

COLOHOUSE

COLOCATION

101



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INTRODUCTION

In the last 10 years, and as of more recent since the COVID-19 pandemic, businesses, schools, and social activities have had to transform their day to day operations and move to online platforms. People are now more than ever more reliant on video conferencing services and document storage to ensure proper social distancing.

Data centers are the backbone of all these digital platforms. Services like colocation, dedicated servers, cloud offerings and in-house teams to manage all mix of all these services are carrying our new digital economy and ecosystem.

If you are reading this whitepaper you are considering colocation. We first want to make sure you are truly looking for the correct IT services for your business. Know you want colocation? Skip over to page 3

How to choose the best infrastructure technology for your business?

First ask yourself the following question: What problem do you want to solve? How is your IT infrastructure going to be used: Are you planning for a short-term or a long-term project?

- ▶ Will you need file sharing or data backup?
- ▶ What applications are you planning to run on the server?
- ▶ Do you want control of your hardware?
- ▶ What is your budget?
- ▶ How many users will each application need to serve, now and in the near future?
- ▶ Do you need it to be flexible and scalable?
- ▶ Will you need additional services?

Answering these questions will give you a clear idea of the kind of services your business needs. When determining which applications are best suited for you, it's important to keep in mind what the requirements and security measures you need in order to create the most effective and efficient IT infrastructure for your business.

Here are some resources to decide what you might need:

- ▶ [Infographic: colocation vs. cloud](#)
- ▶ [Infographic: colocation vs. Dedicated Servers](#)
- ▶ [Blog: How Do You Know Which Infrastructure Is Right for You?](#)

If you are considering colocation, this option is reserved for long term IT infrastructure requirements.

WHAT IS COLOCATION?

Colocation (also known as 'co-location' or 'colo') refers to the rental of space in a data center facility for the purpose of storing servers and other hardware.

Colocation is reserved for long term IT infrastructure requirements. You rent a secured space in a data center facility with power, cooling, and connectivity, while retaining full ownership and complete control of your equipment. This involves the largest capital expenditures because you would be purchasing and maintaining your own servers. In addition to space and power, many colocation providers offer a variety of managed services and hybrid cloud/colocation options.

When is a good time to consider colocation?

When more space is required

As your business starts to grow, there is a chance that your current IT infrastructure may need to expand as well. If the needs of your IT infrastructure change and there is simply not enough power or resources available, a flexible colocation option will give you the ability to scale up or down easily.

When your business is growing it might be good to consider partnering with a colocation provider that fosters and accommodates development – both in terms of space and support. A data center that has the potential to expand with the business provides the consistency that is necessary for growing businesses.

When you are looking for a cost-effective solution

Transitioning from managing data in-house to outsourcing within a data center can prove to be very cost-effective for businesses. By taking on the responsibility of data management internally, businesses are tasked with managing all major variables and expenses independently, which can be both time-consuming and distracting in maintaining everyday business operations.

When connectivity matters

Today, businesses create value by connecting to customers, services, and partners to manage, distribute and exchange data worldwide. Connectivity is an essential factor that enables productivity and drives customer satisfaction. You rely on your business internet connection to give you access to the tools you depend on to collaborate effectively with your team. Limited connectivity access could have an impact on the availability of your services. A reliable colocation data center with access to several network providers should be top a priority when considering a new location.

ON-SITE DATA CENTER VS COLOCATION

When it comes to developing your business' data storage infrastructure and network connections, you have numerous choices when it comes to where to host your company servers. If you decide to own your own network hardware, the choice typically falls between building an in-house data center or placing your company servers inside a colocation facility.

Which Data Center Option Suits You?

In-house Data Center

An in-house data center is just as it sounds – a facility that is designed, built, and operated by a business internally. This approach limits or omits involvement from a third party, where the business takes provide the space, power, cooling, and equipment necessary to sustain operations. In-house hosting typically requires a long-term commitment and investment. It is more common among larger organizations and those with companies already in the tech industry, as an experienced technical support team is necessary to maintain the complex data center architecture.



