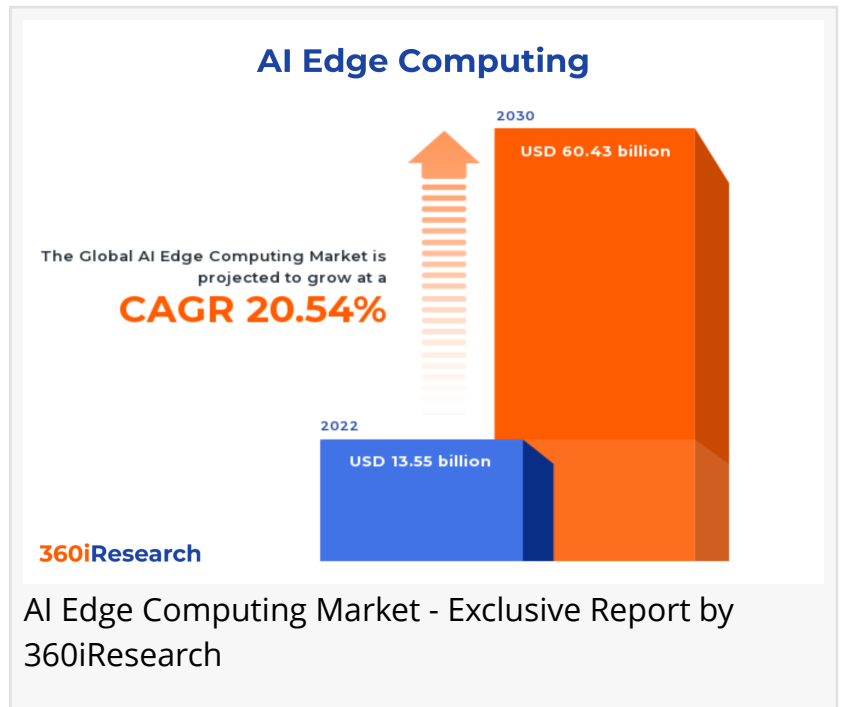


AI Edge Computing Market worth \$60.43 billion by 2030, growing at a CAGR of 20.54% - Exclusive Report by 360iResearch

The Global AI Edge Computing Market to grow from USD 13.55 billion in 2022 to USD 60.43 billion by 2030, at a CAGR of 20.54%.

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EINPresswire.com/ -- The "[AI Edge Computing Market](#) by Component (Hardware, Services, Software), Data Source (Biometric Data, Mobile Data, Sensor Data), Application, End-User - Global Forecast 2023-2030" report has been added to 360iResearch.com's offering.



The Global AI Edge Computing Market to grow from USD 13.55 billion in 2022 to USD 60.43 billion by 2030, at a CAGR of 20.54%.

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The AI edge computing includes the application of artificial intelligence (AI) and machine learning (ML) technologies within edge computing systems. These systems enable real-time processing and analysis of data at the local level rather than relying on centralized cloud-based servers. The market encompasses hardware, software, and services that facilitate efficient processing of large-scale data close to its source, thereby offering enhanced performance, reduced latency, and improved privacy for various end-use applications. Increased IoT device adoption rates and advancement in AI/ML algorithms capable of performing complex tasks at a faster pace with lower power consumption requirements is driving the usage of AI edge computing. Growing demand for low-latency applications, rising concerns about data security & privacy due to stricter regulatory oversight, and increasing focus on Industry 4.0 initiatives amidst various industries globally are creating a platform for AI edge computing. High initial investment costs

associated with implementing edge infrastructure and the complexity of integrating multiple data sources from different IoT devices into a coherent system are hampering market growth. The growing development of energy-efficient processors, memory units, and other components specifically designed to handle AI tasks at the edge is expected to create opportunities for market growth.

Data Source: Increasing demand for mobile data to creat

Biometric data refers to individuals' physical or behavioral characteristics that are used for identification and authentication purposes. It includes fingerprints, facial recognition, iris scanning, voice patterns, and gait analysis. Organizations across various industries are adopting biometric technology based on security needs and convenience factors. Mobile data encompasses various information generated by smartphones and other portable devices. It includes user-generated content, location-based services data, usage patterns, and app analytics data. Companies leverage this data source for targeted marketing campaigns or optimizing customer engagement. Sensor data is generated by a variety of electronic devices, such as IoT gadgets, industrial equipment, and wearable health monitors. It encompasses information about physical properties like temperature, pressure, humidity, or movement. Companies use this data source for predictive maintenance, remote monitoring, and process optimization.

