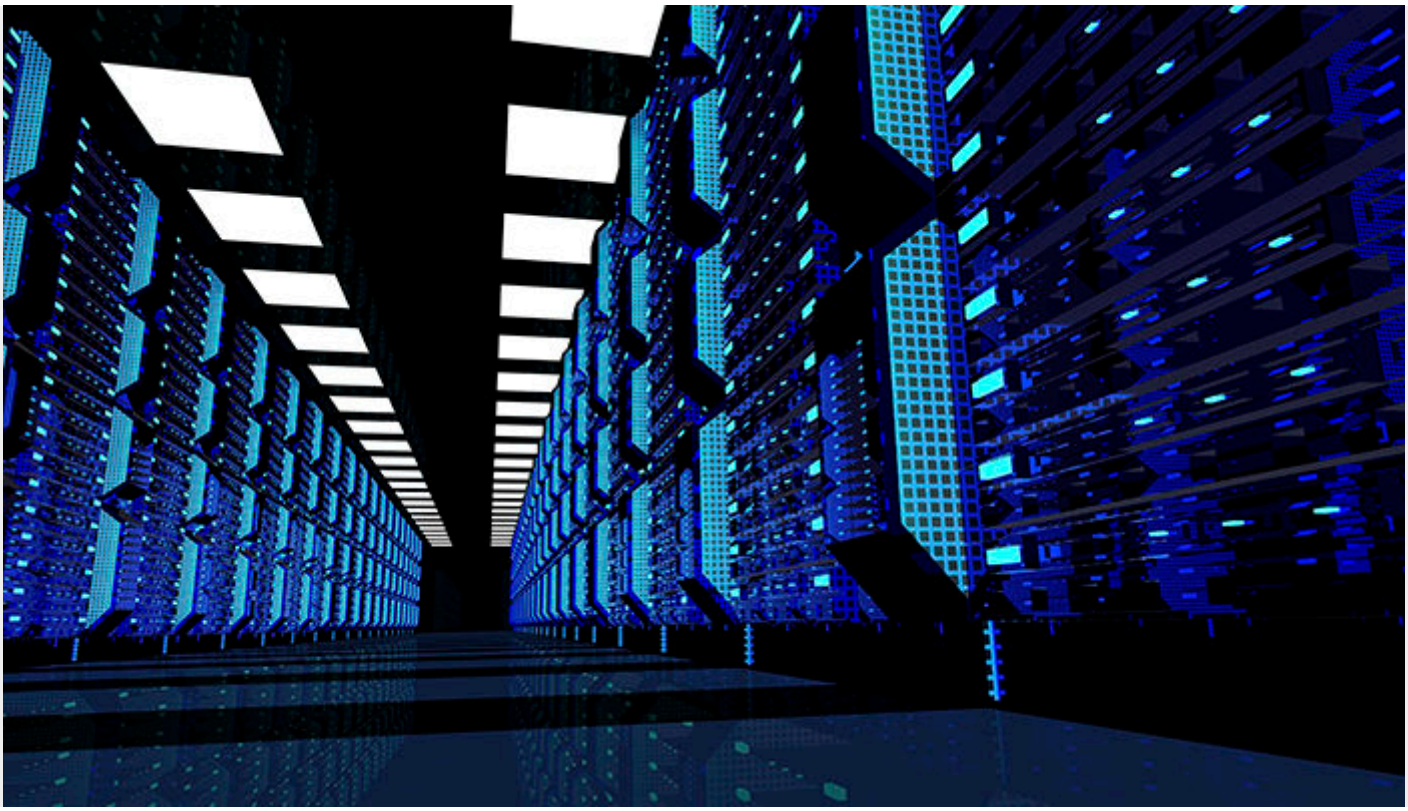
WHAT IS A COLOCATION DATA CENTER?



Data Center Colocation (aka “colo”) is a rental service for enterprise customers to store their servers and other hardware necessary for daily operations. The service offers shared, secure spaces in cool, monitored environments ideal for servers, while ensuring bandwidth needs are met. The data center will offer tiers of services that guarantee a certain amount of uptime.

The decision to move, expand, or consolidate your data center is one that must be weighed in the context of cost, operational reliability and of course, security. With these considerations in mind, more companies are finding that colocation offers the solution they need without the hassle of managing their own data center.

Data center colocation works like renting from a landlord: Customers rent space in the center to store their hardware.

(This article is part of our Data Center Operations Guide. Use the right-hand menu to navigate.)

