

Using the IEEE 802.3ad Link Aggregation MIB

The IEEE 802.3ad Link Aggregation Control Protocol (LACP) enables the bundling of physical interfaces on a physical device to achieve more bandwidth than is available using a single interface. This feature introduces IEEE 802.3ad Link Aggregation (LAG) MIB support in Cisco IOS XE software. The LAG MIB supports the management of interfaces and ports that are part of an LACP port channel and is accessed by a Simple Network Management Protocol (SNMP) manager application.

- Prerequisites for Using the IEEE 802.3ad Link Aggregation MIB, on page 1
- Information About Using the IEEE 802.3ad Link Aggregation MIB, on page 1
- Additional References, on page 4
- Feature Information for Using the IEEE 802.3ad Link Aggregation MIB, on page 5

Prerequisites for Using the IEEE 802.3ad Link Aggregation MIB

- Link aggregation must be configured using the LACP command-line interface (CLI) commands before the MIB tables can be accessed.
- LACP must be supported in the image.

Information About Using the IEEE 802.3ad Link Aggregation MIB

IEEE 802.3ad LAG MIB

The IEEE 802.3ad LAG MIB supports the management of interfaces and ports that are part of an LACP port channel. No specific commands are used to enable the MIB; access is through an SNMP manager application. For information about using SNMP in Cisco IOS XE software, see the “Configuring SNMP Support” chapter of the *Cisco IOS XE Network Management Configuration Guide*, Release 2.

Configuration and Management of LACP bundles

To use the LAG MIB, it is important to know how LACP bundles are configured and managed. For more information about LACP bundles, see the "Configuring IEEE 802.3ad Link Bundling" feature guide.

LAG MIB Table Object Definitions

This section lists the MIB objects and tables that are supported as part of this feature.

dot3adTablesLastChanged Object

The dot3adTablesLastChanged object indicates the time of the most recent change to the dot3adAggTable, dot3adAggPortListTable, or dot3adAggPortTable.

dot3adAggTable

The dot3adAggTable (Aggregator Configuration table) contains information about every aggregator that is associated with a system. Each LACP channel in a device occupies an entry in the dot3adAggTable. Some objects in the table have restrictions, which are described with the object. The objects are described in the table below.

Table 1: Aggregator Configuration Table Objects

Object	Maximum Access/Description
dot3adAggActorAdminKey	Cannot be changed via the SET operation.
dot3adAggActorOperKey	Write access not supported.
dot3adAggActorSystemID	Write access not supported.
dot3adAggActorSystemPriority	Write access not supported.
dot3adAggAggregateOrIndividual	Returns a value of TRUE if more than 1 port is configured in the channel; otherwise, returns a value of FALSE.
dot3adAggCollectorMaxDelay	Cannot be changed via the SET operation.
dot3adAggIndex	Write access not supported.
dot3adAggMACAddress	Write access not supported.
dot3adAggPartnerOperKey	Write access not supported.
dot3adAggPartnerSystemID	Write access not supported.
dot3adAggPartnerSystemPriority	Write access not supported.

dot3adAggPortListTable

The dot3adAggPortListTable (Aggregation Port List table) contains a list of all the ports associated with each aggregator. Each LACP channel in a device occupies an entry in the table. The objects are described in the table below.

Table 2: Aggregation Port List Table Objects

Object	Maximum Access/Description
dot3adAggPortListPorts	Write access not supported.

dot3adAggPortTable

The dot3adAggPortTable (Aggregation Port table) contains LACP configuration information about every aggregation port associated with a device. Each physical port in a device occupies an entry in the dot3adAggPortTable. The objects are described in the table below.

