SAVARI™

StreetWAVE™ SNMP User Guide

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SAVARI™

Contents

Revision History

Sl No	Date	Chapter	Description
1	11th November 2017	SNMP User Guide	

1. Preface

This guide contains the Simple Network Management Protocol (SNMP) information of StreetWAVE™.

2. Objective

This User Guide is intended to explain the SNMP of StreetWAVE™ and to provide the information on the supported RSU MIB OID, UCI MIB, IPV6 MIB and Savari RSU proprietary MIB.

In SW1000 Release 5.9.1, Savari released a unified MIB file to minimize the CLI based parameter configuration. This unified MIB file is a superset of Standard RSU4.1 MIB and Savari Proprietary RSU MIB OIDs.

Unified MIB is named as RSU41_Savari_MIB.txt file which can be used by loading it in MIB browser.

Unified MIB is part of the SW image release information or please contact support@savari.net

Note: The terms “RSU”, “SW1000”, “StreetWAVE™” have been used interchangeably throughout this document.

3. Audience

Savari RSU SNMP user Guide is intended for users who configure and maintain StreetWAVE™

4. Organization

The chapters in this guide are organized as follows

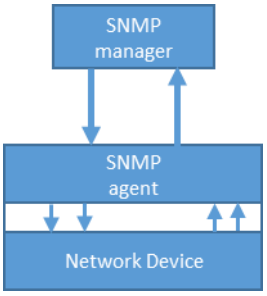
Chapter	Description
Getting Started	This chapter explains the pre-requisites, and procedures to log in and upload a MIB file
SNMP MIB Browser	This chapter explains procedures to use SNMP commands .

5. Simple Network Management Protocol (SNMP)

SNMP is a protocol that provides a message format for communication with the device. It defines a path by which the management information of a device can be viewed, changed or monitored by remote connection.

SNMP is made up of

1. SNMP MIB Browser
2. SNMP Agent
3. Network Device



SNMP MIB Browser: This is an application that uses the protocol to establish a connection and communicate with the SNMP Agent on the device to access the management information.

SNMP Agent: This is a software process within the device through which the manager speaks with the agent to access the management information.

Network Device: This is the hardware on which SNMP agent and the management information base is installed to view, change or monitor the operations of the device intended functions.

Management Information Base (MIB): This is a repository of management information. This standard that contains all the essential objects to constitute management information base of a device. MIB is used to view and/or work on the network management information to view, change or monitor the functions of the device.

StreetWAVE™ is installed and enabled with SNMP agent version 3, this is an improved version with security. This requires authentication to log in.

6. SNMP users

There are three users' in SNMP by default

- **Savari**: The Savari user is set with default authentication without any encryption.
- **Public**: The public user is an open user without authentication.
- **Admin**: The admin user has both authentication and encryption where the user needs a username and a password to enter admin user. Also, the queries sent, and the message received are encrypted.

Note: Multiple user with different login credentials can also be created using RSU CLI. Please RSU CLI User guide for more information on SNMP User Addition.

7. Getting Started

This chapter explains the pre-requisites and the method to log in to RSU using the SNMP MIB browser.

7.1. Pre-requisites

The following Information are needed to login to the RSU using an SNMP MIB browser.

1) SNMP MIB Browser Tool (Eg: iReasoning)
2) RSU – MIB Browser connectivity (Basic Ping Check)
3) Access Control List Addition in RSU (MIB Browser Laptop Host IP)
4) RSU SNMP Login Privileges (Username and Password)
   Note: Please refer RSU CLI User Guide to add ACL entries and SNMP Login privilege information details.

7.2. SNMP MIB Browser

This chapter explains the SNMP based RSU configurations using MIB browser. Here, for the document purpose, **iReasoning MIB Browser** tool is referred.

iReasoning SNMP MIB manager has two panes.

