

US Data Center Construction - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts 2019-2029

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Report description:

The US Data Center Construction Market size is estimated at USD 24.63 billion in 2024, and is expected to reach USD 32.56 billion by 2029, growing at a CAGR of 5.74% during the forecast period (2024-2029).

Key Highlights

-Data center construction is a very complex task requiring extensive planning of electrical, location, and mechanical requirements. Moreover, the data centers carry out mission tasks. Any imperfection in power management to building design could be catased company costs.

Key Highlights

-The United States data center construction market is a rapidly growing industry driven by the increasing demand for data storage and processing capabilities. The growth of cloud computing, the Internet of Things (IoT), artificial intelligence (AI), and other emerging technologies have led to an exponential increase in data generation, storage, and processing needs, which, in turn, has resulted in a surge in the construction of data centers in the United States.

-The growing adoption of cloud applications, artificial intelligence (AI), and big data is driving the demand for data center construction. As more businesses and organizations shift their operations to the cloud, they require larger and more advanced data centers to support their needs.

-The rising adoption of hyperscale data centers is a significant driver of the data center construction market. Hyperscale data centers are large-scale facilities designed to support the massive amounts of data processing and storage required by modern businesses and organizations.

-The increase in real estate costs is one of the key factors restraining the growth of the data center market. As the demand for data centers continues to rise, the cost of acquiring and developing land for data center construction has also increased

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significantly.

-The COVID-19 pandemic led to a disruption in the supply chain for the construction of data centers. The lockdowns delayed the completion of projects and caused a decline in demand from severely hit industries, such as hospitality, entertainment, and construction activities. The surge on the internet and cloud adoption increased significantly during the spread of COVID-19 with a shift to the remote working environment and a focus on digitization by government authorities. Such factors are propelling the demand for increasing data center capacities in most regions across the globe.

US Data Center Construction Market Trends

Growing Cloud Applications, AI, and Big Data Drives the the Market Growth

- Cloud applications have become increasingly popular in recent years, as they allow businesses to access software and services over the internet rather than installing and maintaining them on their own hardware. This has led to a surge in demand for cloud-based data storage and processing capabilities, which large data centers typically provide.
- AI and big data also require significant amounts of data storage and processing power. AI algorithms require vast amounts of data to be processed quickly, and big data analytics require massive amounts of storage and processing power to handle large datasets. This has increased demand for data centers with advanced computing capabilities, such as graphics processing units (GPUs) and artificial intelligence accelerators.
- For instance, the National Science Foundation started its program for AI Research Institutes in 2020. Since then, 18 colleges in 40 states have received USD 360 million through this scheme. An ecosystem-based strategy can produce AI innovations and introduce AI business owners to the market. In the fiscal year 2022, US federal agencies proposed USD 1.7 billion for non-defense AI research and development. By 2026, non-defense-related AI research and development should get 32 billion USD yearly, according to the National Security Commission for AI. This is expected to increase the demand for Data Centers in the region.
- Furthermore, the increasing need for data privacy and security drives the demand for data centers. With the rise in cyber threats and data breaches, businesses and organizations seek secure and reliable data storage and processing solutions, which can only be provided by advanced data centers. According to Cloudscene, as of September 2023, there were 5,375 data centers in the United States.
- In summary, the growth of cloud applications, AI, and big data drives the demand for advanced data centers. As businesses and organizations increasingly rely on these technologies to support their operations, the demand for data center construction is expected to grow. This presents a significant opportunity for businesses and investors looking to enter the data center market.

Healthcare End User Vertical Holds Significant Market Share

- Data center construction is expected to witness substantial demand during the forecast period due to the growth in digital data owing to technological advances and government incentives to implement Electronic Health Records (EHR), the proliferation of IoT, and smart devices in the country's healthcare sector. In addition, the increased enforcement of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) security is further forcing healthcare organizations to upgrade data security and disaster recovery protocols or face high penalties.
- Moreover, with the introduction of the Electronic Medical Records (EMR) Mandate in the United States, healthcare organizations nationwide have adopted cloud-based healthcare solutions to store and protect patient records. Most hospitals and healthcare organizations use cloud storage for patients' healthcare data. Electronic health records are stored in the cloud and updated electronically by physicians, nurses, and other healthcare providers. Such factors augment the demand for data center construction, owing to the growth in digital data in the healthcare sector.

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- The digitization of consumer healthcare records in the form of electronic medical records (EMR) has significantly contributed to massive data generation. The latest innovations in medical equipment and the modernization of legacy operating systems, such as the management of personnel and the improvement in the patient response systems, generate a multitude of data, further necessitating the need for secured data center construction initiatives in the country.
- Furthermore, the healthcare sector in the United States is rapidly using deep learning, machine learning, precision medicine, and artificial intelligence (AI), thus generating significant sensitive patient and employee data. Such developments are further analyzed to drive the demand for data center construction in the country during the forecast period.
- Technologies like IoT have many healthcare applications, from remote monitoring to medical device integration. It also has the potential to keep patients healthy and safe and improve how physicians deliver care. However, sensors, wearables, remote monitors, and other medical devices produce a massive amount of data.
- Moreover, the government of the country continuously recognizes the role of digital health and technological innovation in healthcare as an integral part of successful healthcare infrastructure. The government is making significant strides to make the healthcare sector technologically advanced and continuously increasing its healthcare expenditure to support the healthcare sector. For instance, according to the data from CMS (Office of the Actuary), the forecasted U.S. national health expenditure was expected to reach USD 6751.4 billion in 2030 from USD 4297.1 billion in 2021.

US Data Center Construction Industry Overview

The United States data center construction market is highly fragmented with the presence of major players like IBM Corporation, Schneider Electric SE, DPR Construction Inc., Fortis Construction Inc., and Hensel Phelps Construction Co. Inc. Players in the market are adopting strategies such as partnerships, mergers, innovations, and acquisitions to enhance their product offerings and gain sustainable competitive advantage.

In November 2023, Schneider Electric, one of the leaders in the digital transformation of energy management and automation, announced a USD 3 billion multi-year agreement with Compass Datacenters. The agreement extends the companies' existing relationship, integrating their respective supply chains to manufacture and deliver prefabricated modular data center solutions.

In February 2023, PowerHouse Data Centers, a joint venture between American Real Estate Partners (AREP) and Harrison Street that provides turnkey site selection, powered shell, and build-to-suit data center solutions, and DPR Construction, one of the nation's top five data center builders, announced they had placed the final steel beam at PowerHouse Data Center's ABX-1 facility.

Additional Benefits:

- The market estimate (ME) sheet in Excel format
- 3 months of analyst support

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