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HONGDIAN

Application Guide

SNMP Configuration

Contents

Revision History

Updates between document versions are cumulative. Therefore, the latest document version contains all updates made to previous versions.

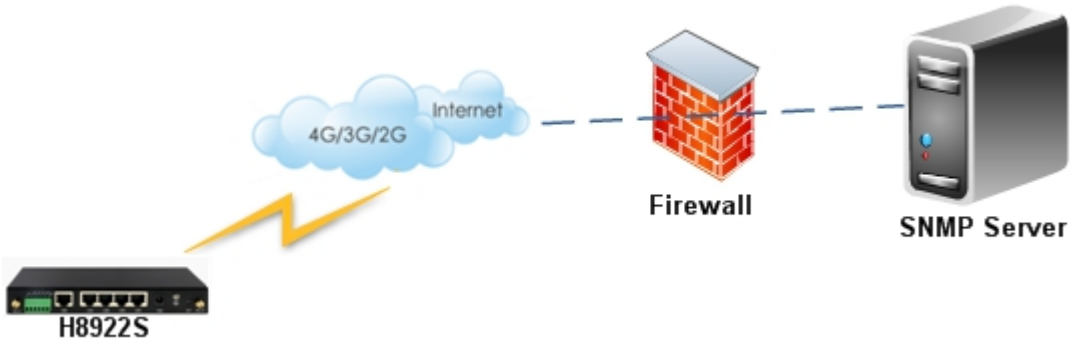
Doc Version	Product	Release Data	Details
V1.0	Hongdian Router	2017.08.23	First Release
V2.0	Hongdian Router	2020.09.03	

1 Overview

Simple Network Management Protocol (SNMP) is an Internet-standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior.
Here we describe the SNMP function list and operation of Hongdian Router for you.

