

Software defined networking Market Forecasts to 2030 – Global Analysis by Type (Open SDN, SDN via API, SDN via Overlay, Hybrid SDN), Component, Organization Size, Application, End User and By Geography

<https://marketpublishers.com/r/SF0E8B599547EN.html>

Date: April 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: SF0E8B599547EN

Abstracts

According to Statistics MRC, the Global Software defined networking Market is accounted for \$29.8 billion in 2024 and is expected to reach \$96.8 billion by 2030 growing at a CAGR of 21.7% during the forecast period. Software-Defined Networking (SDN) is a network architectural solution that separates the network control plane from the data plane, allowing for centralized management and programmability. Through software-based controllers, SDN enables administrators to dynamically create, manage, and optimize network resources by decoupling network services from hardware. This lessens reliance on proprietary hardware while improving automation, scalability, and adaptability. SDN is perfect for cloud computing, data centers, and business networks because it allows for better resource usage, traffic control, and security.

According to Statista, there were an expected 2.17 Billion 5G mobile subscriptions worldwide in 2024.

Market Dynamics:

Driver:

Growing Demand for Network Automation & Agility

The increasing need for network automation and agility is a major driver of the software-defined networking (SDN) industry. SDN lowers operating expenses and manual

intervention by enabling automated administration, real-time network modifications, and centralized control. Improved scalability, flexibility, and quick rollout of new services are advantageous to businesses. This need is driving SDN use in telecom networks, cloud providers, and companies, encouraging innovation, increasing productivity, and supporting the SDN market's overall expansion.

Restraint:

Complex Implementation & Integration

Software-Defined Networking's (SDN) intricate integration and deployment impede market expansion by raising deployment costs, necessitating specialized knowledge, and creating interoperability issues. Compatibility problems with legacy infrastructure further impede adoption. Scalability is constrained by organizations' lengthy deployment schedules and security issues. Adoption is complicated by the need for significant modification to integrate SDN with current IT environments. These factors restrict the expansion of SDN.

Opportunity:

Growth of 5G & IoT Technologies

The proliferation of 5G and IoT technologies is a major driver of the software-defined networking (SDN) industry, increasing need for flexible, scalable, and automated network solutions. For managing large IoT connections and fast 5G networks, SDN makes it possible for effective traffic management, low-latency communication, and dynamic resource allocation. Network slicing is supported by its programmability, guaranteeing optimal performance for a variety of applications. The market is expanding as SDN deployment increases in tandem with the rapid adoption of 5G and IoT.

Threat:

High Initial Deployment Costs

High initial implementation costs severely impede the growth of the industry. Companies must spend a lot of money on hiring qualified staff, updating infrastructure, and integrating SDN with older systems. Small and medium-sized businesses (SMEs) may be discouraged from adopting these charges, which would impede market growth. The implementation of SDN is further restricted by financial limitations in developing nations,

which postpones the realization of its advantages, which include network automation, scalability, and flexibility.

Covid-19 Impact

The COVID-19 pandemic accelerated the adoption of Software-Defined Networking (SDN) as enterprises shifted to remote work and cloud-based operations. Increased demand for network agility, security, and scalability drove investments in SDN solutions. However, supply chain disruptions and budget constraints temporarily slowed market growth. Overall, the crisis highlighted SDN's role in enabling flexible, efficient, and resilient network infrastructure for businesses and service providers.

The open SDN segment is expected to be the largest during the forecast period

The open SDN segment is expected to account for the largest market share during the forecast period, as open SDN encourages vendor-neutral solutions, which lessen reliance on expensive proprietary hardware. By facilitating a smooth interface with current infrastructure, it promotes quicker adoption. Open-source cooperation also speeds up technical development, enhancing security and scalability. This transparency draws businesses and service providers, which propels the growth of the SDN market by increasing the adaptability, efficiency, and affordability of networks.

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

Over the forecast period, the healthcare segment is predicted to witness the highest growth rate, owing to demand for secure, scalable, and efficient network management. With the rise of telemedicine, electronic health records (EHRs), and IoT-enabled medical devices, healthcare providers require agile and reliable networks. SDN enhances data flow, reduces latency, and strengthens cybersecurity, ensuring seamless healthcare operations. The push for digital transformation and cloud-based healthcare solutions further accelerates SDN adoption, making it a crucial technology for modernizing healthcare infrastructure.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share due to increasing demand for network automation, cloud computing, and IoT integration. SDN enhances network agility, scalability, and security, making it

essential for enterprises and service providers. The region's advanced IT infrastructure, strong presence of key market players, and investments in 5G technology further propel SDN adoption. This transformation reduces operational costs, improves efficiency, and accelerates digital innovation, fostering a competitive and resilient network ecosystem.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, owing to rapid growth, driven by increasing digital transformation, 5G deployment, and cloud adoption. SDN enhances network agility, scalability, and efficiency, enabling businesses to optimize operations and reduce costs. Governments and enterprises are investing in SDN to support smart cities, IoT, and AI-driven applications. This technological shift fosters innovation, improves cybersecurity, and accelerates the region's IT infrastructure development, positioning Asia-Pacific as a global leader in next-generation networking solutions.

