

Edge Computing Market Forecasts to 2032 – Global Analysis By Component (Hardware, Software and Services), Organization Size (Large Enterprises and Small and Medium-sized Enterprises (SMEs)), Deployment Mode, Technology, End User and By Geography

<https://marketpublishers.com/r/E809F7F79626EN.html>

Date: July 2025

Pages: 150

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

ID: E809F7F79626EN

Abstracts

According to Statistics MRC, the Global Edge Computing Market is accounted for \$31.9 billion in 2025 and is expected to reach \$260.9 billion by 2032 growing at a CAGR of 35% during the forecast period. A distributed computing paradigm known as 'edge computing' moves data processing closer to the point of generation rather than depending entirely on centralised cloud servers. It increases response times, lowers latency, and facilitates real-time decision-making by processing data at or close to the network's edge, such as local edge servers, sensors, or Internet of Things devices. This method works particularly well for applications that need to be processed instantly, such as smart cities, industrial automation, and driverless cars. By eliminating the need to send sensitive data to remote data centres or cloud platforms, edge computing significantly lowers bandwidth consumption and enhances data security and privacy.

Market Dynamics:

Driver:

Surge in IoT devices and data generation

The need for edge computing to process data closer to the source and lower latency is heightened by this. Applications such as industrial automation, smart cities, and

driverless cars require real-time data analysis. Edge computing reduces dependency on centralised cloud infrastructure, allowing for quicker decision-making. By restricting data transfer, it also improves data security and privacy. Consequently, the market for edge computing is expanding quickly due to the growing usage of IoT.

Restraint:

Security and privacy concerns

Data processing at the edge raises the possibility of cyberattacks because of dispersed and frequently insecure endpoints. In contrast to centralised cloud settings, edge devices might not have strong security measures in place, which leaves them open to attack. It gets harder to maintain data integrity and comply with laws like GDPR. Because of the possibility of data breaches and privacy violations, organisations are hesitant to implement edge technologies. Large-scale deployments are delayed by these issues, which increase implementation costs.

Opportunity:

5G deployment and AI integration

Reliance on centralised cloud systems is decreased as a result of improved real-time data processing at the edge. This is enhanced by AI integration, which makes it possible to make wise decisions and conduct analytics nearer to the data sources. When combined, they facilitate time-sensitive applications such as remote healthcare, smart manufacturing, and driverless cars. Across industries, this synergy increases scalability, responsiveness, and efficiency. In order to fully utilise 5G and AI, organisations are consequently adopting edge solutions at an increasing rate.

Threat:

Lack of standardization and interoperability

Devices from many vendors have trouble communicating effectively if there are no standard protocols. Businesses incur higher expenses as a result of this fragmentation, which also makes implementation more challenging. Because developers have to take into consideration several incompatible platforms, it also stifles innovation. Furthermore, a lack of interoperability hinders broad adoption and decreases scalability. As of this, businesses are reluctant to spend money on cutting-edge solutions, which slows market

expansion.

Covid-19 Impact

The Covid-19 pandemic significantly accelerated the adoption of edge computing as organizations sought to support remote work, minimize latency, and ensure real-time data processing. The surge in demand for low-latency applications in healthcare, manufacturing, and logistics fuelled edge deployment. However, supply chain disruptions and project delays initially hindered hardware rollouts. Despite these challenges, the crisis highlighted the importance of decentralized computing, pushing businesses to invest more in edge technologies to enhance resilience, efficiency, and data security in a post-pandemic world.

The smart cities segment is expected to be the largest during the forecast period

The smart cities segment is expected to account for the largest market share during the forecast period, due to real-time data processing for traffic management, surveillance, and public safety systems. It reduces latency and bandwidth usage by processing data closer to the source, enhancing efficiency in urban operations. Edge computing supports intelligent infrastructure such as smart grids, smart lighting, and waste management systems. The rising adoption of IoT devices across smart cities boosts demand for localized computing solutions. This growing integration accelerates edge deployments, driving market growth.

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 by driving high demand for low-latency data processing to support real-time applications. These organizations generate massive volumes of data, requiring efficient edge infrastructure to reduce network congestion and ensure faster insights. They invest heavily in advanced technologies like AI, IoT, and 5G, which further accelerate edge adoption. Large enterprises prioritize data security and regulatory compliance, making localized edge solutions highly attractive. Their significant IT budgets and focus on digital transformation contribute to sustained market growth.

Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market

share due to increasing adoption of IoT devices, expansion of 5G networks, and rising demand for real-time data processing across smart cities and industrial automation sectors. Countries like China, Japan, South Korea, and India are heavily investing in digital infrastructure, promoting data localization, and encouraging cloud-to-edge transitions. The presence of major telecom players and government-backed digital initiatives accelerates market development. Additionally, AI-integrated edge solutions are gaining traction across retail, automotive, and healthcare, fostering innovation and localized data processing capabilities.

Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, owing to by early technology adoption, mature cloud ecosystem, and high concentration of hyperscale data centers. The U.S. and Canada are experiencing growing enterprise demand for low-latency services, particularly in autonomous vehicles, smart manufacturing, and augmented reality. Leading tech giants such as Microsoft, AWS, and Google are deploying edge infrastructure to support next-gen applications. Cybersecurity concerns and the need for real-time analytics further push edge investments. Regulatory frameworks and corporate digital transformation strategies continue to strengthen the region's dominance in edge computing innovations.

Key players in the market

Some of the key players profiled in the Edge Computing Market include Amazon Web Services (AWS), Microsoft, Google, Cisco Systems, Dell Technologies, Hewlett Packard Enterprise (HPE), Intel, NVIDIA, Advanced Micro Devices (AMD), EdgeConneX, Akamai Technologies, Juniper Networks, Cloudflare, ADLINK Technology, Advantech, Schneider Electric, Siemens and FogHorn Systems.

Key Developments:

In April 2025, Google announced the acquisition of Wiz, a cybersecurity firm. This acquisition strengthens Google's edge and cloud security offerings, particularly in protecting AI models and data at the edge—critical for enterprise adoption of edge computing.

In May 2024, AWS entered a strategic collaboration with Mavenir to jointly develop cloud-native telecom solutions, including 5G, IMS, and RAN technologies. This

partnership aims to accelerate innovation, reduce deployment complexity, and enhance scalability for global telecom operators.

In August 2023, AWS acquired Hercules Labs (also known as Fig), an infrastructure-testing startup. This acquisition reinforces AWS's developer toolchain, enhancing end-to-end CI/CD pipelines and offering robust support for edge-focused DevOps workflows.

Components Covered:

Hardware

Software

Services

Organization Sizes Covered:

Large Enterprises

Small and Medium-sized Enterprises (SMEs)

Deployment Modes Covered:

On-Premises

Cloud

Hybrid

Technologies Covered:

Fog Computing

Mobile Edge Computing (MEC)

Cloudlet

Content Delivery Network (CDN)

End Users Covered:

Energy & Utilities

Healthcare

Automotive

Retail

Smart Cities

Transportation & Logistics

Telecom

Government & Defense

Media & Entertainment

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

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