Application:

Access management is crucial for ensuring secure access to critical resources and maintaining data integrity in organizations. AI edge computing providers offer advanced AI-powered edge computing solutions that enhance access control processes through real-time monitoring and anomaly detection. The rise of autonomous vehicles has driven significant demand for AI edge computing solutions to facilitate real-time decision-making capabilities. Innovative energy management systems are leveraging AI edge computing technologies to optimize energy consumption and reduce costs associated with power generation. AI edge computing has revolutionized remote monitoring and predictive maintenance by enabling rapid data processing at the source, reducing latency and network load. The telemetry sector is experiencing significant growth with the adoption of AI edge computing to enable efficient data collection from disparate sources. The video surveillance industry is leveraging AI edge computing technologies to enhance security systems' efficiency and accuracy by implementing real-time analytics on edge devices.

End-User: Growing utilization by IT and telecommunication sector to optimize network operations and enhance customer experience

AI edge computing is crucial in the automotive sector, particularly in advanced driver-assistance systems (ADAS) and autonomous vehicles. The need for real-time processing, low-latency communication, and data security drives the adoption of AI edge solutions within the segment. The energy and utilities sector benefits from AI edge computing by improving grid management, energy efficiency, and predictive maintenance of assets. Governments are adopting AI edge computing to enhance public safety through surveillance systems while maintaining data privacy adherence. AI edge computing transforms healthcare through real-time patient monitoring

systems, diagnostics tools, and telemedicine applications. AI-driven edge computing enables IT and telecom companies to optimize network operations, enhance data analytics capabilities, and improve customer experience through personalized services. The manufacturing sector adopts AI-powered edge computing technologies to enable predictive equipment maintenance, improve production efficiency, and lower operational costs.

Component: Expanding usage of software components for real-time analytics

Hardware components play a crucial role in AI edge computing systems. They provide the necessary infrastructure to support advanced computations at the edge of networks, enabling real-time decision-making and reducing latency. When it comes to hardware selection, factors such as performance, power efficiency, and compatibility with existing infrastructure are key considerations. Services encompass various aspects of AI edge computing adoption, including deployment consulting, system integration, maintenance support, and training. Organizations often seek service providers that offer expertise in edge computing architectures tailored to their specific needs. Software forms the backbone of AI edge computing systems, enabling data processing, machine learning algorithms, and real-time analytics. Selecting the right software ensures seamless integration with hardware components and efficiently utilizes computational resources. When comparing these subcategories, hardware selection should prioritize performance and compatibility. At the same time, services play a vital role in assisting organizations with system integration and support for edge computing architectures, and software providers facilitate AI model deployment and optimization for edge devices.

Regional Insights:

In the Americas, North American countries such as the United States and Canada are leading in technological advancements with strong investment in research & development activities. Factors driving growth in this region include higher adoption of IoT devices and increased cloud-based services among businesses. Moreover, there is a rising demand for real-time data processing solutions to improve operational efficiency across various industries such as healthcare and automotive, which further accelerates the adoption of AI edge computing technologies. Europe is currently at the forefront of adopting advanced AI technologies with numerous initiatives undertaken by governments to support research on artificial intelligence across European Union countries. Industry 4.0 enablers are also promoting AI-powered automation solutions in manufacturing sectors, leading to a growing demand for edge computing capabilities. In the Middle East and Africa, although the adoption of AI technologies is still in its nascent stage, high growth potential is anticipated due to increasing government support for digital transformation initiatives and rising investment in smart city projects. The Asia-Pacific region is witnessing a prompt growth rate in the AI edge computing market during the forecast period, owing to rapid industrialization, raised smartphone penetration, and advancements in communication infrastructure. China, Japan, and South Korea are driving strong AI development with government policies supporting research & development activities and focusing on IoT applications across industries. Furthermore, emerging countries such as Australia and Singapore focus on creating smart city frameworks incorporating AI-driven solutions, thus promoting growth opportunities within this sector.

FPNV Positioning Matrix:

The FPNV Positioning Matrix is essential for assessing the AI Edge Computing Market. It provides a comprehensive evaluation of vendors by examining key metrics within Business Strategy and Product Satisfaction, allowing users to make informed decisions based on their specific needs. This advanced analysis then organizes these vendors into four distinct quadrants, which represent varying levels of success: Forefront (F), Pathfinder (P), Niche (N), or Vital(V).

Market Share Analysis:

The Market Share Analysis offers an insightful look at the current state of vendors in the AI Edge Computing Market. By comparing vendor contributions to overall revenue, customer base, and other key metrics, we can give companies a greater understanding of their performance and what they are up against when competing for market share. The analysis also sheds light on just how competitive any given sector is about accumulation, fragmentation dominance, and amalgamation traits over the base year period studied.

