

Data Center Interconnection Network

Article Overview

Data Center Interconnect (DCI) networks connect multiple data centers to enable high-speed, low-latency, and secure data transfer for distributed applications, disaster recovery, and workload migration.

Overview

A Data Center Interconnect (DCI) is a network that links two or more data centers, allowing them to operate as a unified infrastructure while maintaining high bandwidth and low latency for critical applications and data replication . DCI networks are essential for enterprises and cloud providers that require geographic diversity, disaster recovery, and scalable computing resources.

Types of DCI Connectivity

- LAN Extension (Layer 2): Extends a single Layer 2 domain across multiple data centers, supporting legacy applications, virtual machine mobility, and clustering that require L2 adjacency . Technologies like Overlay Transport Virtualization (OTV), VPLS, and EoMPLS are commonly used.
- Layer 3 Extension: Provides routed connectivity between data centers for segmentation, virtualization, and backup applications. This often involves Layer 3 VPNs and requires careful bandwidth and QoS planning .
- SAN Extension: Extends storage networks across data centers, typically using Fibre Channel over IP or specialized transport solutions. Latency and distance are critical considerations for SAN DCI .

Key Technologies...

Article Content

Nov 16, 2025

Understanding Interconnection in Colocation Data Centers

Explore key interconnection approaches in colocation data centers to boost connectivity, agility, and business

May 06, 2026

Data Center Interconnection (DCI) Types and Definitions

Access to software-defined networking to deliver flexible connection controls, network segmentation, and security to

Jan 14, 2026

Designing Efficient Data Centers and Interconnection Networks

Data centers are the backbone of our online world. They house critical computing and storage resources, ensuring

Jan 30, 2026

Data Center Interconnect: A Guide to DCI and Connectivity

Data center interconnect (DCI) is private network connectivity between multiple data center facilities that lets you treat

Jul 14, 2026

Data center network architectures

A data center is a pool of resources (computational, storage, network) interconnected using a communication network. A data

May 01, 2026

What is Data Center Interconnect (DCI)?

Data Center Interconnect (DCI) technology connects two or more data centers together over short, medium or long distances using

Apr 16, 2026

Understanding Interconnection in Colocation Data Centers

Interconnection in data centers is crucial for businesses seeking to optimize their network infrastructure and reduce

Feb 19, 2026

Data Center Interconnect Reference Design Guide

Data Center Interconnect Reference Design Guide Data centers of all sizes host significant amounts of business-critical data—data

Oct 14, 2025

Ultimate Guide to Data Center Interconnect (DCI): Enhancing

A: Data Center Interconnect (DCI) technology links multiple data centers together over short or long distances,

Apr 21, 2026

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

Oct 24, 2025

Optical Data Center Interconnect

Deliver scalable optical data center interconnect and data center connectivity to meet growing AI demands

Aug 04, 2025

Data Center Networking: A Comprehensive Guide

Data center networking integrates network assets, including switches, routers, and load balancers, to

Jun 13, 2026

Data Center Interconnection: What is it & How Does it

Data center interconnection (DCI) is dedicated network connectivity that spans your data

Jul 05, 2026

Accelerating Data Center Interconnection with

The data center network architecture has evolved from the traditional core-aggregation

Jun 06, 2026

What is data center interconnect (DCI)?

DCI technology links data centers together to share resources. DCI provides several benefits. It lets organizations

Mar 25, 2026

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

Nov 04, 2025

Understanding the Types of Interconnection, and When to Use Them

Understanding Interconnection Interconnection refers to physical and virtual data connections between companies

Jul 27, 2025

Data center interconnect

Recent developments in data center interconnect (DCI) are strongly driven by the rapid growth of artificial intelligence (AI), cloud

Aug 02, 2025

What is Data Center Interconnect (DCI)?

Learn what Data Center Interconnect (DCI) is, explore key essentials, interconnect options, challenges, benefits, and

Apr 17, 2026

Interconnection Types and Definitions: A Comprehensive Guide by ...

Interconnection directly influences data center performance by reducing latency, increasing throughput, and improving

Sep 29, 2025

Demystifying Data Center Networking: A Beginner's Guide

Explore essential data center networking components like switches, routers, and cabling.

Dec 05, 2025

Data Center Connectivity: Everything You Need to Know About Cross

Despite being one of the most important components in a data center, connectivity options can be complex, confusing

Oct 18, 2025

Understanding the Types of Interconnection, and When to Use Them

A new special report from CoreSite and Data Center Frontier explores how colocation can be the “nervous system” of

Mar 24, 2026

What is Data Center Interconnect (DCI)? | Flexential

Data Center Interconnect (DCI) is a vital technology that connects data centers spread across different

Oct 31, 2025

Data Center Interconnection

DCI (Data Center Interconnection) is a network technology that connects multiple data centers, enabling seamless

Jan 09, 2026

A Complete Guide to Data Center Network Architecture

As the name suggests, data center network architecture deals with the physical and logical arrangement of

Jun 02, 2026

Data-Center Design and Interconnection Networks

A data center is a facility that houses computing resources such as servers, storage, and networking equipment. It is essential for

Jan 16, 2026

Data Center Networking: What It Is, Why It Matters, And Types

Data center networking connects networking resources like routing and load balancing in a data center to store and

Dec 24, 2025

Colocation and connectivity in global, AI-ready data

Colocation with multicloud access, locality control and global reach Expand globally with digital

Sep 02, 2025

DCI Explained: Data Center Interconnection Guide

As artificial intelligence, cloud computing, and big data continue to grow exponentially, the demand for efficient

Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://iiss.co.za>

Email: sales@iiss.co.za

Phone: +27 63 174 2895

Address: Unit 8, Innovation Park, 15 Rivonia Road, Sandton, Johannesburg,
2196, South Africa

This document is for informational purposes only. Specifications subject to
change without notice.

