

AI Powered Storage Market Forecasts to 2032 – Global Analysis By Offering (Hardware and Software), Solution Type (AI Integration Software, Data Protection Software and Storage Management Software), Storage System, Storage Architecture, Deployment Model, Storage Medium, End User and By Geography

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Abstracts

According to Statistics MRC, the Global AI Powered Storage Market is accounted for \$34.71 billion in 2025 and is expected to reach \$149.51 billion by 2032 growing at a CAGR of 23.2% during the forecast period. Systems that use artificial intelligence to improve management, performance, and efficiency are referred to as AI-powered storage. These smart systems automate processes like capacity forecasting, anomaly detection, data tiering, and performance tuning through the use of machine learning algorithms and predictive analytics. Artificial intelligence (AI)-powered storage can improve data security, lower latency, and dynamically allocate resources by continuously evaluating usage trends and application demands. This leads to storage solutions that are more responsive and economical, particularly for businesses handling substantial amounts of unstructured data. Moreover, AI-powered storage is becoming indispensable for companies looking to scale effectively and make more informed, data-driven decisions as digital transformation picks up speed.

According to the International Data Corporation (IDC), the global datasphere is expected to grow to 175 zettabytes by 2025, driven by the increasing adoption of AI, IoT, and edge computing. This growth necessitates advanced storage solutions, including AI-powered storage, to manage and analyze data efficiently.

Market Dynamics:

Driver:

Demand for fast data access

Rapid data access is essential for high-frequency analytics, real-time inference, and model training in AI and machine learning applications. Because of limited IOPS (input/output operations per second) and latency problems, traditional storage infrastructure can lead to bottlenecks. AI-powered storage solutions provide ultra-low latency and high throughput by utilizing technologies such as NVMe, all-flash arrays, and intelligent caching algorithms. Additionally, this guarantees smooth data transfer to AI engines, greatly speeding up workload execution and enhancing overall application performance in industries like financial modeling, healthcare diagnostics, and driverless cars.

Restraint:

High operational and implementation costs

AI-powered storage systems demand a large initial outlay of funds for specialized software, hardware, and trained staff. Despite their high performance, technologies like storage-class memory, NVMe, and all-flash arrays are pricier than conventional HDD-based systems. Costs are further increased by the requirement for sophisticated computing resources like GPUs and high-performance CPUs to integrate AI algorithms into storage workflows. These costs can be prohibitive for many small and mid-sized businesses, which restricts adoption. Furthermore, the requirement for frequent updates, model training, and maintenance to guarantee the storage system operates at its best raises operational costs as well.

Opportunity:

Growing enterprise need for intelligent data management

The speed at which digital transformation is occurring across industries is causing organizations to generate and collect data at a never-before-seen scale. Demand is rising for systems that help manage, analyze, and extract insights from data in addition to storing it. AI-powered storage provides features like intelligent tiering, predictive analytics, automated data classification, and self-healing mechanisms that enhance

business continuity and allow for more intelligent decision-making. Moreover, intelligent storage solutions that can optimize data utility will become more and more in demand as more businesses realize the strategic value of data.

Threat:

Quick obsolescence of technology

Existing solutions may soon become outdated due to the rapid advancements in AI and storage technologies. Current AI-powered storage systems might be swiftly surpassed by new architectures, storage protocols, or advances in AI hardware (like quantum computing or neuromorphic chips). Additionally, businesses that make significant investments in today's solutions run the risk of lagging behind if more effective, newer alternatives appear soon after. Potential adopters are hesitant because of this changing environment, particularly those who are worried about system longevity and long-term ROI.

Covid-19 Impact:

The COVID-19 pandemic affected the market for AI-powered storage in different ways. On the one hand, early pandemic deployments and hardware availability were momentarily slowed down by supply chain interruptions and postponed IT investments. But the crisis also sped up digital transformation in many industries, with businesses quickly turning to cloud services, AI-driven analytics, and remote operations to handle growing data volumes and ensure business continuity. Additionally, this increase in data production brought attention to the need for scalable, intelligent storage systems that could handle AI workloads. As a result, there is now more interest in and funding for AI-powered storage solutions, particularly in industries like healthcare, e-commerce, and finance.

