

Data Center Fabric Market Size, Share & Trends Analysis Report By Component (Solution, Services), By Enterprise Size (SMEs, Large Enterprises), By Type (Traditional 3-Tier Fabric, Fabric Switches), By Application, By End-use, By Region, And Segment Forecasts, 2025 - 2030

<https://marketpublishers.com/r/DB965910517EEN.html>

Date: January 2025

Pages: 120

Price: US\$ 4,950.00 (Single User License)

ID: DB965910517EEN

Abstracts

This report can be delivered to the clients within 4 Business Days

Data Center Fabric Market Size & Trends

The global data center fabric market size was estimated at USD 7,679.8 million in 2024 and is anticipated to grow at a CAGR of 34.0% from 2025 to 2030. The data center fabric industry encompasses a framework of interconnected nodes, switches, and servers within a data center designed to optimize the performance, scalability, and efficiency of data center operations. It facilitates seamless communication between devices, enabling low-latency data transfer and improved load balancing. As organizations adopt digital transformation, the demand for robust IT infrastructure has grown exponentially, driving the adoption of data center fabric solutions.

Cloud computing, the proliferation of Internet of Things (IoT) devices, and the need for data-intensive applications such as AI and machine learning have further bolstered the market growth. The exponential increase in data generation from activities like video streaming, cloud-based applications, IoT devices, and e-commerce transactions is a primary driver for data center fabric adoption. As data volumes grow, organizations require scalable, high-performance infrastructure to handle traffic efficiently, fueling market growth. In addition, the rise of hyperscale data centers,

capable of supporting vast computational workloads, has underscored the need for sophisticated fabric architectures to ensure reliable and efficient operations.

The integration of artificial intelligence and machine learning within data center fabric systems is another significant trend, providing predictive analytics and automated resource optimization. Multi-cloud strategies are becoming commonplace, prompting the need for fabrics that support hybrid environments with consistent performance and security. The adoption of NVMe-over-Fabric (NVMe-oF) is transforming storage architectures, reducing latency, and enhancing data transfer speeds. Furthermore, the emphasis on energy efficiency and green data centers is driving innovation in low-power fabric technologies, aligning with corporate sustainability goals.

The demand for greener data centers is propelling innovation in energy-efficient fabric technologies. Low-power solutions, such as advanced network switches and optimized interconnect architectures, are being developed to reduce energy consumption while maintaining high performance. Organizations are prioritizing sustainability to meet environmental regulations and corporate ESG goals, which include lowering carbon footprints and operational costs. Technologies like dynamic power scaling and renewable energy integration in data centers further enhance efficiency. This focus on eco-friendly operations not only aligns with global sustainability trends but also opens lucrative growth opportunities for energy-efficient fabric solutions in the market.

High initial deployment costs, including investments in advanced switches, cabling, and management software, pose financial barriers for many organizations. Integrating modern fabric solutions into legacy systems adds complexity, often requiring significant time, expertise, and resources. In addition, the interconnected nature of fabric systems increases cybersecurity vulnerabilities, exposing data centers to potential threats like breaches and attacks. Addressing these concerns demands robust security measures and skilled personnel, which can further escalate costs. These factors collectively create hurdles, particularly for small and mid-sized enterprises looking to adopt fabric technologies.

Global Data Center Fabric Market Report Segmentation

This report forecasts market size growth at global, regional, and country levels and provides an analysis of the latest industry trends in each of the sub-segments from 2018 to 2030. For this study, Grand View Research has segmented the global data center fabric market report based on component, type, enterprise size, application, end use,

and region.

Component Outlook (Revenue, USD Million, 2018 - 2030)

Solution

Switches

Routers

Controllers

Storage systems

Others

Services

Consulting Services

Integration & Deployment

Support & Maintenance

Type Outlook (Revenue, USD Million, 2018 - 2030)

Traditional 3-Tier Fabric

Fabric Switches

Hyperconverged Fabric

Open Fabric

Enterprise Size Outlook (Revenue, USD Million, 2018 - 2030)

Large Enterprises

Small & Medium Sized Enterprises

Application Outlook (Revenue, USD Million, 2018 - 2030)

IT & Communication

Banking & Financial Services

Healthcare

Retail

Government

Media and entertainment

Others

End Use Outlook (Revenue, USD Million, 2018 - 2030)

Cloud Service Providers

Colocation Providers

Enterprises

Telecommunications

Regional Outlook (Revenue, USD Million, 2018 - 2030)

North America

U.S.

