CHAPTER 5

Cisco XR 12000 Series Router MIB Specifications

This chapter describes the MIB on the Cisco XR 12000 Series Router (C12000). Each MIB description lists any constraints on how the MIB or its object identifiers (OIDs) are implemented on the Cisco XR 12000 Series Router.

Unless noted otherwise, the Cisco XR 12000 Series Router implementation of a MIB follows the standard MIB that has been defined. Any MIB table or object not listed in the table is implemented as defined in the standard MIB definition.

This chapter contains the following sections:

Cisco XR 12000 Series Router MIBs

Each MIB description lists relevant constraints about the implementation of the MIB on the Cisco XR 12000 Series Router platform. Any objects not listed in a table are implemented as defined in the MIB. For detailed MIB descriptions, see the standard MIB.

Note Not all MIBs included in a Cisco IOS XR Software release are fully supported by the router. Some MIBs are not supported at all. Other MIBs might work, but they have not been tested on the router. In addition, some MIBs are deprecated but cannot be removed from the software. When a MIB is included in the image, this does not necessarily mean it is supported by the Cisco XR 12000 Series Router platform.

To determine which MIBs are included in other releases, see the "Downloading and Compiling MIBs" section on page 2-7.

Cisco XR 12000 Series Router MIB Categories

The MIBs in the Cisco XR 12000 Series Router are categorized into three types:

- see the "Supported and Verified MIBs" section on page 5-160
- see the "Supported and Unverified MIBs" section on page 5-160
- see the "Unverified or Unsupported MIBs" section on page 5-160

Supported and Verified MIBs

The MIB exists in the image, the code is implemented, and Cisco has verified that all the supported objects work properly. These MIBs are tested for the Cisco XR 12000 Series Router.

Supported and Unverified MIBs

The MIB exists in the image, the code is implemented, but we have not verified if it is working properly. In other words, the user may get something if they query the MIB. However, the information may be correct or incorrect if the MIB has not been tested. These MIBs are not tested for the Cisco XR 12000 Series Router support.

Unverified or Unsupported MIBs

The MIB exists in the image but is either not tested or not supported. These MIBs are neither tested nor supported for the Cisco XR 12000 Series Router.

MIB Version String Description

The MIB version string indicates the date and time that the module was most recently modified. The format is YYMMDDHHMMZ or YYYYMMDDHHMMZ, where:

- YY is the last two digits of the year (only years between 1900 and 1999).
- YYYY is all four digits of the year (any year).
- MM is the month (01 through 12).
- DD is the day of the month (01 through 31).
- HH is hours (00 through 23).
- MM is minutes (00 through 59).
- Z (the ASCII character Z) denotes Coordinated Universal Time (UTC, formerly Greenwich Mean Time, GMT). This datatype stores the date and time fields YEAR, MONTH, DAY, HOUR, MINUTE, SECOND, TIMEZONE_HOUR, and TIMEZONE_MINUTE.

Note For example, 9502192015Z and 199502192015Z represent 8:15 GMT on 19 February 1995. Years after 1999 use the four-digit format. Years 1900–1999 may use the two or four digit format.

Note In the following table the term *Revision not available* refers to the MIB module that does not have a recorded time stamp indicating the latest modification.

MIBs in the Cisco XR 12000 Series Router

Table 5-1 lists the MIBs in the Cisco XR 12000 Series Router:

Table 5-1 MIBs in the Cisco XR 12000 Series Router

MIB	midb process	Supported		Unsupported or Unverified	Not in Image
		Verified	Unverified		
CISCO-FABRIC-C12K-MIB	mibd-entity				
• Release 3.7		200209200000Z			
• Release 3.9		200209200000Z			
• Release 4.0		200209200000Z			
• Release 4.2		200209200000Z			
• Release 4.3		200209200000Z			

MIB Notification Names in the Cisco XR 12000 Series Router

Table 5-2 lists the Notification Names associated with MIBs in the Cisco XR 12000 Series Router:

Table 5-2 MIB Notification Names in the Cisco XR 12000 Series Router

MIB	Notification Name
CISCO-FABRIC-C12K-MIB	ciscoFabric12kMIBFabMasterSchCh

CISCO-FABRIC-C12K-MIB

The CISCO-FABRIC-C12K-MIB is the MIB module for the c12000 series routers. This MIB module is used for managing/tracking the c12000 fabric entities and fabric related configuration, status, and statistics information.

C12000 fabric architecture is based on NxN non-blocking crossbar switch fabric, where N stands for the maximum number of LCs that can be supported in the chassis (this includes the RP). The connections through the switch fabric is controlled by a scheduler (CSC), the CSC accepts transmission requests from line cards, issues grants to access the fabric, and provides a reference clock to all the cards in the system to synchronize data transfer across the crossbar.

Some of the error status objects in the MIB are read-clear, that is the value of the object is cleared on a query of the object. Details about the various fabric related attributes specified in the MIB could be found at http://www.cisco.com/en/US/products/hw/routers/ps167/products_tech_note09186a00800949bb.shtml.

Table 5-3 lists the tables associated with this MIB.

Table 5-3 CISCO-FABRIC-C12K-MIB Tables and Descriptions

Name	Description
cfcGenericFabToFabTable	Table providing ToFabFIA statistics and information in the managed system.
cfcGenericFabFrFabTable	Table providing FrFabFIA information in the managed system.
cfcGenericFabFrFabSliTable	Table providing per serial link information maintained by the FrFabFIA in the managed system.
cfcGenericScaTable	Table providing SCA statistics and information in the managed system.
cfcGenericXbarTable	Table providing Xbar information in the managed system.
cfcPreOc192FabToFabTable	Table providing pre-OC192 ToFabFIA statistics and information in the managed system.
cfcPreOc192FabFrFabTable	Table providing pre-OC192 FrFabFIA statistics and information in the managed system.
cfcPreOc192ScaTable	Table providing pre-OC192 SCA statistics and information in the managed system.
cfcPreOc192XbarTable	Table providing pre-OC192 Xbar statistics and information in the managed system.
cfcOc192FabToFabTable	Entry providing various statistics and information of OC192 ToFabFIA on an associated linecard identified by entPhysicalIndex.
cfcOc192FabFrFabTable	Table providing FrFabFIA statistics and information in the managed system.
cfcOc192FabFrFabSliTable	Table providing per serial link information maintained by the OC192 FrFabFIA in the managed system.
cfcOc192FabFrFabStatTable	Table providing per module statistics information maintained by the OC192 FrFabFIA in the managed system.
cfcOc192ScaTable	Table providing OC192 SCA statistics and information in the managed system.
cfcOc192XbarTable	Table providing OC192 Xbar statistics and information in the managed system.