

AI-Powered Storage Market to Reach \$162.5 Bn by 2031 with Strong 26.7% CAGR

AI-powered storage enhances data management, performance, and security by integrating intelligent automation across cloud, edge, and on-premise environments.

WILMINGTON, DE, UNITED STATES, December 9, 2025 /EINPresswire.com/ -- According to a new report published by Allied Market Research, titled [AI Powered Storage Market](#) Size, Share, Competitive Landscape and Trend Analysis Report, by Component (Hardware, Software), by Storage System (Direct attached Storage, Network attached Storage, Storage Area Network), by Storage Architecture (File and Object Based Storage, Object Storage), by Storage Medium (Hard Disk Drive, Solid State Drive), by End User (Enterprises, Government Bodies, Cloud Service Providers, Telecom Companies): Global Opportunity Analysis and Industry Forecast, 2021 - 2031, The global AI powered storage market size was valued at USD 15.6 billion in 2021, and is projected to reach USD 162.5 billion by 2031, growing at a CAGR of 26.7% from 2022 to 2031.

The AI Powered Storage Market is witnessing significant momentum as enterprises increasingly shift toward data-driven operations. With exponential growth in unstructured data from IoT, analytics platforms, machine learning workflows, and digital transformation initiatives, traditional storage systems are no longer sufficient. AI-enabled storage solutions provide intelligent, automated, and scalable infrastructure capable of optimizing performance and predicting storage behavior in real time.

The integration of AI in storage offers improved data tiering, faster retrieval speeds, enhanced resource utilization, and proactive fault detection. Industries such as BFSI, IT & telecom, healthcare, manufacturing, and retail are adopting AI-powered storage solutions to accelerate analytics processing, ensure data integrity, and support mission-critical workloads. These capabilities are enabling enterprises to improve operational efficiency and reduce total cost of ownership (TCO).

For more information, please contact Allied Market Research at: <https://www.alliedmarketresearch.com/request-sample/A09518>

One of the primary growth drivers for the AI Powered Storage Market is the rising adoption of cloud-based services, which has increased demand for intelligent storage systems that can automatically optimize and manage large-scale data. AI-powered storage ensures seamless

integration with multi-cloud environments while maintaining high availability and performance.

Another major factor boosting the market is the rapid expansion of AI and ML applications across industries. Training models, running inferencing tasks, and managing datasets require high-throughput, low-latency storage—capabilities efficiently delivered by AI-driven storage platforms. This is particularly relevant for autonomous systems, predictive analytics, and real-time monitoring solutions.

Cybersecurity concerns are also influencing market dynamics. AI-powered storage enhances data protection through automated anomaly detection, ransomware mitigation, and advanced encryption techniques. These features allow organizations to safeguard critical assets while meeting regulatory compliance requirements.

In addition, the rise of edge computing is increasing the need for intelligent storage at the network edge. AI-enabled edge storage improves response times for applications such as smart manufacturing, autonomous vehicles, and smart cities by analyzing and storing data closer to the source.

Despite strong growth prospects, challenges such as high initial deployment costs, integration complexities, and limited AI expertise may hinder market expansion. However, ongoing advancements in storage architectures, faster processors, and AI algorithms are expected to overcome these hurdles in the coming years.

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Market Segmentation

The AI Powered Storage Market is segmented based on component (hardware, software, and services), storage architecture (block, file, object), deployment model (on-premise, cloud, and hybrid), and end-user industries (BFSI, healthcare, IT & telecom, manufacturing, government, retail, and others). Among these, software and cloud-based storage solutions are experiencing the fastest growth due to increasing reliance on data analytics and AI-driven workloads that demand scalable and intelligent storage infrastructure.

Depending on storage architecture, the file and object storage segment dominated the AI Powered Storage Market share in 2021 and is expected to maintain its lead throughout the forecast period. This dominance is primarily driven by the rising volume of data generated across developing economies in Asia-Pacific, including China, Japan, and India.

Meanwhile, the object-based storage segment is projected to experience the fastest growth during the forecast period. This growth is attributed to increasing data complexity, evolving data organization requirements, heightened security threats, and the growing need for efficient, scalable, and seamless data management techniques—factors that are intensifying competition across industries.

Regional Market Analysis

North America led the market in 2021, supported by rapid technological advancements and widespread digitalization initiatives. The region's proactive adoption of AI-powered storage solutions is fueled by the need to secure critical enterprise data. However, Asia-Pacific is expected to record the highest growth in the coming years, driven by escalating cyber threats, expanding digital ecosystems, and a rapid transition toward cloud-based platforms across key regional markets.

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Key Players in the AI Powered Storage Industry

The key players profiled in the [AI Powered Storage Industry](#) players in the AI powered storage market include Advanced Micro Devices, Amazon Web Services, CISCO, Dell Technologies, Fujitsu, Google, Hitachi, HPE, Intel Corporation, Lenovo, Micron Technology, Microsoft, NetApp, IBM, Pure Storage, Samsung Electronics, and Toshiba. These major players have adopted various key development strategies such as business expansion, new product launches, and partnerships, which propel growth of the industry globally.

Market Segmentation

- By component, the hardware segment dominated the AI powered storage market in 2021. However, the software segment is expected to exhibit significant growth during the forecast period.
- On the basis of storage system, the direct attached storage segment dominated the AI powered storage market in 2021. However, the network attached storage segment is expected to witness the highest growth rate during the forecast period.
- On the basis of storage architecture, the file and object-based storage segment dominated the AI powered storage market in 2021. However, the object storage segment is expected to witness the highest growth rate during the forecast period.
- On the basis of storage medium, the hard disk drive segment dominated the AI powered storage market in 2021. However, the solid-state drive segment is expected to witness the highest growth rate during the forecast period.
- On the basis of end-user, enterprise segment dominated the AI powered storage market in 2021. However, the government bodies segment is expected to witness the highest growth rate during the forecast period.
- Region-wise, the AI powered storage market analysis was dominated by North America in 2021. However, Asia-Pacific is expected to witness significant growth in the coming years.

Blockchain AI Market

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<https://www.alliedmarketresearch.com/blockchain-ai-market-A12275>

Generative AI Market

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AI in IoT Market

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Emotion AI Market

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AI in Retail Market

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