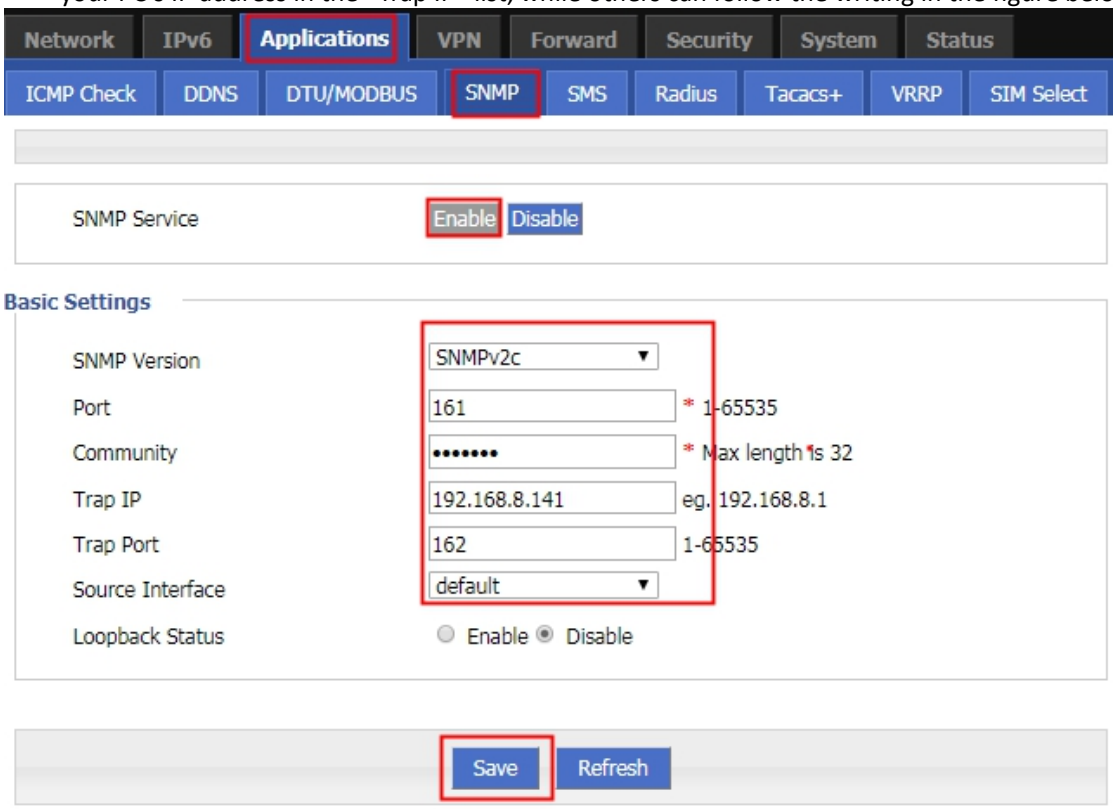
2 Description

2.1 Topology

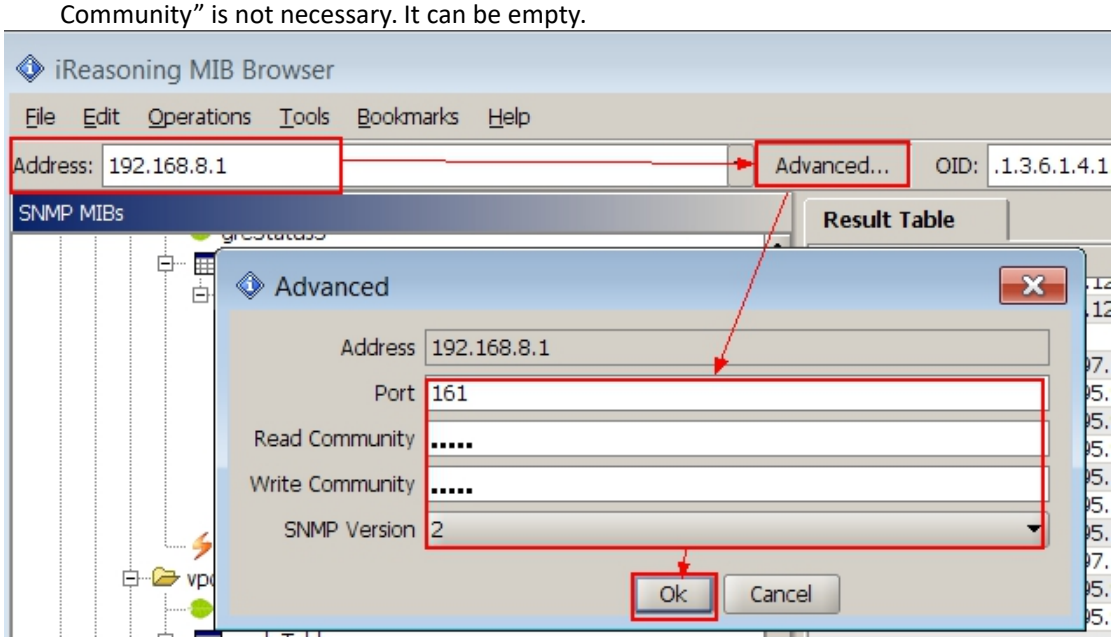


2.2 Hongdian Setup(SNMPV2c)

1. Let the PC connect to the router and browse into the router's configuration web page. Enter "Application->SNMP" page to configure the SNMP function. SNMP Version choose SNMPV2c，Wherein fill in your PC's IP address in the "Trap IP" list, while others can follow the writing in the figure below.

