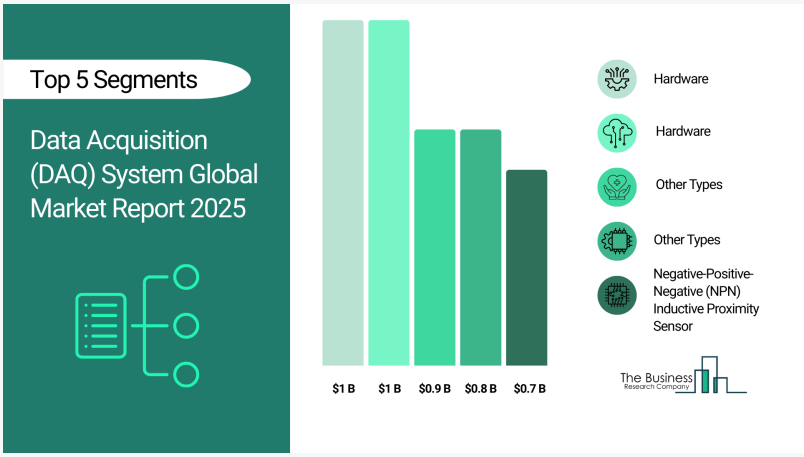
Data Acquisition (DAQ) System Market In 2029

The Business Research Company's Data Acquisition (DAQ) System Global Market Report 2025 – Market Size, Trends, And Global Forecast 2025-2034



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LONDON, GREATER LONDON, UNITED KINGDOM, December 24, 2025 /EINPresswire.com/ -- "Data Acquisition (DAQ) System Market to Surpass $2 billion in 2029. In comparison, the Computer Hardware market, which is considered as its parent market, is expected to be approximately $929 billion by 2029, with Data Acquisition (DAQ) System to represent around 0.2% of the parent market. Within the broader Information Technology industry, which is expected to be $12,711 billion by 2029, the Data Acquisition (DAQ) System market is estimated to account for nearly 0.02% of the total market value.

> The Business Research Company's Latest Report Explores Market Driver, Trends, Regional Insights - Market Sizing & Forecasts Through 2034"
>
> *The Business Research Company*

Which Will Be the Biggest Region in the Data Acquisition (DAQ) System Market in 2029

North America will be the largest region in the data acquisition (DAQ) system market in 2029, valued at $789 million. The market is expected to grow from $652 million in 2024 at a compound annual growth rate (CAGR) of 4%. The steady growth can be attributed to the growing industrial automation and rising artificial intelligence (AI) adoption.

Which Will Be The Largest Country In The Global Data Acquisition (DAQ) System Market In 2029?

The USA will be the largest country in the data acquisition (DAQ) system market in 2029, valued at $700 million. The market is expected to grow from $576 million in 2024 at a compound annual growth rate (CAGR) of 4%. The steady growth can be attributed to the rising investment in smart cities and integration with artificial intelligence (AI).

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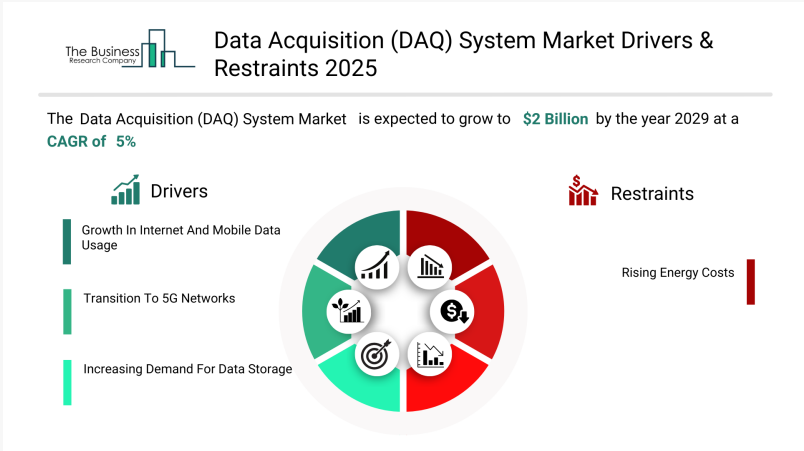

