

Edge Computing in Telecom Market Forecasts to 2034 – Global Analysis By Component (Hardware, Software and Services), Deployment Mode, Organization Size, Technology, Application, End User and By Geography

<https://marketpublishers.com/r/E779BED329CFEN.html>

Date: May 2026

Pages: 200

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

ID: E779BED329CFEN

Abstracts

According to Statistics MRC, the Global Edge Computing in Telecom Market is accounted for \$18.0 billion in 2026 and is expected to reach \$155.0 billion by 2034 growing at a CAGR of 30.8% during the forecast period. Edge computing in telecom is the deployment of data processing and storage capabilities at the network edge, closer to end-users and connected devices. This architecture reduces latency, alleviates core network congestion, and enables real-time analytics for bandwidth-intensive applications. By integrating edge nodes with 5G infrastructure, telecom operators can support critical use cases such as autonomous vehicles, smart cities, and industrial automation. Consequently, edge computing enhances network responsiveness, improves customer experience, lowers data transmission costs, and unlocks new revenue streams through low-latency services.

Market Dynamics:

Driver:

Exponential Growth of 5G and Connected Devices Driving Edge Adoption

Traditional centralized cloud architectures struggle to handle the massive data volumes, ultra-low latency requirements, and bandwidth constraints of modern applications. Edge computing resolves these bottlenecks by processing data locally, reducing round-trip delays to milliseconds. This is critical for time-sensitive services like autonomous driving, remote surgery, and real-time industrial controls. Furthermore, telecom

operators can offload core network traffic, avoiding expensive infrastructure upgrades. As 5G rollouts accelerate globally, the need for distributed intelligence at the edge becomes indispensable, directly driving investments in edge nodes, orchestration software, and integrated hardware solutions.

Restraint:**High Deployment Costs**

Unlike centralized data centers, edge nodes require widespread physical placement at base stations, street cabinets, or customer premises, leading to higher hardware, real estate, and maintenance costs. Managing thousands of geographically distributed nodes introduces challenges in remote monitoring, software updates, security patching, and resource orchestration. Additionally, interoperability issues between legacy network equipment and new edge platforms can slow deployment timelines. The lack of standardized edge architecture across vendors further complicates multi-vendor environments.

Opportunity:**Emergence of Latency-Sensitive Applications**

The rise of latency-sensitive and data-intensive applications, including augmented reality (AR), virtual reality (VR), cloud gaming, and industrial IoT (IIoT), presents a significant growth avenue for edge computing in telecom. These applications demand real-time processing that centralized clouds cannot deliver. By embedding compute capabilities at the edge, telecom operators can offer differentiated services such as ultra-low-latency connectivity, local data breakout, and edge AI inference. Furthermore, partnerships with content providers, autonomous vehicle fleets, and smart city initiatives allow telcos to monetize edge infrastructure through revenue-sharing models.

Threat:**Rising Cybersecurity Risks and Data Privacy Concerns**

Each edge location, often physically unsecured, can be vulnerable to tampering, malware injection, or data interception. Compromised edge devices may serve as entry points to core networks, risking service disruption or sensitive data leaks. Additionally, the aggregation of data from multiple endpoints raises privacy concerns, particularly

under regulations like GDPR. Ensuring consistent security policies, encryption, and access controls across thousands of geographically dispersed nodes is technically challenging and costly.

Covid-19 Impact:

The COVID-19 pandemic initially strained telecom networks due to unprecedented surges in remote work, online learning, and streaming traffic. Lockdowns delayed infrastructure deployment and disrupted supply chains for edge hardware. However, the crisis also underscored the urgency of decentralized computing to prevent network congestion and maintain service quality. Telecom operators accelerated edge investments to handle traffic spikes locally, reduce backhaul loads, and support telehealth and remote collaboration tools. The pandemic acted as a stress test, revealing that centralized models alone are insufficient for future disruptions.

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, due to the fundamental requirement for physical edge infrastructure, including edge servers, gateways, base station compute modules, and networking equipment. Telecom operators must deploy tangible hardware at thousands of edge locations to enable local processing. The ongoing rollout of 5G small cells and radio access network (RAN) upgrades further amplifies hardware demand. Additionally, replacement cycles and capacity expansions ensure sustained revenue.