Key Company Profiles:

The report delves into recent significant developments in the AI Edge Computing Market, highlighting leading vendors and their innovative profiles. These include ABB Ltd., ADLINK Technology Inc., Advantech Co., Ltd., Akamai Technologies, Inc., Amazon Web Services, Inc., Atos SE, Broadcom Inc., Cisco Systems, Inc., Cloudera, Inc., Dell Inc., EdgeConneX, Inc., EdgeCortix, Inc., Fastly, Inc., General Electric Company, Hewlett Packard Enterprise Development LP, Honeywell International Inc., Huawei Technologies Co., Ltd., Intel Corporation, International Business Machines Corporation, Lenovo Group Limited, Microsoft Corporation, NVIDIA Corporation, Robert Bosch GmbH, Rockwell Automation, Inc., SAP SE, Schneider Electric SE, Siemens AG, Sterlite Technologies Limited, Tata Elxsi Limited, Teksun Inc., Telefonaktiebolaget LM Ericsson, and Unigen Corporation.

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Market Segmentation & Coverage:

This research report categorizes the AI Edge Computing Market in order to forecast the revenues and analyze trends in each of following sub-markets:

Based on Component, market is studied across Hardware, Services, and Software. The Services is projected to witness significant market share during forecast period.

Based on Data Source, market is studied across Biometric Data, Mobile Data, and Sensor Data.

The Sensor Data is projected to witness significant market share during forecast period.

Based on Application, market is studied across Access Management, Autonomous Vehicles, Energy Management, Remote Monitoring & Predictive Maintenance, Telemetry, and Video Surveillance. The Remote Monitoring & Predictive Maintenance is projected to witness significant market share during forecast period.

Based on End-User, market is studied across Automotive, Energy & Utilities, Government & Public, Healthcare, IT & Telecom, and Manufacturing. The Energy & Utilities is projected to witness significant market share during forecast period.

Based on Region, market is studied across Americas, Asia-Pacific, and Europe, Middle East & Africa. The Americas is further studied across Argentina, Brazil, Canada, Mexico, and United States. The United States is further studied across California, Florida, Illinois, New York, Ohio, Pennsylvania, and Texas. The Asia-Pacific is further studied across Australia, China, India, Indonesia, Japan, Malaysia, Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. The Europe, Middle East & Africa is further studied across Denmark, Egypt, Finland, France, Germany, Israel, Italy, Netherlands, Nigeria, Norway, Poland, Qatar, Russia, Saudi Arabia, South Africa, Spain, Sweden, Switzerland, Turkey, United Arab Emirates, and United Kingdom. The Europe, Middle East & Africa commanded largest market share of 39.45% in 2022, followed by Americas.

Key Topics Covered:

1. Preface
2. Research Methodology
3. Executive Summary
4. Market Overview
5. Market Insights
6. AI Edge Computing Market, by Component
7. AI Edge Computing Market, by Data Source
8. AI Edge Computing Market, by Application
9. AI Edge Computing Market, by End-User
10. Americas AI Edge Computing Market
11. Asia-Pacific AI Edge Computing Market
12. Europe, Middle East & Africa AI Edge Computing Market
13. Competitive Landscape
14. Competitive Portfolio
15. Appendix

The report provides insights on the following pointers:

1. Market Penetration: Provides comprehensive information on the market offered by the key players

2. Market Development: Provides in-depth information about lucrative emerging markets and analyzes penetration across mature segments of the markets
3. Market Diversification: Provides detailed information about new product launches, untapped geographies, recent developments, and investments
4. Competitive Assessment & Intelligence: Provides an exhaustive assessment of market shares, strategies, products, certification, regulatory approvals, patent landscape, and manufacturing capabilities of the leading players
5. Product Development & Innovation: Provides intelligent insights on future technologies, R&D activities, and breakthrough product developments

The report answers questions such as:

1. What is the market size and forecast of the AI Edge Computing Market?
2. Which are the products/segments/applications/areas to invest in over the forecast period in the AI Edge Computing Market?
3. What is the competitive strategic window for opportunities in the AI Edge Computing Market?
4. What are the technology trends and regulatory frameworks in the AI Edge Computing Market?
5. What is the market share of the leading vendors in the AI Edge Computing Market?
6. What modes and strategic moves are considered suitable for entering the AI Edge Computing Market?

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Mr. Ketan Rohom
360iResearch
+1 530-264-8485
ketan@360iresearch.com

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