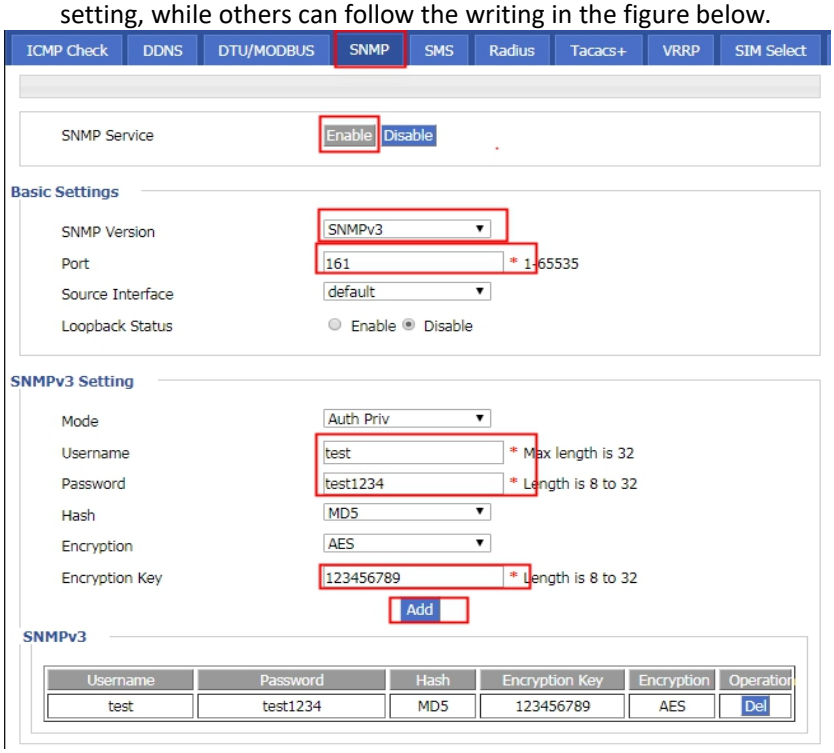


2. Turn to the MIB Browser on the PC, and fill in the "Address" with "192.168.8.1" so as to connect to the router. Then click "Advanced" icon to input the configuration info in the popup dialog. The "Write Community" is not necessary. It can be empty.

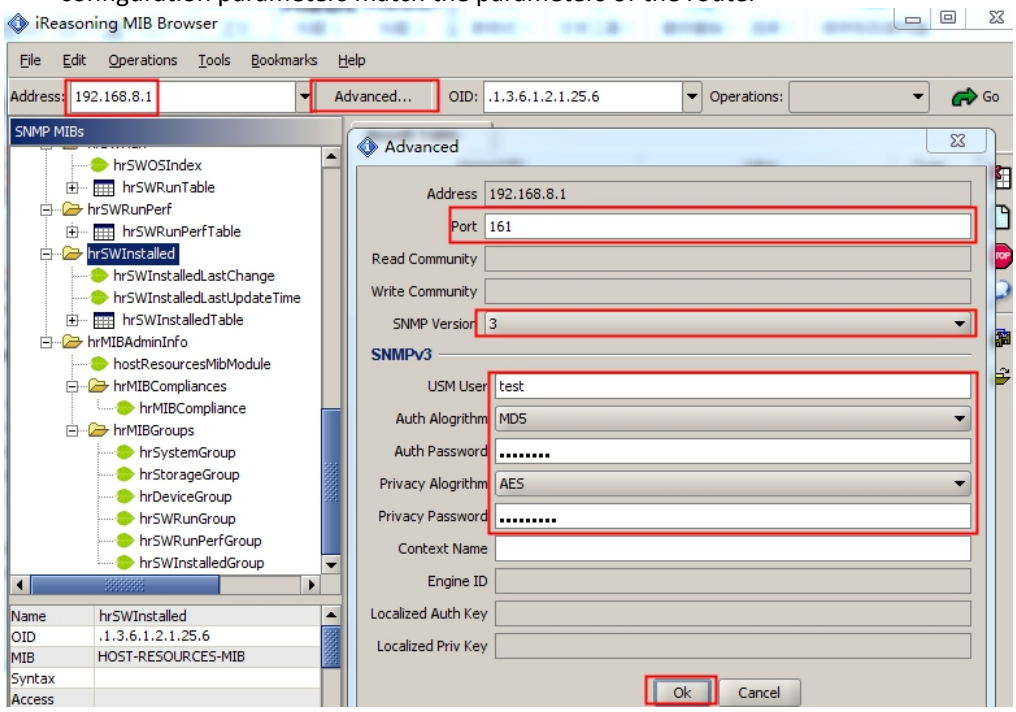


2.3 Hongdian Setup(SNMPV3)

1. Let the PC connect to the router and browse into the router's configuration web page. Enter "Application->SNMP" page to configure the SNMP function. SNMP Version choose SNMPV3, fill in SNMPV3 setting, while others can follow the writing in the figure below.