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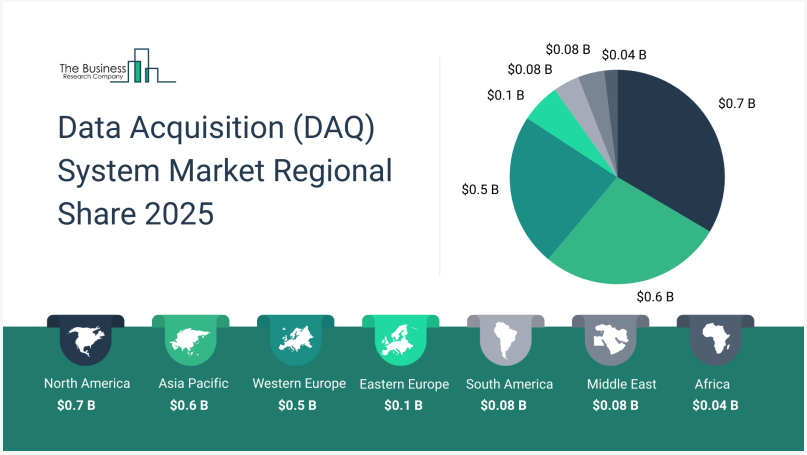

Data Acquisition (DAQ) System Global Market Report 2025_Regions.webp

What will be Largest Segment in the Data Acquisition (DAQ) System Market in 2029?
The data acquisition (DAQ) system market is segmented by type into peripheral component interconnect (PCI), LAN extensions for instrumentation (LXI) or ethernet, VME extensions for instrumentation (VXI), PCI extensions for instrumentation (PXI), universal serial bus (USB) and standalone. The peripheral component interconnect (PCI) market will be the largest segment of the data acquisition (DAQ) system market segmented by type, accounting for 32% or $638 million of the total in 2029. The peripheral component interconnect (PCI) market will be supported by factors such as high-speed data transfer, cost-effectiveness, ease of integration, scalability, compatibility with software and hardware, low latency, real-time monitoring demand across industries and increasing adoption of cloud services.

The data acquisition (DAQ) system market is segmented by component into hardware and software. The hardware market will be the largest segment of the data acquisition (DAQ) system market segmented by component, accounting for 72% or $1,438 million of the total in 2029. The hardware market will be supported by advancements in sensor technology, increasing demand for high-precision measurements, the need for faster data processing, growing adoption of automation in various industries, the push for more robust and durable systems, the rise in real-time monitoring applications and rise in technological advancements. The growing need for accurate real-time data analysis is pushing manufacturers to integrate advanced sensors, edge computing capabilities and AI-driven analytics into DAQ systems.

The data acquisition (DAQ) system market is segmented by speed into high-speed (>100 KS/S) and low-speed (<100 KS/S). The high-speed (>100 KS/S) market will be the largest segment of the data acquisition (DAQ) system market segmented by speed, accounting for 76% or $1,516 million

of the total in 2029. The high-speed (>100 KS/S) market will be supported by increasing demand for high-resolution, fast data sampling, advancements in digital signal processing, the need for real-time monitoring in industries like telecommunications and automotive, growing adoption of high-speed communication technologies, the rise in complex testing and measurement applications and rise in adoption of IoT devices.

The data acquisition (DAQ) system market is segmented by application into research analysis, manufacturing and quality, asset condition monitoring and design validation and repair. The research and analysis market will be the largest segment of the data acquisition (DAQ) system market segmented by application, accounting for 41% or $810 million of the total in 2029. The research and analysis market will be supported by as increasing demand for precise and reliable data, advancements in analytical tools, the need for better decision-making in industries like healthcare and manufacturing, growing focus on data-driven innovation, the rise of big data and AI technologies for improved insights and increasing adoption of AI.

The data acquisition (DAQ) system market is segmented by end-user into aerospace, defense, traditional energy, renewable and green energy, automotive and mobility, machine building, service and education, food and beverage, public transport, manufacturing and industry, healthcare, water and wastewater treatment and others. The defense market will be the largest segment of the data acquisition (DAQ) system market segmented by end-user, accounting for 24% or $474 million of the total in 2029. The defense market will be supported by the emphasis on data monitoring, high-speed connectivity, advancements in sensor technologies and adoption of industry 4.0.

