

Three Key Considerations for Colocation Providers

1

More Applications,
More Diverse Workloads,
More Demand for Hybrid Cloud



2

Tenant Expectations
for a Touchless Experience



3

Infrastructure Requirements
for Interconnection Services



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THE CASE FOR COLOCATION

The events of 2020 forced organizations to quickly figure out how to close the gaps in their business continuity plans. And now they recognize that maintaining operational resiliency and enabling innovation moving forward requires ongoing transformation.

For IT leaders focused on ensuring that the growing number of applications in use are always available and performing as expected, **hybrid cloud architectures can both save dollars and make sense**. Hybrid cloud architectures provide the flexibility they need to allow application workload requirements to determine where they run, which might be in or across an on-premises data center, public cloud or edge environment. This is an area where colocation providers shine strong and offers a business-building opportunity now and in the future.

Workload diversity isn't the only topic on IT leaders' minds. As they look to the future, they do so with a fresh perspective shaped by experiences of the pandemic. Perhaps more than ever before, they are focused on worker and workplace safety, which is one reason why **many organizations are making virtual business practices the new normal**, and expecting their colocation partners to do the same by providing a touch-free tenant experience, which we talk more about in the following pages.

Innovation is also made better through collaboration. This is one reason why more and more organizations are partnering with colocation providers: **IT leaders are looking for fast, reliable access to SaaS offerings and interconnected services from multiple vendors across the technology industry ecosystem**.

Read on to learn more about the considerations impacting business opportunities in a post-pandemic world, and why a physical infrastructure that can keep pace with changing business requirements is key to multi-tenant data center success.





Opportunity #1

MORE APPLICATIONS, MORE DIVERSE WORKLOADS, MORE DEMAND FOR HYBRID CLOUD

These days, more organizations are leveraging more applications than ever before. In the process, they're learning that not all of them belong in the public cloud, which for several years has been the go-to destination for cost savings and access to cutting-edge technology.

As a result, cloud repatriation is on the rise. Cloud repatriation is the shifting of workloads from public cloud to a hybrid cloud deployment model, largely due to cost increases, performance decreases, or specific workload requirements. According to IDC¹, it has grown increasingly popular in recent years: 80% of companies plan to repatriate at least some of their workloads that are currently hosted in the public cloud.

The reason behind cloud repatriation lies in the diverse workloads that come with diverse applications, which can be highly complex and have unique and specific requirements for server instances, storage volumes, per-use services, and along with networking, power, heating/cooling and, location. The list goes on and on, and when running these workloads in the public cloud, costs can go up and up for the organizations paying for them.

Cloud Repatriation:

The shifting of workloads from public cloud to a hybrid cloud deployment model, largely due to cost increases, performance decreases, or specific workload requirements.

“ Workload placement is not only about moving to the cloud, but also about creating a baseline for infrastructure strategy based on workloads rather than physical data centers.² ”

¹ IDC, Increased Services, Pullback From Public Clouds Huge IT Disrupters

² Gartner, Your Data Center May Not Be Dead, but It's Morphing



Hybrid Cloud Strategies Make Diverse Workloads Work

Legacy applications often require refactoring in order to run in a public cloud environment, which can be costly, time-consuming and risky to the businesses that rely on them. Keeping these applications in an on-premises data center or private cloud, where they can run on technologies already in use, and be managed by existing teams who expert in those technologies, is a solid strategy that can save money.

Critical applications frequently come with strict requirements for performance, availability, and data sovereignty, which not all public cloud providers are prepared to meet. As a result, these types of organizations are often better served by local data center facilities with dedicated IT staff to oversee operations.

High-density applications used for artificial intelligence, machine learning and deep learning, create compute-intensive workloads that require high-density racks. Because public cloud provider fees for using GPUs or other specialized hardware accelerators common with these types of applications, colocation is often a more cost-effective alternative.

The lines are blurring between public cloud and the data center and creating more opportunities for organizations to run workload where it makes the most sense.

Diverse Workloads: What to Consider

1. Colocation is on a growth trajectory.

Many organizations are moving toward a hybrid approach, which presents opportunities for colocation providers to acquire new tenants – as well win back tenants who might have been lost to public cloud providers in the past. Success lies in finding ways to help tenants improve efficiencies between public and private cloud workloads while controlling costs and meeting SLAs.

2. Increasing energy efficiency is crucial for colocation providers.

Power and cooling remain top targets for efficiency improvements: Energy costs related to cooling account for nearly 37% of the overall data center power consumption and are the fastest rising data center operation expense.

3. Finding better way meet tenant SLAs is central for continued growth

Converged infrastructure solutions reduce time to production for tenants by up to 80% by using pre-configured solutions that arrive fully tested, validated, and ready to rack and roll.

**\$53
billion
by 2025**

Arizton Advisory and Intelligence predicts the colocation market will grow at an annual rate of 7%, reaching revenues of more than \$53 billion by 2025.

Energy-Efficient, Automated Monitoring at Work:

Learn how Panduit helped [CyrusOne](#) improve cooling efficiency while increasing operational effectiveness and decreasing energy costs.



Opportunity #2

TENANT EXPECTATIONS FOR A TOUCHLESS EXPERIENCE

Social distancing mandates in 2020 showed us all that work is what people do, not where they go. Now, organizations are making virtual business practices the new normal.

