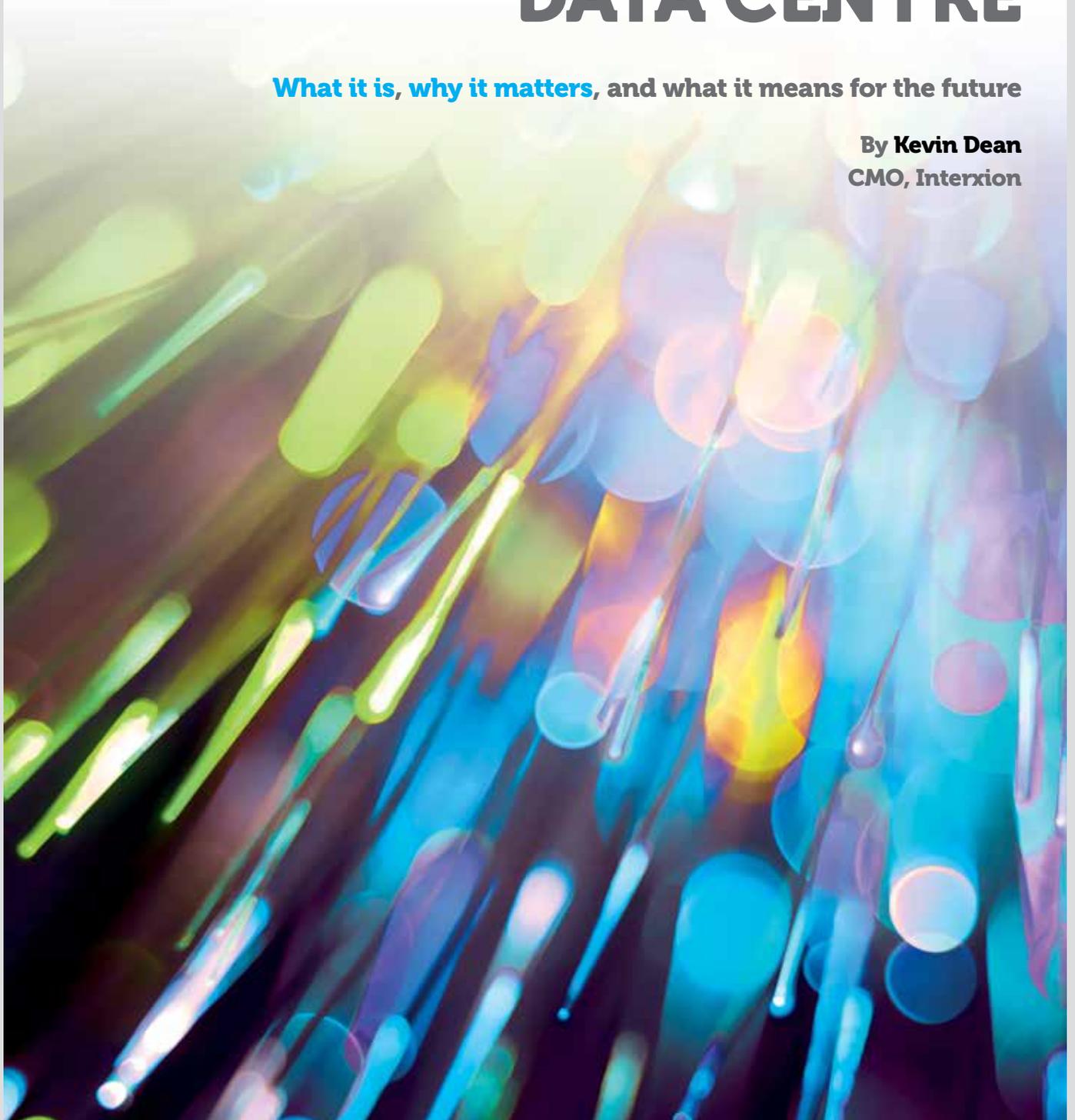


CLOUD AND CARRIER- NEUTRALITY IN A COLOCATION DATA CENTRE

What it is, why it matters, and what it means for the future

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INTRODUCTION

IT consumerisation, mobility, social media, big data, virtualisation, cloud computing – every one of these key developments moves the data centre closer to the heart of the digital economy.

