Data center interconnect technology based on MPLS



Overview

By leveraging MPLS's flexible label-based forwarding and powerful VPN capabilities, data center networks can achieve more granular traffic control, greater scalability, and enhanced quality of service assurance. With the evolution of data center operations, especially in areas such as inter-data center connectivity, multi-tenant isolation, and the growing demand for seamless integration with carrier networks, the role of MPLS (Multiprotocol Label Switching) in modern data centers is being reevaluated. By. You can interconnect different data center networks running Ethernet VPN (EVPN) with Virtual extensible LAN (VXLAN) encapsulation through a WAN running MPLS-based EVPN. VPLS is often used by service providers to provide Ethernet Multipoint. DCI stands for Data Center Interconnect and refers to the technologies/architecture used to connect two or more geographically dispersed Data Centers, allowing them to operate together as a single unit.



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Article Content

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An Overview of MPLS Networking: Understanding

MPLS Networking Overview: In the era of the always-on digital enterprise, MPLS remains one of the most dependable data transport

Oct 03, 2025

Using MPLS-TP for Data-Center Interconnection

The MPLS-TP based data-center that is architected in this paper leads to performance betterments over both IP and Ethernet. To this end, a comprehensive simulations model is also presented. Operations

Mar 28, 2026

Point2 Raises $76M to Advance RF-Based Interconnects

Point2 Technology, a Silicon Valley startup developing RF-based interconnect solutions for AI infrastructure, secured an extension to its Series B funding round led by Maverick Silicon, with

Sep 30, 2025

DCI Explained: Data Center Interconnection Guide

DCI enables secure, high-speed data center interconnection using MPLS, IP tunneling, and VXLAN to support migration and reliability.

Apr 20, 2026

Marvell Announces Acquisition of Polariton Technologies, Advancing ...

SANTA CLARA, Calif., April 22, 2026--Marvell Technology, Inc. (NASDAQ: MRVL), a leader in data infrastructure semiconductor solutions, today announced the acquisition of Polariton Technologies, a ...

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Unlocking MPLS in Modern Data Centers: Use Cases

With the evolution of data center operations, especially in areas such as inter-data center connectivity, multi-tenant isolation, and the growing demand

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What Is MPLS and Is It Still Relevant? | Verizon

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MPLS network technology has been around for a long time. But what is MPLS—also known as multiprotocol label switching—and is it still relevant in today''s modern era of digital

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BGP/MPLS IP VPN Data Center Interconnect

In the first category, DC overlay virtual network is built with BGP/MPLS IP VPN (IP VPN) technologies, the inter-connection of IP VPN in the DC to IP VPN in the WAN enables end-to-end IP VPN

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High Scale Data Center Interconnect, LAN Extension Using MC-LAG

Learn how Data Centre Interconnect (DCI) enables secure, scalable multi-data-center connectivity using EVPN-VXLAN, MPLS, automation, and AI-driven validation by Happiest Minds.

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Comparing Different Methods of Data Center Connectivity: Direct Connect ...

Three common methods for data center connectivity are direct connect, VPN (Virtual Private Network), and MPLS

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Comparing Different Methods of Data Center Connectivity: Direct Connect ...

The choice of data center connectivity method depends on an organization''s specific requirements for speed, security,

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NVIDIA Groq 3 LPX: Everything we know

NVIDIA''s Groq 3 LPX pairs 256 LP30 LPUs with Vera Rubin NVL72, delivering up to 35x higher inference throughput per megawatt.

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What Is MPLS? Definition, Pros/Cons and Alternatives

IT teams often face technological silos due to poorly integrated, individually managed products. Secure Access Service Edge (SASE) is a further evolution of SD-WAN that incorporates a cloud-based

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Using MPLS-TP for Data-Center Interconnection

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Current data center architectures are built using Ethernet switches or IP routers - both with significant cost and performance deficiencies. We propose for the first time, extending MPLS-TP into the data

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H3C S7500X Enterprise Core Switch Series-H3C

H3C S7500X switch series supports Multi-VRF function, which can be used as MCE equipment supporting L3 MPLS VPN and L2 MPLS VPN (Martini and Kompella). It also supports MPLS OAM

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Understanding MPLS-TP and Its Benefits

The MPLS-TP proposal contains a set of compatible technology enhancements to existing MPLS standards to extend the definition of MPLS to include support for

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EVPN-VXLAN Data Center Interconnect Through EVPN-MPLS WAN Overview ...

You can interconnect different data center networks running Ethernet VPN (EVPN) with Virtual extensible LAN (VXLAN) encapsulation through a WAN running MPLS-based EVPN.

Feb 13, 2026

Unlocking MPLS in Modern Data Centers: Use Cases

Explore how MPLS is reshaping modern data center networking with Layer 2/3 VPNs, EVPN overlays, and seamless carrier integration.

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BRKMPL-2141

BRKMPL-2108 Designing MPLS in Next Generation Data Center: A Case Study BRKMPL-2333 E-VPN & PBB-EVPN: the Next Generation of MPLS-based L2VPN LTRMPL-2102 Enterprise Network

Jul 19, 2025

Data Center Interconnect Market Size, Share & Trends

OVERVIEW Source: Secondary Research, Interviews with Experts, MarketsandMarkets Analysis The data center interconnect market is projected to

Feb 09, 2026

What is MPLS

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What is MPLS? Multiprotocol Label Switching Multiprotocol Label Switching (MPLS) enables enterprises and service providers to build next-generation intelligent

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Co Packaged Optics (CPO) – Scaling with Light for the

Co-Packaged Optics (CPO) has long promised to transform datacenter connectivity, but it has taken a long time for the technology to come to market,

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Enterprise Data Center Interconnectivity

Enterprises need data center connectivity that can reduce network complexity and improve scalability, reliability, and application performance. Juniper''s MPLS cloud-based solution achieves these goals

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High Scale Data Center Interconnect, LAN Extension

VPLS is often used by service providers to provide Ethernet Multipoint Services (EMS) and is also being adopted by Enterprises on a self-managed

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EVPN-VXLAN Data Center Interconnect Through EVPN-MPLS WAN

The following sections describe the technology and implementation overview of interconnecting data center networks running EVPN-VXLAN through a WAN running EVPN-MPLS to

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Marvell to Acquire Celestial AI, Accelerating Scale-up Connectivity for ...

About Celestial AI Celestial AI is the creator of the Photonic Fabric, an optical interconnect technology platform for AI computing systems. The Photonic Fabric provides the foundational

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What Is MPLS? MPLS Networks for Business Explained

What is MPLS and why do businesses use it? Multiprotocol Label Switching (MPLS) is an enterprise-grade networking technology used to form the high-performance

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