

Telco Cloud Infrastructure Market Forecasts to 2034 – Global Analysis By Component (Solution and Services), Function, Service Model, Deployment Mode, Organization Size, End User and By Geography

<https://marketpublishers.com/r/TA7D1524547EEN.html>

Date: March 2026

Pages: 200

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

ID: TA7D1524547EEN

Abstracts

According to Statistics MRC, the Global Telco Cloud Infrastructure Market is accounted for \$18.67 billion in 2026 and is expected to reach \$32.80 billion by 2034 growing at a CAGR of 7.3% during the forecast period. Telco cloud infrastructure refers to a cloud-based architectural framework that enables telecommunications operators to deliver network services using virtualized and software-defined technologies. It replaces traditional hardware-centric telecom networks with scalable cloud platforms that support Network Functions Virtualization (NFV), Software-Defined Networking (SDN), and containerized applications. This infrastructure allows telecom providers to deploy, manage, and scale network functions such as core networks, edge computing, and data processing more efficiently. By improving flexibility, automation, and service agility, telco cloud infrastructure supports advanced digital services including 5G, IoT connectivity, and real-time data applications while optimizing operational costs.

Market Dynamics:

Driver:

Rapid Deployment of 5G Networks

The rapid deployment of 5G networks is a major factor driving the growth of the Telco Cloud Infrastructure market. Telecom operators are increasingly adopting cloud-native architectures to support the high bandwidth, ultra-low latency, and massive connectivity requirements of 5G services. Telco cloud platforms enable efficient virtualization of

network functions and flexible scaling of resources, allowing service providers to quickly deploy and manage next-generation network capabilities. As global investments in 5G infrastructure continue to rise, demand for advanced Telco cloud solutions is expected to expand significantly.

Restraint:**Security and Data Privacy Concerns**

Security and data privacy concerns remain a key restraint for the market. The transition from traditional hardware based networks to cloud-based and virtualized environments increases exposure to cyber threats, unauthorized access, and data breaches. Telecom operators manage vast volumes of sensitive customer and network data, making robust security frameworks essential. Additionally, strict regulatory requirements related to data protection and compliance further complicates cloud adoption. These challenges can increase implementation complexity and slow the widespread deployment of telco cloud infrastructure.

Opportunity:**Growing Data Traffic and IoT Expansion**

The growing volume of global data traffic and the rapid expansion of Internet of Things (IoT) devices present significant opportunities for the market. Increasing smartphone penetration, connected devices, and digital services are generating massive amounts of network data that require scalable and flexible infrastructure. Telco cloud solutions allow telecom providers to efficiently manage dynamic workloads, enhance network performance, and support real-time data processing. As IoT ecosystems expand across industries such as manufacturing and smart cities, the need for advanced cloud based telecom infrastructure continues to grow.

Threat:**High Initial Investment and Skill Gap**

High initial investment requirements and a shortage of skilled professionals pose notable threats to the growth of the market. Deploying cloud native telecom networks requires significant capital for infrastructure upgrades, virtualization platforms, and advanced software solutions. Additionally, telecom operators need highly skilled

personnel with expertise in cloud computing and cybersecurity. The limited availability of such specialized talent can delay deployment timelines and increase operational costs, potentially hindering the adoption of telco cloud technologies, particularly among smaller telecom providers.

Covid-19 Impact:

The COVID-19 pandemic had a mixed impact on the market. The sudden shift toward remote work, online education, digital entertainment, and cloud-based communication significantly increased network traffic and accelerated the demand for scalable telecom infrastructure. Telecom operators increasingly relied on cloud technologies to manage network loads and maintain service reliability. However, the pandemic also disrupted global supply chains and delayed infrastructure investments in certain regions. Despite these challenges, the long-term outlook remained positive as digital transformation initiatives gained momentum worldwide.

The software-defined networking (SDN) segment is expected to be the largest during the forecast period

The software-defined networking (SDN) segment is expected to account for the largest market share during the forecast period, due to its ability to enhance network flexibility, automation, and centralized management. SDN separates the control plane from the data plane, enabling telecom operators to dynamically manage network traffic and optimize resource allocation. This architecture simplifies network configuration and accelerates service deployment, which is particularly important for 5G and cloud-native environments. As telecom providers seek greater operational efficiency and agility, SDN adoption continues to expand significantly.

The managed service providers segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the managed service providers segment is predicted to witness the highest growth rate, due to increasing preference among telecom operators to outsource complex cloud infrastructure management. Managed service providers offer expertise in deploying, operating, and maintaining virtualized network environments, helping telecom companies reduce operational complexity and costs. These providers also support continuous monitoring and performance optimization. As telecom networks become more software driven and complex, the demand for specialized managed services is expected to increase rapidly.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, due to the presence of advanced telecommunications infrastructure, early adoption of cloud technologies, and strong investments in 5G deployment. Major telecom operators and technology providers in the region are actively investing in network virtualization, edge computing, and cloud-native telecom platforms. Additionally, supportive regulatory frameworks and the presence of leading cloud service providers contribute to the rapid adoption of telco cloud infrastructure across the United States and Canada.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, owing to rapid expansion of telecom networks, increasing smartphone penetration, and significant investments in 5G infrastructure across countries such as China, India, Japan, and South Korea. Governments and telecom operators in the region are focusing on digital transformation initiatives and smart city projects, which require scalable cloud-based telecom platforms. The growing demand for high speed connectivity and IoT applications is expected to further accelerate telco cloud infrastructure adoption across Asia Pacific.