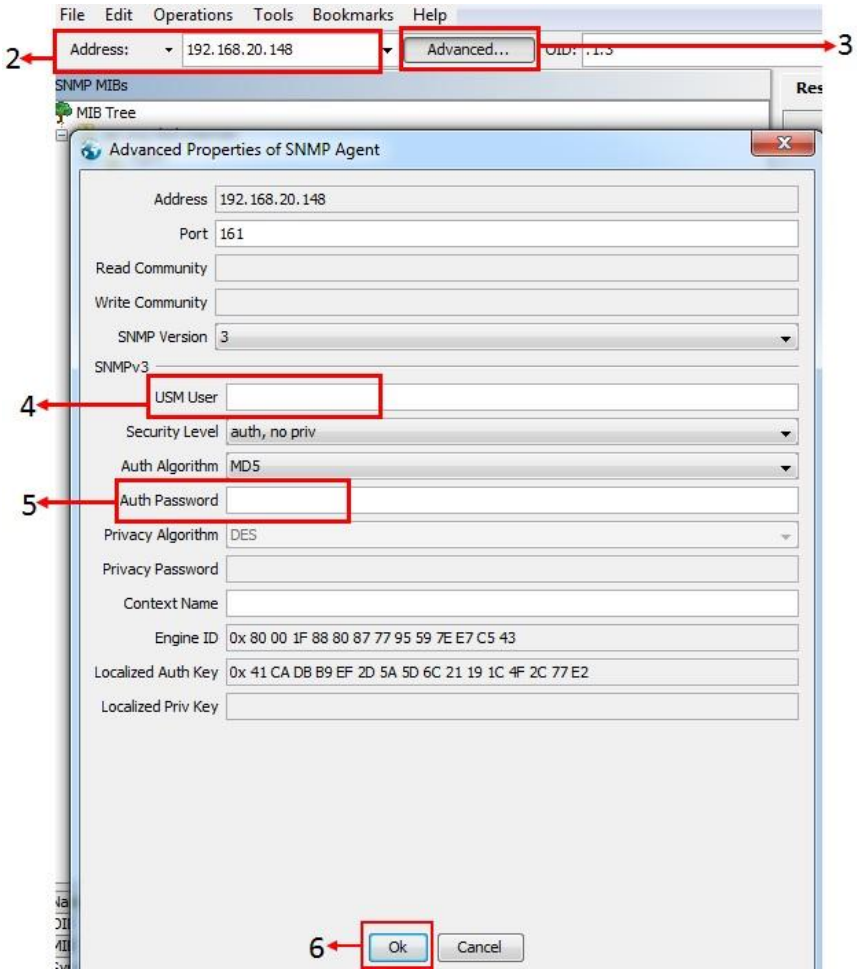
- The Index pane: On the Index pane you can view and navigate through the tree structure of the SNMP MIB. The upper part has the MIB tree. The lower part of the index pane displays the meta-data of the selected object.
- The Result pane: The selection and the command made on the Index pane is displayed on the result pane.

7.3. Login

Follow the procedure given below to log into the SNMP MIB Browser

1. Double click on the SNMP MIB Browser icon
2. At the top left-hand corner in the 'Address' box enter the RSU IP address (IPV4 or Global IPV6 IP address)
3. In 'Advanced' tab option, configure the RSU IP, Port as 161, SNMP Version as 3.
   a. SNMP Version 3 is recommended to read-write the RSU configuration.
4. USM user.
   a. Configure the same Security Level, Authentication Algorithm, Authentication Password, Privacy Algorithm and Privacy Password as in RSU for the identified User
5. RSU Supports all the three Security Level
   i No Authentication, No Privilege
   ii Authentication, No Privilege,
   iii Authentication, Privilege

6. RSU Supports MD5 and SHA Authentication Algorithm as well.
7. Click ‘ok’ after all the required mandatory fields
8. A pictorial representation of the procedure is given below



7.4. Uploading MIB file

Follow the procedure given below to upload MIB file to SNMP MIB Browser

After a successful login to MIB Browser,

1. Click ‘File’ on the menu bar, select ‘Load MIBs’
   a A wizard will open prompting you to select the MIB file
2. Select the MIB file from its saved location on your computer
3. Click ‘open’

7.5. SNMP MIB

The SNMP MIBs are designed as a tree structure which are housed in the index pane. Each object in the tree has a unique object identifier (OID). The objects can have sub-sets. Each sub-set object takes an extension OID on the parent object OID.

7.6. Object Identifier (OID)

The OID of an object identifier number, it can be viewed by clicking on the object and the meta-data will appear below the MIB tree (for details refer Object meta-date). It can also be viewed by selecting an object and hovering over it.

7.7. SNMP command reference

A detailed explanation of the SNMP commands is given below. The parentheses contain the keyboard shortcut for the SNMP command.

Graph View (Ctrl+R): Shows the performance of the object in a graph.

Get Next (Ctrl+N): Displays the value of the object next to the selected object on the MIB tree.

Get Bulk (Ctrl+B): Displays the values of all the selected objects. Follow the procedure given below to Get Bulk

1. Select an object
2. Press Ctrl
3. Select other objects
4. Select Get Bulk

Get Subtree (Ctrl+E): Displays all the values of the subtree objects.

Walk (Ctrl+W): Displays the values from the selected object to the last object in the tree.