- ▶ **PRO:** You have control over your network
- ▶ **PRO:** Since the hardware is on site, your staff can easily access your physical servers whenever maintenance or troubleshooting is needed
- ▶ **CON:** An experienced technical support team is necessary to maintain the complex data center architecture
- ▶ **CON:** Operating and maintaining an in-house data center can often be higher than investing in colocation

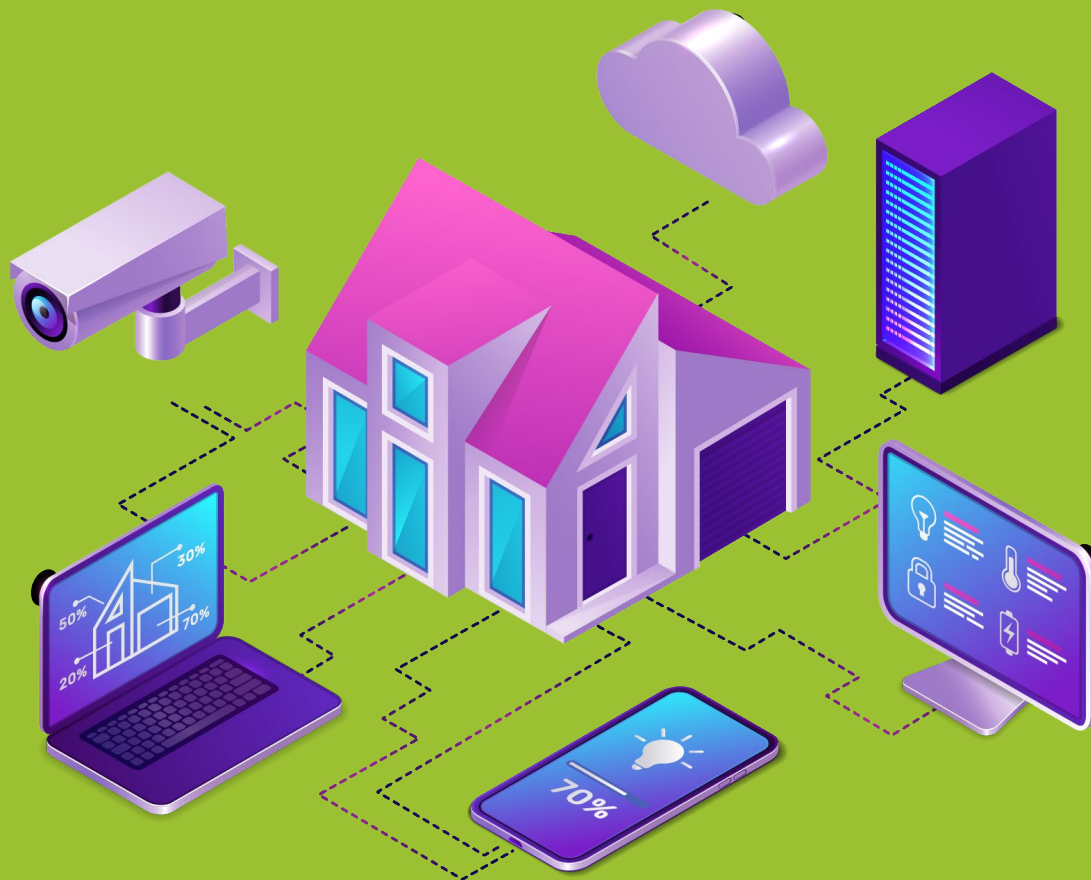
Colocation facility

A colocation data center is quite the opposite of an in-house data center. Colocation facilities are third party organizations that are multi-tenant accessible, meaning that multiple businesses of any size or industry may house their equipment within the data center. Customers can select from a variety of solutions to accommodate the specific requirements for their business.

