Expression MIB Support of Delta, Wildcarding, and Aggregation

The Expression MIB Support of Delta, Wildcarding, and Aggregation feature adds support of Delta, Wildcarding, and Aggregation to the Expression MIB implementation.

Finding Feature Information

Your software release may not support all the features documented in this module. For the latest caveats and feature information, see Bug Search Tool and the release notes for your platform and software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the feature information table.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to www.cisco.com/go/cfn. An account on Cisco.com is not required.

Information about Expression MIB Support of Delta, Wildcarding, and Aggregation

Expression MIB Support of Delta, Wildcarding, and Aggregation

Expression MIB adds support of the Delta, Wildcarding, and Aggregation features in the Distributed Management Expression MIB (EXPRESSION-MIB) to Cisco software for use by SNMP.

The Delta function enables the Expression MIB to use Delta values of an object instead of absolute values when evaluating an expression. Delta is obtained by taking the difference between the current value of an object and its previous value.

The Wildcarding function of the Expression MIB allows evaluation of multiple instances of an object. This is useful in cases where an expression needs to be applied to all instances of an object. The user need not individually specify all instances of an object in the Expression but only has to set the "expWildcardedObject" in "expObjectTable" to TRUE for the respective object.

Aggregation is performed using the sum function in the Expression MIB. The operand to the sum function has to be a wildcard object. The result of the sum function is the sum of values of all instances of the wildcard object.

For a complete description of Expression MIB functionality, see the Distributed Management Expression MIB, Internet-Draft, available through the ITEF at http://tools.ietf.org/html/draft-ietf-disman-express-mib-11.

Additional References

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Command List, All Releases
SNMP commands: complete command syntax, command mode, command history, defaults, usage guidelines, and examples	Cisco IOS SNMP Command Reference
Cisco implementation of RFC 1724, RIP Version 2 MIB Extensions	RIPv2 Monitoring with SNMP Using the RFC 1724 MIB Extensions feature module
DSP Operational State Notifications for notifications to be generated when a digital signaling processor (DSP) is used	DSP Operational State Notifications feature module

Standards and RFCs

Standard/RFC	Title
CBC-DES (DES-56) standard	*Symmetric Encryption Protocol*
STD: 58	*Structure of Management Information Version 2 (SMIv2)*
RFC 1067	*A Simple Network Management Protocol*
RFC 1091	*Telnet terminal-type option*
RFC 1098	*Simple Network Management Protocol (SNMP)*
RFC 1157	*Simple Network Management Protocol (SNMP)*

Standard/RFC	Title
RFC 1213	*Management Information Base for Network Management of TCP/IP-based internets:MIB-II*
RFC 1215	*Convention for defining traps for use with the SNMP*
RFC 1901	*Introduction to Community-based SNMPv2*
RFC 1905	*Common Management Information Services and Protocol over TCP/IP (CMOT)*
RFC 1906	*Telnet X Display Location Option*
RFC 1908	*Simple Network Management Protocol (SNMP)*
RFC 2104	*HMAC: Keyed-Hashing for Message Authentication*
RFC 2206	*RSVP Management Information Base using SMIv2*
RFC 2213	*Integrated Services Management Information Base using SMIv2*
RFC 2214	*Integrated Services Management Information Base Guaranteed Service Extensions using SMIv2*
RFC 2271	*An Architecture for Describing SNMP Management Frameworks*
RFC 2570	*Introduction to Version 3 of the Internet-standard Network Management Framework*
RFC 2578	*Structure of Management Information Version 2 (SMIv2)*
RFC 2579	*Textual Conventions for SMIv2*
RFC 2580	*Conformance Statements for SMIv2*
RFC 2981	*Event MIB*
RFC 2982	*Distributed Management Expression MIB*
RFC 3413	*SNMPv3 Applications*
RFC 3415	*View-based Access Control Model (VACM) for the Simple Network Management Protocol (SNMP)*
RFC 3418	*Management Information Base (MIB) for the Simple Network Management Protocol (SNMP)*

MIBs

MIB	MIBs Link
• Circuit Interface Identification MIB • Cisco SNMPv2 • Ethernet-like Interfaces MIB • Event MIB • Expression MIB Support for Delta, Wildcarding, and Aggregation • Interfaces Group MIB (IF-MIB) • Interfaces Group MIB Enhancements • MIB Enhancements for Universal Gateways and Access Servers • MSDP MIB • NTP MIB • Response Time Monitor MIB • Virtual Switch MIB	To locate and download MIBs for selected platforms, releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

Technical Assistance

Description	Link
The Cisco Support and Documentation website provides online resources to download documentation, software, and tools. Use these resources to install and configure the software and to troubleshoot and resolve technical issues with Cisco products and technologies. Access to most tools on the Cisco Support and Documentation website requires a Cisco.com user ID and password.	http://www.cisco.com/cisco/web/support/index.html

Feature Information for Expression MIB Support of Delta, Wildcarding, and Aggregation

The following table provides release information about the feature or features described in this module. This table lists only the software release that introduced support for a given feature in a given software release train. Unless noted otherwise, subsequent releases of that software release train also support that feature.

Use Cisco Feature Navigator to find information about platform support and Cisco software image support. To access Cisco Feature Navigator, go to . An account on Cisco.com is not required.

Table 1: Feature Information for Expression MIB Support of Delta, Wildcarding, and Aggregation

Feature Name	Releases	Feature Information
Expression MIB Support of Delta, Wildcarding, and Aggregation	12.1(3)T 15.0(1)S	The Expression MIB Support of Delta, Wildcarding, and Aggregation feature adds support of Delta, Wildcarding, and Aggregation to the Expression MIB implementation.