Six Important Considerations when choosing a Colocation Provider
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Rack Colocation services allow a company to outsource the building, power, cooling, rack space and provision of internet connectivity to support its computing services. Access to IT resources is provided remotely via a wide area network (WAN) link. Systems are maintained and managed remotely or by visiting the colocation site to undertake ongoing system backups as well as moves, adds and changes.

Colocation services may initially appear to be a commodity service, however minor differences between providers can have a major impact on the overall performance of your business. When a colocation data centre is vital to your business operations and customer interactions, it is essential that all aspects are fully scrutinised. Whether your priority is an improved uptime target, better customer experience or closer alignment of IT within your business, careful consideration of your colocation partner will impact on your ability to achieve your goals.

From physical location to network integration, there are important elements to consider when placing your computer hardware within a colocation facility. To ensure optimal colocation deployment and improved application performance, potential points of failure should be eliminated or minimized. For example, redundant data centre infrastructure will help your business to continue to operate when unforeseen events arise. A secure environment will help protect you from intrusions that can have a significant impact on business operations.

Each company’s individual needs and operational dynamics will vary. The considerations detailed in this paper are relevant to the majority of colocation environments. These considerations will provide essential information when selecting a colocation partner.

Expert Data Centre Capabilities

Colocation infrastructure is a key building block from which your IT strategy is founded. You should consider your selection of a colocation partner in the context of how your entire IT infrastructure impacts your business. In addition, just because a colocation data center facility looks modern, it must still provide the networking and other underlying infrastructure that meets your needs. Clients should ensure that the data centre is well designed by experienced data centre professionals and not simply the result of a ‘DIY’ exercise or via ad-hock organic growth.

The colocation data centre partner should be able to clearly demonstrate minimum levels of expertise and capabilities within data centre design and infrastructure management. Those colocation providers that can demonstrate proven expertise will invariably help you to achieve a flexible, better performing data centre infrastructure.

Partnering with a provider who offers a flexible approach and wide choice of different rack options, whilst allowing clients to select their preferred carrier without financial penalty, ensures customer do not have to make compromises.

Neutral data centre partners focus entirely on their core business, which they aim to excel at. They will not push clients towards additional value added services in order to maximise rack revenue. Many data centre providers offer services stretching from the core data centre infrastructure layer all the way to the app layer. These companies do so to increase their market share and retain as much of the deal as they can.

Accessibility can often be a problem with data centres that are more focused on delivering managed services. With advanced booking being a mandatory requirement with many data centres make it difficult for IT departments to provide a responsive service for their business.
Proximity of Colocation Data Centre Facility

The data centre’s proximity to your company’s offices is normally the top requirement for companies sourcing colocation services. The advantages go well beyond providing easy access for your staff. Closer proximity can help improve the performance of your IT infrastructure. If you are sending large volumes of data from your primary site to your colocation environment, distance matters.

Minimising latency delays is important for application performance, a data centre that is local helps reduce data replication issues. With chatty applications’, i.e. applications that perform a number of small transactions or wait for server acknowledgment, any latency issues become amplified and can severely impact performance. Selecting a regional colocation data centre can help reduce the effect these latencies have on your applications.

When it comes to the availability of physical rack space it is advisable to make sure that the provider has additional capacity in case you need to expand your computing services. Having the ability to expand your rack space in the future will save significant time and costs compared with deploying with an alternative provider or relocating to another data centre.

The colocation operator should be an established and financially secure organisation with demonstrateable and committed ongoing investment into the colocation data centre facility. Providers that deploy a modular architecture are preferable as that are able to maintain greater control of costs and can more easily expand to meet client demands.

Client Office to Colocation Data Centre Connectivity

Colocation is more complex than simply ‘racking and stacking’ your computer equipment in a data centre and providing a network connection. In the absence of highly reliable network connectivity, your performance may suffer. A colocation provider that offers a wide range of connectivity options will enable good networking between the colocation facility and all company locations.

