Designing and Implementing IP/MPLS-Based Ethernet Layer 2 VPN Services. An Advanced Guide for VPLS and VLL

Description:
A guide to designing and implementing VPLS services over an IP/MPLS switched service provider backbone.

Today's communication providers are looking for convenience, simplicity, and flexible bandwidth across wide area networks—but with the quality of service and control that is critical for business networking applications like video, voice and data. Carrier Ethernet VPN services based on VPLS makes this a reality. Virtual Private LAN Service (VPLS) is a pseudowire (PW) based, multipoint-to-multipoint layer 2 Ethernet VPN service provided by service providers. By deploying a VPLS service to customers, the operator can focus on providing high throughput, highly available Ethernet bridging services and leave the layer 3 routing decision up to the customer.

Virtual Private LAN Services (VPLS) is quickly becoming the number one choice for many enterprises and service providers to deploy data communication networks. Alcatel-Lucent VPLS solution enables service providers to offer enterprise customers the operational cost benefits of Ethernet with the predictable QoS characteristics of MPLS.

Items Covered:

Building Converged Service Networks with IP/MPLS VPN Technology
IP/MPLS VPN Multi-Service Network Overview
Using MPLS Label Switched Paths as Service Transport Tunnels
Routing Protocol Traffic Engineering and CSPF
RSVP-TE Protocol
MPLS Resiliency — Secondary LSP
MPLS Resiliency — RSVP-TE LSP Fast Reroute
Label Distribution Protocol
IP/MPLS VPN Service Routing Architecture
Virtual Leased Line Services
Virtual Private LAN Service
Hierarchical VPLS
High Availability in an IP/MPLS VPN Network
VLL Service Resiliency
VPLS Service Resiliency
VPLS BGP Auto-Discovery
PBB-VPLS
OAM in a VPLS Service Network
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