NavigateWorx

NR500 Series
Industrial Cellular VPN Router

Application Note 049

SNMP

Version:	V1.0.0
Date:	Mar 2020
Status:	Confidential

Directory

1. Introduction

1.1 Overview

This document contains information regarding the configuration and use of SNMP.

This guide has been written for use by technically competent personnel with a good understanding of the communications technologies used in the product, and of the requirements for their specific application.

1.2 Compatibility

This application note applies to:
Models Shown: NR500 series.
Firmware Version: V1.1.3(e335ec6) or newer
Other Compatible Models: None

1.3 Version

Updates between document versions are cumulative. Therefore, the latest document will include all the content of previous versions.

Release Date	Doc. Version	Firmware Version	Change Description
2020/03/04	V1.0.0	V1.1.3(e335ec6)	First released

1.4 Corrections

Appreciate for corrections or rectifications to this application note, and if any request for new application notes please email to: **support@navigateworx.com**
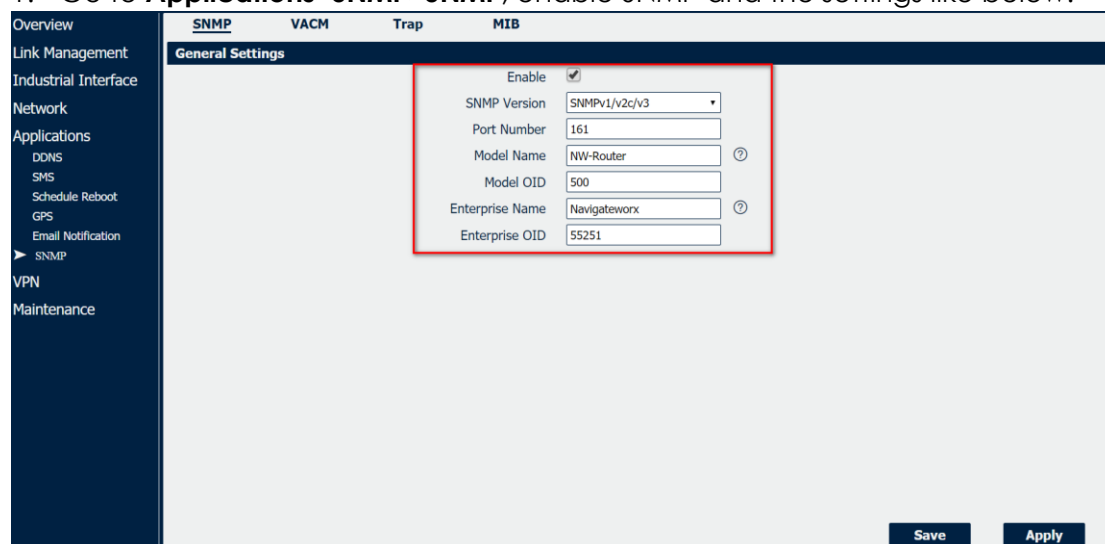
2. Topology
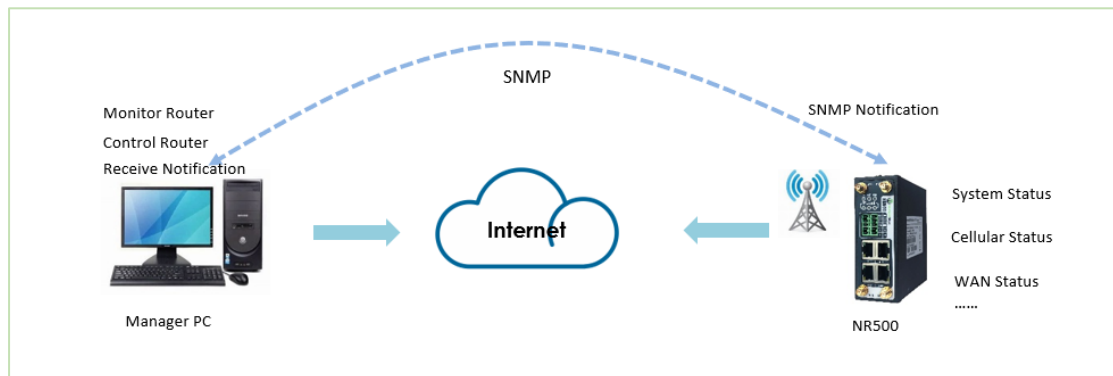
1. Manager PC access to NR500 router via SNMP Protocol.
2. Manager PC get the running status, control the router and receive the SNMP Notification from NR500 router.

Note: For this Application Note, we use the Intranet for testing instead of Cellular WAN. Manager PC connect to the LAN port of NR500. The IP address of Manager PC is: 192.168.5.19/24. The IP address of NR500 LAN port is: 192.168.5.1/24.

3. Configuration

3.1 Configuration on NR500 Router

1. Go to **Applications>SNMP>SNMP**, enable SNMP and the settings like below:
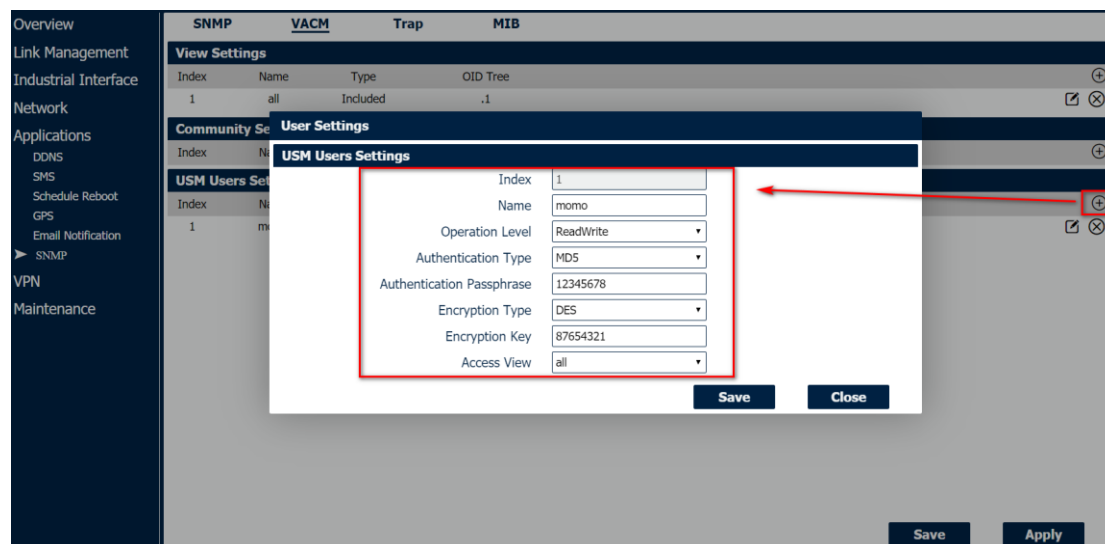
2. Click Save>Apply.