Canada

Mexico

Europe

Germany

UK

France

Asia Pacific

China

India

Japan

South Korea

Australia

Latin America

Brazil

Middle East & Africa

U.A.E

Saudi Arabia

South Africa

Contents

CHAPTER 1. METHODOLOGY AND SCOPE

- 1.1. Market Segmentation and Scope
- 1.2. Research Methodology
 - 1.2.1. Information Procurement
- 1.3. Information or Data Analysis
- 1.4. Methodology
- 1.5. Research Scope and Assumptions
- 1.6. Market Formulation & Validation
- 1.7. Country Based Segment Share Calculation
- 1.8. List of Data Sources

CHAPTER 2. EXECUTIVE SUMMARY

- 2.1. Market Outlook
- 2.2. Segment Outlook
- 2.3. Competitive Insights

CHAPTER 3. DATA CENTER FABRIC MARKET VARIABLES, TRENDS, & SCOPE

- 3.1. Market Lineage Outlook
- 3.2. Market Dynamics
 - 3.2.1. Market Driver Analysis
 - 3.2.2. Market Restraint Analysis
 - 3.2.3. Industry Challenge
- 3.3. Data Center Fabric Market Analysis Tools
 - 3.3.1. Industry Analysis - Porter's
 - 3.3.1.1. Bargaining power of the suppliers
 - 3.3.1.2. Bargaining power of the buyers
 - 3.3.1.3. Threats of substitution
 - 3.3.1.4. Threats from new entrants
 - 3.3.1.5. Competitive rivalry
 - 3.3.2. PESTEL Analysis
 - 3.3.2.1. Political landscape
 - 3.3.2.2. Economic and social landscape
 - 3.3.2.3. Technological landscape