Colocation solutions typically include combinations of quarter, half, or full cabinets, as well as cages. In a colocation environment, customers are still granted access to their equipment, but outsource facility/location, and in some situations support to the provider. Some data center facilities are carrier-neutral, meaning that the data center does not affiliate with a single connectivity provider, but delivers access to multiple providers through a meet-me-room in the facility. Colocation data centers also offer power, cooling, security and 24-hour access, similar to in-house and other types of facilities.

- ▶ **PRO:** Colocation is often a less expensive option because having your company servers hosted in a colocation facility can lead to lower energy, connectivity, and other utility costs.
- ▶ **PRO:** A colocation facility typically offers fully redundant power, internet connectivity, security, and high-end physical security features.
- ▶ **CON:** IT equipment remains at some distance from the staff maintaining and troubleshooting it.
- ▶ **CON:** Since you are not the owner of the data center, you will have to follow the rules and regulations that could restrict your access to certain times and days. Accessibility might make it harder for you to make changes to your servers. It might slow down your upgrade and maintenance processes.

In evaluating data center providers, it is most important to ensure that the solution will best fit the business and its individualized needs. With the many options available today, businesses can select an option that most aligns with their industry goals and will help facilitate their future.



WHAT ARE THE BUSINESS BENEFITS OF COLOCATION?

Today, businesses have more options than ever when it comes to managing their business-critical information. As technology continues to evolve, the question of how to best manage larger and larger amounts of data in a corporate setting has become increasingly common, and for many, colocation has emerged as a possible solution.

Business continuity is essential for success, and in managing all the additional working parts of a company, outsourcing may be a practical option. Here are some of the business benefits of colocation:

5 Business Benefits of Colocation



Cost-Effective

Transitioning from managing data in-house to outsourcing within a data center can prove to be very cost-effective for businesses. By taking on the responsibility of data management internally, businesses are tasked with managing all major variables and expenses independently, which can be both time-consuming and distracting in maintaining everyday business operations.

Colocation service plans are a comprehensive package, providing built-in benefits such as support, security, redundancy, and connectivity at either a bundled or reduced cost compared to on-site hosting. Additionally, by outsourcing, businesses can be assured that their data will be stored in a resilient and reliable environment, so unpredictable variables such as hiring additional security staff, costly equipment maintenance, office migration, or power outages will be eliminated. By utilizing colocation for IT outsourcing needs, businesses regain the ability to focus on core initiatives and resources more efficiently.



Support & Redundancy

In addition to being a cost-effective alternative, colocation provides businesses with a secure, redundant environment in which to house their information. As stated above, there are endless ways in which business critical information can be compromised. Office migration, power outages, security threats, mismanaged equipment, and natural disasters only scratch the surface – and as such, ensuring that data is stored in a protected environment with proactive support is essential.

Colocation providers will do everything in their power to ensure that their customers' business operations are maintained. Most data center facilities provide 24/7 onsite support availability, which is especially convenient for situations that require immediate attention. When an issue arises at an unexpected moment, customers need someone to help them out as soon as possible. 24/7 support offers a peace of mind, knowing that the data center provider has their back.

Additionally, facilities will have multiple generators and mechanical systems in place to back up data to guarantee that services are not interrupted no matter the circumstance. The

support staff regularly tests and monitors these systems, investing the time and energy necessary to ensure 100% uptime for business operations. Supporting the customer needs is the number **ONE** priority of a data center facility. Overseeing all these measures internally could prove to be time-consuming for businesses and presents the risk of stalling business operations if not properly executed.



Infrastructure

Perhaps the most valuable benefit of colocation is the robust, state-of-the-art IT infrastructure in place to store customer mission critical data. A colocation solution provides businesses with environmental benefits that may not otherwise be accessible (or affordable) if managing in-house.

