Global Edge Computing Market: By Technology (Mobile Edge Computing, Fog Computing), by Deployment (On-Premise and Cloud), by Component (Hardware, Software and Solutions), by Application (IoT, Data Caching, Analytics, Environment Monitoring, Augmented Reality, Location Services and others), by Vertical (Transportation, Energy & Utilities, Healthcare, Manufacturing, Semiconductor, Government, IT & Telecommunication, Retail, Education, Hospitality and others), by Region (North America, Europe, Asia-Pacific and Rest of the World) - Forecast till 2024

Market Synopsis

The Global Market For Edge Computing is estimated to reach USD 22,453.9 million by 2024, registering a 28.4% CAGR during the forecast period of 2018 to 2024. The growing proliferation of the Internet of Things (IoT) and increasing security concerns at public places are driving market growth. The IoT trend is expected to gain high demand in the coming years, considering the organization’s initiatives for digital transformation. The fast growth and increasing adoption of IoT within organizations are expected to aid the edge computing market. Increase in several high computing connected mobile devices, due to IoT, has enabled organizations to collect and store large volumes of data in the repository. This has further increased the need to process, store, and analyze the data to accomplish specific tasks, thereby fueling the demand for edge computing applications.

Edge computing is a revolutionary method to optimize cloud computing systems. It primarily refers to the technologies enabling computation to be performed at the edge of the network. These services are performed on downstream data on behalf of cloud services and upstream data on behalf of IoT services. Edge computing is responsible for aligning data acquisition and control functions, storage of high bandwidth content, and applications closer to the end user. Edge sites are located as close as possible to the end-users such as a logical endpoint of a network as part of a more extensive cloud computing architecture. However, the position of the edge for IoT may change according to the service required by the end-users. The services that require low latency will have a different edge than those services requiring less urgent data processing. Edge computing can solve latency challenges and enable enterprises to take better advantage of opportunities leveraging a cloud computing architecture. Edge computing offers shorter period of open communication channels due to improved latency allowing longer battery life for battery-powered IoT devices. Edge computing also facilitates efficient data management as data processing and data filtering can be performed at the edge of the network, presenting cleaner data sets for cloud-based data analytics.

Moreover, edge processing power and data storage capabilities can be used in artificial intelligence applications that require faster response time and real-time data processing. Resilient data communication is assured with the help of edge computing as it offers more data communication paths than a centralized network providing business continuity in case of failures. Another critical feature of edge computing is scalability that allows enterprises to scale-up or scale-down IoT devices within the network.

Edge computing is expected to witness significant growth in the upcoming years due to the tremendous increase in the number of intelligent applications. Edge computing, along with the 5G boom in several industries, as the need for faster data processing, is increasing. Verticals like consumer electronics and healthcare are in demand for high-speed data processing at the edge or source of the data generation. It is predicted that microdata centers will be deployed near to or onto the 5G network tower to enable edge computing. For instance, the 2018 Winter Olympic games
showcased the first broad-scale deployment of the 5G network, allowing the spectators across the world to watch the matches in real-time.

However, procuring talent and expertise, that better understand edge computing technology, the complex infrastructure of edge computing network, and addressing the growing number of cyber-attacks threatening the privacy and security of the data are some of the challenges for the players offering edge computing solutions that may restrict the market growth in the coming years.

Segmentation

By technology, the market has been segmented into mobile edge computing and fog computing.

By deployment, the market has been segmented into on-premise and cloud.

By component, the market has been segmented into hardware, software, and solutions.

By application, the market has been segmented into IoT, data caching, analytics, environment monitoring, augmented reality, location services, and others.

By vertical, the market has been segmented into transportation, energy & utilities, healthcare, manufacturing, semiconductor, government, IT & telecommunication, retail, education, hospitality, and others.

Key players


The prominent players keep innovating and investing in research and development to present a cost-effective product portfolio. There has been recent mergers & acquisitions among the key players, a strategy the business entities leverage to expand their reach to the customers.

Global Edge Computing Market, 2018–2024 (USD Million)

Source: MRFR Website

Regional Analysis

The market for global edge computing is estimated to grow at a significant rate during the forecast period from 2018 to 2024. The geographical analysis of edge computing market has been studied for North America (the US, Canada, and Mexico), Europe (the UK, Germany, France, Spain, Italy, and the rest of Europe), Asia-Pacific (China, Japan, India, Singapore, Australia, and the rest of Asia-Pacific), and the rest of the world (the Middle East & Africa and South America).

At present, North America holds the largest market share due to the growing adoption of edge computing among enterprises to achieve scalability, reduced latency, and implement effective data processing at the edge network. Among the North American countries, the US accounts for the largest market share due to rising adoption of edge computing solutions in surveillance, automotive, healthcare, and education sector. Europe accounted for the second-largest market share due to increasing adoption of edge computing solutions in countries such as the UK, Germany, France, Spain, Italy, and Sweden. Asia-Pacific accounted for the third-largest market share and is expected to attain the highest growth due to the adoption of edge computing solutions in China, Japan, India,
Australia, Singapore, South Korea, and other Asian countries. South America and the Middle East & Africa region is expected to achieve substantial market growth with crucial players focused on investing in this region to offer edge computing solutions to small- and medium-sized enterprises.

**Intended Audience**

- Edge computing software vendors
- Edge computing service providers
- Managed service providers
- System integrators
- Application developers
- Hardware vendors
- Advisory and consulting firms
- Value-added resellers
- Research enterprises
- Edge computing solution distributors

Infographic Summary:

**GLOBAL EDGE COMPUTING MARKET**

The global edge computing market is expected to reach USD 22,453.9 million by 2024.

**Global Edge Computing Market CAGR(%), by Region**

**DRivers:**
- Increasing adoption of IoT
- Increasing security concerns at public places

**RESTRAINT:**
- Lack of security policies and standards

**CHALLENGE:**
- Complex infrastructure

**OPPORTUNITY:**
- Implementation of 5G

**KEY PLAYERS:**
- Amazon Web Services
- Alphabet Inc.
- Microsoft Corporation
- HPE
- Intel Corporation