

# **Data Center Interconnect Market Forecasts to 2032 – Global Analysis By Residue Type (Hardware, Software, and Services), Component, Technology, Connectivity Method, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global Data Center Interconnect Market is accounted for \$11646.85 million in 2025 and is expected to reach \$31169.93 million by 2032 growing at a CAGR of 15.1% during the forecast period. Data Center Interconnect (DCI) is the set of technologies and solutions that provide fast, secure, and resilient connections between multiple data centers. It supports efficient data exchange, workload migration, disaster recovery, and business continuity by using optical networks, IP protocols, and virtualization. Essential for cloud services, hyperscale environments, and enterprise operations, DCI enables low-latency communication, scalability, and optimized resource management across geographically separated data center infrastructures.

Market Dynamics:

Driver:

Rise of hyperscale and edge data centers

The surge in hyperscale and edge data centers within the Data Center Interconnect (DCI) market is fueled by escalating demand for low-latency connectivity, real-time data processing, and scalable cloud infrastructure. Enterprises are increasingly decentralizing workloads to edge locations to support IoT, AI, and 5G applications, while hyperscale operators expand global footprints to meet rising digital consumption. This

shift necessitates robust interconnect solutions that ensure seamless data exchange, redundancy, and performance optimization across distributed environments. Additionally, regulatory pressures and data sovereignty concerns are prompting localized deployments, further accelerating DCI adoption to maintain compliance and operational efficiency.

#### Restraint:

##### High initial investment and deployment costs

Building and scaling interconnect infrastructure demands significant financial outlay for advanced optical transport systems, high-performance networking equipment, and skilled technical personnel. These costs are especially prohibitive for mid-sized enterprises and emerging market players. Integration with legacy systems, compliance with evolving regulatory standards, and the need for multi-site redundancy further inflate deployment budgets. Long lead times and specialized expertise also slow down implementation, making it difficult for organizations to justify immediate investment. As a result, many firms opt for incremental upgrades or delay full-scale DCI rollouts, limiting market expansion and innovation potential.

#### Opportunity:

##### Growing demand for managed services

Organizations are increasingly outsourcing network management, monitoring, and optimization to specialized providers to reduce operational complexity and focus on core business functions. Managed services offer scalable, cost-efficient solutions that simplify interconnect deployment, enhance security, and ensure consistent performance across hybrid and multi-cloud environments. As data volumes surge and infrastructure becomes more distributed, enterprises seek expert support to maintain uptime, compliance, and agility. This shift toward service-based models is accelerating DCI adoption, particularly among firms lacking in-house technical expertise or resources.

#### Threat:

##### Operational complexity

Managing diverse infrastructure across multiple sites requires advanced coordination, real-time monitoring, and seamless integration of legacy and modern systems. The

intricacies of configuring high-speed links, ensuring data security, and maintaining consistent performance across hybrid environments demand specialized expertise and continuous oversight. As organizations adopt multi-cloud strategies, the challenge of orchestrating interconnectivity across varied platforms intensifies. Additionally, troubleshooting and maintaining uptime in such distributed architectures can strain internal resources. These operational demands frequently lead to delays, increased costs, and hesitancy among enterprises considering large-scale DCI implementations.

#### Covid-19 Impact:

The COVID-19 pandemic accelerated digital transformation, driving increased reliance on cloud services and remote operations, which in turn boosted demand for Data Center Interconnect (DCI) solutions. However, supply chain disruptions, delayed infrastructure projects, and reduced capital spending temporarily slowed deployments. Despite these challenges, the need for resilient, scalable, and secure interconnectivity became more critical, prompting enterprises to reassess network architectures and invest in long-term DCI strategies to support distributed workloads and ensure business continuity.

The hardware segment is expected to be the largest during the forecast period

The hardware segment is expected to account for the largest market share during the forecast period, owing to advancements in optical transport technologies, such as coherent optics and DWDM systems. The push for ultra-fast, high-bandwidth connections is driving adoption of 400G/800G modules, reconfigurable switches, and intelligent routing systems. Trends such as AI-powered network orchestration and intent-based configurations are reshaping hardware design priorities. Recent breakthroughs include energy-conscious components, open-standard platforms, and tighter integration with software-defined networking (SDN) and network function virtualization (NFV), enabling more flexible, scalable, and cost-effective interconnect architectures.