The colocation provider should have good access to fibre services from alternative carriers and be located close to core backbone services to help with reduced latency. [Does the data centre have access to an ‘Open Access’ network which provides any carrier with circuits across diverse network connecting the building to key Internet Exchange Points, multiple global locations and interconnect with other networks in order to remain competitive and cost efficient in locations that are important to your business.]

The colocation provider should offer remote international peering to enable hassle free access to recognised international Internet Exchanges. Remote peering services should offer fast, flexible and simple network expansion.

Flexible bandwidth packages should be on offer with a range of services including; scalable CDR operating from 1 Mbps to 10Gbps, Point to Point and Point to Multipoint network topology, traffic optimisation, seamless IXP peering, SLA assurance, single point of contact and 24/7 NOC for monitoring and support.

Where appropriate look for a provider with direct access to global IP based MPLS network. MPLS will support excellent levels of reliability combined with high speed re-route capabilities across the core network and allows integration across multiple sites. Virtual Private Network (VPN) options will also improve security.

To ensure reliable and redundant network connectivity, your colocation provider should support carrier diversity. Make sure your colocation partner can offer advanced networking capabilities so you can meet your application performance and uptime requirements.

Dual paths increase redundancy and help prevent outages due to circuit failures. Dynamic routing allows the flow of your traffic to rapidly adapt across carriers and routes to efficiently manage multiple network providers. To help efficiently handle surges in usage ‘Burstable’ bandwidth enables organisation to instantly scale the connectivity to your colocation environment improving the customer experience and user satisfaction.
Security and Compliance

Physical security measures should be implemented within the colocation data centre. Technologies which include biometric scanners, card readers and IP/CCTV surveillance, as well as mantraps, should be deployed to help improve security and to prevent unauthorised access. Installing local cameras and rack access ID kits provide the ability to remotely monitor and control access to your colocation area.

Beyond the physical security of the centre, look for providers than can enhance your security with services like DDoS protection, network security and threat detection. Your provider should also be compliant with regulatory requirements for your industry and keep up to date with changes. Any company providing ecommerce needs to meet PCI security standards.

Support Resources Availability

Providers that simply provide space and an electrical connection may seem, at first glance, to provide a lower cost structure, but they will often require you to pay for services that other colocation service providers include within their standard offer. Make sure you examine the Total Cost of Ownership (TCO). Colocation providers should provide power and cooling, address security, provide facility management, and be able to deliver these services with a Service Level Agreement (SLA).

On-site support provides quick response for emergency re-boots or other issues when your staff are not in the centre to help prevent minor incidents from escalating. Remote hands are sometimes offered on a premium basis that supports specific service levels. This can help your organisation meet response time requirements.

Colocation providers with modular growth plans will deliver the flexibility you need to grow your environment as you migrate. Look for a contract that offers options to fill space over a period of time. This can reduce costs and allow you to adapt to changing business conditions so you can increase or decrease the speed at which you deploy into the centre.

Colocation providers that offer a range of services to help you move in are preferable. Being able to offer services such as ‘racking and stacking’ or cabling, can help make your migration go smoothly and reduce implementation time.

The experience of the onsite colocation data centre staff will impact on the level of support you receive as and when you need it. Data centre management is a complex task that requires specialised skills across a wide range of disciplines, such as cabling, security, power distribution, cooling, networking, as well as hardware and software management. Make sure your provider does not just manage partners that service the data centre systems, but has the skilled staff for all of the core data centre capabilities. Trained and certified engineers and technicians with extensive experience in operational data centre management will provide you with dependable service that improves your uptime. Make sure your colocation provider has documented processes and procedures in place for all their activities including, change management and maintenance. Good documentation, standardisation and working practices will help improve performance and uptime.

A provider with a portal that supports trouble ticketing and reporting can help you better manage your environment. Remote management increases your IT staff’s efficiency and also enables you to be proactive and resolve incidents before they affect the performance and availability of your applications.