8. Supported MIBs

8.1. RSU4.1 Standard MIB

The list of RSU4.1 Standard MIB supported in SW1000 Release 5.9.1 are as follows:

· rsuContMacAddress	1.0.15628.4.1.1.0
· rsuAltMacAddress	1.0.15628.4.1.2.0
· rsuGpsStatus	1.0.15628.4.1.3.0
rsuSRMStatusTable	1.0.15628.4.1.4
· rsuSRMIndex	1.0.15628.4.1.4.1.1
· rsuSRMPsid	1.0.15628.4.1.4.1.2
· rsuSRMDsrcMsgId	1.0.15628.4.1.4.1.3
· rsuSRMTXMode	1.0.15628.4.1.4.1.4
· rsuSRMTxChannel	1.0.15628.4.1.4.1.5
· rsuSRMTxInterval	1.0.15628.4.1.4.1.6
· rsuSRMDeliveryStart	1.0.15628.4.1.4.1.7
· rsuSRMDeliveryStop	1.0.15628.4.1.4.1.8
· rsuSRMPayload	1.0.15628.4.1.4.1.9
· rsuSRMEnable	1.0.15628.4.1.4.1.10
· rsuSRMStatus	1.0.15628.4.1.4.1.11
rsuDsrcForwardTable	1.0.15628.4.1.7
· rsuDsrcFwdIndex	1.0.15628.4.1.7.1.1
· rsuDsrcFwdPsid	1.0.15628.4.1.7.1.2
· rsuDsrcFwdDestIpAddr	1.0.15628.4.1.7.1.3
· rsuDsrcFwdDestPort	1.0.15628.4.1.7.1.4
· rsuDsrcFwdProtocol	1.0.15628.4.1.7.1.5
· rsuDsrcFwdRssi	1.0.15628.4.1.7.1.6
· rsuDsrcFwdMsgInterval	1.0.15628.4.1.7.1.7
· rsuDsrcFwdDeliveryStart	1.0.15628.4.1.7.1.8
· rsuDsrcFwdDeliveryStop	1.0.15628.4.1.7.1.9
· rsuDsrcFwdEnable	1.0.15628.4.1.7.1.10
· rsuDsrcFwdStatus	1.0.15628.4.1.7.1.11
rsuGpsOutput	1.0.15628.4.1.8
· rsuGpsOutputPort	1.0.15628.4.1.8.1.0
· rsuGpsOutputAddress	1.0.15628.4.1.8.2.0
· rsuGpsOutputInterface	1.0.15628.4.1.8.3.0
· rsuGpsOutputInterval	1.0.15628.4.1.8.4.0
· rsuGpsOutputString	1.0.15628.4.1.8.5.0
· rsuGpsRefLat	1.0.15628.4.1.8.6.0
· rsuGpsRefLon	1.0.15628.4.1.8.7.0
· rsuGpsRefElv	1.0.15628.4.1.8.8.0

· rsuGpsMaxDeviation	1.0.15628.4.1.8.9.0
rsuInterfaceLogTable	1.0.15628.4.1.9
· rsuIfaceLogIndex	1.0.15628.4.1.9.1.1
· rsuIfaceGenerate	1.0.15628.4.1.9.1.2
· rsuIfaceMaxFileSize	1.0.15628.4.1.9.1.3
· rsuIfaceMaxFileTime	1.0.15628.4.1.9.1.4
· rsuIfaceName	1.0.15628.4.1.9.1.6
rsuDsrcChannelModeEntry	1.0.15628.4.1.12
· rsuDCMIndex	1.0.15628.4.1.12.1.1
· rsuDCMRadio	1.0.15628.4.1.12.1.2
· rsuDCMMode	1.0.15628.4.1.12.1.3
· rsuDCMCCH	1.0.15628.4.1.12.1.4
· rsuDCMSCH	1.0.15628.4.1.12.1.5
rsuSystemStats	1.0.15628.4.1.16
· rsuLastLoginTime	1.0.15628.4.1.16.3.0
· rsuLastLoginUser	1.0.15628.4.1.16.4.0
rsuSysDescription	1.0.15628.4.1.17
· rsuFirmwareVersion	1.0.15628.4.1.17.2.0
· rsuID	1.0.15628.4.1.17.4.0
rsuSysSettings	1.0.15628.4.1.18
· rsuTxPower	1.0.15628.4.1.18.1.0
· rsuNotifyIpAddress	1.0.15628.4.1.18.2.0
· rsuNotifyPort	1.0.15628.4.1.18.3.0
· rsuSysLogCloseDay	1.0.15628.4.1.18.4.0
· rsuSyslogCloseTime	1.0.15628.4.1.18.5.0
· rsuSyslogDeleteDay	1.0.15628.4.1.18.6.0
· rsuSyslogDeleteAge	1.0.15628.4.1.18.7.0