The large enterprises segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the large enterprises segment is predicted to witness the highest growth rate, driven by prioritizing ultra-fast, low-latency links between global data centres. Advanced technologies such as 400G/800G optics, software-defined networking, and automated orchestration are central to enabling agile, secure interconnects. Key trends include AI-driven traffic management, hybrid cloud scaling,

and transcontinental fibre deployments. Notable developments like hyperscaler-led infrastructure upgrades and pan-regional fibre networks highlight the shift toward programmable, resilient DCI architectures tailored for high-performance, mission-critical environments.

#### Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share, due to rapid hyperscaler growth, increased cloud adoption, and the need for seamless data exchange. Technologies like 400G/800G optics, software-defined networking, and intelligent automation are central to enabling high-performance interconnects. Key trends include AI-based traffic orchestration, expansion of submarine cable routes, and integration of edge and core networks. Major developments such as China's robust fibre infrastructure and Singapore's sustainable data centre push are shaping a resilient, scalable DCI landscape across the region.

#### Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, fuelled by hyperscaler growth, widespread multi-cloud adoption, and increasing demand for instant data exchange. Cutting-edge technologies like 400G/800G coherent optics, software-defined networking, and intent-based automation are enabling secure, flexible interconnects. Key trends include AI-driven workload distribution, edge-core convergence, and self-optimizing DCI systems. Significant developments such as hyperscaler-backed submarine cables and tiered AIOps services are reinforcing robust, low-latency infrastructure for compliance, disaster recovery, and high-performance applications.

#### Key players in the market

Some of the key players in Data Center Interconnect Market include Ciena, Dell Technologies, Cisco, Ribbon Communications, Juniper Networks, IBM, Infinera, ADVA Optical Networking, Huawei, VMware, Nokia, Arista Networks, Extreme Networks, Equinix, and Fujitsu.

#### Key Developments:

In August 2025, BR.Digital has deployed Ciena's WaveLogic 6 Extreme (WL6e) to address the country's growing demand for high-capacity connectivity. BR.Digital

successfully achieved 1.1 Tb/s single wavelength transmission on links spanning more than 800 km utilizing Ciena's WL6e, demonstrating the ability to support massive and high-speed data transmission.

In July 2025, IBM and Elior Group announce their association to create an "agentic AI & Data Factory" to serve Elior Group's innovation, digital transformation, and improved operational performance. This collaboration represents a major step forward in the innovation and digitization of the Elior Group, a world leader in contract catering and services for businesses and local authorities.

In June 2025, Cisco and Monumental Sports & Entertainment unveiled a transformative new partnership between the two companies, through which Cisco's best-in-class technology solutions will help to create a uniquely connected, next-generation experience for fans at MSE's new arena in downtown Washington, D.C. The multi-year collaboration will be across the entire Monumental enterprise, including the NBA's Washington Wizards.

#### Types Covered:

Hardware

Software

Services

#### Components Covered:

Optical Transport Systems

Routers & Switches

SDN Controllers

Network Virtualization Platforms

#### Technologies Covered:

Ethernet DCI

Optical Networking

Multiplexing

#### Connectivity Methods Covered:

Point-to-Point Connections

Hybrid Connections

Multipoint Connections

VPN-based Connectivity

Mesh Networks

#### Applications Covered:

Disaster Recovery & Business Continuity

High-Availability Clusters

Shared Data & Resources

Real-Time Replication

Workload & Data Mobility

Other Applications

#### End Users Covered:

Communication Service Providers

Large Enterprises

Internet Content Providers

Government & Research Institutions

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & Africa

What our report offers:

- Market share assessments for the regional and country-level segments
- Strategic recommendations for the new entrants
- Covers Market data for the years 2024, 2025, 2026, 2028, and 2032
- Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

- Strategic recommendations in key business segments based on the market estimations
- Competitive landscaping mapping the key common trends
- Company profiling with detailed strategies, financials, and recent developments
- Supply chain trends mapping the latest technological advancements

### **Free Customization Offerings:**

All the customers of this report will be entitled to receive one of the following free customization options:

#### Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

#### Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

#### Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

## Contents

### **1 EXECUTIVE SUMMARY**

### **2 PREFACE**

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
  - 2.4.1 Data Mining
  - 2.4.2 Data Analysis
  - 2.4.3 Data Validation
  - 2.4.4 Research Approach
- 2.5 Research Sources
  - 2.5.1 Primary Research Sources
  - 2.5.2 Secondary Research Sources
  - 2.5.3 Assumptions