Key players in the market

Some of the key players in Telco Cloud Infrastructure Market include Ericsson, Nokia, Cisco Systems, Huawei Technologies, VMware, IBM, Microsoft, Amazon Web Services (AWS), Google Cloud, Oracle, Hewlett Packard Enterprise (HPE), Amdocs, Netcracker Technology, Samsung Electronics and Mavenir.

Key Developments:

In February 2026, IBM introduced the next-generation autonomous storage portfolio featuring IBM FlashSystem 5600, 7600, and 9600, powered by agentic AI. The systems automate storage management, improve cyber-resilience, and optimize enterprise data operations, helping organizations manage AI workloads more efficiently. This launch strengthens IBM's hybrid cloud and AI infrastructure ecosystem by reducing manual IT operations and enabling autonomous data storage environments.

In January 2026, IBM partnered with telecom group e& to deploy enterprise-grade agentic AI solutions for governance and regulatory compliance. The collaboration focuses on implementing advanced AI agents capable of automating compliance monitoring, operational decision-making, and enterprise analytics. Announced at the World Economic Forum in Davos, the initiative demonstrates IBM's growing focus on enterprise AI ecosystems.

Components Covered:

Solution

Services

Functions Covered:

Network Functions Virtualization (NFV)

Cloud Orchestration & Automation

Software-Defined Networking (SDN)

Edge & CDN Services

Other Functions

Service Models Covered:

Infrastructure as a Service

Platform as a Service

Software as a Service

Deployment Modes Covered:

Public Cloud

Private Cloud

Hybrid Cloud

Organization Sizes Covered:

Large Enterprises

Small & Medium Enterprises (SMEs)

End Users Covered:

Telecom Service Providers

Enterprises

Managed Service Providers

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of 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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034
- 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

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY COMPONENT

- 5.1 Solution
 - 5.1.1 Virtualized Infrastructure Software
 - 5.1.2 Cloud Management Platforms
- 5.2 Services
 - 5.2.1 Consultancy
 - 5.2.2 Integration & Implementation

6 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY FUNCTION

- 6.1 Network Functions Virtualization (NFV)
- 6.2 Cloud Orchestration & Automation
- 6.3 Software-Defined Networking (SDN)
- 6.4 Edge & CDN Services
- 6.5 Other Functions

7 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY SERVICE MODEL

- 7.1 Infrastructure as a Service
- 7.2 Platform as a Service
- 7.3 Software as a Service

8 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY DEPLOYMENT MODE

- 8.1 Public Cloud
- 8.2 Private Cloud
- 8.3 Hybrid Cloud

9 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY ORGANIZATION SIZE

- 9.1 Large Enterprises
- 9.2 Small & Medium Enterprises (SMEs)

10 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY END USER

- 10.1 Telecom Service Providers
- 10.2 Enterprises
- 10.3 Managed Service Providers
- 10.4 Other End Users

11 GLOBAL TELCO CLOUD INFRASTRUCTURE MARKET, BY GEOGRAPHY

- 11.1 North America
 - 11.1.1 United States
 - 11.1.2 Canada
 - 11.1.3 Mexico
- 11.2 Europe
 - 11.2.1 United Kingdom
 - 11.2.2 Germany
 - 11.2.3 France
 - 11.2.4 Italy
 - 11.2.5 Spain
 - 11.2.6 Netherlands
 - 11.2.7 Belgium
 - 11.2.8 Sweden
 - 11.2.9 Switzerland
 - 11.2.10 Poland
 - 11.2.11 Rest of Europe
- 11.3 Asia Pacific
 - 11.3.1 China
 - 11.3.2 Japan
 - 11.3.3 India
 - 11.3.4 South Korea
 - 11.3.5 Australia
 - 11.3.6 Indonesia
 - 11.3.7 Thailand
 - 11.3.8 Malaysia
 - 11.3.9 Singapore
 - 11.3.10 Vietnam
 - 11.3.11 Rest of Asia Pacific
- 11.4 South America

- 11.4.1 Brazil
- 11.4.2 Argentina
- 11.4.3 Colombia
- 11.4.4 Chile
- 11.4.5 Peru
- 11.4.6 Rest of South America
- 11.5 Rest of the World (RoW)
 - 11.5.1 Middle East
 - 11.5.1.1 Saudi Arabia
 - 11.5.1.2 United Arab Emirates
 - 11.5.1.3 Qatar
 - 11.5.1.4 Israel
 - 11.5.1.5 Rest of Middle East
 - 11.5.2 Africa
 - 11.5.2.1 South Africa
 - 11.5.2.2 Egypt
 - 11.5.2.3 Morocco
 - 11.5.2.4 Rest of Africa