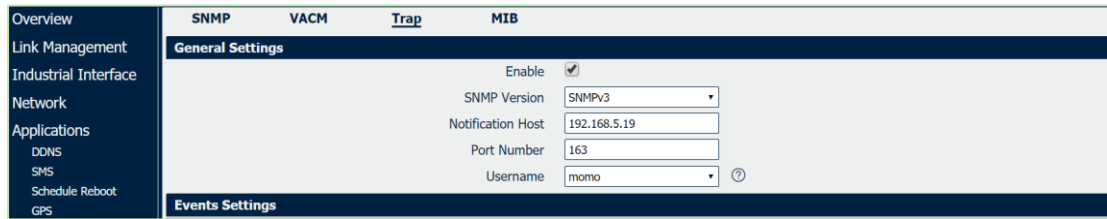3. Go to **Applications>SNMP>VACM,** Let the configuration of **"View Settings"** as default. For **"USM Users Settings"**, please setup like below:
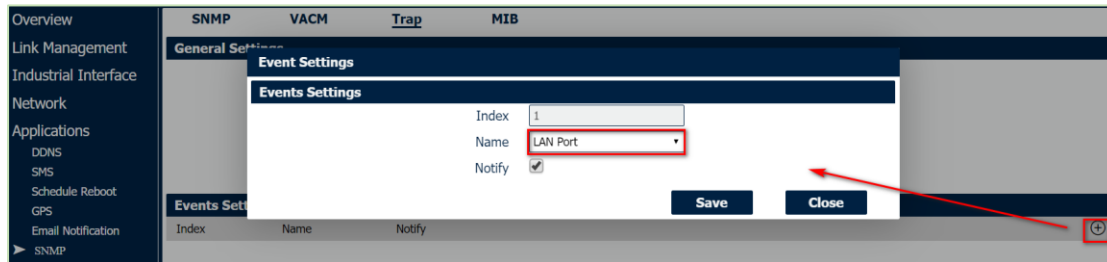

4. Click Save>Apply.

5. Go to "**Applications>SNMP>Trap**", enable SNMP Trap configuration, and the "Notification Host" should be the IP address of the PC run with SNMP

management tool, like below:

6. Here we set the "LAN Notify" as an example, when the LAN Port status changed, the SNMP management tool will receive the event alarm. Go to "**Applications>SNMP>Trap>Events Settings**", configuration like below:


7. Click Save>Apply

3.2 Configuration on SNMP Management Tool

Here we use the software "MG MibBrowser" as the management tool, please install the it on the PC, after finishing installation, then we can see below:
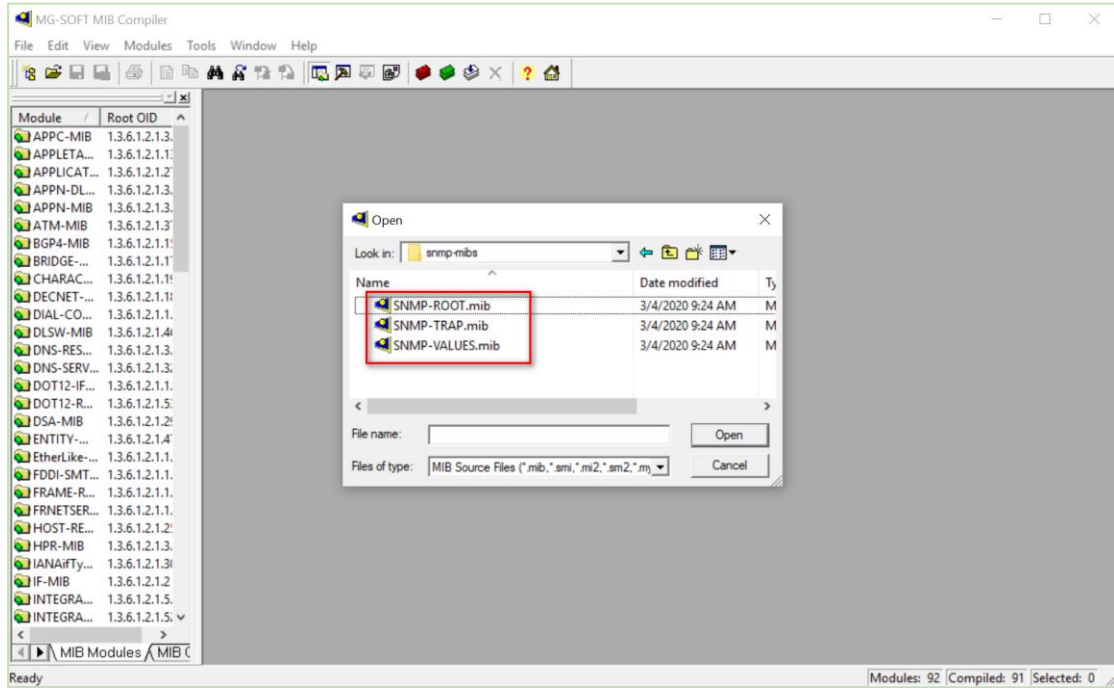