Note:

1) While configuring an application, the user must enable the application using Savari Proprietary as well. In RSU, All the applications are disabled by default.
2) **iReasoning** does not support delete row operations.
3) During SNMP Walk Operations, if GetNextRequest is not Triggered by iReasoning, we suggest the user to Restart the browser

8.2. Savari Proprietary MIB

The list of Savari Proprietary MIB supported in SW1000 Release 5.9.1 are (part of the **RSU41_Savari**_MIB.txt file.) as follows:

StoreRepeatTable	.1.0.15628.4.1.50
· Entry	.1.0.15628.4.1.50.1
· Index	.1.0.15628.4.1.50.1.1
· Enable	.1.0.15628.4.1.50.1.2
· Filepath	.1.0.15628.4.1.50.1.3
· StreamingMode	.1.0.15628.4.1.50.1.4
· StreamingPort	.1.0.15628.4.1.50.1.5
· StreamingIpaddr	.1.0.15628.4.1.50.1.6
· Certificate-attachrate	.1.0.15628.4.1.50.1.7
ImmediateForwdTable	.1.0.15628.4.1.51
· Entry	.1.0.15628.4.1.51.1
· Index	.1.0.15628.4.1.51.1.1
· Enable	.1.0.15628.4.1.51.1.2
· ListenerPort	.1.0.15628.4.1.51.1.3
· StreamingMode	.1.0.15628.4.1.51.1.4
· StreamingPort	.1.0.15628.4.1.51.1.5
· StreamingIp	.1.0.15628.4.1.51.1.6
· TcdListen	.1.0.15628.4.1.51.1.7
· Certificate-attachrate	.1.0.15628.4.1.51.1.8
Ntpclient	.1.0.15628.4.1.52
· ntpclientHostname	.1.0.15628.4.1.52.1.0
ipv6-provider	.1.0.15628.4.1.53
· Enable	.1.0.15628.4.1.53.1.0
· WsaSecurity	.1.0.15628.4.1.53.2.0
· WsaAdvertiserId	.1.0.15628.4.1.53.3.0
· WsaRepeatRate	.1.0.15628.4.1.53.4.0
Tcd	.1.0.15628.4.1.54
· Entry	.1.0.15628.4.1.54.1
· Index	.1.0.15628.4.1.54.1.1
· Enable	.1.0.15628.4.1.54.1.2
· Mode	.1.0.15628.4.1.54.1.3
· TcIpaddr	.1.0.15628.4.1.54.1.4
· TcPort	.1.0.15628.4.1.54.1.5
· TcType	.1.0.15628.4.1.54.1.6
· SpatTxInterval	.1.0.15628.4.1.54.1.7
· MapTxInterval	.1.0.15628.4.1.54.1.8
· EnableSendRedStates	.1.0.15628.4.1.54.1.9

· Mapfile	.1.0.15628.4.1.54.1.10
· BattellePort	.1.0.15628.4.1.54.1.11
· SpatPsid	.1.0.15628.4.1.54.1.12
· SpatPriority	.1.0.15628.4.1.54.1.13
· SpatSignature	.1.0.15628.4.1.54.1.14
· SpatEncryption	.1.0.15628.4.1.54.1.15
· MapPsid	.1.0.15628.4.1.54.1.16
· MapPriority	.1.0.15628.4.1.54.1.17
· MapSignature	.1.0.15628.4.1.54.1.18
· MapEncryption	.1.0.15628.4.1.54.1.19
· SpatTxEnabledLanes	.1.0.15628.4.1.54.1.20
· EnableSpatCertAtchopt	.1.0.15628.4.1.54.1.21
· SpatCertAttachRate	.1.0.15628.4.1.54.1.22
· MapCertAttachRate	.1.0.15628.4.1.54.1.23
Network	.1.0.15628.4.1.55
· Entry	.1.0.15628.4.1.55.1
· Index	.1.0.15628.4.1.55.1.1
· Proto	.1.0.15628.4.1.55.1.2
· Ipaddress	.1.0.15628.4.1.55.1.3
· Ipnetmask	.1.0.15628.4.1.55.1.4
· Ipgateway	.1.0.15628.4.1.55.1.5
· Ip6address	.1.0.15628.4.1.55.1.6
· Ip6gateway	.1.0.15628.4.1.55.1.7
InterfaceLog	.1.0.15628.4.1.56
· Enable	.1.0.15628.4.1.56.1.0
(DSRC) Message Forward	.1.0.15628.4.1.57
· Enable	.1.0.15628.4.1.57.1.0
Acl	.1.0.15628.4.1.58
· ipv4Table	.1.0.15628.4.1.58.1
· ipv4Entry	.1.0.15628.4.1.58.1.1
· ipv4Index	.1.0.15628.4.1.58.1.1.1
· ipv4Address	.1.0.15628.4.1.58.1.1.2
· ipv4RowStatusRowStatus	.1.0.15628.4.1.58.1.1.3
· ipv6Table	.1.0.15628.4.1.58.2
· ipv6Entry	.1.0.15628.4.1.58.2.1
· ipv6Index	.1.0.15628.4.1.58.2.1.1
· ipv6Address	.1.0.15628.4.1.58.2.1.2
· ipv6RowStatusRowStatus	.1.0.15628.4.1.58.2.1.3
FirewallRules	.1.0.15628.4.1.59
· Entry	.1.0.15628.4.1.59.1

