Introduction

When it comes to deciding how to deliver IT resources today, through your own data centers or via outsourced services, the “build vs. buy” debate is still going strong.

• Should you endure a data center construction project that can stretch over months or years?

• Should you consolidate resources into your own data centers, even if floor space is shrinking fast?

• Can you provide the redundant data center and network resources necessary to support 24x7x365 operations?

• Can you meet the security requirements needed for data protection and compliance?

• Can your current data centers support national, regional or global growth?

These are the questions companies are considering as they assess their existing in-house data centers. This paper explores how colocation can be the answer for many who are seeking alternative solutions to address their business and IT needs.

With colocation, your provider monitors and manages the data center infrastructure and network. You monitor, manage and maintain your own servers and storage assets remotely via a web portal.

To learn more about AT&T Colocation Hosting Services, visit www.att.com/colocation or have us contact you.
Cost Control

Building vs. Outsourcing
With capital costs under close scrutiny, building a whole new data center to keep up with growth may not be an option. With the unpredictable nature of business, you may provision an entire new data center to suit your needs today, only to have it sit idle a few months later as needs change and demands lessen.

Colocation provides a turnkey solution and a more economical alternative. Instead of investing in another data center of your own, you lease space in a provider’s data center facility for a monthly fee. You maintain ownership and control over your systems, but you’re freed from paying for the facility itself, and the costs of powering, cooling and securing it.

Consolidating with Colocation
To decrease hardware, energy, staff and operating costs, companies are looking to reduce their data center footprints by consolidating their facilities. Data center congestion can result, leading to power, heating and cooling issues that cause performance problems.

Colocating equipment in a provider’s data center facility can reduce these risks, while eliminating crowded floor space and internal consolidation headaches. Further, you can divert funds that would have been used for facility construction into refreshing technology assets, replacing aging hardware with more cost- and energy-efficient technology, such as high-density racks and blade servers that pack more processing power into less space.

Always on Infrastructure

A Fully Redundant Data Center
Business today operates 7x24x365, so your systems have to, as well. However, server racks, cabinets and blades can generate a lot of heat in the data center, which can cause system failures.

Since colocation vendors are able to spread operational costs over many customers, and can be held to service level agreements that guarantee performance, they can implement successful power management, climate control and backup strategies. This includes redundant power supplies, cooling technologies and backup generators, which can all work together to deliver up to 99.999 percent availability.

Redundant Connectivity
A fully redundant data center environment isn’t enough. To keep business critical applications available, you need fully redundant, dual-rail network connections to your hosted environment. With the 2N+ power redundancy offered by some colocation providers, you can have two completely separate power paths. With no single point of failure, if a power outage occurs, it can be transparent to users and to your entire operation.

To meet the availability needs of your different systems and applications, your colocation provider should offer options for establishing those redundant connections. For example, you may want to use different carriers to provide the two different physical paths of entry into the data center building itself. Or, you might want two different physical nodes to the same or different carriers.

Don’t wait for a crisis situation to ensure your disaster recovery solution is working. Make sure the provider you choose tests failover capabilities on a regular basis.

The point is, you should have the flexibility to select the redundant connections that work best for your business. Choosing a vendor who already has these redundant connections as part of their colocation offerings can smooth the transition path for you.

Disaster Recovery
A downed power line can cut off access to your mission-critical applications for a few minutes, hours or even days. Outages caused by disasters can delay recovery and disrupt business even longer. Colocation in a provider’s data center can be a critical part of your business continuity strategy by offering you an alternative to setting up your own failover site, and one that is geographically separated from your primary data centers.

Enhanced Security

Facility Security
With so much focus on protecting your servers and network from hard-to-detect viruses, worms and other malware, it’s important to remember to address the physical security threats that can happen right before your eyes.

While hackers are always coming up with new ways to see or steal your data, the people trying to make their way into a data center facility can still rely on some tried and proven strategies.

For example, tail-gating through a badged entry way is a popular ploy. Criminals simply follow an employee inside the building. Or, they approach the entrance with some big, awkward-to-carry boxes with the goal of having some helpful person hold the door for them. Once in, they can install software or keystroke devices on the back of a computer that automatically transmits data out of the facility.

You need to guard against unauthorized entry, but the budget and staff needed to fortify the security of an in-house data center can be prohibitive.