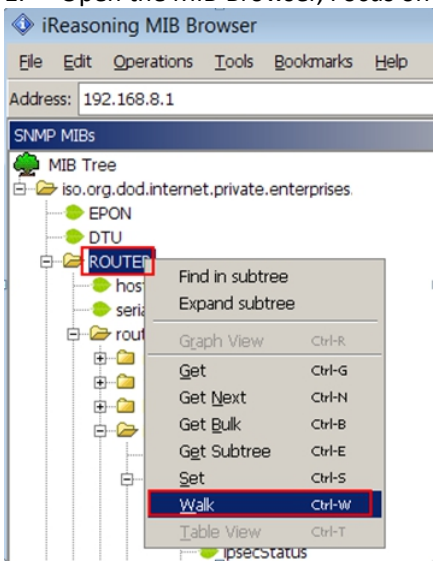


2. Turn to the MIB Browser on the PC, and fill in the "Address" with "192.168.8.1" so as to connect to the router. Then click "Advanced" icon to input the configuration info in the popup dialog. need make sure the configuration parameters match the parameters of the router



2.4 Check on SNMP server

1. Open the MIB Browser, Focus on "ROUTER" and right click to select "walk" on the popup menu as follows.



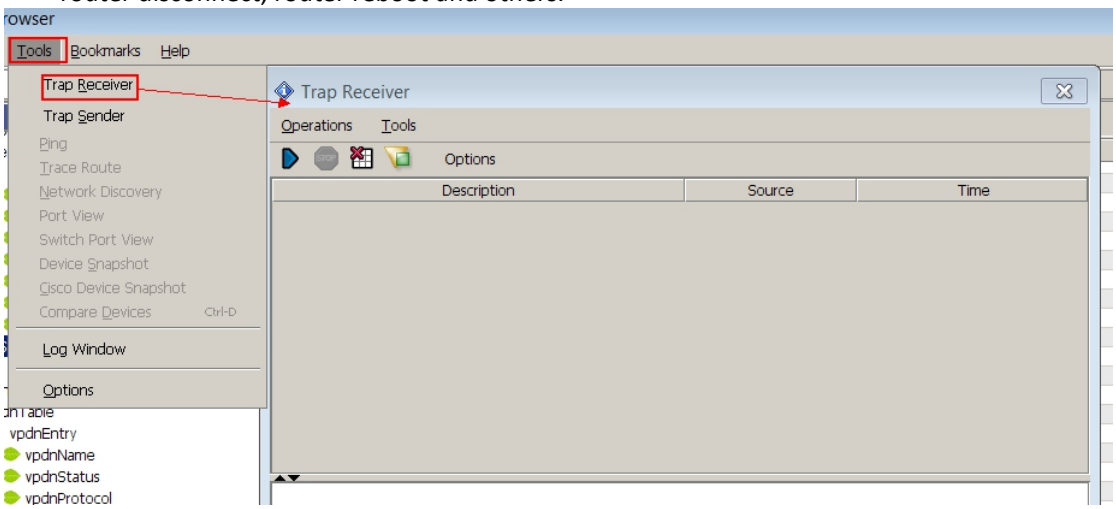
It will show all the valid values of the following list item to the "Result Table" of MIB browser, as the following pictures show

Name/OID	Value	Type
hostName.0	router	OctetStri...
serialNumber.0	12345678	OctetStri...
modemName.0	0	OctetStri...
modemStatus.0	connected	OctetStri...
modemNetType.0	wcdma	OctetStri...
modemDNS.0	120.80.80.80	OctetStri...
modemSIMStatus.0	sim1	OctetStri...
modemIP.0	10.76.248.28	OctetStri...
modemUpTime.0	0 days 0 hours 13 minutes 35 seconds	OctetStri...
modemFlowR.0	1139554	Counter32
modemFlowS.0	773823	Counter32
modemSingal.0	8	Integer
modemBSID.0	[lac:][ci:]	OctetStri...
modemGlobalIP.0	112.97.57.147	OctetStri...
wanName.0	eth0	OctetStri...
wanType.0	Static IP	OctetStri...
wanIP.0	192.168.10.1	OctetStri...
wanRemoteIP.0	192.168.10.1	OctetStri...
wanMASK.0	255.255.255.0	OctetStri...
wanMAC.0	20:15:01:01:00:00	OctetStri...
wanStatus.0	disconnected	OctetStri...
wanFlowR.0	2469165	Counter32
wanFlowS.0	1487109	Counter32
lanName.0	br0	OctetStri...
lanStatus.0	connected	OctetStri...
lanIP.0	192.168.8.1	OctetStri...
lanMASK.0	255.255.255.0	OctetStri...
lanMAC.0	20:15:01:01:00:00	OctetStri...
lanFlowR.0	2457802	Counter32
lanFlowS.0	1486941	Counter32
ipsecStatusS.0	disconnected	OctetStri...
greStatusS.0	disconnected	OctetStri...
vpdnStatusS.0	disconnected	OctetStri...
temperatureValue.0	0.00	OctetStri...