What is the expected CAGR for the Data Acquisition (DAQ) System Market leading up to 2029?
The expected CAGR for the data acquisition (DAQ) system market leading up to 2029 is 5%.

What Will Be The Growth Driving Factors In The Global Data Acquisition (DAQ) System Market In The Forecast Period?The rapid growth of the global data acquisition (DAQ) system market leading up to 2029 will be driven by the following key factors that are expected to reshape real-time monitoring, industrial automation, and data-driven operational intelligence across multiple sectors worldwide.

Development Of 5G Networks- The increasing emphasis on 5G networks will become a key driver of growth in the data acquisition (DAQ) system market by 2029. 5G networks refer to the fifth generation of wireless communication technology that provides faster data speeds, lower latency and greater network capacity compared to previous generations (4G LTE). 5G networks provide ultra-fast data transfer rates, enabling data acquisition (DAQ) systems to collect, process and transmit large volumes of data in real time. This capability is critical for time-sensitive applications such as autonomous vehicles, industrial automation and remote monitoring systems. As a result, the development of 5G networks is anticipated to contributing to annual growth in the market.

Growing Industrial Automation - The growing focus on industrial automation will emerge as a major factor driving the expansion of the data acquisition (DAQ) system market by 2029. Industrial automation refers to the use of control systems, such as computers, robotics and information technologies, to handle industrial processes and machinery with minimal human intervention. Automated industrial processes require continuous monitoring of equipment performance and environmental conditions. Data Acquisition (DAQ) system plays a crucial role in industrial automation by enabling real-time monitoring, control and analysis of various industrial processes. It helps improve efficiency, reduce downtime and ensure optimal performance in manufacturing, energy and other industrial sectors. Consequently, the growing industrial automation is projected to contributing to annual growth in the market.

Integration With Artificial Intelligence (AI) - The expanding integration of artificial intelligence (AI) processes will serve as a key growth catalyst for the data acquisition (DAQ) system market by 2029. Artificial intelligence (AI) refers to the simulation of human intelligence processes by machines, particularly computer systems. Data acquisition (DAQ) systems generate vast amounts of data from sensors and industrial processes. AI algorithms can process this data efficiently, identifying patterns, anomalies and trends, enabling smarter and faster decision-making. Therefore, the integration of artificial intelligence (AI) is projected to supporting to annual growth in the market.

Rising Investment In Smart Cities - The increasing emphasis on smart cities will become a significant driver contributing to the growth of the data acquisition (DAQ) system market by 2029. Smart cities refer to urban areas that leverage advanced technologies, data analytics and Internet of Things (IoT) solutions. Smart cities rely on the collection and analysis of vast amounts of real-time data to optimize city operations, such as traffic management, power distribution, water supply and public safety. Data acquisition (DAQ) systems play a critical role in capturing accurate data from various sensors and devices. Consequently, the rising investment in smart cities is projected to contributing to annual growth in the market.

Access the detailed Data Acquisition (DAQ) System Market report here: https://www.thebusinessresearchcompany.com/report/data-acquisition-daq-system-global-market-report

What Are The Key Growth Opportunities In The Data Acquisition (DAQ) System Market in 2029? The most significant growth opportunities are anticipated in the high-speed data acquisition (DAQ) system market, the hardware DAQ system market, the DAQ systems of manufacturing market, the PXI & DAQ systems market, and the data acquisition (DAQ) systems for defense market. Collectively, these segments are projected to contribute over $1 billion in market value by 2029, driven by rising demand for real-time sensing, high-precision measurement, and advanced signal-processing capabilities across industrial, research, and military environments. This surge reflects the accelerating adoption of next-generation DAQ technologies that enable faster data throughput, improved system reliability, and enhanced decision-making fueling transformative growth within the broader global data acquisition industry.

The high-speed data acquisition (DAQ) system market is projected to grow by $389 million, the hardware DAQ system market by $296 million, the DAQ systems of manufacturing market by $172 million, the PXI & DAQ systems market by $150 million, and the data acquisition (DAQ) systems for defense market by $134 million over the next five years from 2024 to 2029.

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