Your colocation provider can address these concerns by providing multiple levels of security, such as:

- Hardened data center facilities with a 7x24 staff already in place
- Circular doors that allow only one badged person into the facility at a time
- Guards on duty to view badges and check bags before entry into the main facility
Lowering data center costs, congestion and complexity with Colocation

With security risks on the rise, it’s more critical than ever to step-up the physical security of a data center.

- Man traps that create a transition place between the lobby and the data center, large enough for one person only
- Keyed access to server cages and cabinets to avoid unauthorized entry into other data center areas
- Closed-circuit television to monitor the inside and outside of the building to spot suspicious behavior

Security Compliance
Beyond the security controls above, leading colocation providers undergo third-party compliance audits to ensure the policies and procedures they have in place meet strict data security and privacy standards.

In addition to complying with ISO27001 audits, your provider should adhere to Statements on Standards Attestation Engagement (SSAE) type II audits and, specifically, the SSAE 16 standard. This regulation, which was recently updated, stipulates how providers report their compliance controls.

With revenue, reputation and customer confidence at stake, your colocation provider will also need to meet Payment Card Industry (PCI) DSS standards to ensure the safety of credit card transactions that are processed on servers within their data centers. With new web threats always on the horizon, maintaining compliance with changing requirements is critical.

To further relieve compliance demands, colocation providers should also have the flexibility to help you meet industry-specific compliance standards, such as ISO 27001.

Simplified Connections

Establishing Connectivity
Some colocation providers offer you data center space, but leave you to figure out how to connect into it. You have to contract with a network carrier to bring in the individual circuits to establish either Internet or private WAN connectivity. All this can mean long delays and increased complexity, which are two problems colocation should be solving for you.

Carriers that provide inherent services within the data center, such Internet connectivity, can streamline your adoption of colocation services.

Some of the larger colocation vendors have done this upfront work for you. With established carrier relationships and connections into their facilities already, they include Internet connectivity as part of their colocation services. When it comes to private WAN connections, they can also offer the flexibility to bring in your existing carrier of choice to ease your path to colocation.

Creating a Network Gateway
A provider's collocated facility can also be used to create a network gateway to improve bandwidth utilization and reduce networking costs. For example, rather than establishing, managing and troubleshooting separate connections to the Internet from multiple sites or paying for unused bandwidth, you can connect them all to a single hub location with a shared connection to the Internet.

Support for Growth

Scale Rapidly
Whether growing through acquisition, increased business or market expansion, you can’t wait through a long data center construction process. Colocation allows you to tap into a ready-made facility and data center staff. You can quickly scale from one server to a few servers or even across multiple collocated data centers without picking up a hammer. As needs change, you can quickly scale back without continuing to pay for and support an in-house data center you no longer need.

Grow Globally
If you’re a multi-national company, or if you have aspirations to expand globally, the colocation vendor you choose should have a worldwide presence to make that expansion easier and provide a consistent experience across collocated facilities. By selecting a provider with multiple sites in distributed locations, you can avoid the complexity of managing different vendors in different regions or countries, and dealing with disparate processes, service level agreements and other variables.

Colocation allows you to tap into a ready-made facility and data center staff.

Although you manage, monitor and maintain your servers and storage assets remotely via a web portal, it can be helpful to have the option to engage a provider’s onsite staff for assistance. Rather than flying your own resources across the country or across the world to reboot a server, your provider should be able to offer support and a way to contact them via a portal, an email or a call.

Think Beyond Colocation
Consider other opportunities a collocated facility could offer you. For example, if there are cloud services to tap into in the same data center, creating your own private cloud can be as easy as extending your virtual private network into those resources. The cloud can become just another node on your existing network.

Or, think about having your provider host and manage applications for you in their data center to provide on-going software life cycle support that frees your staff for other priorities.

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Conclusion
Don’t let an over-crowded data center put you into a tight spot or your business on hold while you build and equip a new facility of your own. Learn how AT&T colocation services can help you decrease data center complexity, cost and congestion.

When you choose AT&T as your colocation provider, you can take advantage of our enterprise-class data center infrastructure and the world's leading IP network. With 99.999 percent reliability, redundant connections and highly scalable bandwidth, you can provide your organization with the responsive colocation services they need for anytime, anywhere connections.

For more information contact an AT&T Representative or visit www.att.com/colocation.