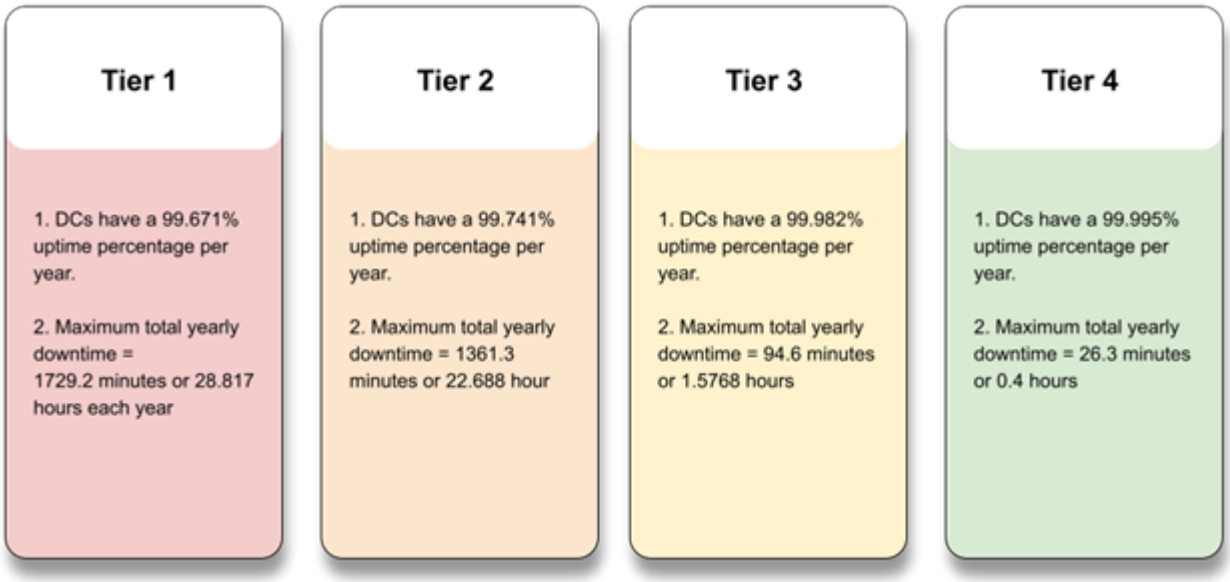
Benefits of data center colocation

Data center colocation could be the right choice for any business of any size, in any industry. Let’s look at the benefits.

Uptime

Server uptime is a big advantage enterprise businesses have in data center colocation. By buying

into a specific tier, each enterprise server client is guaranteed a certain percentage of uptime without the payroll cost to maintain or other maintenance fees.



Risk management

Utilizing a colocation facility ensures business continuity in the event of natural disasters or an outage. This means that if your business location loses power, your network traffic will not be affected.

Its key to success is redundancy. The layers of redundancy offered at a data center colocation are far more complex than many companies can afford in-house.

Some enterprise companies will consider the off-site location as their primary data storage location while maintaining onsite copies of data as backup.

(Read about enterprise risk management.)

Security

Data centers are equipped with the latest in security technology including cameras and biometric readers, check-in desks that welcome inbound visitors, and checks for security badges are commonplace.

These facilities are monitored 24/7/365, both in the physical world and on the cloud to ensure that unauthorized access does not occur.