### **3 MARKET TREND ANALYSIS**

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 End User Analysis
- 3.9 Emerging Markets
- 3.10 Impact of Covid-19

### **4 PORTERS FIVE FORCE ANALYSIS**

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

## **5 GLOBAL DATA CENTER INTERCONNECT MARKET, BY TYPE**

- 5.1 Introduction
- 5.2 Hardware
  - 5.2.1 Optical Transport Systems
  - 5.2.2 Multiprotocol Label Switching (MPLS)
  - 5.2.3 Routers & Switches
- 5.3 Software
  - 5.3.1 SDN Controllers
  - 5.3.2 Network Virtualization Platforms
- 5.4 Services
  - 5.4.1 Managed Services
  - 5.4.2 Professional Services

## **6 GLOBAL DATA CENTER INTERCONNECT MARKET, BY COMPONENT**

- 6.1 Introduction
- 6.2 Optical Transport Systems
- 6.3 Routers & Switches
- 6.4 SDN Controllers
- 6.5 Network Virtualization Platforms

## **7 GLOBAL DATA CENTER INTERCONNECT MARKET, BY TECHNOLOGY**

- 7.1 Introduction
- 7.2 Ethernet DCI
- 7.3 Optical Networking
- 7.4 Multiplexing

## **8 GLOBAL DATA CENTER INTERCONNECT MARKET, BY CONNECTIVITY METHOD**

- 8.1 Introduction
- 8.2 Point-to-Point Connections
- 8.3 Hybrid Connections
- 8.4 Multipoint Connections
- 8.5 VPN-based Connectivity
- 8.6 Mesh Networks

## **9 GLOBAL DATA CENTER INTERCONNECT MARKET, BY APPLICATION**

- 9.1 Introduction
- 9.2 Disaster Recovery & Business Continuity
- 9.3 High-Availability Clusters
- 9.4 Shared Data & Resources
- 9.5 Real-Time Replication
- 9.6 Workload & Data Mobility
- 9.7 Other Applications

## **10 GLOBAL DATA CENTER INTERCONNECT MARKET, BY END USER**

- 10.1 Introduction
- 10.2 Communication Service Providers
- 10.3 Large Enterprises
- 10.4 Internet Content Providers
- 10.5 Government & Research Institutions
- 10.6 Other End Users

## **11 GLOBAL DATA CENTER INTERCONNECT MARKET, BY GEOGRAPHY**

- 11.1 Introduction
- 11.2 North America
  - 11.2.1 US
  - 11.2.2 Canada
  - 11.2.3 Mexico
- 11.3 Europe
  - 11.3.1 Germany
  - 11.3.2 UK
  - 11.3.3 Italy
  - 11.3.4 France
  - 11.3.5 Spain
  - 11.3.6 Rest of Europe
- 11.4 Asia Pacific
  - 11.4.1 Japan
  - 11.4.2 China
  - 11.4.3 India
  - 11.4.4 Australia

- 11.4.5 New Zealand
- 11.4.6 South Korea
- 11.4.7 Rest of Asia Pacific
- 11.5 South America
  - 11.5.1 Argentina
  - 11.5.2 Brazil
  - 11.5.3 Chile
  - 11.5.4 Rest of South America
- 11.6 Middle East & Africa
  - 11.6.1 Saudi Arabia
  - 11.6.2 UAE
  - 11.6.3 Qatar
  - 11.6.4 South Africa
  - 11.6.5 Rest of Middle East & Africa

## **12 KEY DEVELOPMENTS**

- 12.1 Agreements, Partnerships, Collaborations and Joint Ventures
- 12.2 Acquisitions & Mergers
- 12.3 New Product Launch
- 12.4 Expansions
- 12.5 Other Key Strategies

## **13 COMPANY PROFILING**

- 13.1 Ciena
- 13.2 Dell Technologies
- 13.3 Cisco
- 13.4 Ribbon Communications
- 13.5 Juniper Networks
- 13.6 IBM
- 13.7 Infinera
- 13.8 ADVA Optical Networking
- 13.9 Huawei
- 13.10 VMware
- 13.11 Nokia
- 13.12 Arista Networks
- 13.13 Extreme Networks
- 13.14 Equinix

## 13.15 Fujitsu

## List Of Tables

### LIST OF TABLES

Table 1 Global Data Center Interconnect Market Outlook, By Region (2024-2032) (\$MN)

Table 2 Global Data Center Interconnect Market Outlook, By Type (2024-2032) (\$MN)