The AI integration software segment is expected to be the largest during the forecast period

The AI integration software segment is expected to account for the largest market share during the forecast period. The goal of this section is to improve data management and operational efficiency by incorporating artificial intelligence into storage systems. By enabling intelligent data retrieval, real-time analytics, predictive maintenance, and automated data classification, AI integration enhances storage efficiency and lowers operating expenses. Additionally, it enables the smooth integration of storage systems

with other business applications, resulting in a more intelligent and flexible infrastructure. The growing demand for AI-enhanced technologies and the need for more intelligent, efficient storage systems across industries are driving the segment's growth.

The storage area network (SAN) segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the storage area network (SAN) segment is predicted to witness the highest growth rate. SAN systems are appropriate for enterprise-grade applications like disaster recovery and big data analytics because they offer fast, low-latency data access. Because of their flexibility and scalability, companies can increase storage capacity without interfering with ongoing operations. Because of their strong performance and improved data security, SAN solutions are especially preferred by sectors like healthcare and BFSI. Furthermore, SAN's quick rise in the market for AI-powered storage is a result of its widespread use, which reflects its ability to manage demanding workloads and intricate data environments.

Region with largest share:

During the forecast period, the Europe region is expected to hold the largest market share. The region is expanding rapidly as a result of the growing use of AI technologies in a variety of sectors, including manufacturing, healthcare, and finance. With their investments in cloud-based storage and AI infrastructure, nations like France, Germany, and the UK are setting the standard. The need for safe and effective AI-powered storage solutions has also increased as a result of the European Union's emphasis on digital transformation and its legislative frameworks, such as the General Data Protection Regulation (GDPR). Moreover, Europe's share of the AI-powered storage market is being driven by the growing demand for data analytics as well as developments in cloud computing and artificial intelligence.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR. The broad use of robotics in many industries, the growing demand for cloud-based services, and the growing requirement for real-time data processing are the main drivers of this quick expansion. Additionally, the leading nations in this expansion are China, Japan, and India. India, in particular, is seeing large investments in AI infrastructure, with tech behemoths like Amazon and Microsoft investing billions to

construct cloud services and data centers, making the nation a major player in the APAC region's AI-powered storage market.

Key players in the market

Some of the key players in AI Powered Storage Market include Alphabet (Google Inc.), Dell Technologies Inc., Huawei Technologies Co., Ltd., Cisco Systems, Inc., Intel Corporation, Flextronics International Ltd., Toshiba Corporation, Lenovo Group Limited, Amazon Web Services, Hewlett Packard Enterprise Company (HPE), Fujitsu Limited, NVIDIA Corporation, IBM Corporation, Hitachi Ltd. and Samsung Electronics Co. Ltd.

Key Developments:

In March 2025, Google's parent company, Alphabet Inc., has agreed to acquire Israeli-founded cybersecurity startup Wiz for at least \$32 billion, marking the largest acquisition in the tech giant's history. The deal, announced Tuesday morning, underscores Google's intensified efforts to bolster its cloud security capabilities and compete with Microsoft and Amazon in the highly competitive enterprise cloud market.

In November 2024, Cisco and MGM Resorts International announce that the companies have signed a Whole Portfolio Agreement (WPA), empowering MGM Resorts with the majority of Cisco's software portfolio. This includes cyber security, software defined networking, software defined-WAN, digital experience assurance, full-stack observability, data center and services. This agreement spans 5.5 years, benefiting guests and employees across all of MGM Resorts' properties.

In July 2023, Dell Technologies announced it has signed a definitive agreement to acquire Moogsoft, an AI-driven provider of intelligent monitoring solutions that support DevOps and ITOps. This transaction will further enhance Dell's AIOps capabilities, as part of its longstanding approach of embedding AI functionality within its product portfolio and as a critical component of its 'multicloud by design' strategy.

Offerings Covered:

Hardware

Software

Solution Types Covered:

- AI Integration Software
- Data Protection Software
- Storage Management Software

Storage Systems Covered:

- Direct-attached Storage (DAS)
- Network-attached Storage (NAS)
- Storage Area Network (SAN)

Storage Architectures Covered:

- File-Based Storage
- Object Storage
- Block Storage

Deployment Models Covered:

- Hybrid Cloud
- Private Cloud
- Public Cloud
- Edge Computing
- On-Premises

Storage Mediums Covered:

Hard Disk Drive (HDD)

Solid State Drive (SSD)

End Users Covered:

BFSI

Enterprises

Government Bodies

Cloud Service Providers (CSP)

Telecom Companies

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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