

Data Center Flash Storage Market - Global Outlook and Forecast 2019-2024

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Abstracts

The data center flash storage market is expected to reach around \$25 billion, growing at a CAGR of nearly about 17% during 2018–2024.

The data center flash storage market is driven by the growing demand for flash storage solutions in the cloud environment. Investments by cloud service providers Microsoft, Google, AWS, and Alibaba and enterprise colocation of data centers to run hybrid infrastructure services will boost revenues in the global market. The market research report provides in-depth market analysis and segmental analysis of the data center flash storage market by systems, end-users, and geography.

The increased adoption of cloud, big data, IoT, artificial intelligence technologies is aiding the digitalization of the enterprise's business environment, thereby leading to the procurement of all-flash storage solutions. Hard disk drives were traditionally used to store and process data in mission-critical facilities. However, with the growing demand for performance and efficiency among complex mission-critical and high-performance computing applications, all-flash storage solutions were introduced in the market a decade ago to overcome the pitfalls of traditional storage systems.

The report considers the present scenario of the data center flash storage market and its market dynamics for the period 2018–2024. The study covers a detailed overview of various market growth enablers, restraints, and trends. It covers both the demand and supply aspect of the market. The report profiles and examines leading companies and several other prominent companies operating in the data center flash storage market.

The data center flash storage market research report covers market sizing and forecast, market share, industry trends, growth drivers, and vendor analysis. The market study

includes insights on market segmentation by systems (DAS, SAN, and NAS), end-users (cloud/IT services, BFSI, healthcare, retail, and others), and geography (Americas, Europe, APAC, and MEA).

Data Center Flash Storage Market: Dynamics

The complexity of enterprise application has increased significantly in the past five years after the advent and adoption of cloud and big data analytics. The increase in the data traffic has intensified application Input/Output (I/O) operations in the data center environment. To support the growing I/O traffic, server systems in data centers are equipped with the latest hardware along with associated storage and network devices. Mission-critical applications act as a backbone for business operations, therefore, improper functioning of these applications is likely to result in huge losses. A majority of enterprise database applications are running in the all-flash storage environment along with applications such as analytics and virtual desktop infrastructure (VDI).

The adoption of converged and hyper-converged infrastructure and the rapid decline in the SSD drives cost is expected to aid the growth of the data center flash storage market during the forecast period. Converged infrastructure is a hardware platform, where servers with the internal or external storage and network switches are offered as integrated rack scale systems. The difference between converged and hyper-converged infrastructure is the software layer. In the hyper-converged infrastructure, the software layer simplifies resource allocations between multiple workloads and automates the process in an effective manner to reduce the administrative time of managing infrastructure in the data center environment.

Data Center Flash Storage Market: Segmentation

This market research report includes a detailed segmentation of the data center flash storage market by systems, industries, and geography.

Storage Area Network (SAN), Network Attached Storage (NAS), and Direct Attached Storage (DAS) are the three significant system architecture in the data center environment. The SAN segment has dominated the market and is expected to grow at a CAGR of around 18% during the forecast period. SAN systems enable the block-level access to data and are based on the interconnection scheme such as FC SAN and iSCSI SAN. FC SAN enables communication between the server and the external storage system at a speed of 2-32 Gbps, whereas iSCSI SAN communication can be achieved over the Ethernet network. SAN is one of the most common storage

networking architectures used for business-critical applications for high throughput and low latency. The advent of flash storage solutions has prompted vendors to redesign their SAN systems to support hybrid disk and all-flash-only storage systems.

Cloud/IT services, BFSI, healthcare, media and entertainment, and others are the prominent end-users of the data center flash storage market. Cloud/IT services are dominating the market and are expected to grow at a CAGR of 18% during 2018–2024. These services are offered cloud service providers (CSPs) and other managed hosting services providers. Cloud/IT services are offered as Infrastructure as a Service (IaaS), Platform as a Service (PaaS), and Software as a Service (SaaS). Cloud service providers procure a variety of systems that include all-flash SAN, NAS, and server-side SSD products. They are constantly innovating their systems and architecture to increase the effectiveness of flash systems in data centers. Amazon Web Services, Google, Alibaba, and Microsoft are a few leading cloud service providers worldwide.

Market Segmentation by Systems

Direct Attached Storage (DAS)

Storage Area Networking (SAN)

Network Attached Storage (NAS)

Market Segmentation by Industries

Cloud/IT services

BFSI

Healthcare

Retail

Others

Data Center Flash Storage Market: Geography

The US is a leading country for data center flash storage adoption, followed by Germany, China, the UK, and Japan. The data center market in US is growing due to investments from colocation providers, hyperscale data center operators, enterprises, and government agencies. Growing internet penetration, increasing the use of social media, rising smartphone penetration, increasing adoption of the public cloud and hybrid cloud services. The adoption of all-flash storage solutions has increased in several industries, and the growing internet traffic, coupled with infrastructure supporting IoT and artificial intelligence workloads in data centers, will increase all-flash adoption during the forecast period in existing and new facilities.

Market Segmentation by Geography

Americas

US

Canada

Latin America

Europe

UK

Germany

France

APAC

China

Japan

India

MEA

GCC

South Africa

Key Vendor Analysis

Vendors in the all-flash storage market are continuing to upgrade and innovate their system efficiency to perform storage tasks such as replication, deduplication, and thin provisioning. All major players in the storage market have reinvented their portfolio to add NVMe-based storage systems, which are likely to gain a major share in the overall data center flash storage market during the forecast period. QLC NAND technology is expected to witness high adoption with the reduction in the SSD cost in the market. Leading industry players are also concentrating on offering systems that support a mix workload environment such as cloud, big data, artificial intelligence, and IoT application workloads. The report profiles the leading players in the market and provides a complete market share analysis of the data center flash storage market in terms of system revenue and SSD capacity shipment.

Major Vendors

Dell Technologies

Hewlett Packard Enterprise

International Business Machines (IBM)

NetApp

Pure Storage

Other prominent vendors are AcceleStor, Avere Systems, DataDirect Networks (DDN), Fujitsu, Hitachi Vantara, Huawei, Infortrend Technology, Inspur Group, Intel, Kaminario, Lenovo, Micron, Mitac International, Nimbus Data, Pivot3, QNAP, Quanta Cloud Technology, Samsung, Seagate, SK Hynix (SK Group), Super Micro Computer, Synology, Toshiba, Violin System, Western Digital, and Wiyynn.

Key Market Insights

Offers market sizing and growth prospects of the data center flash storage market for the forecast period 2019–2024

Provides comprehensive insights on the latest industry trends, market forecast, and growth drivers in the data center flash storage market. It includes a detailed analysis of market growth drivers, challenges, and investment opportunities

Delivers a complete overview of market segments and the regional outlook of the data center flash storage market

Offers an exhaustive summary of the vendor landscape, competitive analysis, and key market strategies to gain a competitive advantage in the data center flash storage market

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