Data center providers differ from many Enterprises or SMBs in that they have the resources in place to build, deploy, and maintain the infrastructure that is needed to properly host and maintain large amounts of data. Not only do facilities provide the best equipment for storing information, they also deploy the best support systems for providing power, bandwidth, cooling, and redundancy within a single plan. Trying to implement these systems in-house could quickly exceed a company's internal IT budget, nor do many businesses have the time or money to devote to implementing and maintaining such complex hardware and systems. By utilizing colocation, businesses can house their servers within the advanced environment allocated by the data center facility, affording them the benefit of optimized infrastructure for their business needs.



Scalability & Connectivity

Without a secure, reliable connection to its customers, businesses are unable to deliver on their products and services. As such, connectivity within the data center is essential. Data centers provide access to high-speed, high-quality bandwidth. This product ensures that sites are running at top speed, allowing for faster downloads and the ability to handle more traffic. If issues do arise, the support team is available 24/7 to troubleshoot and restore optimal performance quickly and efficiently.

As a business brings in more traffic and begins to expand, the colocation facility has the flexibility to expand as well. Much of the value of colocation rests within the customization of solutions to fit industry need. Not all businesses require all the features and functionalities a data center may offer. Instead of having to add or subtract equipment to maintain operations in-house, businesses can simply contact their colocation service provider to scale their solution as needed.



Marketability & Peace of Mind

There are various business benefits of colocation. However, one that many businesses may not consider is that protecting their business-critical information serves as a great selling point. As businesses are trusted to manage their customers' sensitive information, being transparent about the fact that they are utilizing a colocation facility for their business needs promotes the idea that data management and security is a priority, which has the potential to build a positive reputation and generate sales.

CHOOSING THE RIGHT COLOCATION SERVICE PROVIDER

Reliable performances, peace of mind, centralization of data and cost savings are the most common reasons why more businesses are choosing for a colocation provider. Opting for a colocation service can be a difficult decision, after all, your mission-critical infrastructure will be housed within someone else's facility. When choosing a colocation service provider, there are many criteria to be considered.



Location

Location will be one of the biggest factors to consider when choosing a colocation provider. A business can either opt for an offshore location or a data center located nearby depending on the business requirements. An important factor to consider is the stability of the weather and the likelihood of weather conditions such as hurricanes, flooding, earthquakes and more.



Reliability is everything

A reliable colocation provider should be able to claim, 'five nines,' meaning they are reliable at least 99.999% of the time.



Flexibility and scalability as and when you need it

Colocation provides business the flexibility to manage their growth efficiently and allows business to manage their growth efficiently.



Financial Stability

Verify the financial stability of a vendor before moving your data into a datacenter. There is no point in taking space at a data center that will be closed in a few years because of financial issues. Investing in a data center is a long-term commitment and involves a lot of time and cost. Which is why it is better to opt for a reputed colocation provider who can support you for a long time.



Technical Support

Businesses can rely on support from experts who are certified to help. After all, Colocation offers the benefit of peace of mind.



Security

The physical security of the data facility should be thoroughly analyzed so that no unauthorized personnel can access your collocated equipment.

Your company's colocation data facility choice is just as critical as the data you will house there.

HOW DOES COLOCATION SUPPORT A HYBRID CLOUD STRATEGY?

Today's economy requires a dynamic infrastructure with access to every service. Most businesses choose a mix of infrastructure hosting solutions that may include integrated public cloud, on-premises data centers, and colocation deployments — also known as the hybrid cloud.

To benefit from the best of all worlds it is critical to know why colocation continues to play a central role in hybrid cloud platforms. Even with the increasing popularity of the cloud, businesses are making colocation an integral part of their IT-infrastructure. Colocation allows businesses to deploy custom owned infrastructure, over which they have complete control, into a data center without the expense of building and managing a data center in-house.

Best of both worlds

Utilizing cloud computing and colocation together can provide you a complete package that suits your IT needs. With the security and control of a dedicated on-premises infrastructure or private cloud and with the flexibility and scalability of the public cloud — hybrid cloud provides the best of both worlds.