The resulting need for increased performance, scalability, connectivity, and high-density computing – coupled with concerns about security, sustainability and cost control – is driving enterprises of all sizes to consider third-party data centre space to house their ICT infrastructure. For example:

- An enterprise that's ready to deploy hybrid cloud solutions or wants to exploit big data to drive real-time customer intimacy will need low-latency connectivity and multiple points of presence to ensure rapid response times and predictable performance.
- A provider of online entertainment services will need access to a large number of content delivery partners to distribute content as efficiently as possible: attracting that range to an in-house data centre may be difficult or costly.
- For a cloud or hosting provider, colocating in a third-party data centre rather than building its own is an obvious way to reduce capital expenditure, ensure scalable capacity, increase its access to carriers, and improve time to market.
- A system integrator may want to house its infrastructure and applications directly alongside the cloud and connectivity providers it collaborates with to build customer solutions in order to improve performance.

In all of these examples a key criteria for deciding which type of data centre provider to choose is the level and type of neutrality they can offer.

In this paper we explore the concept of the cloud and carrier-neutral data centre and consider the benefits it can offer to organisations in different sectors and how it allows enterprises to future proof their IT infrastructure. We also look at what data centre neutrality could mean for the future.

WHY OUTSOURCE YOUR DATA CENTRE?

The benefits of colocating at a third-party data centre rather than using an in-house facility include:

- Cost savings – energy-efficient environment, shared technology and security costs, low-cost connections to customers, suppliers and partners in the same data centre
- Scalable space, power and cooling, helping your business stay agile
- Choice of carriers – optimise pricing and performance
- Robust multi-layer physical security and risk mitigation measures that protect your installation and enhance business continuity
- Highly available redundant power supplies, backed by SLAs
- Focus on core business and no need to develop specific skill sets
- Proximity to your customers – colocate close to the communities you serve

CLOUD-NEUTRAL, CARRIER-NEUTRAL – OR BOTH?

Any enterprise requiring cloud, hosting, IT infrastructure or connectivity services needs to identify the most appropriate type of data centre for its needs. **Neutrality** is a key criterion in that process.

Defining data centre neutrality:

'Neutral' means that the data centre provider is independent of the companies collocated in the data centre, does not compete with them in any way, and offers no packaged services as part of collocation. Customers are free to contract directly with the providers of their choice.

'Carrier-neutral' therefore describes a data centre provider that doesn't provide connectivity services external to the data centre. More recently, the concept of 'cloud-neutrality' has started to be used to refer to a data centre operator that doesn't provide any managed services itself – whether traditional or cloud-based, related to infrastructure or applications.

Data centre ownership often drives the level of neutrality.

Data centres are often owned and operated by:

Network service providers: they may restrict connectivity services to their own network, or may attract only a limited range of other network service providers to their facilities because of potential competition with the data centre operator.

This type of data centre may be cloud-neutral and therefore able to attract cloud, hosting and infrastructure providers. But if the operator follows the growing trend for network service providers to broaden their offer to include these types of services, competition may limit the number of providers who collocate there.

System integrators (SIs): although these data centres may offer a range of networks, the operator may limit the choice of cloud, hosting and infrastructure services to those it provides itself. Even if such restrictions aren't imposed, other providers may be unwilling to compete for customers with the data centre operator.

Fortunately, there's an alternative for organisations that want access to the broadest choice of cloud, hosting, infrastructure and connectivity services: **the cloud and carrier-neutral data centre.**

Such facilities are owned and operated by a provider that doesn't offer any of these services itself and is entirely independent of all network, hardware and software vendors.

In a cloud and carrier-neutral data centre, enterprises can select the providers of connectivity, infrastructure and application management services that best meet their needs. In this neutral environment, they contract directly with the providers of their choice, independently of the data centre operator; and the commercial relationship remains completely separate from the one they have with the data centre operator for collocation.