· Index	.1.0.15628.4.1.59.1.1
· IpType	.1.0.15628.4.1.59.1.2
· Proto	.1.0.15628.4.1.59.1.3
· DestPort	.1.0.15628.4.1.59.1.4
· Target	.1.0.15628.4.1.59.1.5
· DestIp	.1.0.15628.4.1.59.1.6
· SrcPort	.1.0.15628.4.1.59.1.7
· SrcDport	.1.0.15628.4.1.59.1.8
· SrcIp	.1.0.15628.4.1.59.1.9
· RowStatusRowStatus	.1.0.15628.4.1.59.1.10
rsuMode	.1.0.15628.4.1.99.0

(Note: The OID range from 15628.4.1.50.XX to 15628.4.1.59.XX are Savari MIB OID)

The description for each of the Proprietary MIB OID can be found in Meta Data description display as mentioned in the 'Object Meta-Data' Section.

8.3. IPV6 MIB

The list of supported 'RSU4.1 IPV6 MIB objects' category MIBs in SW1000 5.9.1 are as follows:

ipv6Forwarding	1.3.6.1.2.1.55.1.1.0
ipv6DefaultHopLimit	1.3.6.1.2.1.55.1.2.0
ipv6Interfaces	1.3.6.1.2.1.55.1.3.0
ipv6IfDescr	1.3.6.1.2.1.55.1.5.1.2
ipv6IfLowerLayer	1.3.6.1.2.1.55.1.5.1.3
ipv6IfEffectiveMtu	1.3.6.1.2.1.55.1.5.1.4
ipv6IfPhysicalAddress	1.3.6.1.2.1.55.1.5.1.8
ipv6IfAdminStatus	1.3.6.1.2.1.55.1.5.1.9
ipv6IfOperStatus	1.3.6.1.2.1.55.1.10

8.4. MIBII MIB

The list of supported 'RSU4.1 General MIB objects' category MIBs in SW1000 5.9.1 are as follows:

sysDescr	1.3.6.1.2.1.1.1
sysObjectID	1.3.6.1.2.1.1.2
sysContact	1.3.6.1.2.1.1.4
sysName	1.3.6.1.2.1.1.5
sysLocation	1.3.6.1.2.1.1.6
sysServices	1.3.6.1.2.1.1.7
ifNumber	1.3.6.1.2.1.2.1

ifIndex	1.3.6.1.2.1.2.2.1.1
ifDescr	1.3.6.1.2.1.2.2.1.2
ifType	1.3.6.1.2.1.2.2.1.3
ifMtu	1.3.6.1.2.1.2.2.1.4
ifSpeed	1.3.6.1.2.1.2.2.1.5
ifPhysAddress	1.3.6.1.2.1.2.2.1.6
ifAdminStatus	1.3.6.1.2.1.2.2.1.7
ifOperStatus	1.3.6.1.2.1.2.2.1.8
ifLastChange	1.3.6.1.2.1.2.2.1.9
ifInOctets	1.3.6.1.2.1.2.2.1.10
ifInUcastPkts	1.3.6.1.2.1.2.2.1.11
ifInNUcastPkts	1.3.6.1.2.1.2.2.1.12
ifInDiscards	1.3.6.1.2.1.2.2.1.13
ifInErrors	1.3.6.1.2.1.2.2.1.14
ifInUnknownProtos	1.3.6.1.2.1.2.2.1.15
ifOutOctets	1.3.6.1.2.1.2.2.1.16
ifOutUcastPkts	1.3.6.1.2.1.2.2.1.17
ifOutNUcastPkts	1.3.6.1.2.1.2.2.1.18
ifOutDiscards	1.3.6.1.2.1.2.2.1.19
ifOutErrors	1.3.6.1.2.1.2.2.1.20
ifOutQLen	1.3.6.1.2.1.2.2.1.21
ifSpecific	1.3.6.1.2.1.2.2.1.22
ipForwarding	1.3.6.1.2.1.4.1
ipDefaultTTL	1.3.6.1.2.1.4.2
ipInReceives	1.3.6.1.2.1.4.3
ipInHdrErrors	1.3.6.1.2.1.4.4
ipInAddrErrors	1.3.6.1.2.1.4.5
ipForwDatagrams	1.3.6.1.2.1.4.6
ipInUnknownProtos	1.3.6.1.2.1.4.7
ipInDiscards	1.3.6.1.2.1.4.8
ipInDelivers	1.3.6.1.2.1.4.9
ipOutRequests	1.3.6.1.2.1.4.10
ipOutDiscards	1.3.6.1.2.1.4.11
ipOutNoRoutes	1.3.6.1.2.1.4.12
ipReasmTimeout	1.3.6.1.2.1.4.13
ipReasmReqds	1.3.6.1.2.1.4.14
ipReasmOKs	1.3.6.1.2.1.4.15
ipReasmFails	1.3.6.1.2.1.4.16
ipFragOKs	1.3.6.1.2.1.4.18
ipFragFails	1.3.6.1.2.1.4.18