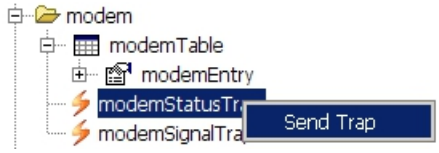
Wherein, on this running display, the router dose not enable VPN function, and it only shows the status of each VPN list which with the value is "disconnect". For the "ipsec" list, the value of "ipsecStatusS" is "disconnect", and the data items in the "ipsecEntry" do not exist in the MIB result table. It is the same as "gre" and "vpdn" list. If VPN is setup and used, it will show detail VPN interface information.

2. Open the popup dialog by “Tools->Trap Receiver” to receive the trap info by listening the port 162, such as

router disconnect, router reboot and others.



3. You can also send trap by manual, for example, right click “modemStatusTrap” under the “modem” list in the MIB Browser, then click “Send Trap” to open the Trap Sender dialog, as following figure shows.

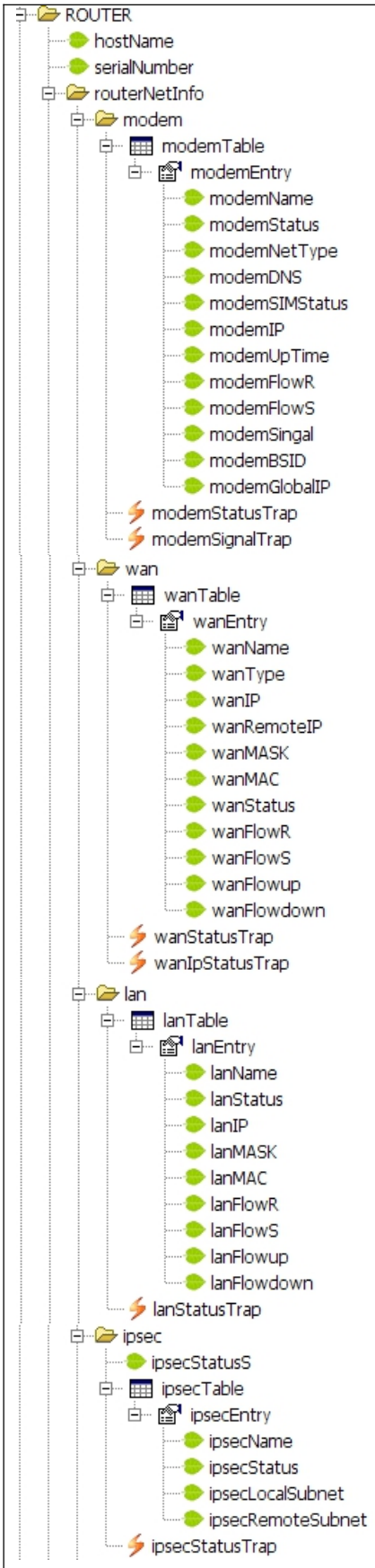


After checking the IP address and port correct in the Trap Sender dialog, click ”Send Trap” of this.

2.5 SNMP Function List

The router’s various objects information can be stored in the MIB data structure, Here is the list view and the detail information of MIB data to the router’s SNMP function. Load the router’s MIB file into the MIB Browser, and then you can see the list item info of the router, as the following table shows.

List View	Detail



General info under "ROUTER":
hostName: the hostname of the router.
serialNumber: the serial number of the router.