Table 3 Global Data Center Interconnect Market Outlook, By Hardware (2024-2032) (\$MN)

Table 4 Global Data Center Interconnect Market Outlook, By Optical Transport Systems (2024-2032) (\$MN)

Table 5 Global Data Center Interconnect Market Outlook, By Multiprotocol Label Switching (MPLS) (2024-2032) (\$MN)

Table 6 Global Data Center Interconnect Market Outlook, By Routers & Switches (2024-2032) (\$MN)

Table 7 Global Data Center Interconnect Market Outlook, By Software (2024-2032) (\$MN)

Table 8 Global Data Center Interconnect Market Outlook, By SDN Controllers (2024-2032) (\$MN)

Table 9 Global Data Center Interconnect Market Outlook, By Network Virtualization Platforms (2024-2032) (\$MN)

Table 10 Global Data Center Interconnect Market Outlook, By Services (2024-2032) (\$MN)

Table 11 Global Data Center Interconnect Market Outlook, By Managed Services (2024-2032) (\$MN)

Table 12 Global Data Center Interconnect Market Outlook, By Professional Services (2024-2032) (\$MN)

Table 13 Global Data Center Interconnect Market Outlook, By Component (2024-2032) (\$MN)

Table 14 Global Data Center Interconnect Market Outlook, By Optical Transport Systems (2024-2032) (\$MN)

Table 15 Global Data Center Interconnect Market Outlook, By Routers & Switches (2024-2032) (\$MN)

Table 16 Global Data Center Interconnect Market Outlook, By SDN Controllers (2024-2032) (\$MN)

Table 17 Global Data Center Interconnect Market Outlook, By Network Virtualization Platforms (2024-2032) (\$MN)

Table 18 Global Data Center Interconnect Market Outlook, By Technology (2024-2032) (\$MN)

Table 19 Global Data Center Interconnect Market Outlook, By Ethernet DCI

(2024-2032) (\$MN)

Table 20 Global Data Center Interconnect Market Outlook, By Optical Networking

(2024-2032) (\$MN)

Table 21 Global Data Center Interconnect Market Outlook, By Multiplexing (2024-2032)

(\$MN)

Table 22 Global Data Center Interconnect Market Outlook, By Connectivity Method

(2024-2032) (\$MN)

Table 23 Global Data Center Interconnect Market Outlook, By Point-to-Point

Connections (2024-2032) (\$MN)

Table 24 Global Data Center Interconnect Market Outlook, By Hybrid Connections

(2024-2032) (\$MN)

Table 25 Global Data Center Interconnect Market Outlook, By Multipoint Connections

(2024-2032) (\$MN)

Table 26 Global Data Center Interconnect Market Outlook, By VPN-based Connectivity

(2024-2032) (\$MN)

Table 27 Global Data Center Interconnect Market Outlook, By Mesh Networks

(2024-2032) (\$MN)

Table 28 Global Data Center Interconnect Market Outlook, By Application (2024-2032)

(\$MN)

Table 29 Global Data Center Interconnect Market Outlook, By Disaster Recovery &

Business Continuity (2024-2032) (\$MN)

Table 30 Global Data Center Interconnect Market Outlook, By High-Availability Clusters

(2024-2032) (\$MN)

Table 31 Global Data Center Interconnect Market Outlook, By Shared Data &

Resources (2024-2032) (\$MN)

Table 32 Global Data Center Interconnect Market Outlook, By Real-Time Replication

(2024-2032) (\$MN)

Table 33 Global Data Center Interconnect Market Outlook, By Workload & Data Mobility

(2024-2032) (\$MN)

Table 34 Global Data Center Interconnect Market Outlook, By Other Applications

(2024-2032) (\$MN)

Table 35 Global Data Center Interconnect Market Outlook, By End User (2024-2032)

(\$MN)

Table 36 Global Data Center Interconnect Market Outlook, By Communication Service

Providers (2024-2032) (\$MN)

Table 37 Global Data Center Interconnect Market Outlook, By Large Enterprises

(2024-2032) (\$MN)

Table 38 Global Data Center Interconnect Market Outlook, By Internet Content

Providers (2024-2032) (\$MN)

Table 39 Global Data Center Interconnect Market Outlook, By Government & Research Institutions (2024-2032) (\$MN)

Table 40 Global Data Center Interconnect Market Outlook, By Other End Users (2024-2032) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

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