Table 3: Aggregation Port Table Objects

Object	Maximum Access/Description
dot3adAggPortActorAdminKey	Write access not supported.
dot3adAggPortActorAdminState	Write access not supported.
dot3adAggPortActorOperKey	Read-only access supported.
dot3adAggPortActorOperState	Write access not supported.
dot3adAggPortActorPort	Write access not supported.
dot3adAggPortActorPortPriority	Write access not supported.
dot3adAggPortActorSystemID	Write access not supported.
dot3adAggPortActorSystemPriority	Write access not supported.
dot3adAggPortAggregateOrIndividual	Indicates whether a port is attached to an LACP channel. If the port is attached to an LACP channel and the value of the dot3adAggPortAttachedAggID object in the same row is not zero, the value of this object is TRUE. Otherwise, the value is FALSE.
dot3adAggPortAttachedAggID	Write access not supported.
dot3adAggPortIndex	Write access not supported.
dot3adAggPortPartnerAdminKey	Cannot be changed via the SET operation.
dot3adAggPortPartnerAdminPort	Cannot be changed via the SET operation.
dot3adAggPortPartnerAdminPortPriority	Write access not supported.
dot3adAggPortPartnerAdminState	Cannot be changed via the SET operation.
dot3adAggPortPartnerAdminSystemID	Cannot be changed via the SET operation.
dot3adAggPortPartnerAdminSystemPriority	Cannot be changed via the SET operation.
dot3adAggPortPartnerOperKey	Write access not supported.
dot3adAggPortPartnerOperPort	Cannot be changed via the SET operation.
dot3adAggPortPartnerOperPortPriority	Write access not supported.
dot3adAggPortPartnerOperState	Write access is not supported.

Object	Maximum Access/Description
dot3adAggPortPartnerOperSystemID	Write access not supported.
dot3adAggPortPartnerOperSystemPriority	Write access not supported.
dot3adAggPortSelectedAggID	Write access not supported.

dot3adAggPortStatsTable

The dot3adAggPortStatsTable (LACP Statistics table) contains link aggregation information about every port that is associated with a device. Each physical port occupies a row in the table. The objects are described in the table below.

Table 4: LACP Statistics Table Objects

Object	Maximum Access/Description
dot3adAggPortStatsIllegalRx	Write access not supported.
dot3adAggPortStatsLACPDUsRx	Write access not supported.
dot3adAggPortStatsLACPDUsTx	Write access not supported.
dot3adAggPortStatsMarkerPDUsRx	Write access not supported.
dot3adAggPortStatsMarkerPDUsTx	Write access not supported.
dot3adAggPortStatsMarkerResponsePDUsRx	Write access not supported.
dot3adAggPortStatsMarkerResponsePDUsTx	Write access not supported.
dot3adAggPortStatsUnknownRx	Write access not supported.

Additional References

Related Documents

Related Topic	Document Title
Link aggregation configuration tasks	"Configuring IEEE 802.3ad Link Bundling" feature guide
Cisco IOS XE LACP commands: complete command syntax, command mode, command history, defaults, usage guidelines, and examples	*Cisco IOS Carrier Ethernet Command Reference*
Configuring SNMP	“Configuring SNMP Support” chapter of the *Cisco IOS XE Network Management Configuration Guide*, Release 2

Related Topic	Document Title
Cisco IOS XE SNMP commands: complete command syntax, command mode, command history, defaults, usage guidelines, and examples	*Cisco IOS Network Management Command Reference*

Standards

Standard	Title
IEEE 802.3ad	*IEEE 802.3ad-2000 Link Aggregation*

MIBs

MIB	MIBs Link
• IEEE 802.3ad MIB • IF MIB	To locate and download MIBs for selected platforms, Cisco software releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFC	Title
No new or modified RFCs are supported by this feature, and support for existing RFCs has not been modified by this feature	--

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 Using the IEEE 802.3ad Link Aggregation MIB

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 www.cisco.com/go/cfn. An account on Cisco.com is not required.

Table 5: Feature Information for Using the IEEE 802.3ad Link Aggregation MIB

Feature Name	Releases	Feature Information
IEEE 802.3ad MIB	Cisco IOS XE Release 2.5	This feature introduces LAG MIB support in Cisco IOS XE software. The LAG MIB supports the management of interfaces and ports that are part of an LACP port channel and is accessed by an SNMP manager application. This feature uses no commands.