ipFragCreates	1.3.6.1.2.1.4.19
ipAdEntAddr	1.3.6.1.2.1.4.20.1.1
ipAdEntIfIndex	1.3.6.1.2.1.4.20.1.2
ipAdEntNetMask	1.3.6.1.2.1.4.20.1.3
ipAdEntBcastAddr	1.3.6.1.2.1.4.20.1.4
ipNetToMediaIfIndex	1.3.6.1.2.1.4.22.1.1
ipNetToMediaPhysAddress	1.3.6.1.2.1.4.22.1.2
ipNetToMediaNetAddress	1.3.6.1.2.1.4.22.1.3
ipNetToMediaType	1.3.6.1.2.1.4.22.1.4
ipRoutingDiscards	1.3.6.1.2.1.4.23
icmpInMsgs	1.3.6.1.2.1.5.1
icmpInErrors	1.3.6.1.2.1.5.2
icmpInDestUnreachs	1.3.6.1.2.1.5.3
icmpInTimeExcds	1.3.6.1.2.1.5.4
icmpInParmProbs	1.3.6.1.2.1.5.5
icmpInSrcQuenchs	1.3.6.1.2.1.5.6
icmpInRedirects	1.3.6.1.2.1.5.7
icmpInEchos	1.3.6.1.2.1.5.8
icmpInEchoReps	1.3.6.1.2.1.5.9
icmpInTimestamps	1.3.6.1.2.1.5.10
icmpInTimestampReps	1.3.6.1.2.1.5.11
icmpInAddrMasks	1.3.6.1.2.1.5.12
icmpInAddrMaskReps	1.3.6.1.2.1.5.13
icmpOutMsgs	1.3.6.1.2.1.5.14
icmpOutErrors	1.3.6.1.2.1.5.15
icmpOutDestUnreachs	1.3.6.1.2.1.5.16
icmpOutTimeExcds	1.3.6.1.2.1.5.17
icmpOutParmProbs	1.3.6.1.2.1.5.18
icmpOutSrcQuenchs	1.3.6.1.2.1.5.19
icmpOutRedirects	1.3.6.1.2.1.5.20
icmpOutEchos	1.3.6.1.2.1.5.21
icmpOutEchoReps	1.3.6.1.2.1.5.22
icmpOutTimestamps	1.3.6.1.2.1.5.23
icmpOutTimestampReps	1.3.6.1.2.1.5.24
icmpOutAddrMasks	1.3.6.1.2.1.5.25
icmpOutAddrMaskReps	1.3.6.1.2.1.5.26
tcpRtoAlgorithm	1.3.6.1.2.1.6.1
tcpRtoMin	1.3.6.1.2.1.6.2
tcpRtoMax	1.3.6.1.2.1.6.3
tcpMaxConn	1.3.6.1.2.1.6.4