12 STRATEGIC MARKET INTELLIGENCE

- 12.1 Industry Value Network and Supply Chain Assessment
- 12.2 White-Space and Opportunity Mapping
- 12.3 Product Evolution and Market Life Cycle Analysis
- 12.4 Channel, Distributor, and Go-to-Market Assessment

13 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 13.1 Mergers and Acquisitions
- 13.2 Partnerships, Alliances, and Joint Ventures
- 13.3 New Product Launches and Certifications
- 13.4 Capacity Expansion and Investments
- 13.5 Other Strategic Initiatives

14 COMPANY PROFILES

- 14.1 Ericsson
- 14.2 Nokia
- 14.3 Cisco Systems

- 14.4 Huawei Technologies
- 14.5 VMware
- 14.6 IBM
- 14.7 Microsoft
- 14.8 Amazon Web Services (AWS)
- 14.9 Google Cloud
- 14.10 Oracle
- 14.11 Hewlett Packard Enterprise (HPE)
- 14.12 Amdocs
- 14.13 Netcracker Technology
- 14.14 Samsung Electronics
- 14.15 Mavenir

List Of Tables

LIST OF TABLES

Table 1 Global Telco Cloud Infrastructure Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Telco Cloud Infrastructure Market Outlook, By Component (2023-2034) (\$MN)

Table 3 Global Telco Cloud Infrastructure Market Outlook, By Solution (2023-2034) (\$MN)

Table 4 Global Telco Cloud Infrastructure Market Outlook, By Virtualized Infrastructure Software (2023-2034) (\$MN)

Table 5 Global Telco Cloud Infrastructure Market Outlook, By Cloud Management Platforms (2023-2034) (\$MN)

Table 6 Global Telco Cloud Infrastructure Market Outlook, By Services (2023-2034) (\$MN)

Table 7 Global Telco Cloud Infrastructure Market Outlook, By Consultancy (2023-2034) (\$MN)

Table 8 Global Telco Cloud Infrastructure Market Outlook, By Integration & Implementation (2023-2034) (\$MN)

Table 9 Global Telco Cloud Infrastructure Market Outlook, By Function (2023-2034) (\$MN)

Table 10 Global Telco Cloud Infrastructure Market Outlook, By Network Functions Virtualization (NFV) (2023-2034) (\$MN)

Table 11 Global Telco Cloud Infrastructure Market Outlook, By Cloud Orchestration & Automation (2023-2034) (\$MN)

Table 12 Global Telco Cloud Infrastructure Market Outlook, By Software-Defined Networking (SDN) (2023-2034) (\$MN)

Table 13 Global Telco Cloud Infrastructure Market Outlook, By Edge & CDN Services (2023-2034) (\$MN)

Table 14 Global Telco Cloud Infrastructure Market Outlook, By Other Functions (2023-2034) (\$MN)

Table 15 Global Telco Cloud Infrastructure Market Outlook, By Service Model (2023-2034) (\$MN)

Table 16 Global Telco Cloud Infrastructure Market Outlook, By Infrastructure as a Service (2023-2034) (\$MN)

Table 17 Global Telco Cloud Infrastructure Market Outlook, By Platform as a Service (2023-2034) (\$MN)

Table 18 Global Telco Cloud Infrastructure Market Outlook, By Software as a Service

(2023-2034) (\$MN)

Table 19 Global Telco Cloud Infrastructure Market Outlook, By Deployment Mode

(2023-2034) (\$MN)

Table 20 Global Telco Cloud Infrastructure Market Outlook, By Public Cloud

(2023-2034) (\$MN)

Table 21 Global Telco Cloud Infrastructure Market Outlook, By Private Cloud

(2023-2034) (\$MN)

Table 22 Global Telco Cloud Infrastructure Market Outlook, By Hybrid Cloud

(2023-2034) (\$MN)

Table 23 Global Telco Cloud Infrastructure Market Outlook, By Organization Size

(2023-2034) (\$MN)

Table 24 Global Telco Cloud Infrastructure Market Outlook, By Large Enterprises

(2023-2034) (\$MN)

Table 25 Global Telco Cloud Infrastructure Market Outlook, By Small & Medium

Enterprises (SMEs) (2023-2034) (\$MN)

Table 26 Global Telco Cloud Infrastructure Market Outlook, By End User (2023-2034)

(\$MN)

Table 27 Global Telco Cloud Infrastructure Market Outlook, By Telecom Service

Providers (2023-2034) (\$MN)

Table 28 Global Telco Cloud Infrastructure Market Outlook, By Enterprises (2023-2034)

(\$MN)

Table 29 Global Telco Cloud Infrastructure Market Outlook, By Managed Service

Providers (2023-2034) (\$MN)

Table 30 Global Telco Cloud Infrastructure Market Outlook, By Other End Users

(2023-2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) are also represented in the same manner as above.

I would like to order

Product name: Telco Cloud Infrastructure Market Forecasts to 2034 – Global Analysis By Component (Solution and Services), Function, Service Model, Deployment Mode, Organization Size, End User and By Geography

Product link: <https://marketpublishers.com/r/TA7D1524547EEN.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/TA7D1524547EEN.html>