The value of colocation is that it offers a flexible environment where you can build your solution to suit your financial and disaster recovery needs. Colocation allows you to take advantage of various carriers that a colocation provider offers. In addition to space and power, many colocation providers offer a variety of managed services. Also, many colocation providers offer cloud connectivity solutions that allow businesses to connect to the cloud. Additionally, you will retain a significant amount of control over the hardware that stores your data.



Flexible environment

The ongoing debate about colocation versus cloud is quite a misunderstanding as both colocation and the cloud can be deployed together as part of a hybrid cloud solution. Colocation can help businesses realize the many benefits of hybrid cloud, as it provides the best environment to ensure high-quality connectivity between on-premises infrastructure and private and public clouds. The security of colocation, combined with the flexibility and on-demand nature of cloud, allows business to be more responsive to changing business needs.



Managed Services

Managed service providers are valuable as they can help with navigating the process to connect seamlessly and work efficiently. The complexity and pace of digital businesses today demands more. By offering the support and technological resources it allows a business to focus on their core business needs.



Business continuity

Business continuity is essential for success and in managing the additional working parts of a company. Colocation allows businesses to have more control over the future of their business. By offloading unnecessary infrastructure tasks, colocation providers can work closely with businesses to create innovative services – and deploy them quickly.

COLOCATION PROVIDER EVALUATION CHECKLIST

You rent a secured space in a data center facility with power, cooling, and connectivity, while retaining full ownership and complete control of your equipment. This involves the largest capital expenditures because you would be purchasing and maintaining your own servers. In addition to space and power, many colocation providers offer a variety of [managed services](#) and [hybrid cloud/colocation](#) options.

With over 10 years of colocation and data center experience and 1000s of data center tours later, these are the top questions to ask your data center providers when shopping for a new colocation vendor.

Physical Space

Location

IS THE LOCATION OF THE DATA CENTER STRATEGICALLY BENEFICIAL TO YOUR BUSINESS?

The physical location of the data center should complement your business. For example, many organizations choose colocation facilities located near their corporate headquarters or in close proximity to their strategic markets

Data Center Footprint

DO YOUR IT NEEDS REQUIRE YOUR DATA CENTER PROVIDER NEED TO HAVE A GLOBAL FOOTPRINT?

Narrowing down your list of data center providers in a certain area is your 2nd step after determining the importance of its geographic location. Just like with retail store, there are Big Box Retailers vs. more boutique style shops. Colocation and data centers are no different. Here are some questions to consider internally before creating a list of potential locations to tour.

- ▶ Does this vendor offer more than one location?
- ▶ Do they include remote hands in their services or are there separate costs related?
- ▶ Do I have direct access to technicians?
- ▶ Where is the headquarters or main office?
- ▶ Is there a large price difference between the two?

Space

DOES THE PROVIDER OFFER MULTIPLE COLOCATION SPACE OPTIONS?

A provider that offers fractional colocation cabinets (from 10U – 42U), as well as custom sized cages will be the most flexible in tailoring a colocation solution to your infrastructure needs. If you did need to expand, would your cabinets be within close proximity of one another? Would you be able to reserve additional cabinet space in advance? Additionally, ensure power offerings are also as flexible

Power

HOW ARE THE DATA CENTER POWER SYSTEMS CONFIGURED?

Multiple, diverse utility power feeds to the facility – do they have multiple feeds? o Sufficient generator-

driven backup capacity to managed prolonged power outages (N+1 on UPS & generator). o Sufficient onsite fuel storage and refill contracts to support generators in the event

Connectivity

WHICH NETWORK PROVIDERS DOES THE DATA CENTER OFFER?

Most data centers will offer bandwidth connectivity to a range of network providers. Carrier-neutral data centers offer direct access to a variety of providers, allowing clients to leverage several options for low latency, high-performing networks – helping further improve operational efficiencies. The quality differential also means the difference in application uptime in the event of network failure. The importance of a carrier neutral facility allows the flexibility to change bandwidth provider, with minimal downtime, to meet your level of satisfaction without having to move your infrastructure to another facility with your desired new carrier.

