



White Paper: Making the Case for Colocation

Time to act – or at least to think about it

Colocation means placing your servers and/or telecom hardware in a data center, and it's rather like buying insurance. If you wait until you need it, you're too late.

The reasons for colocation vary by company, but tend to focus on a few main issues. Consider these points and ask yourself these key questions:

- **Power:** An area-wide power outage can last for hours or days. In today's world of e-commerce, being shut down for even minutes can have a negative impact on the bottom line — whether you rely on an intranet or private data network for company business, or you simply do business on the Internet. Does your building have sufficient and dependable power for your equipment?
- **Space:** Racks, servers, and IT infrastructure occupy valuable real estate in an expensive office building. And as your business expands, your equipment needs typically expand as well. Can your current location accommodate your current and future space needs?
- **Cooling:** A building's Heating-Ventilation-Air Conditioning (HVAC) system may strain to cope with the considerable heat generated by servers. Is your equipment being kept at the proper temperature to keep running? What if your HVAC system breaks down?
- **Security:** For many businesses, regulatory compliance requires strict data security measures. For any business, data is vital. Retrofitting a building with the latest security technologies can be prohibitively expensive. Do you have adequate security to protect your business-critical data and equipment?
- **Connectivity:** Many buildings offer limited connectivity options. Do you have a sufficient bandwidth in place and do you have a choice of service providers?

Even if these issues haven't impacted your business yet, they're worth considering now. By making a colocation decision sooner rather than later, a company can avoid considerable pain. Avoiding problems and gaining peace of mind aren't the only benefits. Colocation may offer

significant savings when compared with the costs of infrastructure, hardware, and personnel required for a company to provide a similar solution on-site.

This white paper will review the reasons for and benefits of colocation, and offer some guidelines about what to look for in a data center.

Key factors to consider for colocation

- Provides dependable backup power and avoids high power consumption
- Reduces burden on HVAC system or eliminates need for upgrade
- Includes fire suppression and flood protection
- Increases security without capital investment
- Frees up office space used by servers
- Provides opportunities to reduce bandwidth cost
- Allows ownership of existing equipment
- Offers possible savings on staffing costs
- Keeps servers and telecom equipment running if office needs to move
- Helps prepare for disaster

Electrical capacity and dependability

Servers require a lot of power, and a building's electrical system may not be designed to handle the load (especially with today's high-density blade servers). Retrofitting can be a major capital expense.

As for dependability, continuous uptime of power systems is crucial for a company's mission critical operations. Even a momentary power interruption can mean a substantial loss of business.

While most firms back up data on tape — a smart precaution — that doesn't solve the problem of staying up and running. Yes, a company can set up its own backup power system with a generator, but such a system needs to be routinely tested, have batteries replaced, fuel checked and/or refreshed, the engine cleaned, and so on — all the capital costs, staffing requirements, and other expenses associated with managing equipment in-house.

A colocation facility, on the other hand, typically includes a dependably maintained, redundant power system, with automatic switching to a



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generator if needed. By using UPS battery power during the moments of transition, the data center assures virtually no downtime of servers.

Physical space now and for the future

The office space used to house a company's servers may well be put to better use. Also, since the space for servers wasn't purpose-built, it may not be designed for easy expansion as needed. A colocation data center should offer a range of options for accommodating your servers: cabinets, cages, even suites if required. Try to avoid choosing a data center that is nearly full or in a very tight market with regard to data center space. Making one colocation move is enough; you don't want to have to move your servers again if your needs grow.

On the subject of moving, colocation offers another advantage: if you should move your office, you needn't move your servers, which means your IT system stays up and running.

Keeping cool

Many buildings were not designed with HVAC systems to handle the considerable heat generated by multiple servers. This is especially true of older buildings. Servers must be kept cool. If the air conditioning goes down, servers may need to be powered off to avoid damage. This problem is typically solved with redundant HVAC units at a colocation data center.

Security considerations

At an office building, a multitude of people come and go: employees, visitors, delivery people, cleaners, and other service people. Even with the most rigorous security procedures, lapses may occur.

A colocation data center is designed with security in mind. Such facilities are typically anonymous, with no signage to attract attention. Access is monitored via video surveillance cameras, and is restricted to data center personnel and authorized tenants, vendors, and contractors. Individual cabinets, cages and/or suites are locked to ensure access only by the proper tenant. It may be prohibitively expensive for a company to duplicate such multiple layers of security without major capital and staffing expenditures.