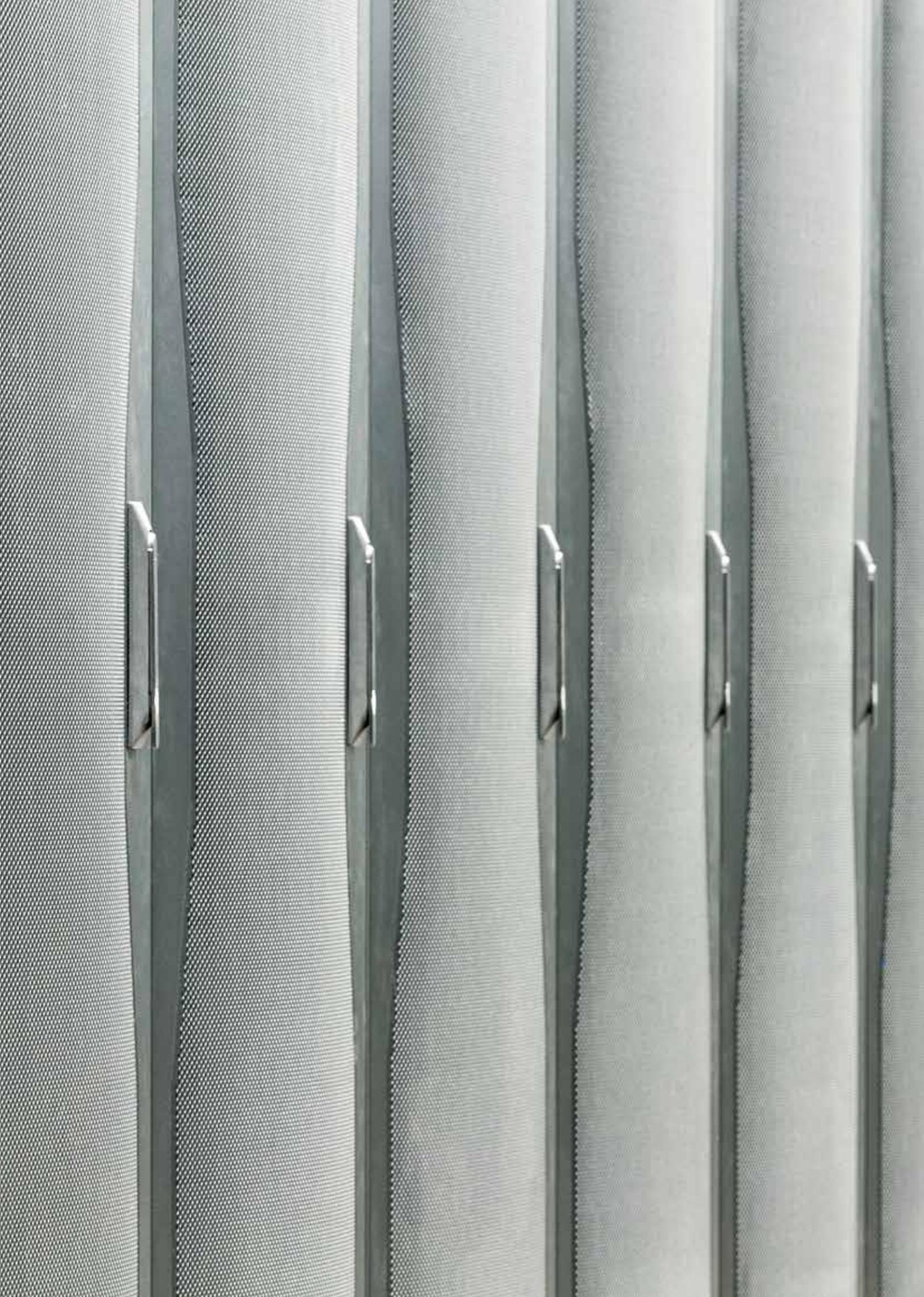
By its nature, this type of facility provides a neutral environment that attracts extensive communities of cloud, hosting, infrastructure and network service providers and SIs, who collaborate and do business with one another and with their customers, completely free of competition from the data centre operator.

CLOUD AND CARRIER-NEUTRALITY: THE ENTERPRISE BENEFITS

In a cloud and carrier-neutral data centre an organisation, buying cloud, hosting, infrastructure or connectivity services contracts directly with the providers of their choice.

