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Enabling the Hyperscale Future

By: Mark Noonan

We are still early in the emerging hyperscale era. Flourishing cloud operations (the public cloud's revenue is expected to be $552 billion by 2027), digital transformation (which may garner spending of up to $2.3 trillion by 2023) and subsequent data demands are just a few of the drivers exerting influence. As these trends continue, however, large-scale enterprise and cloud businesses are seeking to continually grow their already substantial operations. Now many are finding that they must realign their infrastructure strategies to empower their sustained growth.

To accommodate mounting pressure from new IoT (Internet of Things), 5G or Artificial Intelligence technologies and keep pace with diversifying, edge-centric geographic needs, hyperscalers are supplementing their on-premises data centers with colocation. Subsequently, as the hyperscale entity grows, the scalable data center has emerged as a vital strategic component of these trajectories, empowering massive compute and storage capabilities while allowing for a host of other advantages.

Finding the perfect fit—with room to grow

The defining trait and goal of the hyperscale future centers on attaining massive computing scale, which can then be utilized to support expanding demand from new applications, from end users and from the competitive IT sphere. To get there,

however, a number of expectations must be met when it comes to the data center—a foundational element of any digital business framework. This includes items such as design and build capabilities as well as scalability and reliability from both physical infrastructure and end-to-end, holistic expert support. To meet these needs, enterprises are allying with colocation providers at the regional level, enabling enhanced access to customers at or near the edge.

In-house data centers do offer control, with enterprises being able to manage their build and operations from start to finish for tailor-made results. However, on-premises data centers draw huge amounts of resources in the form of both time and capital away from core competencies. Additionally, the potential lack of necessary in-house facility management expertise can get in the way of creating ideal strategies.

Hyperscalers don't just require the physical assets. Their demanding growth often necessitates turnkey support from a provider that can deliver comprehensive services from front-end rack and stack, through the structured cabling process and onwards with remote hands support. Colocation data centers offer larger entities augmented control and scalability while substantially reducing the associated distractions and costs from building, operating and maintaining infrastructure in-house. In addition, allying with a regional data center partner better enables businesses to service edge users and execute edge deployments, which is an ever-growing priority for the edge-driven, low-latency future. So, as the search is on for the ideal data center partner and facility, providers are looking for the best ways to meet evolving demand for scalability and flexibility.

A Foundation of reliability and security

Outages are making headlines seemingly every day, and large players certainly never want to see their name, their reputation, or their bottom lines jeopardized by an incident. Unfortunately, the average cost of a critical application failure can now reach up to $500,000 to $1 million per hour. In the always-on world, half of the battle for success is built on staying up. Constant availability is the backbone of any operation and ensuring partnership with a data center that maintains critical uptime is vital.

Finding a data center that delivers this critical and continuous operation hinges on a couple of factors: location and physical security. Especially as natural disasters

gain momentum from climate change, data centers are putting a priority on residing above the 500-year floodplain and being built to withstand gale-force winds. To build on this, ideal data center providers are maximizing safety of housed data by providing 24x7 security, biometric scanners, N+1 to 2N redundancy, purpose-built dual power feeds and more.

Keeping it carrier-neutral

When it comes to establishing and maintaining flexibility in a data center facility, carrier-neutrality is a great place to start. Now that demands are sky-high, large customers don't need preconceived or pre-set strategies—they need custom options. As facilities that are not owned or operated by a single Internet Service Provider, carrier-neutral data centers offer access to multiple carriers and providers, allowing for greater freedom of choice. In this environment, tenants are not subjected to the effects that a single-provider monopoly may bring, instead leveraging more ideal flexibility. If one carrier cannot meet the data-intensive needs of the hyperscaler in question, other carriers with alternative capabilities are available to serve their needs.

This flexibility in provider extends even further, offering the added benefit of amplified reliability and redundancy. By allowing tenants a choice in connectivity provider for critical IT systems, they can optimize their access and ensure their always-on standards are met at all times, even if one provider goes down. Moreover, natural competition within this environment results in cost-effective options that wouldn't otherwise be available. It's for these reasons that carrier-neutral colocation has become the data center standard for the growing needs of the enterprise.

Hands-on, boutique insight

In a market of changing needs and an endless array of infrastructure options designed to meet them, service is one of the defining factors of a data center provider. While many providers can meet the space, power and cooling needs of large hyperscale players, customer experience and an individualized level of service can be a critical differentiator when it comes to deciding on a colocation partner.

Providers that deliver full-scale turnkey services can ensure from the very beginning that tenants are getting a strategy that will meet and support all their

goals. In-house teams with thorough expertise are an asset, working closely with customers throughout every step to ensure that immediate needs can be met while future-proofed options can be ready for whatever growth comes down the line. With a data center provider that understands the scalability and flexibility needs of large players, the challenge (and the success) is shared, which means that building the ideal, tailored strategy begins even before contracts are signed.

Data center partners that offer 24x7x365 help and support from in-house certified technicians, engineers and electricians, along with virtual hands support options, provide a more responsive approach to the ongoing needs of their clients. Additionally, outsourcing building and management to a provider that is prepared to comprehensively handle the deployment pays dividends for the customer, allowing them to maximize savings by optimizing their outsourcing strategy.

In this way, hands-on, trusted partners ensure that large clients get the physical capabilities they need, but with the added benefit of unparalleled ease and peace of mind.

Building into the future

As data demands grow in size, complexity and urgency, capable infrastructure solutions grow in their importance every day. As the foundation upon which IT strategies and digital success are built, allying with a scalable, flexible and reliable data center is one of the most vital decisions that large entities can make as they prepare for the future. Subsequently, as data center providers seek to attract hyperscalers and empower their growth, the most scalable and flexible facilities remain the ones that can understand tenant needs and check all the boxes. Providers that, regardless of client growth trajectory, work closely to deliver the exact right solution while remaining neutral, safe and thorough will continue to be the cornerstone of progress for the hyperscale future.