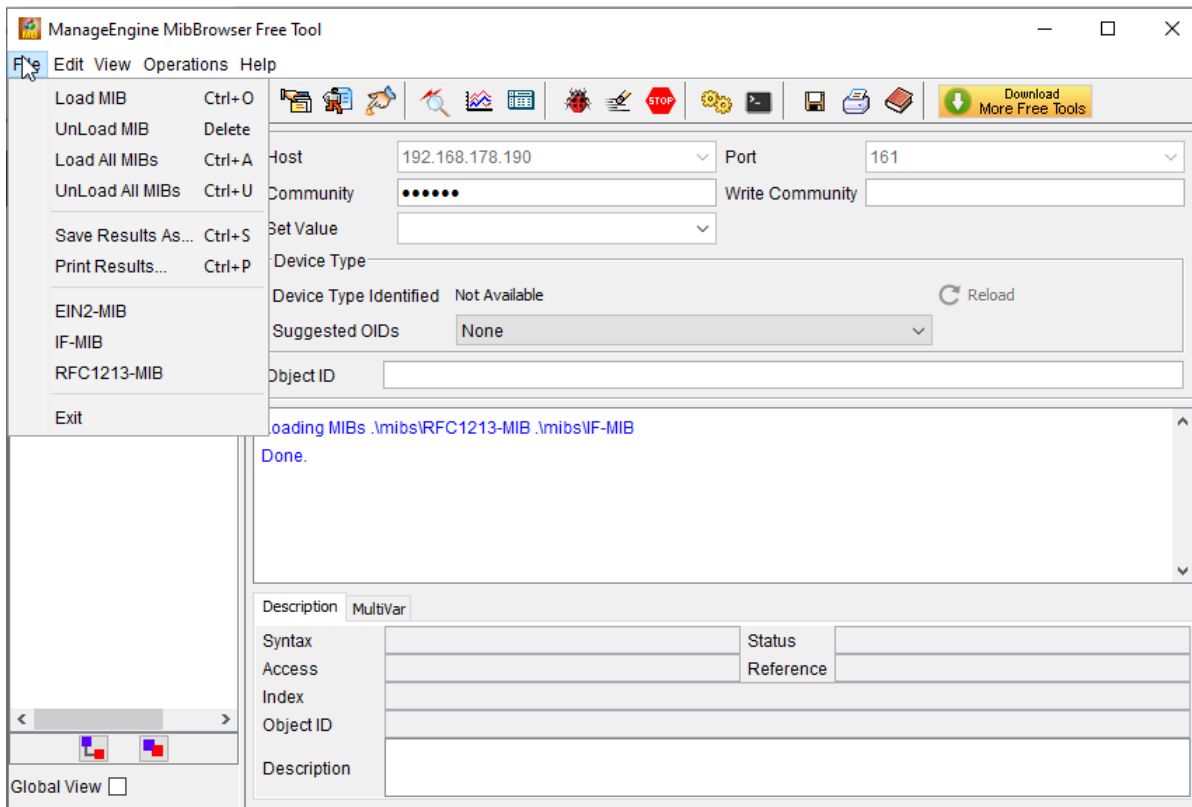
SNMP manager address ?	<input type="text" value="192.168.178.14"/>
SNMP manager port ?	<input type="text" value="162"/>
SNMP username ?	<input type="text" value="admin"/>
SNMP password ?	<input type="text" value="snmp-admin"/>
	<input type="button" value="↶ Use on all DECT Managers"/>
	<input type="button" value="✓ Activate on all DECT Managers"/>
	<input type="button" value="✗ Deactivate on all DECT Managers"/>
	<input type="button" value="⬇ Download MIB"/>

On this page you can also download the Nx70 MIB file that you can then upload on your SNMP server.