They benefit from:

- Access to a marketplace of providers, enabling them to negotiate the best combination of price and performance to meet their specific needs
- The ability to work with multiple providers to build redundancy and resilience into their solutions, for business continuity and disaster recovery purposes
- The freedom to add or change providers as their business needs evolve with no need to physically move their infrastructure
- The commercial relationships with cloud, hosting, infrastructure and connectivity providers are completely separate from the organisation's collocation agreement with the data centre operator; and there is no tie-in to the data centre operator for these services
- Reduced costs and complexity and improved application performance
- Simple enabling of a multi-sourcing strategy



A GREAT PLACE TO DO BUSINESS

Organisations colocating in a cloud and carrier-neutral facility benefit from having everything they need under one roof. In addition to high-quality space, power, cooling and security provided by the operator, they can join communities of interest and forge business partnerships that flourish in the absence of competition from the data centre operator.

This model can be compared to a shopping mall, where communities of companies locate alongside known brands that drive consumer footfall and where customers have access to a wide choice of services from providers who are independent of the mall operator. For example:

- A **retail bank** or **insurance company** that wants to set up a new online service for its customers will have access to a wide range of hosting, application management and connectivity partners to collaborate with.

Enterprises can get exactly what they need at the right price from the suppliers of their choice. They can contract with multiple providers to build in resilience and redundancy and move between providers with minimal disruption. For example:

- **Enterprises** of all types and sizes will have direct access to a wide range of cloud, hosting and infrastructure partners within a highly connected environment. They'll be able to design and develop their cloud computing and big data strategies, supported by all the networking options they need to efficiently connect their legacy platforms and private clouds to other cloud platforms and speed up application access and information delivery.
- Companies in the **digital media** sector will be able to connect directly to an extensive community of CDNs, Tier 1 ISPs, local access providers, international carriers, Internet exchanges and mobile network operators to build high-access networks for efficient delivery to end users of live, real-time, interactive and other latency-sensitive content to consumers.

Service Providers will be in the best position to maximise the opportunities to develop their business and grow their revenues:

- **Network service providers** know they'll find a ready-made community of customers for their services in a cloud and carrier-neutral data centre. They'll be able to maximise

revenue opportunities by providing wholesale services to other carriers looking to exchange traffic and retail services to organisations in other sectors. If they're broadening their portfolio, they'll have the data centre space they need to house the infrastructure that will enable them to offer additional capabilities. And if they're entering a new geographical market, a cloud and carrier-neutral data centre will be the ideal place to install a point of presence (PoP).

- **Cloud, hosting and infrastructure providers and SIs** will have easy access to:
 - Companies that want to buy their services
 - Other members of an extensive cloud community in order to integrate private and public cloud platforms
 - Hosting and infrastructure services to deliver the hybrid solutions customers increasingly look for
 - The widest choice of connectivity providers, enabling them to build the networks they need to reach their target markets efficiently and optimise the end-user experience

Because it doesn't compete with any of its customers, a cloud and carrier-neutral data centre provider can facilitate these relationships. For example, it can produce a listing of companies colocated in the data centre that acts as a guide to the range of services available and offer objective advice on the various options for different customer situations.

Naturally a virtuous circle develops: the more service providers the data centre houses, the more customers are attracted to it, which in turn attracts more providers... The marketplace grows and thrives, driving business and revenues for all participants.

The value of a neutral data centre increasingly comes from the business connections enterprises can make within it.

WHAT DOES THE FUTURE HOLD?

The ability to access multiple carriers has long been an important feature of neutral data centres. In today's world of many clouds – public, private, hybrid, application-specific – having access to multiple cloud providers is becoming just as important, and this will only increase as the benefits of moving to the cloud are fully understood.

Judging by the rapid pace of change, new disruptive technologies will continue to emerge, further challenging the way in which IT operations are run. Multi-sourcing as a procurement model is here to stay, as organisations increasingly pick and choose the services they want from a variety of providers, relying on their own or third-party expertise to integrate them.

For providers of cloud, hosting, infrastructure, connectivity and other services, being part of a community and offering services in the context of a neutral marketplace will help them rapidly develop new partnerships and service delivery models.

