

## **North America Data Center Cooling Market - Growth, Trends, Covid-19 Impact, and Forecasts (2023 - 2028)**

Market Report | 2023-01-23 | 100 pages | Mordor Intelligence

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### **Report description:**

The North American data center cooling market is expected to record a CAGR of 12.3% over the forecast period 2022-2027. A rise in the need for efficient and cost-effective data centers, green initiatives for eco-friendly data center solutions, healthy growth of enterprises with data centers, and power density are expected to drive the market's growth. Furthermore, the development of modular, containerized, and performance-optimized data center (POD) facilities will boost demand in the data center cooling systems market in North America.

□ The United States dominated the overall North American data center cooling market owing to the growth in the development of hyperscale and colocation facilities with more than 100 MW power capacity.

□ Government initiatives to reduce carbon dioxide emissions from high power density facilities are expected to accelerate market development. For example, in August 2021, the US Environmental Protection Agency (EPA) mandated energy efficiency targets for data centers that reduce carbon dioxide emissions by 20%. Data center cooling systems account for about 30 to 60% of energy consumption, thus, market players are implementing advanced cooling technology to maintain efficiency.

□ The solution segment ruled the North American data center cooling market share due to the increased adoption of energy-efficient, environment-friendly, and cost-effective cooling solutions in line with various governments' stringent environmental safety rules.

□ Tax incentives in Canada and the Southeastern and Southwestern regions of the United States are expected to create new business opportunities for vendors in the North American data center market. Furthermore, the development of modular, containerized, and performance-optimized data center (POD) facilities is expected to boost demand in the data center cooling

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systems market in North America.

□ Canada is anticipated to see the most significant growth in the North American data center cooling market owing to the rise in the number of data centers due to various factors, including low energy costs, bandwidth, political stability, and ease of doing business.

□ However, the requirement for specialized infrastructure, higher investment costs, and cooling challenges during a power outage are anticipated to hinder the growth of the North American data center cooling market during the forecast period.

□ Furthermore, the emergence of liquid-based cooling and portable cooling technologies and growth in the requirement for a modular data center cooling approach is anticipated to provide lucrative opportunities for the North American data center cooling market.

□ The COVID-19 pandemic placed data centers in uncharted territory. There were many supply chain disruptions, and due to lockdowns globally, the smooth operations of the systems were hugely impacted. Owing to shipping disruptions and factory closures that affected the delivery of data center equipment, operators found workarounds to meet the challenges.

### North America Data Center Cooling Market Trends

#### Air Conditioner Segment to Hold Significant Market Share

□ In the recent past, there has been an increase in the number of data centers. More processors are being used in a given space to increase data centers' performance, which results in increased density. The requirement for power and cooling has grown along with increased density.

□ Cisco Systems had forecast that by 2021, there would be 7.2 million data centers worldwide. Digital society's progression has generated an ever-greater amount of data, and it was predicted that by 2021, around 1,327 EB data would be stored in data centers - registering an almost 8-fold increase from 2015. Big data is a major driver of growth for stored data and is predicted to drive bulk data storage in data centers.

□ Furthermore, data centers' power density experiences growth by an average of 1.5 kW per rack, which results in limited air distribution and enhanced heat generation. In general, the IT equipment typically needs between 100 and 160 cfm of air per kW, but in a dense environment, it diminishes to less than 100, which results in higher heat generation.

#### Installation and Deployment Segment to Witness Significant Growth

□ Data center installation involves a great deal of preparation, planning, and designing. Deployment of multiple data centers implies a logical partitioning of all GWS nodes into segregated groups using dedicated service resources, such as T-Server, StatServers, etc.

□ IBM communications server for data center deployment consolidates and extends the traditional communications server for AIX, Linux, and Linux on System Z platforms. In the same way, GWS supports deployment with multiple (two or more) data centers.

□ Data center hosting services can be viewed as a continuum, consisting of a range of implementation services, ranging from creating websites to integrating legacy systems, infrastructure provisioning and management, and actual web hosting.

□ Data center infrastructure also helps visualize and manage space and capacity to have a better plan to optimize data center

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operations. It can be deployed rapidly, easily, and efficiently to quickly respond to business needs.

□ In some cases, an IT team may opt to move its IT gear from on-premise data centers to collocation facilities or outsource its applications to cloud providers. Data centers must operate at optimal efficiency around the clock. ABM Technologies provides facility services for data centers.

□ Many firms offer data center consulting services. For instance, VNTT delivers data center services with modern platforms and standardized operating processes. Equinix Infrastructure Services (EIS) combines its data center expertise with the skills and scale of certified technology partners worldwide.

#### North America Data Center Cooling Market Competitor Analysis

The North American data center cooling market is highly competitive and consists of several major players, some of which currently dominate the market. Market penetration is growing with a strong presence of major players, such as Schneider Electric SE, Black Box Corporation, Asetek, Nortek Air Solutions LLC, Emerson Electric Co., Hitachi Ltd, Rittal GmbH & Co. KG, Fujitsu Ltd, Stulz GmbH, and Vertiv, in established markets. With the increasing focus on innovation, the demand for new technologies, such as liquid-based cooling and portable cooling technologies, is also growing, which, in turn, is driving investments for further developments in the region.

□ In November 2021, Vertiv, a global provider of critical digital infrastructure and continuity solutions, acquired E&I Engineering Ireland Limited and its affiliate Powerbar Gulf LLC. This acquisition strengthened the company's portfolio of in-building power train offerings for data centers and vital commercial and industrial markets.

□ In April 2021, Munters expanded its data center cooling segment, including direct evaporative cooling, and relocated its Virginia employees to the new facility. The company aimed to invest USD 36 million in a 365,000 square-foot facility to house manufacturing, R&D, and sales. The facility is in Botetourt County, Virginia, about 40 miles south of the current location in Buena Vista, Virginia. Additionally, Munters' data center cooling business has expanded in recent years, owing to increased demand for supporting digital platforms, such as online shopping, games, remote learning, social media, and advancements in AI technology.

#### Additional Benefits:

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

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