tcpActiveOpens	1.3.6.1.2.1.6.5
tcpPassiveOpens	1.3.6.1.2.1.6.6
tcpAttemptFails	1.3.6.1.2.1.6.7
tcpEstabResets	1.3.6.1.2.1.6.8
tcpCurrEstab	1.3.6.1.2.1.6.9
tcpInSegs	1.3.6.1.2.1.6.10
tcpOutSegs	1.3.6.1.2.1.6.11
tcpRetransSegs	1.3.6.1.2.1.6.12
tcpConnState	1.3.6.1.2.1.6.13.1.1
tcpConnLocalAddress	1.3.6.1.2.1.6.13.1.2
tcpConnLocalPort	1.3.6.1.2.1.6.13.1.3
tcpConnRemAddress	1.3.6.1.2.1.6.13.1.4
tcpConnRemPort	1.3.6.1.2.1.6.13.1.5
udpInDatagrams	1.3.6.1.2.1.7.1
udpNoPorts	1.3.6.1.2.1.7.2
udpInErrors	1.3.6.1.2.1.7.3
udpOutDatagrams	1.3.6.1.2.1.7.4
udpLocalAddress	1.3.6.1.2.1.7.5.1.1
udpLocalPort	1.3.6.1.2.1.7.5.1.2
snmpInPkts	1.3.6.1.2.1.11.1
snmpOutPkts	1.3.6.1.2.1.11.2
snmpInBadVersions	1.3.6.1.2.1.11.3
snmpInBadCommunityNames	1.3.6.1.2.1.11.4
snmpInBadCommunityUses	1.3.6.1.2.1.11.5
snmpInASNParseErrs	1.3.6.1.2.1.11.6
snmpInTooBigs	1.3.6.1.2.1.11.8
snmpInNoSuchNames	1.3.6.1.2.1.11.9
snmpInBadValues	1.3.6.1.2.1.11.10
snmpInReadOnlys	1.3.6.1.2.1.11.11
snmpInGenErrs	1.3.6.1.2.1.11.12
snmpInTotalReqVars	1.3.6.1.2.1.11.13
snmpInTotalSetVars	1.3.6.1.2.1.11.14
snmpInGetRequests	1.3.6.1.2.1.11.15
snmpInGetNexts	1.3.6.1.2.1.11.16
snmpInSetRequests	1.3.6.1.2.1.11.17
snmpInGetResponses	1.3.6.1.2.1.11.18
snmpInTraps	1.3.6.1.2.1.11.19
snmpOutTooBigs	1.3.6.1.2.1.11.20
snmpOutNoSuchNames	1.3.6.1.2.1.11.21
snmpOutBadValues	1.3.6.1.2.1.11.22

snmpOutGenErrs	1.3.6.1.2.1.11.24
snmpOutGetRequests	1.3.6.1.2.1.11.25
snmpOutGetNexts	1.3.6.1.2.1.11.26
snmpOutSetRequests	1.3.6.1.2.1.11.27
snmpOutGetResponses	1.3.6.1.2.1.11.28
snmpOutTraps	1.3.6.1.2.1.11.29
snmpEnableAuthenTraps	1.3.6.1.2.1.11.30

8.5. UCI MIB

The list of supported UCI MIBs in SW1000 5.9.1 are as follows:

Memory	1.3.6.1.4.1.2021.4
· memErrorName	1.3.6.1.4.1.2021.4.2
· memTotalReal	1.3.6.1.4.1.2021.4.5
· memAvailReal	1.3.6.1.4.1.2021.4.6
· memTotalFree	1.3.6.1.4.1.2021.4.11
· memMinimumSwap	1.3.6.1.4.1.2021.4.12
· memShared	1.3.6.1.4.1.2021.4.13
· memBuffer	1.3.6.1.4.1.2021.4.14
· memCached	1.3.6.1.4.1.2021.4.15
· memSwapError	1.3.6.1.4.1.2021.4.100
· memSwapErrorMsg	1.3.6.1.4.1.2021.4.101
DskTable	1.3.6.1.4.1.2021.9
· dskIndex	1.3.6.1.4.1.2021.9.1.1
· dskPath	1.3.6.1.4.1.2021.9.1.2
· dskDevice	1.3.6.1.4.1.2021.9.1.3
· dskMinimum	1.3.6.1.4.1.2021.9.1.4
· dskMinPercent	1.3.6.1.4.1.2021.9.1.5
· dskTotal	1.3.6.1.4.1.2021.9.1.6
· dskAvail	1.3.6.1.4.1.2021.9.1.7
· dskTotalLow	1.3.6.1.4.1.2021.9.1.11
· dskAvailLow	1.3.6.1.4.1.2021.9.1.13
laTable	1.3.6.1.4.1.2021.10
· laIndex	1.3.6.1.4.1.2021.10.1.1
· laNames	1.3.6.1.4.1.2021.10.1.2
· laLoad	1.3.6.1.4.1.2021.10.1.3
· laConfig	1.3.6.1.4.1.2021.10.1.4
· laLoadInt	1.3.6.1.4.1.2021.10.1.5
· laLoadFloat	1.3.6.1.4.1.2021.10.1.6
· laErrMessage	1.3.6.1.4.1.2021.10.1.101
SystemStats	1.3.6.1.4.1.2021.11