Scalability

IF MY BUSINESS NEEDS TO EXPAND, HOW DOES THE COLOCATION ADAPT TO YOUR GROWING BUSINESS REQUIREMENTS?

When your business is growing, the last thing you need to worry about is if your colocation provider has the capacity, in both space and power, to expand alongside your business. When considering a colocation provider, ask for how they address business expansions and if any of their customers have expanded and how. Do they offer support and consulting services to make sure your business needs are addressed from the initial setup? Ask to speak with their operations team, technicians, and engineers to ensure a seamless transition.

Support & Services

Installation

DOES THE PROVIDER OFFER PLANNING, IMPLEMENTATION, AND ONGOING OPERATIONAL SUPPORT?

Data center providers should include management services for your implementation. It is important that all parties understand the desired approach – from design to installation. Everyone needs to be on the same page with the project's expectations and execution. Your data center provider should manage the process to ensure your colocation deployment goes smoothly.

Remote Hands / Support

DOES THE PROVIDER OFFER COLOCATION SUPPORT?

On-site support availability means quick response to emergency re-boots or other issues, particularly if staff is not located near the facility or cannot get to the facility. This can also help prevent minor incidents from turning into larger issues. It is also important to evaluate the providers SLA guarantees on support requests. These should be directly related to response time for support requests. SLAs should be very fast (one hour) for in-facility support, as issues arising at this level will undoubtedly require immediate assistance and resolution. Does the data center provide acknowledgement of your order to give you peace of mind they have received and have started to work on it? Data center support technicians should be available to you at any time onsite, by phone, email, or web-based support portal in the event of a problem.

Maintenance

DOES THE COLOCATION FACILITY HAVE ANNUAL CONTRACTS FOR MAINTENANCE TO BE PERFORMED QUARTERLY FOR POWER BACKUP, GENERATORS, AND HVAC THAT COMPLIES WITH THE SSAE CERTIFICATION PROCESS?

Colocation facilities should be performing routine checkups on their generators, power supply, and other critical infrastructures. Your colocation provider should be able to provide you with their SSAE 16 or SSAE 18 (SOC 1) report that ensures that during any emergencies all systems are properly functioning, and backup power systems are fueled and connected.

Customers

HOW LIKELY ARE THEIR CUSTOMERS TO REFER THEIR SERVICES TO ANOTHER COLLEAGUE?

Does the colocation provider survey their customer annually to service assess any issues and continuously improve? What is their Net Promoter Score? You want to ensure your business is being taken care of with the best services and that the colocation provider is constantly looking to improve their services and support.

Service Level Agreement (SLA)

DOES THE PROVIDER OFFER 100% UPTIME AVAILABILITY FOR VARIOUS DATA CENTER SPECIFICATIONS?

A data center's Service Level Agreement (SLA) sets the guidelines that determine the provider's responsibility in the event of an outage that causes downtime for your colocation environment or other environmental factors such as data center cooling and security. The SLA should explicitly state the guarantees the data center will abide by in providing you colocation services. It is critical to understand and evaluate which areas of your infrastructure are your provider's responsibility as opposed to your responsibility.



ABOUT COLOHOUSE

ColoHouse is a leading provider of colocation and managed services. Focused on delivering quality infrastructure, services, and support, ColoHouse gives their customers the ability to allocate more resources toward their core business. Incorporated in 2007, ColoHouse strives to provide world-class support and top of the line facilities to ensure the satisfaction of small businesses to global enterprises alike.

Our Locations

Offering Services out of 14 Data Centers in 8 countries and growing



AMSTERDAM



BUCHAREST



CHICAGO



DELFT



FRANKFURT



HONG KONG



LIMA



LIMASSOL



MIAMI



NEW YORK



ROTTERDAM



STOCKHOLM



THE HAGUE



ZOETERMEER

Our Services



COLOCATION



CLOUD



CONNECTIVITY



CUSTOMIZED
SOLUTIONS



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