

» SYMKLOUD-MS SNMP Support

SYMKLOUD-MS SNMP Support Summary
Revision 1.2

1 Introduction

The SNMP solution for the SYMKLOUD-MS series of platforms is made up of MIBs covering 2 (independent) key components: the platform MIBs and the (Ethernet) switch MIBs.

The Platform MIBs included in this package support both the MS2900- and MS1300-series of SYMKLOUD chassis.

2 Minimum required Firmware Versions

The following firmware versions are the minimum required for proper reporting/control via the MS29xx SNMP solution, and are packaged as part of the v3.00 OneClick Update bundle:

Component	MSH8900	MSH891x	MSP800x	MSP802x	MSP804x
FRU Data	FRU4301-02	FRU4302-00	FRU4003-08	FRU4005-08	FRU4008-02
ShMC/BMC	3.06	2.06	2.10	2.18	1.07
FPGA	2.00	1.08	1.02	2.12	1.12
BIOS	N/A	N/A	0.42	2.14	1.09
Switch FW	1.14	GA2.01	N/A	N/A	N/A

All GA-release firmware versions for MSP8050, MSP806x, MSH8920 chassis include SNMP support.

2.1 MSP-Node FRU updates

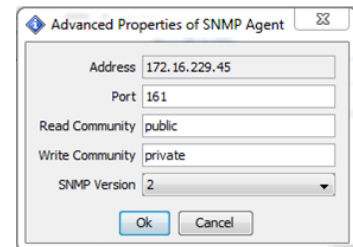
While board firmware (ShMC/BMC/FPGA/BIOS) can be updated using OneClick Update bundle, a separate FRU update may be required for MSP-nodes to enable Read/Write support for the MS29xx ServerType OID. The minimum FRU versions that include this support are specified above.

3 Accessing the SYMLKLOUD-MS Platform with SNMP Set/Get/Walk

SNMP Set/Get/Walk can be accessed by pointing your SNMP browser at the Active ShMC's IP address.

For convenience, the SYMKLOUD System Monitor provides the option to configure a floating- or 'Shared-IP', which will automatically redirect HTTP, API and SNMP requests to the Active ShMC.

Use the settings on the right with the Active ShMC's IP (or the Shared IP) to access SNMP functionality.



4 SNMP-Trap

SNMP-Trap is not currently supported by the MS29xx Platform. Please contact your Kontron representative to inquire about a request for new development.

5 SYMKLOUD-MS SNMP MIBs package

This zip file contains 4 folders: one for the Platform and one for each model of MSH-HubNode, with details below:

5.1 MSH8900 Ethernet switch (Vitesse/Microsemi + SMBStaX) MIB

MIBs for monitoring/control of the Ethernet switch on the MSH8900 via SNMP are provided by Vitesse/Microsemi, the switch manufacturer. The MSH8900_Switch_MIBs-x.xx folder contains MIBs to interact with the Vitesse/Microsemi Ethernet switch on MSH8900 HubNodes.

5.2 MSH891x Ethernet switch (Broadcom + Fastpath) MIB

MIBs for monitoring/control of the Ethernet switch on the MSH8910/MSH8911 via SNMP are provided by Broadcom, the switch manufacturer. The MSH891x_Switch_MIBs-<version> folder contains MIBs to interact with the Broadcom Ethernet switch on MSH8910/MSH8911 HubNodes.

5.3 MSH8920 Ethernet switch (Broadcom + PicOS) MIB

MIBs for monitoring/control of the Ethernet switch on the MSH8920 via SNMP are provided by Pica8, the NOS vendor. The MSH8920 PicOS MIBs-x.x.x-xx folder contains MIBs to interact with the PicOS NOS on MSH8920 HubNodes.

5.4 Platform MIB files

The Symkcloud MS-Series ShMC MIBs-yyyymmdd folder includes the 2 MIB-files. Additional details on each MIB (possible get/set values, etc.) are contained in the text of the MIB files.

A number of standard MIBs, which may already be included in your browser, are also supported.