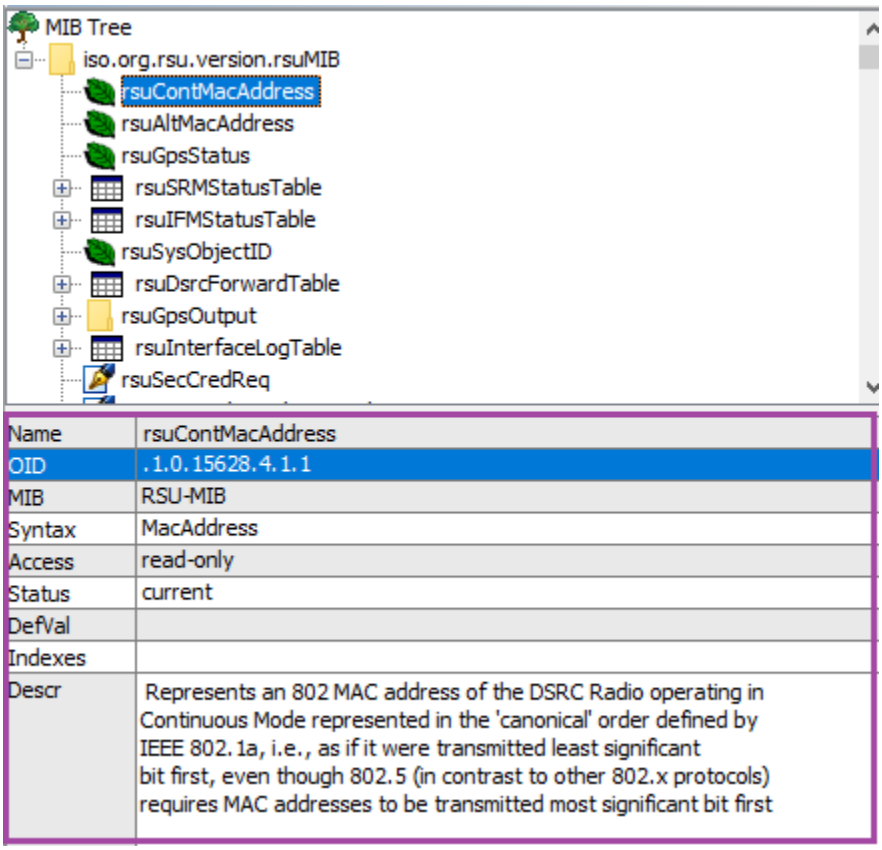
· ssindex	1.3.6.1.4.1.2021.11.1
· ssErrorName	1.3.6.1.4.1.2021.11.2
· ssSysinterrupts	1.3.6.1.4.1.2021.11.7
· ssSysContext	1.3.6.1.4.1.2021.11.8
· ssCpuUser	1.3.6.1.4.1.2021.11.9
· ssCpuSystem	1.3.6.1.4.1.2021.11.10
· ssCpuIdle	1.3.6.1.4.1.2021.11.11
· ssCpuRawUser	1.3.6.1.4.1.2021.11.50
· ssCpuRawSystem	1.3.6.1.4.1.2021.11.52
· ssCpuRawIdle	1.3.6.1.4.1.2021.11.53
· ssCpuRawWait	1.3.6.1.4.1.2021.11.54
· ssCpuRawInterrupt	1.3.6.1.4.1.2021.11.56
· ssRawInterrupts	1.3.6.1.4.1.2021.11.59
· ssRawContexts	1.3.6.1.4.1.2021.11.60
· ssCpuRawSoftIRQ	1.3.6.1.4.1.2021.11.61
LogMatch	1.3.6.1.4.1.2021.16
· logMatchMaxEntries	1.3.6.1.4.1.2021.16.1
Version	1.3.6.1.4.1.2021.100
· versionIndex	1.3.6.1.4.1.2021.100.1
· versionTag	1.3.6.1.4.1.2021.100.2
· versionDate	1.3.6.1.4.1.2021.100.3
· versionCDate	1.3.6.1.4.1.2021.100.4
· versionIdent	1.3.6.1.4.1.2021.100.5
· versionConfigureOptions	1.3.6.1.4.1.2021.100.6
snmperrs	1.3.6.1.4.1.2021.101
· snmperNames	1.3.6.1.4.1.2021.101.2

9. Objects meta-data

Object meta data information are specific to each Object (OID). This meta-data display describes the following information of each OID.

Name	Description
Name	Name of the object
OID	Unique object identifier of the object
MIB	Name of MIB
Syntax	Syntax of the MIB
Access	Defines if the object is editable or not editable
Status	Defines if the object is mandatory or not mandatory
Descr	Description of the object

Example:



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