Colocation partners should have the expertise to assist you in the design of your new environment, can design the installation based on your needs, ease the installation process and simplify future maintenance. A colocation provider with the expertise to help you reduce power consumption by offering ways to move to configurations driven by green IT principles, such as ensuring effective airflow and security procedures.

Given that staff will be spending a large amount of time at the data centre, especially during the initial setup phase, look for a provider that offers good welfare facilities and has build out areas, lounges and meeting rooms where your staff can work or make calls. A good range of amenities provide a comfortable work environment and keep your staff productive.
Power and Cooling Capabilities

Power is a critical data centre element, so look for a provider that can offer Tier II uptime for power and redundant power systems. Colocation facilities can offer N+1 systems with concurrently maintainable power resources and provide uninterrupted power supported by UPS equipment and generator systems will help eliminate down time.

The colocation facility should not only deliver the power you need today, but also has the capacity to deploy additional power to meet future demands. Colocation providers that cannot adequately power their data centre space will limit your options if in the future you seek to grow your colocation installation or migrate to new servers with increased power requirements.

Your provider should offer transparency and detail in its billing. Providers that offer billing options for your power, based upon distribution of power circuits or metered power, can help reduce your costs depending on your configuration and power requirements.

As server power demands increase it is important that the data centre has efficient cooling systems, and the provider continues to invest in new cooling technologies to protect your hardware. Look for industry recognised best practice airflow management techniques like hot and cold aisles, blanking panels and brush strips. Also the deployment of professional aisles containment systems and cooling walls improve cooling efficiency and can help avoid hot spots for your equipment racks. Improved cooling can also extend the life of your equipment and improve performance by reducing hardware failures. Make sure the colocation data centre meets ASHRAE recommended ranges for temperature and humidity.

A colocation provider that has demonstrateal green credentials can participate with you to integrate cooling techniques into the design, operation or upgrading of your environment.

Summary

With the availability and performance of your business applications depending on the colocation partner, it is essential you make sure you select one that can help you meet your goals. Colocation is a long term commitment, the cost and business disruption that comes from moving installations makes the right selection critical.

Workspace Technology has been designing, building and managing data centre infrastructure for both corporate and public sectors clients for over 10 years. Workspace Technology has an exceptional track record and award winning services of delivering high performance energy efficient data centre environments. Workspace Technology brings the flexibility required to deliver the solutions you need today and the vision to help get you where you need to be in the future.

Workspace Technology’s DC One facility is located in Sutton Coldfield, Birmingham, West Midlands. This regional colocation data centre provides an exceptional range of services for end users and systems integrators who require high quality colocation resources within the midlands territory.
Making the difference by Connecting with our clients

Workspace Technology’s Rack Hosting division provides premium rack space that delivers optimum energy efficiency, resilience, security and flexibility to safely host your server equipment. By engaging with you and taking the time to understand your business and performance related issues Workspace Technology is able to effectively address the demands of your business.

Workspace Technology’s Rack Hosting team welcomes this opportunity to connect with you as a valued customer. We would like to share our vision and expertise through a partnership approach. Our ability to deliver integrated, scalable, energy efficient solutions has made us the preferred choice for many public sector and commercial businesses today.

Operating throughout the UK, Workspace Technology offers clients an enthusiastic and refreshing approach, combined with teamwork, that takes performance and service to new levels of excellence.

Further details of Workspace Technology’s colocation products and services can be found at [www.workspace-technology-rackhosting.com](http://www.workspace-technology-rackhosting.com).

Approved Endorser EU Code of Conduct on Data Centre Efficiency

APC Elite Partner
Data Centre Certified

Workspace Technology’s “Commitment to help clients reduce their carbon footprint through the deployment of energy efficient technology and design”.

[ISO 9001](#) [ISO 14001](#)

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