Note: After unzip the "MG MibBrowser" package, we should install all the files into the "unzip" folder during the installation.
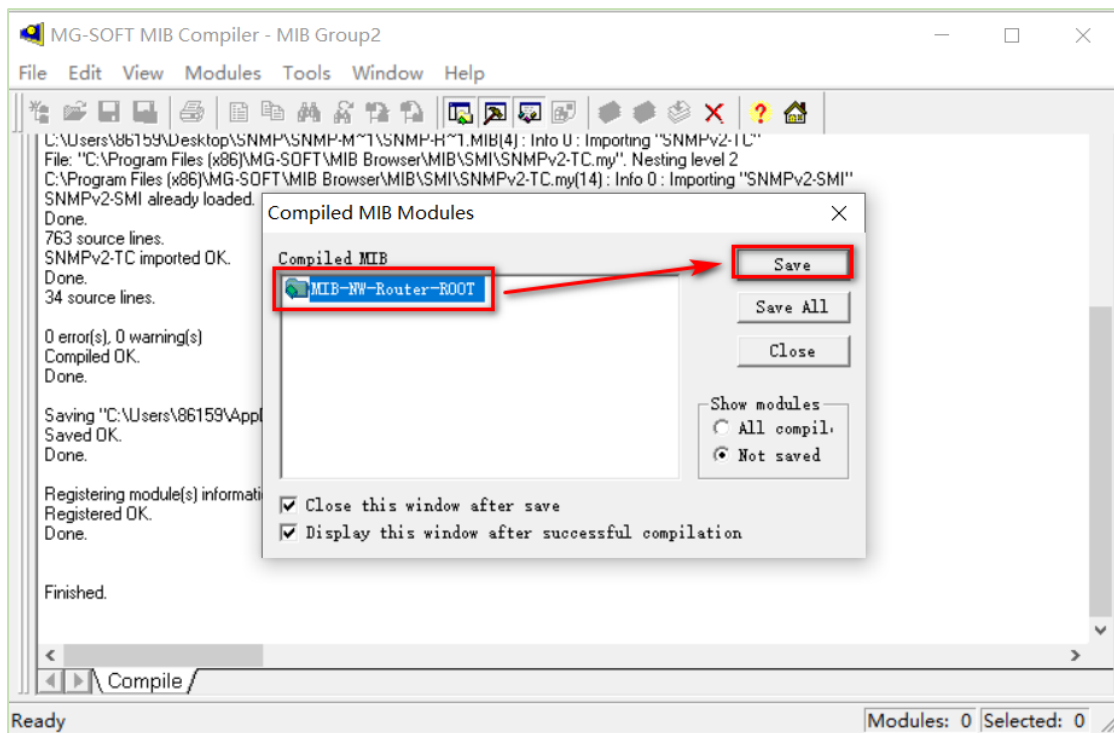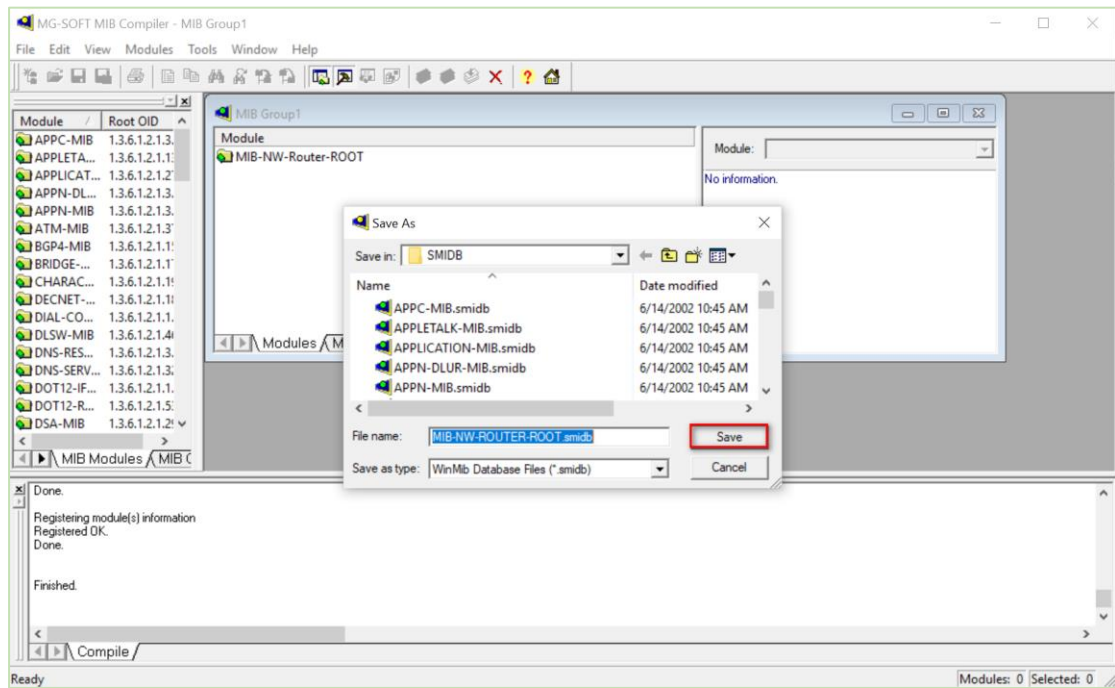
1. Open MibBrowser and run the MIB Compiler:
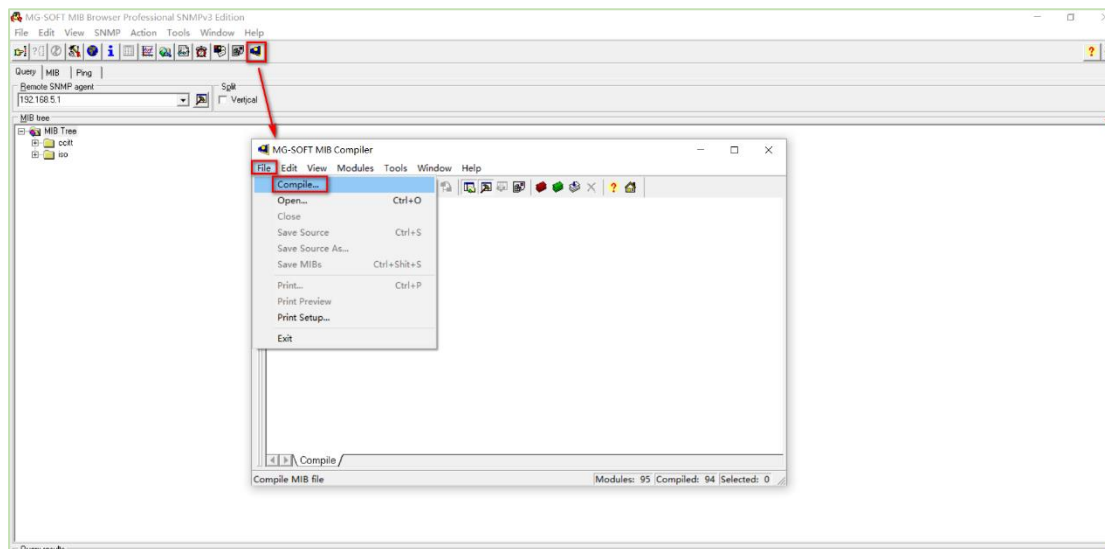
2. Compiler the MIB files "SNMP-ROOT.mib", "SNMP-TRAP.mib" and "SNMP-VALUES.mib" **one by one**:
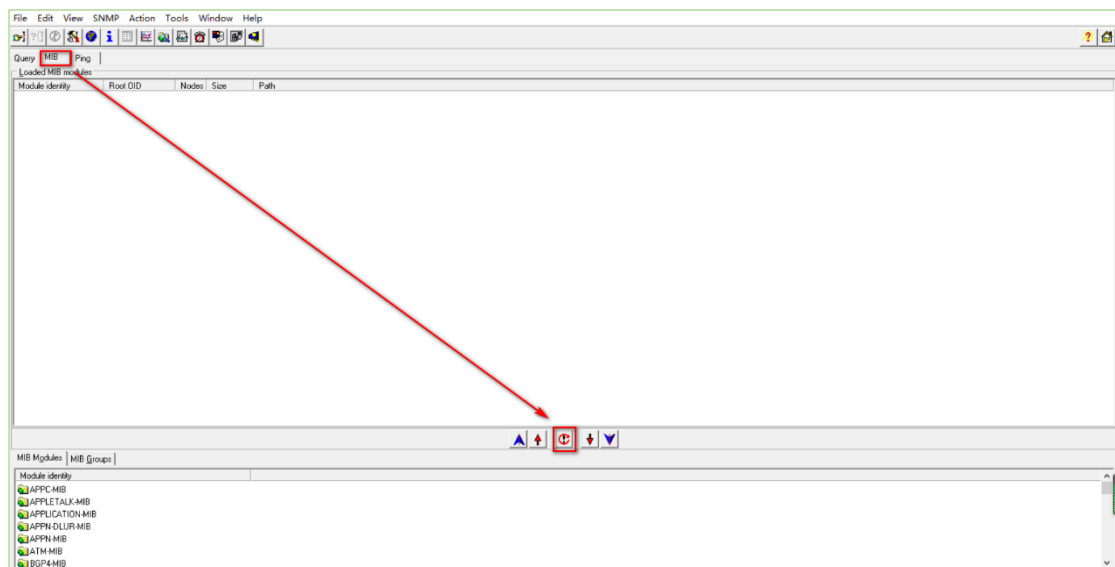
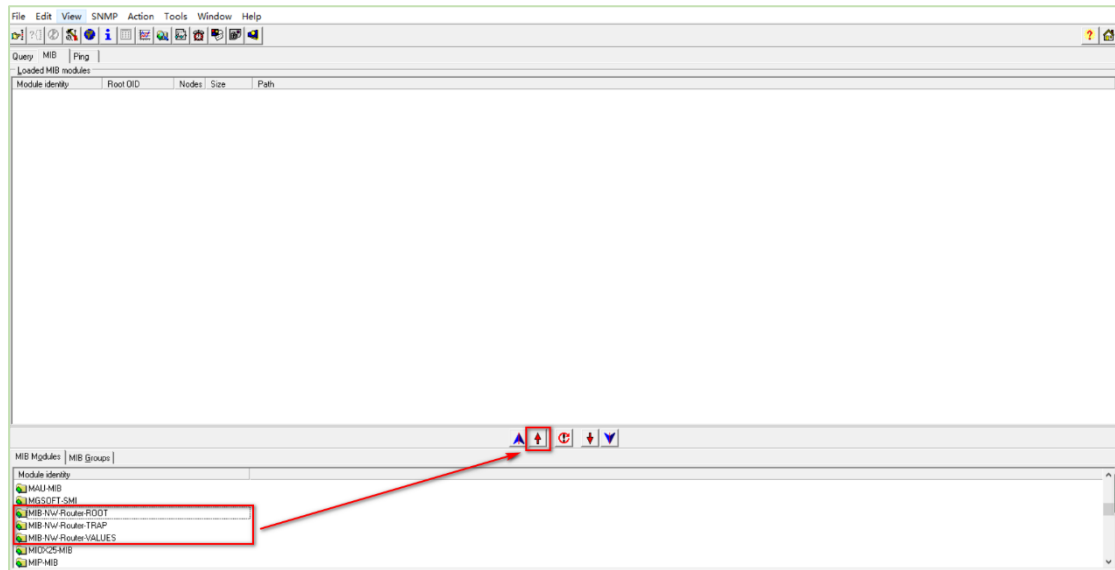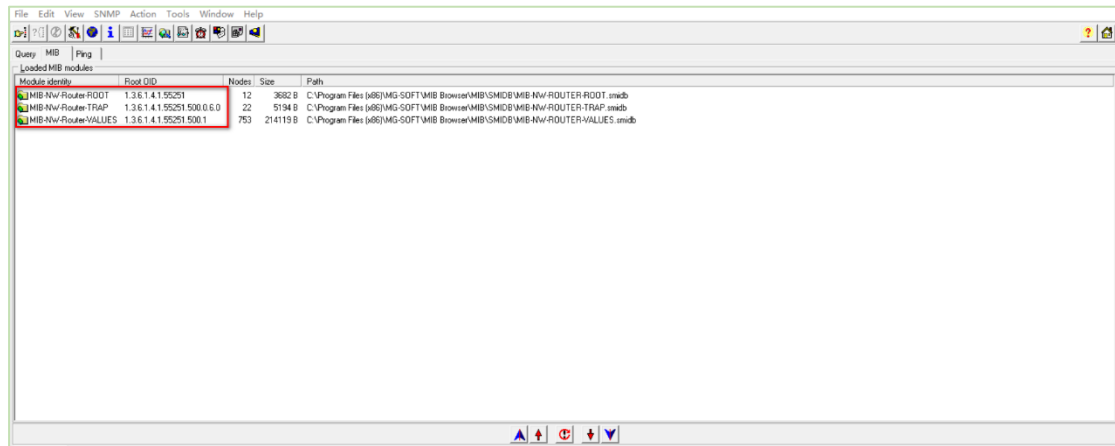3. Save the Compiled File as default path, like below:

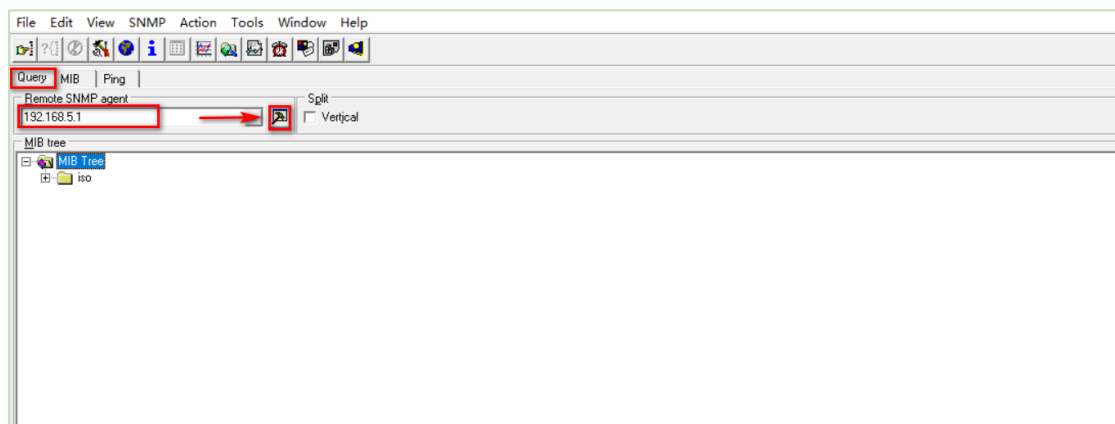4. After above, we need to refresh the MIB Module:

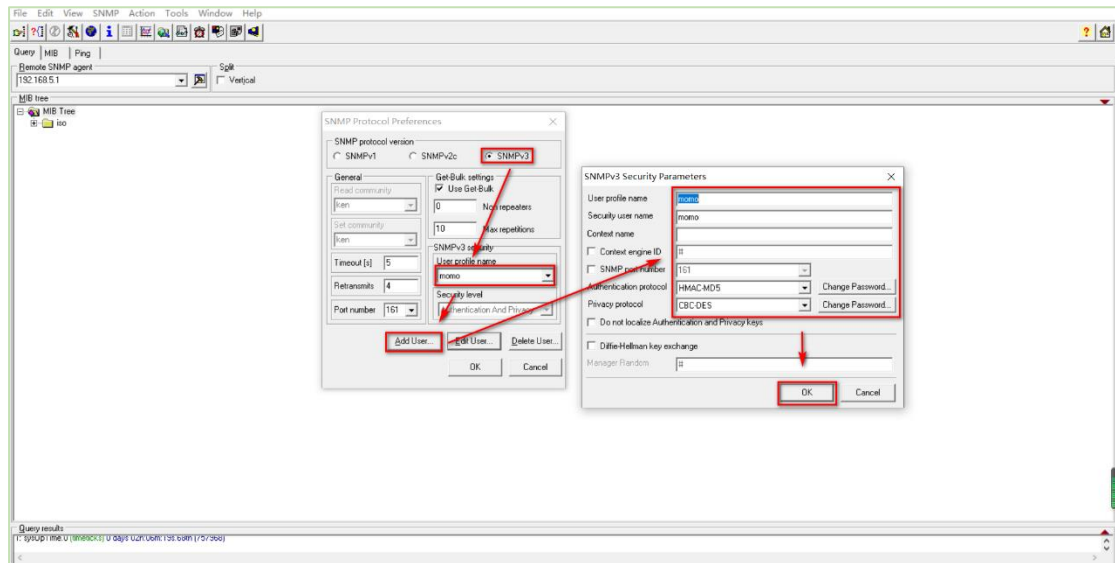5. Then we can check the MIB file and load them:
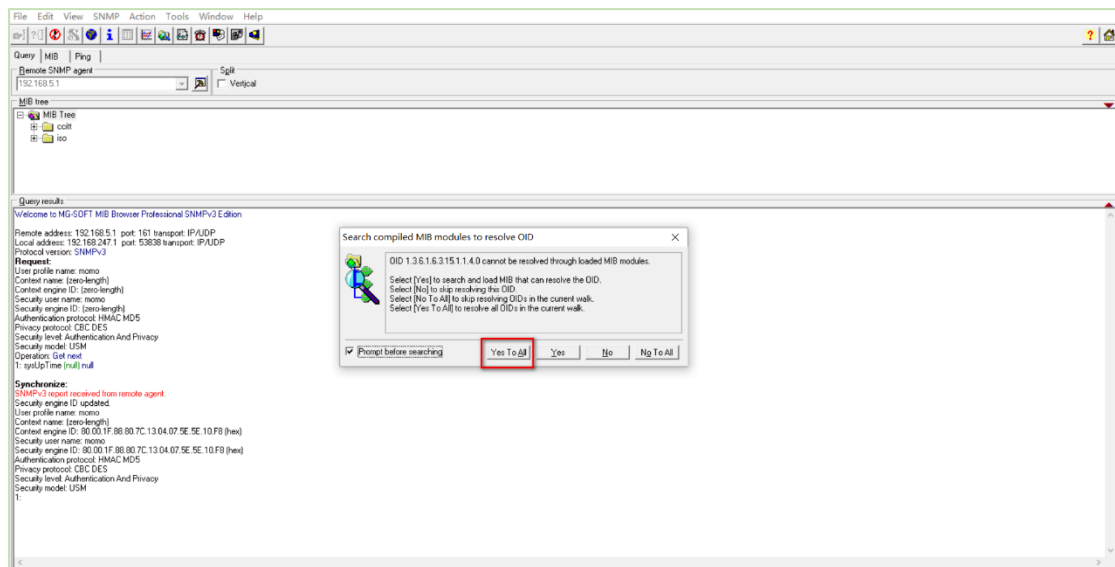
6. The MIB file had been loaded:

7. After that, enter the IP address of NR500 router and connect to NR500 from the management tool:

8. Enter the related parameters of SNMPv3, Like the Name and the Authentication and so on, like below:

9. Click "Yes To All":

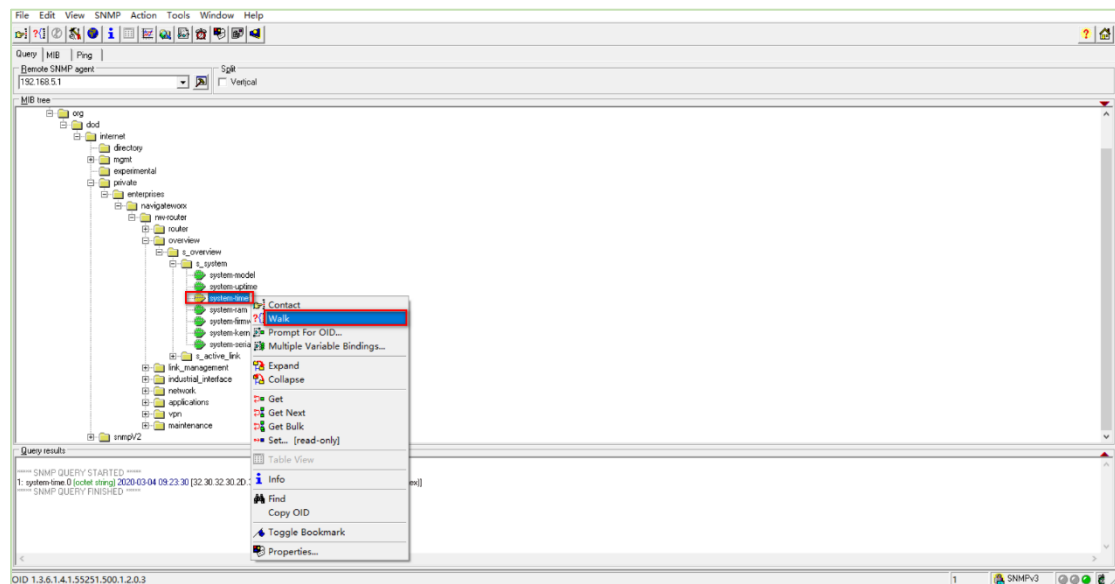10. After that, we can see the menu of NR500 router:

4. Testing

4.1 Monitor The Running Status Of The Router

Here we check the "system time" and check the "firmware version" as an example.

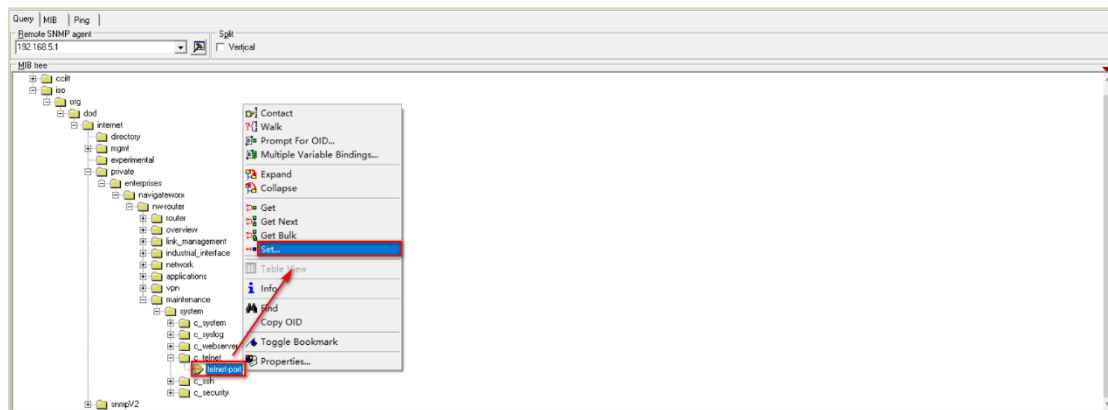1. Go to the "system-time" and Right Click, then click "Walk":

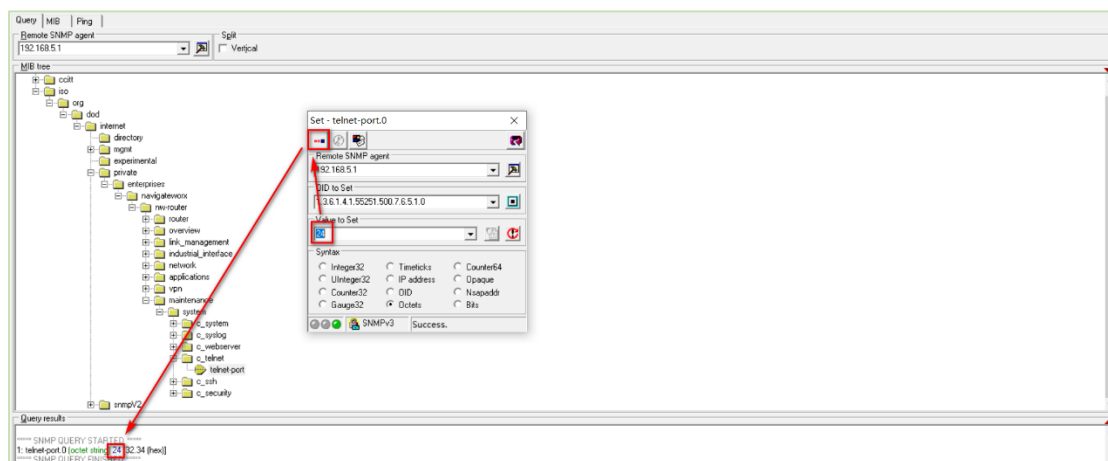2. Get the System Time of the router:

4.2 Control The Router

Here we change the Telnet Port of the router as an example, after checking, then we need to Save, then Apply.
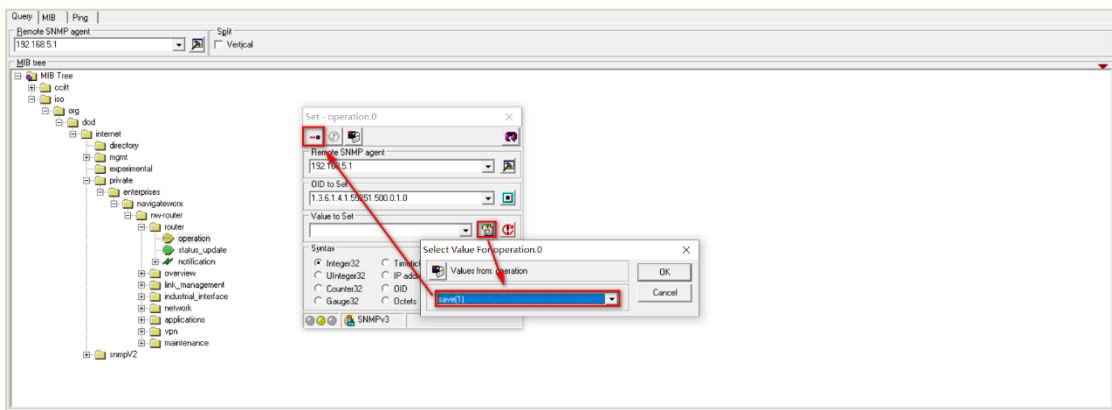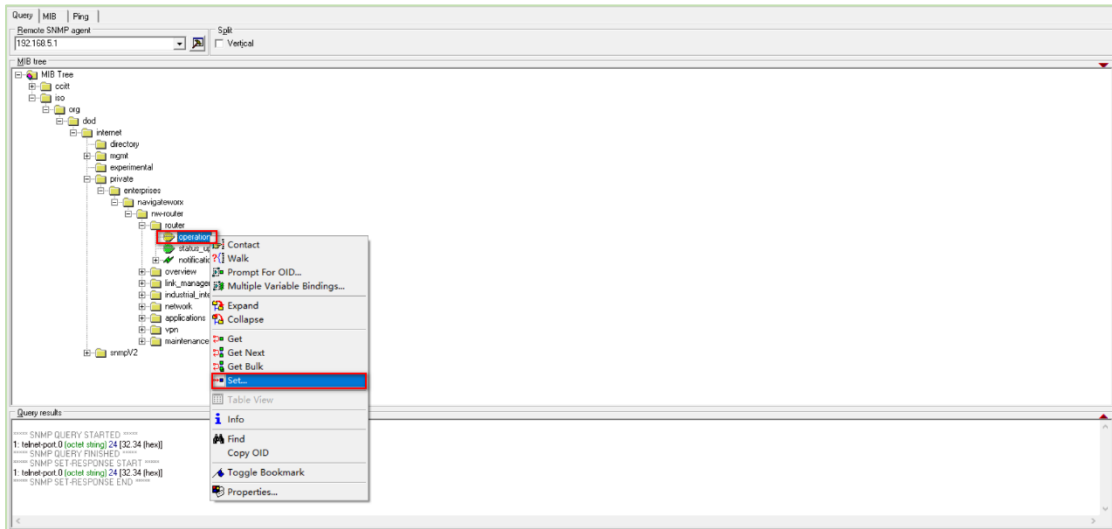
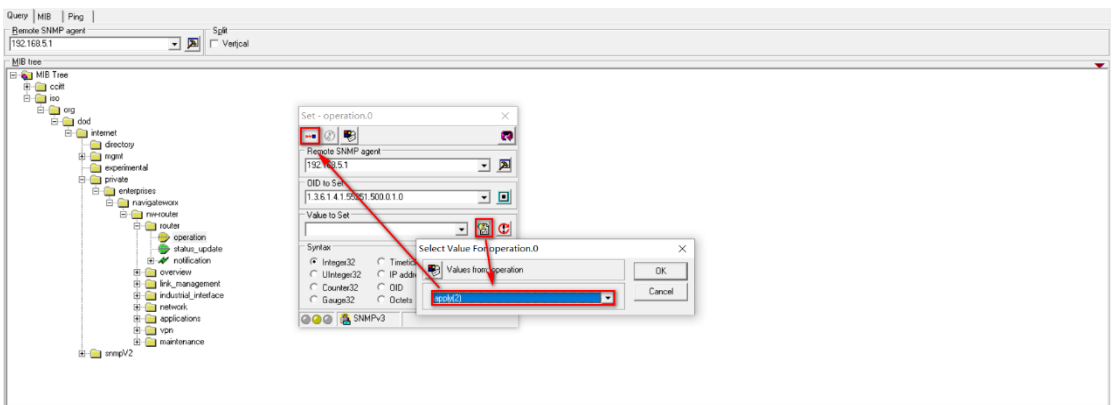1. Go to the "Telnet" Option, Right Click, then Click "Set":

2. Set the Port to "24", like below:

3. After setting, it needs to be saved. Go to "Save Operation" and save it:
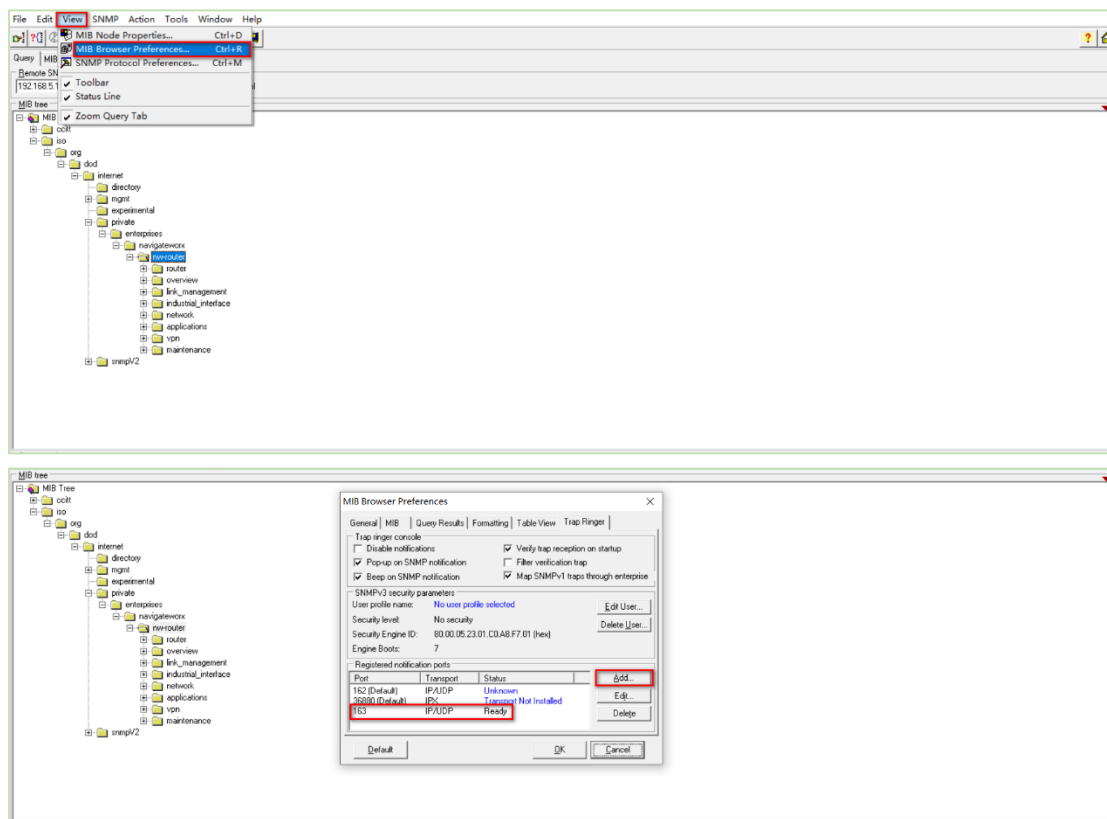
4. Then "Apply":