6 SNMP details and supported RFCs

6.1 MS29xx Shelf Manager (Kontron ShMC) SNMP specification:

- SNMPv2c
- RFC3418 (SNMPv2):
 - MODULE-IDENTITY
 - NOTIFICATION-TYPE
 - OBJECT-TYPE
 - Counter32
 - mib-2
 - snmpModules
 - TimeTicks
- RFC 1213:
 - System up time
 - System description
 - System Object ID
 - System Contact
 - System Location
 - System Name

6.2 MSH89xx Ethernet switch SNMP Specification - supported RFCs:

RFC	Description	MSH8900	MSH891x	MSH8920
RFC1155	Identification of Management Information		x	
RFC1157	SNMPv1		x	x
RFC1212	Concise MIB definition		x	x
RFC1213	MIB II	x		x
RFC1215	SNMP traps			x
RFC1256	ICMP router discovery			x
RFC1493	Bridge MIB			x
RFC1573	Interface Evolution MIB			x
RFC1643	Etherlike MIB			x
RFC1901	Community based SNMPv2		x	x
RFC1905	Protocol Operations for SNMPv2			x
RFC1906	Transport Mappings for SNMPv2			x
RFC1907	Management Information Base for SNMPv2			x
RFC1908	Coexistence between SNMPv1 and SNMPv2		x	x
RFC1997	BGP Communities Attribute			x
RFC2021	RMON2 probes			x
RFC2096	IP Forwarding table MIB			x
RFC2233	The Interface Group MIB using SNMPv2			x
RFC2271	SNMP Management Frameworks		x	
RFC2439	BGP Route Flap Damping			x
RFC2545	Use of BGP-4 Multiprotocol Extensions for IPv6 Inter-Domain Routing			x
RFC2576	Coexistence between SNMPv1, SNMPv2 and SNMPv3		x	
RFC2578	Structure of Management Information v2 (SMIv2)		x	
RFC2579	Conventions for SMIv2		x	

RFC	Description	MSH8900	MSH891x	MSH8920
RFC2580	Conformance Statements for SMIv2		x	
RFC2613	SMON MIB	x		
RFC2665	Ethernet-like Interfaces			x
RFC2674	VLAN MIB	x		
RFC2796	BGP Route Reflection (An Alternative to Full Mesh IBGP)			x
RFC2819	RMON (Group 1, 2, 3, and 9)	x		
RFC2863	Interface Group MIB using SMI v2	x		
RFC3065	Autonomous System Confederations for BGP			x
RFC3107	Labeled BGP			x
RFC3376	IGMPv3			x
RFC3392	Capabilities Advertisement with BGP-4			x
RFC3410	SNMPv3 Overview		x	
RFC3411	SNMP Management Frameworks	x	x	
RFC3412	SNMP Message Processing and Dispatching		x	
RFC3413	SNMP Applications		x	
RFC3414	User-based Security Model for SNMPv3	x	x	
RFC3415	View-based Access Control Model for SNMP	x	x	
RFC3416	SNMP V2c		x	
RFC3417	Transport Mappings for SNMP		x	
RFC3418	MIB and SNMP		x	
RFC3621	LLDP-MED Power	x		
RFC3635	Ethernet-like MIB	x		
RFC3636	802.3 Medium Attachment Units (MAUs) MIB	x		
RFC4133	Entity MIB v3	x		
RFC4188	Bridge MIB	x		
RFC4607	PIM SSM			x
RFC4668	RADIUS Authentication Client MIB	x		
RFC4670	RADIUS Accounting MIB	x		
RFC4893	BGP Support for Four-octet AS Number Space			x
RFC5519	Multicast Group Membership Discovery MIB	x		
RFC6241	NETConf			x
N/A	IEEE 802.1 MSTP MIB	x		
N/A	IEEE 802.1AB LLDP MIB	x		
N/A	IEEE 802.1X MIB	x		
N/A	IEEE 802.3ad MIB	x		
N/A	Microsemi Private MIB framework	x		
N/A	Pica8 Private MIB			x
N/A	TIA 1057 LLDP MED	x		

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