Ethernet VPN (E-VPN) & Provider Backbone Bridging Ethernet VPN (PBB-EVPN)

MS Scholarly Paper Presentation
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Abstract — In the current VPN infrastructure, Multi-Protocol Label Switching (MPLS) based Layer 2 VPN (L2VPN) is highly deployed by enterprises and service providers. Today, largely driven by Data Center Interconnect (DCI), there are a growing demand and a set of new requirements for Ethernet multipoint VPN service. Virtual Private LAN Services (VPLS), a proposed IETF standard in 2007, is currently being employed by providers to offer multipoint services. However, there exist a number of limitations.

Ethernet Virtual Private Network (E-VPN) and Provider Backbone Bridging Ethernet Virtual Private Network (PBB-EVPN), still under standardization, are the emerging solutions that can meet the requirements of the next generation layer 2 multipoint VPN service. The goal of this presentation is to show the limitation with VPLS and a detailed overview of E-VPN and PBB-EVPN. The content on E-VPN and PBB-EVPN are based on the Internet Engineering Task Force (IETF) draft “BGP MPLS Based Ethernet VPN” version 4 and “PBB-EVPN” version 6.