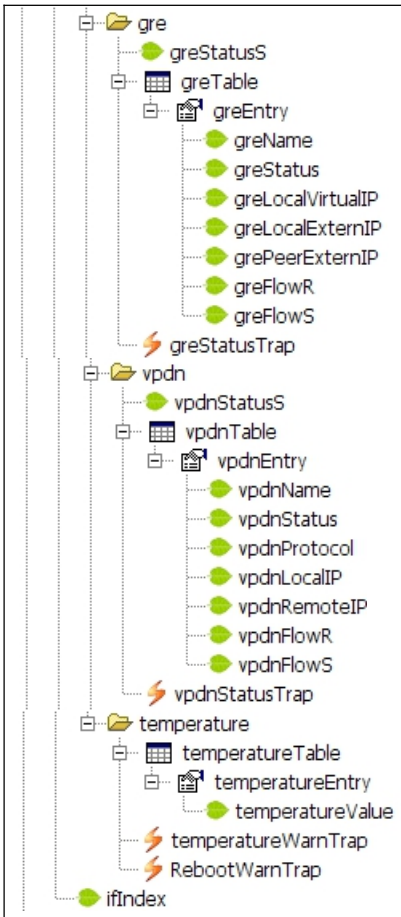
"modem" includes following info:
modemName: the interface name of the modem.
modemStatus: the modem status.
modemNetType: the network type of the modem.
modemDNS： the DNS of the modem network.
modemSIMStatus: the installation status of SIM card.
modemIP: the IP of the modem network.
modemUpTime: the up time of the modem.
modemFlowR: the total data flow received by the modem.
modemFlowS: the total data flow sent by the modem.
modemSignal: the signal strength value of the modem network.
modemBSID: the BSID in the modem.
modemGlobalIP: the global IP address of the modem network.

"wan" includes following info:
wanName: the interface name of the WAN port.
wanType: the connection type of WAN interface.
wanIP: the IP address of the WAN interface.
wanRemoteIP: the remote IP address of the WAN interface.
wanMASK: the subnet mask of the WAN interface.
wanMAC: the MAC address of the WAN interface.
wanStatus: the running status of the WAN interface.
wanFlowR: the total data flow received by the WAN interface.
wanFlowS: the total data flow sent by the WAN interface.
wanFlowup: the upload speed on the WAN interface.
wanFlowdown: the download speed on the WAN interface.

"lan" includes following info:
lanName: the interface name of the LAN port.
lanStatus: the running status of the LAN interface.
lanIP： the IP address of the LAN interface.
lanMASK: the subnet mask of the LAN interface.
lanMAC: the MAC address of the LAN interface.
lanFlowR: the total data flow received by the LAN interface.
lanFlowS: the total data flow sent by the LAN interface.
lanFlowup: the upload speed on the WAN interface.
lanFlowdown: the download speed on the WAN interface.

"ipsec" includes following info:
ipsecStatusS: the status of the IPSec service(general status).
ipsecName: the interface name of the IPSec network.
ipsecStatus: the running status of the IPSec network .
ipsecLocalSubnet: the local subnet of the IPSec network.
ipseRemoteSubnet: the remote subnet of the IPSec network.

"gre" includes following info:
greStatusS: the status of the GRE service(general status).



greName: the interface name of the GRE tunnel.
greStatus: the running status of the GRE tunnel.
greLocalVirtualIP: the local virtual IP of the GRE tunnel.
greLocalExternIP: the local external IP of the GRE tunnel.
grePeerExternIP: the peer external IP of the GRE tunnel.
greFlowR: the total data flow received by the GRE.
greFlowS: the total data flow sent by the GRE.

"vpdn" includes following info:
vpdnStatusS: the status of the VPDN service(general status).
vpdnName: the interface name of the VPDN.
vpdnStatus: the running status of the VPDN.
vpdnProtocol: the VPDN protocol.
vpdnLocalIP: the local IP of VPDN.
vpdnRemoteIP: the remote IP of VPDN.
vpdnFlowR: the total data flow received by the VPDN.
vpdnFlowS: the total data flow sent by the VPDN.

"temperature" includes following info:
temperatureValue: the temperature value of the equipment.

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