

Network Data Center Cloud Interconnection



AI Overview

Network Data Center Cloud Interconnection (DCI) enables secure, high-performance, and scalable connectivity between data centers and cloud environments, supporting hybrid and multi-cloud architectures. Overview Data Center Interconnection (DCI) refers to dedicated network connectivity between geographically distributed data centers, allowing them to operate as a unified infrastructure. Unlike standard internet connections, DCI provides predictable latency, guaranteed bandwidth, and enhanced security, which is critical for applications like disaster recovery, live workload migration, and distributed cloud services. Cloud Interconnect extends this concept to connect on-premises networks, virtual private clouds (VPCs), and multiple cloud providers, enabling seamless hybrid and multi-cloud operations. Key Benefits Low Latency and High Performance: Direct connections reduce hops and congestion, ensuring consistent throughput for latency-sensitive applications such as AI, IoT, and real-time analytics. Enhanced Security: Traffic bypasses the public internet, reducing exposure to attacks and enabling private, encrypted communication. Scalability and Flexibility: Supports dynamic workloads across edge and core data centers, allowing enterprises to distribute applications globally and respond to changing traffic demands. Operational Efficiency: Centralized network management and automation simplify provisioning, monitoring, and troubleshooting across multi-layer, multi-vendor networks. Architecture and Technologies Modern DCI and cloud interconnect solutions leverage a combination of optical transport, DWDM, OTN, IP/MPLS, segment routing, and Ethernet to provide high-capacity, resilient links. Network architectures have evolved from traditional three-layer (access, aggregation, core) to two-layer, leaf-spine/CLOS designs, supporting intra-cloud and inter-cloud traffic with low laten...

Article Content

Data Center Interconnect Solution Overview

The term DCI (Data Center Interconnect) is relevant in all scenarios where different levels of connectivity are required between two or more data center locations in order to provide flexibility for deploying

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Data Center Company & Enterprise Network

Equinix is the largest global data center and colocation provider for enterprise network and cloud computing. Secure datacenter management technologies and

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Deploy mission-critical workloads in 280 interconnected data centers with 99.999% uptime, 100% renewable energy and direct access to 3,000+ clouds and networks.

CoreSite | Secure, High-Performance Data Centers

CoreSite provides the foundation for your hybrid IT infrastructure with high-performance colocation, interconnected data center campuses and cloud onramps.

US Utilities Plan \$1.4T for AI Data Centers: 27% Capex

US utilities plan \$1.4 trillion in spending through 2030 for AI data centers. Duke Energy leads at \$102.2B as power demand hits 9% of US electricity.

Cologix Enters New Canadian Market With Strategic

DENVER and CALGARY, Alberta, Oct. 22, 2025 (GLOBE NEWSWIRE) -- Cologix, a leading network-neutral interconnection and

Europe, Middle East and Africa Data Center Colocation and ...

Unmatched interconnection, scalable colocation and infrastructure across Europe, Middle East and Africa Equinix has 101 data centers in Europe, Middle East and Africa, strategically located in key

Data center network architectures

A data center is a pool of resources (computational, storage, network) interconnected using a communication network. A data center network (DCN) holds a pivotal role in a data center, as it

Data Center Colocation Trends 2026: Power, AI

In 2026, six forces reshape data center colocation: power scarcity, AI density needs, modular construction, interconnection depth, edge demand, and

Chicago Data Centers | Premium Colocation Provider

Chicago Data Centers Our Chicago colocation facilities contribute to one of the world's top global financial centers and are home to several Fortune 1000

Data Center REIT Landscape: Equinix and Digital Realty

Equinix and Digital Realty dominate public data center real estate through opposite models: interconnection-led retail colocation versus wholesale scale.

Cloud Network Convergence: Data Center Interconnection | WBBA

Learn more about cloud-network convergence, data center interconnection and what it means for the future in this webinar from WBBA.

Data Center Interconnect: A Guide to DCI and Connectivity

Explore how data center interconnect works, and what to consider when connecting facilities, clouds, carriers, and network partners.

Solutions | Nokia

Data center networks Realize the full value of AI with data center networking solutions that meet the connectivity demands of AI and traditional application

Why We Need a New Network Architecture to Connect Data Centers

Author Rodney Dellinger outlines a compelling argument for a new network architecture to connecting data centers in the cloud.

A Complete Guide to Data Center Network Architecture

What Is Data Center Network Architecture? As the name suggests, data center network architecture deals with the physical and logical arrangement of systems that interconnect servers, storage

OpenAI Stargate: The \$500B AI Data Center Project

OpenAI's Stargate is a \$500B joint venture to build 10 GW of AI compute by 2029. SoftBank, Oracle, and NVIDIA are partners. Sites and scale

Data center interconnection for the cloud era

Network automation is key to enabling more dynamic access to cloud applications and services by providing software-programmable IP/optical data center connectivity and interconnection that is

Data center interconnection for the cloud era

Tomorrow's cloud infrastructure needs more integrated networks to provide data center interconnection that is more reliable, resilient and secure, and that reduces operating costs and improves efficiency

AI-First Hyperscalers: 2026's Sprint Meets the Power

Hyperscalers in 2026: What's Next for the World's Biggest Data Center Operators? In 2026, hyperscalers will accelerate AI-first buildouts while

USA Data Centers, Colocation & AI-Ready Infrastructure | Equinix

High-performance colocation data centers in the United States Equinix delivers AI-ready data centers across key US metros with seamless access to all major clouds, networks and enterprises. From

Cross Connects and Interconnection Services in Data

What is the Purpose of a Cross Connect? Cross connects provide increased reliability, security, and lower latency connections to networks, cloud platforms,

\$GLW Corning Gorilla Glass is practically the foundation for next ...

Midstream: Provides fiber optic cables and data center interconnect solutions.
Downstream: Directly benefits from AI data centers, cloud computing, hyperscale cloud service

Best Data Center and Cloud Networking Reviews 2026

Find the top Data Center and Cloud Networking Solutions with Gartner. Compare and filter by verified product reviews and choose the software that's right for your organization.

Data Center Colocation | Hyperscale Edge

We operate 45+ data centers across 13 strategic edge North American markets. Our data center ecosystem includes prime colocation and interconnection hubs and

Radian Arc to deploy GPU Edge platform at PureColo data centers in ...

Submer Group's Radian Arc has signed an agreement with PureColo to deploy GPU Edge infrastructure across the US and Canada. Under the agreement, Radian will deploy its GPU

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Colocation where it matters most Colocate at Equinix London and meet demand for network exchange services while seamlessly integrating people, locations, clouds and data at the digital edge. Look

Data center interconnection for the cloud era

This white paper explains the need for multi-layer data center interconnection networks and how they need to support dynamic access to cloud applications and services.

Contact Us

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