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

Over the forecast period, the software segment is predicted to witness the highest growth rate. As edge hardware becomes commoditized, differentiation shifts to edge orchestration platforms, AI-driven analytics, security software, and application enablement tools. Telecom operators require sophisticated software to manage distributed nodes, automate lifecycle operations, and onboard third-party applications. The growing adoption of Network Function Virtualization (NFV) and Software-Defined Networking (SDN) further drives software demand.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, due to early and extensive 5G deployments by major telecom operators

such as AT&T, Verizon, and T-Mobile. The presence of leading cloud and edge technology providers, including Amazon Web Services (AWS) and Microsoft Azure, fosters rapid innovation. Additionally, strong demand for autonomous vehicles, smart city projects, and industrial automation accelerates edge adoption.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. Rapid 5G rollouts in China, India, Japan, and South Korea, combined with massive industrial IoT adoption in manufacturing hubs, fuel edge computing demand. Governments are actively supporting smart city initiatives and digital transformation, creating fertile ground for edge deployments. Additionally, local telecom operators and technology vendors are aggressively investing in edge infrastructure to capture growing data traffic, making Asia Pacific the fastest-growing regional market.

Key players in the market

Some of the key players in Edge Computing in Telecom Market include Huawei Technologies Co., Ltd., Nokia Corporation, Ericsson AB, Cisco Systems, Inc., Hewlett Packard Enterprise (HPE), IBM Corporation, Microsoft Corporation (Azure Edge), Amazon Web Services (AWS), Intel Corporation, Dell Technologies Inc., ZTE Corporation, Juniper Networks, Inc., AT&T Inc., Verizon Communications Inc., and Google LLC.

Key Developments:

In April 2026, IBM announced a strategic collaboration with Arm to develop new dual?architecture hardware that helps enterprises run future AI and data intensive workloads with greater flexibility, reliability, and security. IBM's leadership in system design, from silicon to software and security, has helped enterprises adopt emerging technologies with the scale and reliability required for mission?critical workloads.

In March 2026, Oracle announced the latest updates to Oracle AI Agent Studio for Fusion Applications, a complete development platform for building, connecting, and running AI automation and agentic applications. The latest updates to Oracle AI Agent Studio include a new agentic applications builder as well as new capabilities that support workflow orchestration, content intelligence, contextual memory, and ROI measurement.

Components Covered:

Hardware

Software

Services

Deployment Modes Covered:

On-Premises Edge

Cloud-Based Edge

Hybrid Edge Infrastructure

Organization Sizes Covered:

Large Enterprises

Small & Medium Enterprises (SMEs)

Technologies Covered:

Multi-Access Edge Computing (MEC)

Edge AI & Machine Learning

Network Function Virtualization (NFV)

Software-Defined Networking (SDN)

5G-Enabled Edge Infrastructure

Applications Covered:

Content Delivery & CDN Optimization

IoT & Industrial IoT (IIoT)

Smart Cities

AR/VR & Immersive Experiences

Autonomous Vehicles

Remote Monitoring

Network Optimization

End Users Covered:

Telecom Operators

Enterprises

Government & Public Sector

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 2023, 2024, 2025, 2026, 2027, 2028, 2029, 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 EDGE COMPUTING IN TELECOM MARKET, BY COMPONENT

- 5.1 Hardware
- 5.2 Software
- 5.3 Services

6 GLOBAL EDGE COMPUTING IN TELECOM MARKET, BY DEPLOYMENT MODE

- 6.1 On-Premises Edge
- 6.2 Cloud-Based Edge
- 6.3 Hybrid Edge Infrastructure

7 GLOBAL EDGE COMPUTING IN TELECOM MARKET, BY ORGANIZATION SIZE

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

8 GLOBAL EDGE COMPUTING IN TELECOM MARKET, BY TECHNOLOGY

- 8.1 Multi-Access Edge Computing (MEC)
- 8.2 Edge AI & Machine Learning
- 8.3 Network Function Virtualization (NFV)
- 8.4 Software-Defined Networking (SDN)
- 8.5 5G-Enabled Edge Infrastructure

9 GLOBAL EDGE COMPUTING IN TELECOM MARKET, BY APPLICATION

- 9.1 Content Delivery & CDN Optimization
- 9.2 IoT & Industrial IoT (IIoT)
- 9.3 Smart Cities
- 9.4 AR/VR & Immersive Experiences
- 9.5 Autonomous Vehicles
- 9.6 Remote Monitoring
- 9.7 Network Optimization

10 GLOBAL EDGE COMPUTING IN TELECOM MARKET, BY END USER

- 10.1 Telecom Operators
- 10.2 Enterprises
- 10.3 Government & Public Sector
- 10.4 Other End Users

11 GLOBAL EDGE COMPUTING IN TELECOM 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 Huawei Technologies Co., Ltd.
- 14.2 Nokia Corporation
- 14.3 Ericsson AB
- 14.4 Cisco Systems, Inc.

