CHAPTER 15

Pseudo Wire Emulation Edge to Edge (PWE3)

This chapter describes the level of support that Cisco ANA provides for PWE3, as follows:

Technology Description

PWE3

Pseudo Wire Emulation Edge-to-Edge (PWE3) provides methods for carrying networking services such as ATM, Ethernet, TDM and SONET/SDH over a Packet Switched Network (PSN) as outlined in RFC 3985. It is a point-to-point connection between pairs of Provider Edge (PE) routers, which emulates services like Ethernet over an underlying core MPLS network through encapsulation into a common MPLS format, hence allowing carriers to converge their services with an MPLS network.

Inventory and Information Model Objects (IMOs)

This section includes the following tables:

PTP Layer 2 MPLS Tunnel Interface

The following Network/Data Link layer PTP Layer 2 MPLS Tunnel Interface PTP Layer 2 MPLS Tunnel Interface object, is bound by its Containing Termination Points attribute to a Data Link Layer Interface object, and is primarily being accessed by Label Switching Entity.

Table 15-1 PTP Layer 2 MPLS Tunnel Interface (IPTPLayer2MplsTunnel)

Attribute Name	Attribute Description
Local and Remote Router Addresses	Local and remote router IP addresses
Local and Remote Virtual Connection Labels	Local and remote virtual connection labels
Tunnel Identification	Tunnel identification
Tunnel Status	Tunnel status (*Unknown, Up, Down*)
Local and Remote Tunnel Interface	Local and remote tunnel interface object identifier
IANA Type	IANA type of the sub/layer
Containing Termination Points	Underlying termination points (connection or physical)
Contained Connection Termination Points	Bound Connection Termination Points (Tunnel Container)

Network Topology

The discovery of Pseudo Wire Emulation Edge to Edge [PWE3] Network layer topology is done by searching for a match of the Local and Remote Router IP Addresses in any one hop away remote side's PTP Layer 2 MPLS Tunnel Interface. In particular a comparison is made between the Local and Remote Router IP Addresses as well as Tunnel Identification.

Service Alarms

The following alarms are supported for this technology:

- Layer 2 Tunnel Down/Layer 2 Tunnel Up

Note For a detailed description of these alarms and for information about correlation see the *Cisco Active Network Abstraction Fault Management User Guide, 3.6.*