The biggest reason to colocate

These days, every business is an e-business. So it isn't just Web hosting firms or other IT-intensive, high-tech firms that should consider colocation. For purposes of business continuity and/or regulatory compliance, or simply for day-to-day business operations, every firm has electronic data that must be safeguarded, a web site (and perhaps a private data network) that must remain available, and critical software applications that need to stay up and running. Colocation is often the most dependable — and economical — solution.

Connectivity and bandwidth cost savings

Colocation can also provide a variety of high speed connectivity options, which may offer reduced bandwidth costs. A company's main place of business may be located in an area served by only one or two telecom carriers, which have little incentive to offer competitive prices. By choosing the right data center for colocation, a firm can have access to facility provided, redundant bandwidth as well as to many different network providers. The firm may choose to continue doing business with its current vendor, possibly while striking a better deal, or choose some other vendor. A word of caution: some data centers are limited in the choice of carriers provided. Look for a carrier-neutral facility that allows cross connections with many different carriers, as well as dark fiber connectivity if needed.

Fire suppression and flooding

While all modern office buildings have sprinkler systems, a state-of-the-art data center should have the latest in fire suppression. A dry-pipe, pre-action fire protection system uses sprinklers attached to pipes filled with pressurized air and connected to a fire-detection device. When the device senses a fire, the air is released, allowing the water to flow through the pipes as with a wet-pipe system. If the device should fail, the sprinklers can still be activated by heat. If your region is prone to earthquakes, flooding, or other natural disasters, it's all the more reason to consider colocation — and to choose a data center that takes such risks into account.



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Advantages of server ownership

Colocation is different from managed hosting, where the hosting company owns servers and leases them to you, along with bandwidth. With colocation, you own your hardware. If you simply move it from your premises to the data center; there is no capital outlay. You may also use your existing staff and vendors to manage your equipment.

As mentioned above, colocation allows you to make your own bandwidth arrangements. You're free to secure the best deal that meets your specific requirements.

The best location for colocation

Your colocation data center should be close enough for convenient access by your staff. There is also an advantage to choosing a facility outside the immediate area: in the event of a power outage or other disaster that is confined to your area, your staff will still have access to your equipment. A colocation data center will probably offer a range of "remote hands" services for routine maintenance and other simple tasks, such as rebooting servers, checking indicator lights, changing and storing backup tapes, etc. It may be more economical for you to use these services and have your staff make fewer visits.

Total savings

Saving on staff may be an on-going benefit, as may savings on bandwidth. There is also the considerable savings incurred immediately by not having to upgrade the data infrastructure on your premises. A fire suppression system, UPS units, a backup generator, redundant HVAC equipment, new wiring, etc.— together these can easily add up to six figures in capital expenditures.

A premier choice for colocation

If your business is in the Mid-Atlantic region one choice for colocation is Philadelphia Technology Park (PTP). This purpose built, 30,000 square-foot data center facility offers:

- PTP-provided, high-speed, redundant bandwidth
- Cross-connects for carrier neutrality
- Redundant electrical and HVAC systems
- Flexible space with room to grow
- State-of-the-art security

- Value-added services to help build and manage your equipment
- Convenient location in downtown Philadelphia PTP is also located in Keystone Opportunity Improvement Zone (KIOZ) for significant tax savings. When you are choosing a colocation facility, we invite your inquiry.

Conclusion

Dependable performance, peace of mind, cost savings — these are all reasons to consider colocation.

The same is true for companies that have already collocated, but are unhappy with their current situation. If it looks like no space will be available to meet future needs, if you are dissatisfied with the facility's infrastructure or support, if costs have skyrocketed in a tight data center market, it is time to seek a new colocation provider — before the need becomes urgent. If you wish to explore these issues further, we invite you to contact Philadelphia Technology Park, located in 4775 League Island Blvd. Philadelphia PA 19112.

To schedule a facility tour or to obtain additional information, visit us online at:

<http://www.philadelphiatechnologypark.com>

call us toll free at **(800)506-7993**

or email us at:

sales@philadelphiatechnologypark.com

Additional Resources:

Philadelphia Technology Park offers other white papers to assist in your colocation and data center decisions:

- Business Continuity and Regulatory Compliance: How Colocation Can Help
- Best Practices in Data Center Assessment
- Building Your Own Data Center vs. Buying Colocation Services

For complimentary copies of any of these white papers in PDF format, visit:

<http://www.philadelphiatechnologypark.com/index/white-papers>