- 14.5 Hewlett Packard Enterprise (HPE)
- 14.6 IBM Corporation
- 14.7 Microsoft Corporation (Azure Edge)
- 14.8 Amazon Web Services (AWS)
- 14.9 Intel Corporation
- 14.10 Dell Technologies Inc.
- 14.11 ZTE Corporation
- 14.12 Juniper Networks, Inc.
- 14.13 AT&T Inc.
- 14.14 Verizon Communications Inc.
- 14.15 Google LLC

List Of Tables

LIST OF TABLES

Table 1 Global Edge Computing in Telecom Market Outlook, By Region (2023-2034) (\$MN)

Table 2 Global Edge Computing in Telecom Market Outlook, By Component (2023-2034) (\$MN)

Table 3 Global Edge Computing in Telecom Market Outlook, By Hardware (2023-2034) (\$MN)

Table 4 Global Edge Computing in Telecom Market Outlook, By Software (2023-2034) (\$MN)

Table 5 Global Edge Computing in Telecom Market Outlook, By Services (2023-2034) (\$MN)

Table 6 Global Edge Computing in Telecom Market Outlook, By Deployment Mode (2023-2034) (\$MN)

Table 7 Global Edge Computing in Telecom Market Outlook, By On-Premises Edge (2023-2034) (\$MN)

Table 8 Global Edge Computing in Telecom Market Outlook, By Cloud-Based Edge (2023-2034) (\$MN)

Table 9 Global Edge Computing in Telecom Market Outlook, By Hybrid Edge Infrastructure (2023-2034) (\$MN)

Table 10 Global Edge Computing in Telecom Market Outlook, By Organization Size (2023-2034) (\$MN)

Table 11 Global Edge Computing in Telecom Market Outlook, By Large Enterprises (2023-2034) (\$MN)

Table 12 Global Edge Computing in Telecom Market Outlook, By Small & Medium Enterprises (SMEs) (2023-2034) (\$MN)

Table 13 Global Edge Computing in Telecom Market Outlook, By Technology (2023-2034) (\$MN)

Table 14 Global Edge Computing in Telecom Market Outlook, By Multi-Access Edge Computing (MEC) (2023-2034) (\$MN)

Table 15 Global Edge Computing in Telecom Market Outlook, By Edge AI & Machine Learning (2023-2034) (\$MN)

Table 16 Global Edge Computing in Telecom Market Outlook, By Network Function Virtualization (NFV) (2023-2034) (\$MN)

Table 17 Global Edge Computing in Telecom Market Outlook, By Software-Defined Networking (SDN) (2023-2034) (\$MN)

Table 18 Global Edge Computing in Telecom Market Outlook, By 5G-Enabled Edge

Infrastructure (2023-2034) (\$MN)

Table 19 Global Edge Computing in Telecom Market Outlook, By Application (2023-2034) (\$MN)

Table 20 Global Edge Computing in Telecom Market Outlook, By Content Delivery & CDN Optimization (2023-2034) (\$MN)

Table 21 Global Edge Computing in Telecom Market Outlook, By IoT & Industrial IoT (IIoT) (2023-2034) (\$MN)

Table 22 Global Edge Computing in Telecom Market Outlook, By Smart Cities (2023-2034) (\$MN)

Table 23 Global Edge Computing in Telecom Market Outlook, By AR/VR & Immersive Experiences (2023-2034) (\$MN)

Table 24 Global Edge Computing in Telecom Market Outlook, By Autonomous Vehicles (2023-2034) (\$MN)

Table 25 Global Edge Computing in Telecom Market Outlook, By Remote Monitoring (2023-2034) (\$MN)

Table 26 Global Edge Computing in Telecom Market Outlook, By Network Optimization (2023-2034) (\$MN)

Table 27 Global Edge Computing in Telecom Market Outlook, By End User (2023-2034) (\$MN)

Table 28 Global Edge Computing in Telecom Market Outlook, By Telecom Operators (2023-2034) (\$MN)

Table 29 Global Edge Computing in Telecom Market Outlook, By Enterprises (2023-2034) (\$MN)

Table 30 Global Edge Computing in Telecom Market Outlook, By Government & Public Sector (2023-2034) (\$MN)

Table 31 Global Edge Computing in Telecom 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: Edge Computing in Telecom Market Forecasts to 2034 – Global Analysis By Component (Hardware, Software and Services), Deployment Mode, Organization Size, Technology, Application, End User and By Geography

Product link: <https://marketpublishers.com/r/E779BED329CFEN.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/E779BED329CFEN.html>