CHAPTER 4. DATA CENTER FABRIC MARKET: COMPONENT ESTIMATES & TREND ANALYSIS

4.1. Segment Dashboard

4.2. Data Center Fabric Market: Component Movement Analysis, 2024 & 2030 (USD Million)

4.3. Solution

4.3.1. Solution Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.3.2. Switches

4.3.2.1. Switches Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.3.3. Routers

4.3.3.1. Routers Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.3.4. Controllers

4.3.4.1. Controllers Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.3.5. Storage systems

4.3.5.1. Storage systems Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.3.6. Others

4.3.6.1. Others Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.4. Services

4.4.1. Services Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.4.2. Consulting Services

4.4.2.1. Consulting Services Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.4.3. Integration & Deployment

4.4.3.1. Integration & Deployment Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

4.4.4. Support & Maintenance

4.4.4.1. Support & Maintenance Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

CHAPTER 5. DATA CENTER FABRIC MARKET: TYPE ESTIMATES & TREND ANALYSIS

5.1. Segment Dashboard

5.2. Data Center Fabric Market: Type Movement Analysis, 2024 & 2030 (USD Million)

5.3. Traditional 3-Tier Fabric

5.3.1. Traditional 3-Tier Fabric Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

5.4. Fabric Switches

5.4.1. Fabric Switches Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

5.5. Hyperconverged Fabric

5.5.1. Hyperconverged Fabric Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

5.6. Open Fabric

5.6.1. Open Fabric Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

CHAPTER 6. DATA CENTER FABRIC MARKET: ENTERPRISE SIZE ESTIMATES & TREND ANALYSIS

6.1. Segment Dashboard

6.2. Data Center Fabric Market: Enterprise Size Movement Analysis, 2024 & 2030 (USD Million)

6.3. Large Enterprises

6.3.1. Large Enterprises Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

6.4. Small & Medium Sized Enterprises

6.4.1. Small & Medium Sized Enterprises Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

CHAPTER 7. DATA CENTER FABRIC MARKET: APPLICATION ESTIMATES & TREND ANALYSIS

7.1. Segment Dashboard

7.2. Data Center Fabric Market: Application Movement Analysis, 2024 & 2030 (USD Million)

7.3. IT & Communication

7.3.1. IT & Communication Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

7.4. Banking & Financial Services

7.4.1. Banking & Financial Services Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

7.5. Healthcare

7.5.1. Healthcare Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

7.6. Retail

7.6.1. Retail Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

7.7. Government

7.7.1. Government Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

7.8. Media and entertainment

7.8.1. Media and entertainment Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

7.9. Others

7.9.1. Others Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

CHAPTER 8. DATA CENTER FABRIC MARKET: END USE ESTIMATES & TREND ANALYSIS

8.1. Segment Dashboard

8.2. Data Center Fabric Market: End Use Movement Analysis, 2024 & 2030 (USD Million)

8.3. Cloud Service Providers

8.3.1. Cloud Service Providers Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

8.4. Colocation Providers

8.4.1. Colocation Providers Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

8.5. Enterprises

8.5.1. Enterprises Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

8.6. Telecommunications

8.6.1. Telecommunications Market, Market Size Estimates and Forecasts, 2018 - 2030 (USD Million)

CHAPTER 9. DATA CENTER FABRIC MARKET: REGIONAL ESTIMATES & TREND ANALYSIS

9.1. Data Center Fabric Market Share, By Region, 2024 & 2030 (USD Million)

9.2. North America

9.2.1. North America Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.2.2. U.S.

9.2.2.1. U.S. Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.2.3. Canada

9.2.3.1. Canada Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.2.4. Mexico

9.2.4.1. Mexico Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.3. Europe

9.3.1. Europe Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.3.2. UK

9.3.2.1. UK Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.3.3. Germany

9.3.3.1. Germany Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.3.4. France

9.3.4.1. France Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.4. Asia Pacific

9.4.1. Asia Pacific Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.4.2. China

9.4.2.1. China Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.4.3. Japan

9.4.3.1. Japan Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.4.4. India

9.4.4.1. India Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.4.5. South Korea

9.4.5.1. South Korea Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD Million)

9.4.6. Australia

9.4.6.1. Australia Data Center Fabric Market Estimates and Forecasts, 2018 - 2030
(USD Million)

9.5. Latin America

9.5.1. Latin America Data Center Fabric Market Estimates and Forecasts, 2018 - 2030
(USD Million)

9.5.2. Brazil

9.5.2.1. Brazil Data Center Fabric Market Estimates and Forecasts, 2018 - 2030
(USD Million)

9.6. Middle East and Africa

9.6.1. Middle East and Africa Data Center Fabric Market Estimates and Forecasts,
2018 - 2030 (USD Million)

9.6.2. UAE

9.6.2.1. UAE Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD
Million)

9.6.3. KSA

9.6.3.1. KSA Data Center Fabric Market Estimates and Forecasts, 2018 - 2030 (USD
Million)

9.6.4. South Africa

9.6.4.1. South Africa Data Center Fabric Market Estimates and Forecasts, 2018 -
2030 (USD Million)

CHAPTER 10. COMPETITIVE LANDSCAPE

10.1. Company Categorization

10.2. Company Market Positioning

10.3. Company Market Share

10.4. Company Heat Map Analysis

10.5. Company Profiles/Listing

10.5.1. Arista Networks, Inc.

10.5.1.1. Participant's Overview

10.5.1.2. Financial Performance

10.5.1.3. Product Benchmarking

10.5.1.4. Strategic Initiatives

10.5.2. Brocade Communications Systems (Broadcom)

10.5.2.1. Participant's Overview

10.5.2.2. Financial Performance

10.5.2.3. Product Benchmarking

10.5.2.4. Strategic Initiatives

- 10.5.3. Cisco Systems, Inc.
 - 10.5.3.1. Participant's Overview
 - 10.5.3.2. Financial Performance
 - 10.5.3.3. Product Benchmarking
 - 10.5.3.4. Strategic Initiatives
- 10.5.4. Dell Technologies
 - 10.5.4.1. Participant's Overview
 - 10.5.4.2. Financial Performance
 - 10.5.4.3. Product Benchmarking
 - 10.5.4.4. Strategic Initiatives
- 10.5.5. Extreme Networks
 - 10.5.5.1. Participant's Overview
 - 10.5.5.2. Financial Performance
 - 10.5.5.3. Product Benchmarking
 - 10.5.5.4. Strategic Initiatives
- 10.5.6. Hewlett Packard Enterprise (HPE)
 - 10.5.6.1. Participant's Overview
 - 10.5.6.2. Financial Performance
 - 10.5.6.3. Product Benchmarking
 - 10.5.6.4. Strategic Initiatives
- 10.5.7. Huawei Technologies Co., Ltd.
 - 10.5.7.1. Participant's Overview
 - 10.5.7.2. Financial Performance
 - 10.5.7.3. Product Benchmarking
 - 10.5.7.4. Strategic Initiatives
- 10.5.8. IBM Corporation
 - 10.5.8.1. Participant's Overview
 - 10.5.8.2. Financial Performance
 - 10.5.8.3. Product Benchmarking
 - 10.5.8.4. Strategic Initiatives
- 10.5.9. Juniper Networks, Inc.
 - 10.5.9.1. Participant's Overview
 - 10.5.9.2. Financial Performance
 - 10.5.9.3. Product Benchmarking
 - 10.5.9.4. Strategic Initiatives
- 10.5.10. VMware, Inc.
 - 10.5.10.1. Participant's Overview
 - 10.5.10.2. Financial Performance
 - 10.5.10.3. Product Benchmarking

10.5.10.4. Strategic Initiatives

I would like to order

Product name: Data Center Fabric Market Size, Share & Trends Analysis Report By Component (Solution, Services), By Enterprise Size (SMEs, Large Enterprises), By Type (Traditional 3-Tier Fabric, Fabric Switches), By Application, By End-use, By Region, And Segment Forecasts, 2025 - 2030

Product link: <https://marketpublishers.com/r/DB965910517EEN.html>

Price: US\$ 4,950.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/DB965910517EEN.html>