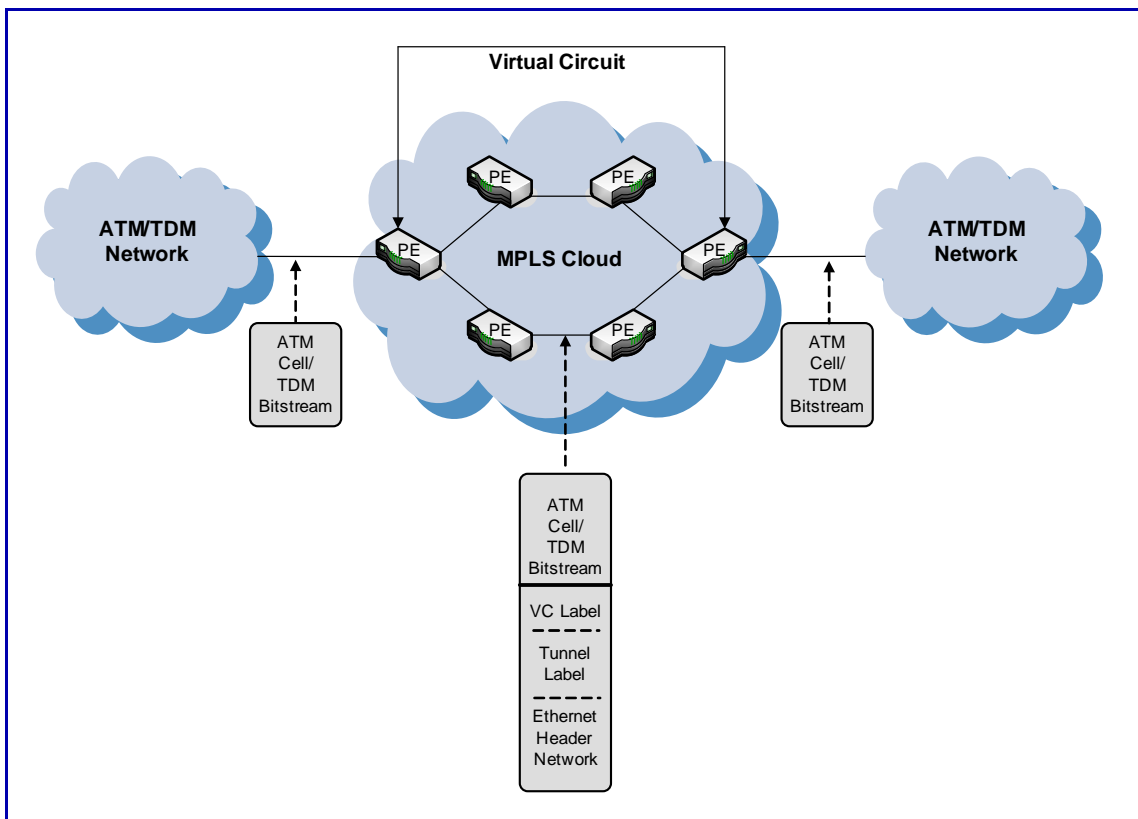


ATM/TDM over MPLS

Overview

IP Infusion's ZebOS® Network Platform Asynchronous Transfer Mode (ATM) over MPLS and Time-Division Multiplexing (TDM) over MPLS modules are an implementation of IETF RFCs 4447, 4553, 4717, 5086, and 5287; and are extensions to the ZebOS LDP module. These modules extend the customer ATM circuit and TDM across an MPLS network. The TDM bit stream (or ATM cell from a customer ATM circuit) is first encapsulated with a VC label and then sent over an MPLS LSP tunnel to the remote Provider Edge (PE). The egress PE router pops the VC label and delivers the ATM cell or TDM bit stream to the remote Customer Edge (CE) equipment by emulating the respective services.



ATM/TDM Over MPLS

ZebOS LDP is a control-plane software module that can integrate into a range of network processor environments and is preconfigured to support many popular operating systems. For a complete solution for ATM or TDM over MPLS, extensions for the NSM and HSL modules are required.

Features

ATM over MPLS

- IETF RFC compliant implementation
- 1:1 Virtual Path Connection (VPC) and Virtual Channel Connection (VCC)
- N:1 VPC, VCC
- Protocol Data Unit (PDU), Service Data Unit (SDU)

TDM over MPLS

- IETF RFC compliant implementation
- Basic Circuit Emulation Service over Packet-Switched Networks (CESoPSN)
- T1/E1 Structure-Agnostic Time Division Multiplexing over Packet (SAToP)

Benefits

- Stable, robust implementation of ATM/TDM over MPLS
- Fully integrated with ZebOS LDP modules
- Interoperability with popular MPLS switching platforms
- Platform-independent implementation

Requirements

- ZebOS NSM — Network Services Module (requires ATM/TDM enhancements)
- ZebOS LDP — ZebOS Label Distribution Protocol Module
- HSL for TDM and ATM (hardware-specific)

Standards Support

- RFC 4447 — Pseudowire Setup and Maintenance Using LDP
- RFC 4553 — Structure-Agnostic TDM over Packet (SAToP)
- RFC 4717 — Encapsulation Methods for Transport of ATM over MPLS Networks
- RFC 5086 — Structure-Aware TDM Circuit Emulation Service over Packet Switched Network (CESoPSN)
- RFC 5287 — Control Protocol Extensions for Setup of TDM Pseudowires in MPLS Networks

Standard Deliverables

- Source Code (written in ANSI-compliant C)
- Command Line Interface Reference Guide
- Developer Guide
- Configuration Guide
- Installation Guide