Colocating in a cloud and carrier-neutral data centre makes it easier to take advantage of any new trend or service offering. Indeed, the concentration of potential customers in a cloud and carrier-neutral data centre makes it the ideal location with providers to launch new services – accelerating their own ROI and enabling others in the same facility to benefit from new capabilities before anyone else.

Over the longer term, the cloud and carrier-neutral data centre model looks set to evolve as more IT capabilities are delivered

on an 'as a service' basis. The next step may involve sourcing and delivering services at a much more granular level, as enterprises select not just carriers and clouds, but platforms, applications, security capabilities and other elements from different specialist providers to build their solutions.

In this scenario, the data centre will need to follow a parallel path: evolving from carrier through cloud and onto IT-neutral.

A data centre that is neutral to the entire IT service stack will be able to attract the broadest choice of service providers offering all types of capabilities and delivery models along with the companies that offer supporting integration services – giving enterprises all the flexibility and choice they need to transition to ever more innovative, hybrid and service-based IT deployment models in the quest to optimise cost and performance.

The data centre's place at the heart of the digital economy, hosting and interconnecting data, applications and businesses in highly secure and reliable facilities looks set to increase in the future.

WHAT TO LOOK FOR IN A DATA CENTRE PROVIDER

When selecting a data centre provider, the capabilities offered in the following three areas are key to the decision-making process.

Connectivity and reach

- Does the data centre offer neutral access to multiple networks (fixed and mobile), ISPs, CDNs and Internet exchanges, so that you can get the pricing, performance and redundancy you need?
- Does the provider have facilities in key cities?
- Can you have a single contract and SLA across all your installations?

Experience and approach

- Is there a ready built community of interest you can join for commercial benefit?

- Can the provider demonstrate a track record of success through case studies and testimonials?
- Do they have experience of working with organisations in your sector?
- What support services do they offer, eg customer portal, 24x7 support?

Data centre environment

- Are modular packages available to support your growth?
- Do they offer high-density power with 2N UPS systems and an SLA of 99.999%?
- Is it a climate-controlled environment that uses sustainable energy?
- Is the design modular, and does it follow best-practice principles for safe, efficient infrastructure housing?

CONCLUSION

A cloud and carrier-neutral data centre provides vast choice for buyers and sellers of services. Its neutrality makes it the perfect place to do business, as customers establish commercial relationships with one another that are independent of the data centre provider.

Organisations buying services get access to a broad range of providers, enabling them to negotiate the best price and performance for their solution, work with multiple providers for business continuity and disaster recovery purposes, and add or change providers non-disruptively as their business needs evolve.

The data centre's neutral environment maximises opportunities for service providers to develop commercial and collaborative relationships with customers and partners in many sectors and offers the perfect location in which to grow revenues, expand their reach or their range of services.

Already the location of choice for providers to bring new services to market, the cloud and carrier-neutral data centre model will continue to develop in parallel with evolving IT consumption and sourcing models.

Ultimately, as a completely neutral facility, it looks set to enable the development of ever more tightly integrated communities that will accelerate revenue generation for participants and deliver the seamless services that customers increasingly expect.

ABOUT INTERXION

Interxion (NYSE: INXN) is a leading provider of carrier and cloud-neutral colocation data centre services in Europe, serving a wide range of customers through 40 data centres in 11 European countries. Interxion's uniformly designed, energy efficient data centres offer customers extensive security and uptime for their mission-critical applications. With over 500 connectivity providers, 20 European Internet exchanges, and most leading cloud and digital media platforms across its footprint, Interxion has created connectivity, cloud, content and finance hubs that foster growing customer communities of interest.

For more information, please visit www.interxion.com

INDUSTRY MEMBERSHIPS

Cofounder: Uptime Institute
EMEA chapter

Founding member: European
Data Centre Association

Member: EuroCloud

Member: The Green Grid,
with role on Advisory Council
and Technical Committee

Patron: European Internet
Exchange Association

ACCREDITATIONS

ISO 27001: Information
Security Management

BS 25999-2:2007: Business
Continuity Management

ITILv3-certified Service Centre
Members and Facilities Managers



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