SNMP tool settings

Import MIB file

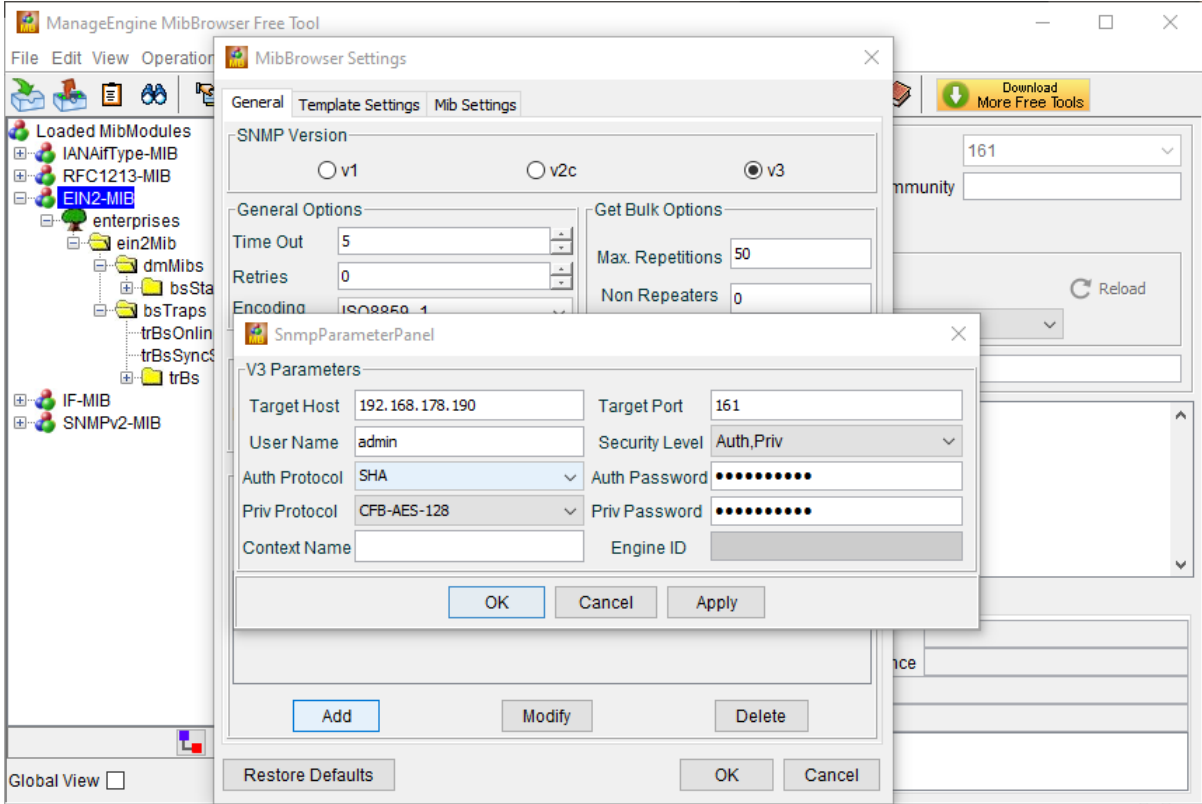
In the tool go to: File Load MIB



Enter login credentials.

In the tool go to:

- **Edit - Settings**
- Select **SNMP v3**
- Click on **Add**
- **Target Host:** The IP address of the Nx70
- **Target port:** The port number (161)
- **Username:** The username configured in the Nx70 (admin)
- **Auth Password:** The password configured in the Nx70 (snmpadmin)
- **Priv Password:** The password configured in the Nx70 (snmpadmin)
- **Auth Protocol:** SHA
- **Priv Protocol:** CFB-AES-128



Read SNMP Values

- Select a base station
- Right click and select **SNMPWALK**
- You will get the supported SNMP values

The screenshot shows the ManageEngine MibBrowser Free Tool interface. On the left, a tree view displays various MIB modules, with 'SNMPWALK' selected under the 'bsStatistics-01' module. The central pane shows the results of the SNMP walk, listing objects such as bsMAC-01, bsFrom-01, bsTo-01, bsRPN-01, bsName-01, bsCl-01, bsLv-01, bsConn-01, bsHoIn-01, bsHoOut-01, bsCallDrop-01, bsAsync-01, bsBusy-01, and bsDpcOff-01. The bottom pane shows the details for the selected object, including its syntax, access, index, object ID, and description.

Supported SNMP values	Description
bsMAC-xx	MAC address of Base station
bsFrom-..	BS start time when connection to DM
bsTo-..	actual time of BS connection to DM
bsRPN-..	RPN number
bsName-..	name of BS
bsCl-..	cluster level
bsLv-..	sync level
bsConn-..	DECT MAC layer connection setup
bsHoIn-..	Handover setup in
bsHoOut-..	Handover setup out
bsCallDrop-..	Call Drop
bsAsync-..	BS lost DECT synchronisation
bsBusy-..	Single module enter in busy state
bsDpcOff-..	TCP/IP connection toward base station was lost

SNMP Traps

Supported traps:

- BS synchronization status trap
- BS online/offline status trap

In the tool enabled the Trap viewer (ALT + P)

As mention above, Nx70 supports two Traps:

trBsOnlineState (OID: .1.3.6.1.4.1.32775.2.1) triggered when BS goes offline:

The screenshot shows the TrapViewer interface with a trap message selected. The message content is as follows:

```
Message: .1.3.6.1.2.1.1.3.0: TimeTicks: 0 hours, 30 minutes, 16 seconds.:  
.1.3.6.1.4.1.32775.2.1.0: BS: .1.3.6.1.4.1.32775.2.1:  
.1.3.6.1.4.1.32775.2.1.0: BS: .1.3.6.1.4.1.32775.2.1:  
.1.3.6.1.4.1.32775.2.1.0: BS: .1.3.6.1.4.1.32775.2.1:  
.1.3.6.1.4.1.32775.2.1.0: BS: .1.3.6.1.4.1.32775.2.1:  
.1.3.6.1.4.1.32775.2.1.0: BS: .1.3.6.1.4.1.32775.2.1:  
Severity: Clear  
Entity: 172.29.19.176  
RemotePort: 43235  
LocalPort: 142  
Community: public  
Node: 172.29.19.176  
Source: 172.29.19.176  
TimeReceived: Thu Jan 10 09:50:46 CET 2019  
HelpURL: 0=0.html
```

trBsSyncState (OID: .1.3.6.1.4.1.32775.2.2) triggered when BS lost synchronization:

The screenshot shows the TrapViewer interface with a trap message selected. The message content is as follows:

```
Message: .1.3.6.1.2.1.1.3.0: TimeTicks: 1 hours, 21 minutes, 16 seconds.:  
.1.3.6.1.4.1.32775.2.2: .180.org.dod.internet.private.enterprises.ein2Mib.bsTraps.trBs.trBsSeverity: 01 01  
.180.org.dod.internet.private.enterprises.ein2Mib.bsTraps.trBs.trBsEvent: 01 OutSync  
.180.org.dod.internet.private.enterprises.ein2Mib.bsTraps.trBs.trBsName: 01 BS: TrapsOutSync  
.180.org.dod.internet.private.enterprises.ein2Mib.bsTraps.trBs.trBsMAC: 01 TC2F80CFDFA0  
Severity: Clear  
Entity: 172.29.19.176  
RemotePort: 43235  
LocalPort: 142  
Community: public  
Node: 172.29.19.176  
Source: 172.29.19.176  
TimeReceived: Thu Jan 10 13:25:51 CET 2019  
HelpURL: 0=0.html
```