

What is driving the growth of data centers?

At the end of 2020, data center hardware systems revenue increased globally to more than \$3.3 billion, an increase of over 12% year-over-year. Server market spending is projected to reach \$94.9 billion USD in 2021. As data centers continue to evolve, understanding current trends as well as anticipating future needs, will help you find the best partner to ensure that growth is in the right direction.

What is a data center?

A data center is a physical facility that organisations or companies use to store their critical data and run their applications. The data center's key components include routers, switches, firewalls, storage systems and servers.



The data centers support business services and functions. Such as data storage and backup, file sharing, communication services, machine learning and artificial intelligence.

Four main types of data centers:

- ❑ **Colocation:** users rent / buy space in a data center that is owned and located externally.
- ❑ **Hyperscale:** large facilities owned and operated by the company it supports.
- ❑ **Cloud data center:** owned and operated by cloud service companies that provide computer services (as-a-service).
- ❑ **Business data center:** built, owned and operated by the company it supports, optimised for its end users.

Three common myths about data centers



Data centers are not environmentally friendly because they do not reuse resources.

False: More and more data centers are becoming part of the circular economy, which means that components and equipment are being reused to an increasing degree (eg servers).



The data center industry does not create job opportunities.

False: Data centers are not fully automated. Datacenters create several direct (construction and operation) and indirect (supply and customer chains) job opportunities.



The cloud replaces the data center.

False: The cloud is located in the servers within physical data centers. The more our lives are digitised, the more hardware (data centers) are needed. The cloud thus rather creates new opportunities for the data center industry.

Examples of the largest data centers globally



Facebook



Microsoft



Google



Amazon



Apple

How Kingston enables the operation of data centers

Kingston's leading Enterprise SATA 3.0 and NVMe Data Center (DC) SSDs are high-performance, low-latency, and designed to handle today's extensive workloads such as AI, machine learning, data analysis, cloud computing, operational databases (ODB), database applications and data storage. Performance, security, and reliability are crucial to securing a company's critical data storage.

Kingston invests millions in the development and testing of its modules today, to reduce your total cost of ownership tomorrow. The resulting performance, stability and long-term reliability are among the reasons Kingston server memory has become a worldwide industry standard. Upgrading server memory can accelerate larger databases, provide faster responses for those using the cloud and improve speed for applications living in memory.

Kingston's proven experience, recognised best practices and being a trusted industry leader make our products a smart choice, with features that keep mission-critical data centers running around the clock.