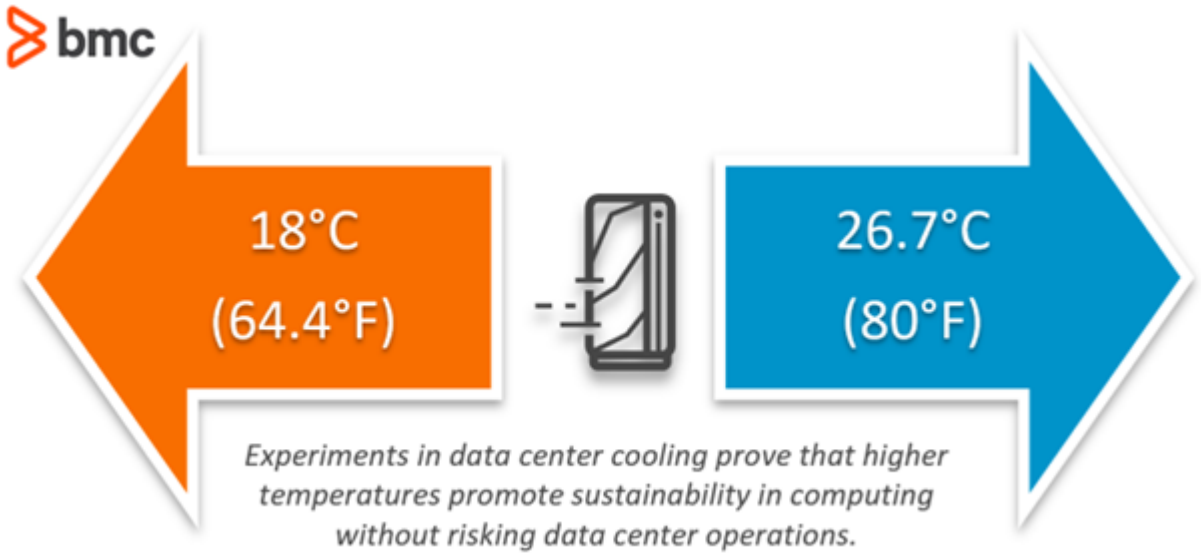
Cost

One of the main advantages of colocation is that it results in significant cost savings especially when measured against managing a data center in-house. This means that for many companies, renting the space they need from a data center offers a practical solution to ever-shrinking IT budgets. With colocation, there is no need to worry about planning for capital expenditures such as:

- UPS (uninterrupted power sources)
- Multiple backup generators
- Power grids

- HVAC units (and the ongoing cost of cooling)

Apart from these capital expenditures, there are also ongoing maintenance costs associated with maintaining and managing an in-house server.



Bandwidth

Colos issue the bandwidth that enterprise client servers need to function properly. With large pipes of bandwidth to power multiple companies, data center colocations are primed to support businesses in a way their office location likely cannot—something that's increasingly important to remote work.

Support & certifications

Data center colocation offers the benefit of peace of mind.

When you partner with a data center colocation, your enterprise business may be able to reduce potential payroll costs by relying on the data center experts to manage and troubleshoot major pieces of equipment. Enterprise businesses can rely on expert support from experts who are certified to help.

Scalability

As your business grows, you can easily expand your IT infrastructure needs through colocation.

Different industries will have different requirements in terms of the functionalities they need from their data center as it relates to space, power, support and security. Regardless, your service provider will work with you to determine your needs and make adjustments quickly.

In-house data center vs data center colocation

While data center outsourcing offers many benefits, some enterprise organizations may still prefer to manage their own data centers for a few reasons.

Control over data

Whenever you put important equipment in someone else's charge, you run the risk of damage to your equipment and even accidental data loss. Fortunately, data centers are set up with redundancy and other protocols to reduce the likelihood of this occurring, as discussed above.

But some enterprise businesses with the knowledge and resources to handle data in-house, feel more comfortable with being liable for their own servers.

They also benefit from being able to fix server issues immediately when they occur. Enterprise businesses who seek to outsource instead must work closely with their service providers to ensure issues are resolved in a timely manner.

Contractual constraints

Enterprise business owners may find that they are unpleasantly surprised by the limitations of the contract between their company and a colo facility. Clauses that include:

- Vendor lock-in
- Contract termination or nonrenewal
- Equipment ownership

Choosing data center colocation services

Here are eight considerations enterprise IT Directors should think about before moving their data to a co-located data facility.

1. Is the agreement flexible to meet my needs?
2. Does the facility support my power needs, current and future?
3. Is the facility network carrier neutral? Or does it offer a variety of network carriers?
4. Is it the best location for my data? Accessible? Out of the way of disaster areas?
5. Is the security up to my standards?
6. Is the data center certified with the Uptime Institute?
7. Does my enterprise business have a plan for handling transitional costs?
8. Is this data center scalable for future growth?

If an enterprise business leader can answer 'yes' to the above questions, it may be the right time to make the change.

Cloud services vs colocation

The cloud is another option over data center colocation:

- A cloud services provider will manage all elements of the data: servers, storage, and network elements.
- An enterprise's only responsibility will be to work with their services and use it.

Cloud services are great for allowing a business to focus more on their business requirements and less on the technical requirements for warehousing their data. In this case, cloud services can be cheaper, and enable new businesses to get off the ground quicker.

More established businesses are considered to be better suited to handle their own data center needs through colo or in house means, and the costs to establish and maintain their colo will be cheaper in the long run than cloud services options.

Cloud services also allow access to quick start-up times, less technical knowledge required to get going, easily scalable (both up and down) server needs, and then integrated services with all the other options a cloud service provider might offer such as:

- Integrated monitoring
- Data storage and querying tools
- Networking tools
- Machine learning tools

(Accurately estimate the cost of your cloud migration.)

What's next for data center colocation?

The biggest push in the industry comes from cloud service providers who use colo as a way to meet their hefty equipment storage needs. At the same time, the industry has been and will continue to remain fluid as laws change with regard to cloud storage requirements.

While soaring demand from cloud service providers has made the need for data center colocation increase, new technology offers rack storage density options that allow colo facilities to mitigate the demand for hardware space.

Related reading

- BMC IT Operations Blog
- BMC AIOps Blog
- Data Center Migration: Creating a DC Inventory
- What Is a Software-Defined Data Center? SDDCs Explained
- DAS vs NAS vs SAN: Choosing the Right Storage Solution
- Major Network Outages