5. Log in to the router and the Tenet Port had been changed to "24":

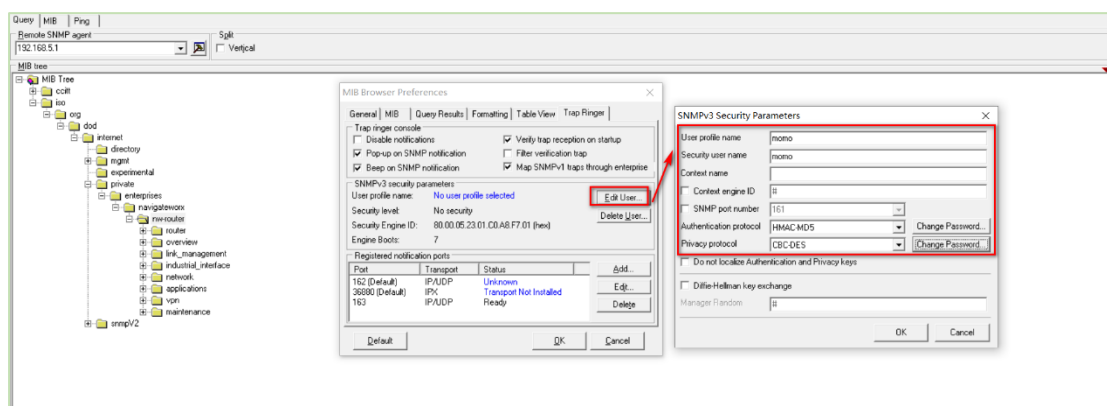| Overview	General	Accounts	Syslog	Web Server	Telnet	SSH	Security
Link Management	**General Settings**						
Industrial Interface				Telnet Port	24		
Network							

6. Test Successfully
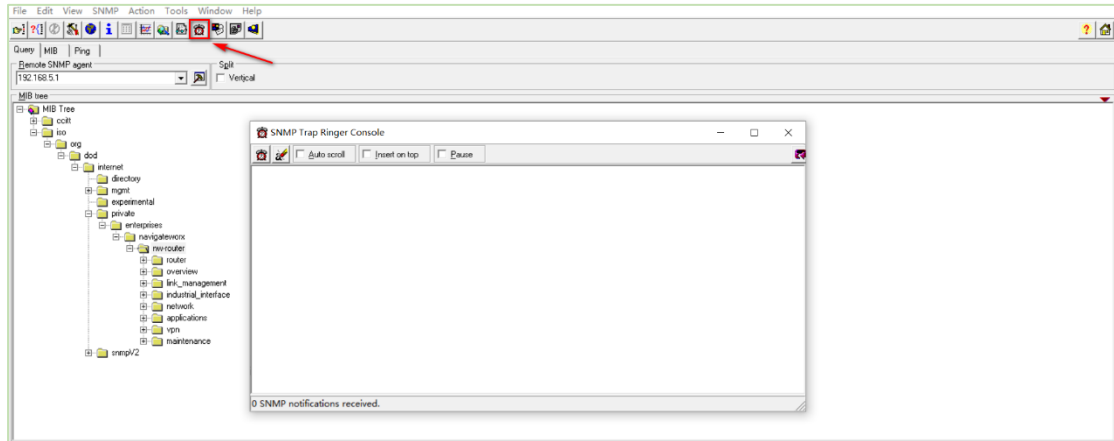
4.3 SNMP Trap Notification

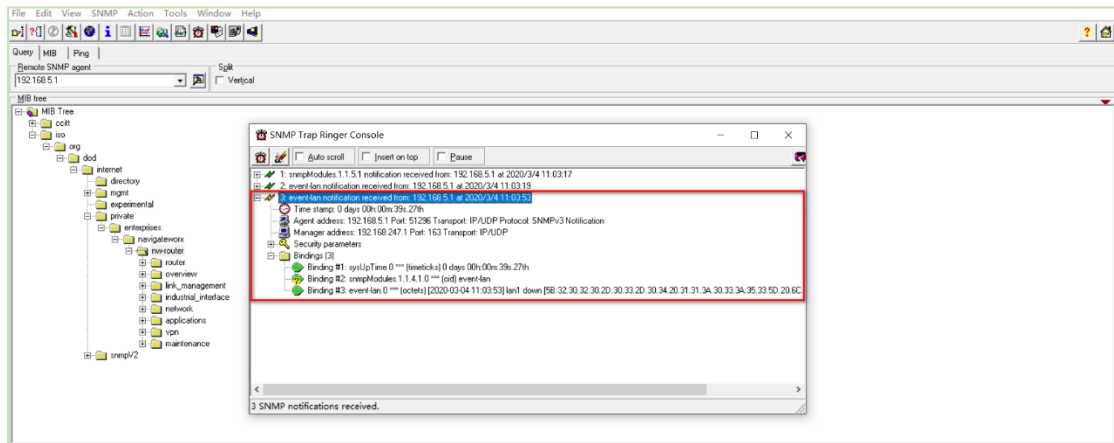For this AN, test SNMP Trap with UDP port 163, like below:

1. Add User and click "OK":

2. Open the SNMP Trap Ringer Console:

3. Remove the Ethernet Cable from LAN port of the router, then receive the LAN Notification on SNMP Management tool:

4. Test successfully.