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Data Centre and Virtualization

Five Things to Consider When Choosing the Right Colocation Partner

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Biography

Darren Watkins is the Managing Director of VIRTUS Data Centres (https://virtusdatacentres.com). He began his career as a graduate Military Officer in the RAF before moving into the commercial sector. He brings over 20 years experience in telecommunications and managed services gained at BT, MFS Worldcom, Level3 Communications, Attenda and COLT. He joined the VIRTUS team from euNetworks where he was Head of Sales for the UK, leading market changing deals with a number of large financial institutions and media agencies, and growing the company's expertise in low latency trading.

Additionally, he sits on the board of one of the industry's most innovative Mobile Media Advertising companies, Odyssey Mobile Interaction and is interested in all new developments in this sector.

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Abstract

The colocation market is growing as the corporate world continues its digital transformation and companies outsource their massive data-storage needs to data centres. Uniquely qualified and certified to support large data and application to meet the demands of an ever-expanding customer base, using a colocation centre allows future cloud applications, companies and government agencies to scale seamlessly thanks to around-the-clock support of an expert technical team that can tackle the cooling, power and maintenance requirements of high-density equipment. In this article, the author looks at what you need to consider when selecting the right colocation partner.

Introduction

A few years ago, you may have heard it said that colocation is dead, and that cheap cloud computing would take its place. But it is clear today that colocation is not going anywhere. In fact, in the face of industry scepticism, analysts across the industry predict continued growth thanks to ongoing digital disruption and the proliferation of business ecosystems, the leveraging of AI / machine learning and the power of cloud.

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All of this means that the issues today's IT leaders face are almost always complex in nature. To keep pace with the speed of doing business, organizations are having to continually reinvent themselves, and consequently their supporting digital infrastructure. The result is that IT directors and CIOs have sprawling environments to manage.

This is where colocation comes into its own. It is designed to have maximum flexibility with total transparency and solves some of the most frustrating problems faced by IT departments, but without introducing new problems: it requires the same skills needed to run servers in-house but the provider takes full responsibility for the physical environment, for instance, the state of the network cables, power availability, physical security and even the level of cleanliness are somebody else's problem.

There are two scenarios where colocation becomes an attractive prospect: first, when businesses are looking to simply expand their IT estate; and secondly, when a large IT overhaul is being implemented. But before deciding which colocation facility to choose, businesses must go through a checklist to make sure the multi-tenant data centre suits the requirements of the business.

Here are the top five things to consider when choosing a colocation partner: location, security, connectivity, flexibility, total cost of service.

1. **Location** – Businesses today expect low-latency and reliability from colocation providers, with zero tolerance for downtime. However, the data centre does not have to be located in a city, it can be located on the outskirts which eliminates expensive city centre premiums.

   Smart providers chose optimal locations combining low cost availability of ample space and power for hyper efficient data centres with low cost availability of broad and rich connectivity (fibre that today's digital businesses need). These facilities are far enough from city centres for disaster recovery purposes, but close enough to deliver application performance that local and international businesses demand.

2. **Security** – Security is one of the main reasons that some large organizations have traditionally preferred to build their own data centres. As this is often becoming financially unviable, providers must demonstrate that the security of their customers' IT infrastructure is one of their highest priorities. Both external and internal security are paramount.

   Security requirements should be looked at in three key ways:

   a) **Physical:** There should be at least seven layers of physical security that can be tailored for enhanced levels, as required. From perimeter fencing with intruder detection, access control, CCTV - external and internal – restricted pass code access, man and vehicle traps; data centres can guarantee the highest security needs that any industry sector needs.

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b) **Process:** ISO27001:2013 certification should be in place to evidence processes and procedures and show that every aspect of security is tested regularly.

c) **Digital:** Easy access to a choice of DDoS mitigation services should be available through an ecosystem. Providers that partner with key digital security vendors create a strong defence so businesses can deal with attacks should they materialize.

3. **Connectivity** – Businesses use public clouds for access to huge amounts of data and massive compute capability, for on demand computing when needed, or simply for storage. But they still maintain their own private clouds as a way of processing and adding value to their own sensitive data that they collect and to handle complex computations. This is the hybrid world that is becoming the de facto standard.

   Connectivity to the right carriers is critical if cloud is to work. This ensures that multiple public clouds can be accessed, which will increase performance. The term for this is "on-ramp to cloud". Companies should be aware that whilst some data centre providers can build the best high-performance computing platform, without connectivity provisioning on-ramp to other clouds, businesses won't be able to adopt a hybrid cloud strategy.

   This connectivity is extremely important in a hybrid model as companies need it to reach multiple cloud providers and other enterprises, exchange traffic and connect systems, platforms and applications where necessary. Colocation providers are already designed to be connected to carriers. Those data centres that own a fully diverse fibre duct infrastructure to meet all of the fibre owner/operators make every other possible carrier or related supplier just a cross connect away, providing limitless connectivity cost effectively.

4. **Flexibility** – Overly rigid long-term data centre contracts are no longer palatable for many global cloud and digital organizations where the fast pace of business and technology can require them to change direction quickly. If enterprises and IT agility are held back by antiquated and inflexible data centre platforms or contracts that can't react quickly in line with business plans, it can lead to missed opportunities and severe IT cost inefficiencies. This is a serious concern for businesses today.

   Flexible contract options provide true commercial and technical agility which benefit enterprises. Providing the ability to flex the contracted power, space and time of the service at any point allows businesses to take full advantage of the differing costs per compute as they increase or decrease IT density.

   For smaller businesses, solutions such as Colo-On-Demand enable rack customers to change their contracting requirements on a day-by-day basis. Large enterprises should also be given the ability to vary their space or power density commitment up or down to match IT and business needs. By providing up to the minute, accurate information about IT usage, businesses

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can be informed so they are able to predict their current and future commitment levels – enabling them to flex their contracts accordingly, which can potentially save millions of pounds over the life of some contracts in unnecessary space and power charges.

5. **Total Cost of Service** – Today, the data centre market has matured and buying colocation space has become the strategy of choice for most businesses. Companies should make sure they aren't paying more than they need and look for a disruptive commercial model, which gives absolute flexibility from a rack to a suite, for a day to a decade and total transparency and control of usage.

   Things to look out for when calculating Total Cost of Service (TCS):

   - Lower build costs per MW of IT load;
   - Reduced energy costs through low PUEs and ultra-efficient cooling technology;
   - Flexibility to provide high-density cooling capability;
   - In-built monitoring and operating support;
   - Connectivity-rich data centres with ecosystems; and
   - Flexible contract terms for both colocation space and connectivity

The future of colocation

In the immediate future, the Internet of Things (IoT), AI and Machine Learning are having an impact on colocation demands and providers. Products such as smart home and smart car applications are already generating huge amounts of data. As IoT-enabled products become more sophisticated, machine-to-machine communications using open protocols will see devices consume data in ways that we are only just starting to explore. The volumes of data and speed required for this type of processing can only be housed in buildings designed specifically for this purpose – a data centre.

As for the next ten years, colocation providers will need to adapt to emerging technologies such as network functions virtualization, software defined networks and Platform-as-a-Service (PaaS) if they are to continue to support the scale and functionality needed by modern businesses.