Key players in the market

Some of the key players profiled in the Software defined networking Market include Cisco Systems, Inc, VMware, Inc, Dell EMC, Hewlett Packard Enterprise (HPE), Juniper Networks, Inc, Arista Networks, Inc, Huawei Technologies Co., Ltd., IBM Corporation, Ciena Corporation, Extreme Networks, Inc, Fortinet, Inc, Nokia Corporation, Palo Alto Networks, Inc, Broadcom Inc, ADARA Networks, Versa Networks, Barracuda Networks, Inc, Big Switch Networks and Pluribus Networks.

Key Developments:

In January 2025, Telefonica Tech and IBM announced a collaboration agreement to develop and deliver security solutions that address security challenges posed by future cryptographically relevant quantum computers.

In January 2025, e&s, has collaborated with IBM to deploy a pioneering, this collaboration intends to enhance e&s AI governance framework to promote compliance, oversight, and ethical practices across its growing AI ecosystem, reinforcing e&s commitment to establishing robust governance, risk management, and regulatory oversight across its AI usage.

In January 2025, IBM and L'Oreal announced a collaboration to leverage IBM's generative artificial intelligence (GenAI) technology and expertise to uncover new

insights in cosmetic formulation data, facilitating L'Oreal's use of sustainable raw materials, for energy and material waste reductions.

Types Covered:

Open SDN

SDN via API

SDN via Overlay

Hybrid SDN

Components Covered:

Solution

Services

Organization Sizes Covered:

Small & Medium Enterprises (SMEs)

Large Enterprises

Applications Covered:

SD-WAN

SD-LAN

Security Applications

Other Applications

End Users Covered:

Telecommunication Service Providers

Cloud Service Providers

Enterprises

Healthcare

Retail & E-Commerce

Manufacturing

Government & Defense

Education

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 2022, 2023, 2024, 2026, and 2030
- 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 Application Analysis
- 3.7 End User Analysis
- 3.8 Emerging Markets
- 3.9 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 SOFTWARE DEFINED NETWORKING MARKET, BY TYPE

- 5.1 Introduction
- 5.2 Open SDN
- 5.3 SDN via API
- 5.4 SDN via Overlay
- 5.5 Hybrid SDN

6 GLOBAL SOFTWARE DEFINED NETWORKING MARKET, BY COMPONENT

- 6.1 Introduction
- 6.2 Solution
 - 6.2.1 SDN Controllers
 - 6.2.2 SDN Application Software
 - 6.2.3 Cloud Virtualization Solutions
- 6.3 Services
 - 6.3.1 Professional Services
 - 6.3.2 Managed Services

7 GLOBAL SOFTWARE DEFINED NETWORKING MARKET, BY ORGANIZATION SIZE

- 7.1 Introduction
- 7.2 Small & Medium Enterprises (SMEs)
- 7.3 Large Enterprises

8 GLOBAL SOFTWARE DEFINED NETWORKING MARKET, BY APPLICATION

- 8.1 Introduction
- 8.2 SD-WAN
- 8.3 SD-LAN
- 8.4 Security Applications
- 8.5 Other Applications

9 GLOBAL SOFTWARE DEFINED NETWORKING MARKET, BY END USER

- 9.1 Introduction
- 9.2 Telecommunication Service Providers
- 9.3 Cloud Service Providers

- 9.4 Enterprises
- 9.5 Healthcare
- 9.6 Retail & E-Commerce
- 9.7 Manufacturing
- 9.8 Government & Defense
- 9.9 Education
- 9.10 Other End Users

10 GLOBAL SOFTWARE DEFINED NETWORKING MARKET, BY GEOGRAPHY

- 10.1 Introduction
- 10.2 North America
 - 10.2.1 US
 - 10.2.2 Canada
 - 10.2.3 Mexico
- 10.3 Europe
 - 10.3.1 Germany
 - 10.3.2 UK
 - 10.3.3 Italy
 - 10.3.4 France
 - 10.3.5 Spain
 - 10.3.6 Rest of Europe
- 10.4 Asia Pacific
 - 10.4.1 Japan
 - 10.4.2 China
 - 10.4.3 India
 - 10.4.4 Australia
 - 10.4.5 New Zealand
 - 10.4.6 South Korea
 - 10.4.7 Rest of Asia Pacific
- 10.5 South America
 - 10.5.1 Argentina
 - 10.5.2 Brazil
 - 10.5.3 Chile
 - 10.5.4 Rest of South America
- 10.6 Middle East & Africa
 - 10.6.1 Saudi Arabia
 - 10.6.2 UAE
 - 10.6.3 Qatar

10.6.4 South Africa

10.6.5 Rest of Middle East & Africa

11 KEY DEVELOPMENTS

11.1 Agreements, Partnerships, Collaborations and Joint Ventures

11.2 Acquisitions & Mergers

11.3 New Product Launch

11.4 Expansions

11.5 Other Key Strategies

12 COMPANY PROFILING

12.1 Cisco Systems, Inc

12.2 VMware, Inc

12.3 Dell EMC

12.4 Hewlett Packard Enterprise (HPE)

12.5 Juniper Networks, Inc

12.6 Arista Networks, Inc

12.7 Huawei Technologies Co., Ltd.

12.8 IBM Corporation

12.9 Ciena Corporation

12.10 Extreme Networks, Inc

12.11 Fortinet, Inc

12.12 Nokia Corporation

12.13 Palo Alto Networks, Inc

12.14 Broadcom Inc

12.15 ADARA Networks

12.16 Versa Networks

12.17 Barracuda Networks, Inc

12.18 Big Switch Networks

12.19 Pluribus Networks

List Of Tables

LIST OF TABLES

Table 1 Global Software defined networking Market Outlook, By Region (2022-2030) (\$MN)

Table 2 Global Software defined networking Market Outlook, By Type (2022-2030) (\$MN)

Table 3 Global Software defined networking Market Outlook, By Open SDN (2022-2030) (\$MN)

Table 4 Global Software defined networking Market Outlook, By SDN via API (2022-2030) (\$MN)

Table 5 Global Software defined networking Market Outlook, By SDN via Overlay (2022-2030) (\$MN)

Table 6 Global Software defined networking Market Outlook, By Hybrid SDN (2022-2030) (\$MN)

Table 7 Global Software defined networking Market Outlook, By Component (2022-2030) (\$MN)

Table 8 Global Software defined networking Market Outlook, By Solution (2022-2030) (\$MN)

Table 9 Global Software defined networking Market Outlook, By SDN Controllers (2022-2030) (\$MN)

Table 10 Global Software defined networking Market Outlook, By SDN Application Software (2022-2030) (\$MN)

Table 11 Global Software defined networking Market Outlook, By Cloud Virtualization Solutions (2022-2030) (\$MN)

Table 12 Global Software defined networking Market Outlook, By Services (2022-2030) (\$MN)

Table 13 Global Software defined networking Market Outlook, By Professional Services (2022-2030) (\$MN)

Table 14 Global Software defined networking Market Outlook, By Managed Services (2022-2030) (\$MN)

Table 15 Global Software defined networking Market Outlook, By Organization Size (2022-2030) (\$MN)

Table 16 Global Software defined networking Market Outlook, By Small & Medium Enterprises (SMEs) (2022-2030) (\$MN)

Table 17 Global Software defined networking Market Outlook, By Large Enterprises (2022-2030) (\$MN)

Table 18 Global Software defined networking Market Outlook, By Application

(2022-2030) (\$MN)

Table 19 Global Software defined networking Market Outlook, By SD-WAN (2022-2030) (\$MN)

Table 20 Global Software defined networking Market Outlook, By SD-LAN (2022-2030) (\$MN)

Table 21 Global Software defined networking Market Outlook, By Security Applications (2022-2030) (\$MN)

Table 22 Global Software defined networking Market Outlook, By Other Applications (2022-2030) (\$MN)

Table 23 Global Software defined networking Market Outlook, By End User (2022-2030) (\$MN)

Table 24 Global Software defined networking Market Outlook, By Telecommunication Service Providers (2022-2030) (\$MN)

Table 25 Global Software defined networking Market Outlook, By Cloud Service Providers (2022-2030) (\$MN)

Table 26 Global Software defined networking Market Outlook, By Enterprises (2022-2030) (\$MN)

Table 27 Global Software defined networking Market Outlook, By Healthcare (2022-2030) (\$MN)

Table 28 Global Software defined networking Market Outlook, By Retail & E-Commerce (2022-2030) (\$MN)

Table 29 Global Software defined networking Market Outlook, By Manufacturing (2022-2030) (\$MN)

Table 30 Global Software defined networking Market Outlook, By Government & Defense (2022-2030) (\$MN)

Table 31 Global Software defined networking Market Outlook, By Education (2022-2030) (\$MN)

Table 32 Global Software defined networking Market Outlook, By Other End Users (2022-2030) (\$MN)

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

I would like to order

Product name: Software defined networking Market Forecasts to 2030 – Global Analysis by Type (Open SDN, SDN via API, SDN via Overlay, Hybrid SDN), Component, Organization Size, Application, End User and By Geography

Product link: <https://marketpublishers.com/r/SF0E8B599547EN.html>

Price: US\$ 4,150.00 (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/SF0E8B599547EN.html>