Increasingly, tenants and colocation providers are finding ways to engage with a focus on safety and without interacting in-person at each stage of the relationship lifecycle – from site selection to monitoring, management, and security.

Here are four ways colocation providers can deliver a touchless tenant experience in a post-pandemic world.

Virtual Tours

Whether delivered as an on-demand, self-service experience or a personalized experience with an on-site guide, virtual tours show prospective tenants what makes one facility better than any other without the need for decision makers to make an onsite visit.

Support Services

Remote hands support services, which enable customers to delegate IT management and maintenance tasks to staff members who are onsite at a colocation center and hired by the respective data center provider, are an in-demand service (and one that many public cloud providers don't offer).

Intelligent Monitoring

Tenants need to have visibility into their deployment environment in order to truly have control over their network, which is what intelligent monitoring systems provide. They continuously gather information for transparent visibility and deliver real-time performance data in a customizable format.

Security

Statistics show that there has been a significant increase in cyberattacks since the pandemic began, and in the era of remote work ensuring physical safety for IT infrastructures is key. Increasingly, customers are looking for advanced measures including round the clock security and biometric technologies.

Panduit solutions help colocation providers keep pace with changing business requirements.



SmartZone™ G5 IPDUs provide tenants with complete environmental monitoring, true power consumption transparency, and cabinet-level security.

[Learn more](#)

The SmartZone™ G5 Security Handle seamlessly mates with most data center cabinets and has the capability to read both low and high frequency cards. It also can support 200 authorized users and features an integral humidity sensor allowing humidity sensing to be optimally placed near the center of the cabinet.

[Learn more](#)



The FlexFusion™ Cabinet is ideal for network or server equipment that provides maximum flexibility and the capacity to manage high cable density. The configure-to-order platform allows tenants to customize a specific configuration to fit their needs.

[Learn more](#)



Panduit has a long-standing strategic alliance with Cisco Systems, and our joint innovations help colocation providers maximize network infrastructure ROI.

Visit our [website](#) to learn more.



Opportunity #3

INFRASTRUCTURE REQUIREMENTS FOR INTERCONNECTION

Some industry analysts say that the colocation industry is in a state of transition that's being driven by widespread enterprise adoption of all things SaaS, and a desire by tenants and cloud providers alike for more **interconnection services**.

Interconnection services are the physical connections that enable data exchange between two or more entities or partners at the fastest possible speed by combining high-performance networks with physical proximity.

Colocation is fast becoming the de-facto destination for connecting enterprises, service providers and cloud platforms, which means now is the time to for colocation providers to deliver to tenants the type of interconnection services that can help them streamline migration across facilities as well as make it easier to access partner ecosystems.

Interconnection Services:

The physical connections that enable data exchange between two or more entities or partners at the fastest possible speed by combining high-performance networks with physical proximity.



The Colocation and Interconnection Services Connection

It makes sense that colocation and interconnection services go hand-in hand. Many colocation providers operate multiple large data centers that are linked by high-speed connection, and they also integrate multiple vendors and cloud providers.

In fact, public cloud providers such as AWS and Azure are partnering with multi-tenant data center providers to give the tenants who use multiple cloud providers the ability to move data between providers.

For latency-sensitive applications that require processing to be as close to the point of delivery as possible, this distributed architecture provides the deployment flexibility they need. Instead of locating all resources in one place, compute and storage can be distributed across multiple colocation facilities for maximum speed and redundancy.

Consider special effects companies, who use bandwidth-hogging video rendering applications with specific low-latency requirements to create the captivating imagery that's commonplace in today's blockbuster movies. In order to improve network performance they might opt to leverage WAN accelerators or WAN Optimization Controllers (WOCs) coupled with caching at the edge, which eliminates the need to retransmit the data across the network. They might also choose to deploy a cloud bursting model, where the application runs in a private cloud or data center and 'bursts' into a public cloud when the demand for computing capacity spikes.

This is just one reason why distributed colocation infrastructure is the ideal environment for organizations that are experimenting with edge computing. Tenants who begin using colocation services now will be better equipped to take advantage of these decentralized networks moving forward.

Interconnection Services: What to Consider

1. Interconnection services is a booming business.

In the report, 'Data Center Interconnect Market – Growth, Trends, COVID-19 impact, and forecasts (2021 – 2026), Mordor intelligence predicts the data center interconnect market to reach a value of \$7.65 billion in 2025, up from \$3.48 billion in 2019.

2. Providing tenants and cloud providers with visibility and control is key.

Intelligent, or networked, power distribution units are a new solution designed to help data center operators and tenants resolve problems before they occur by monitoring and providing real-time insight into power consumption, environment, and system integration.

They help with uptime, capacity planning and cost reduction, and some, such as SmartZone™ iPDUs from Panduit, also include digital sensors that provide physical security by detecting environmental and rack access.

3. Fiber enables fast and reliable interconnection services connections.

Supporting the complex workloads that come with interconnection services requires the level of reliable, high-bandwidth connectivity that only fiber cabling can deliver.



HOW COLOCATION PROVIDERS CAN SHOW SUSTAINABILITY SMARTS

When the pace of life slowed in 2020 as a result of the global shelter in place mandates, the environment around us we saw meaningful — and positive — change. Now there is collective desire and a growing demand to get back to business without compromising the opportunity we've been presented to double-down on sustainability initiatives. In fact, sustainable practices are becoming a top-of-mind topic among investors, c-level executives, employees, and customers who want to invest in, run, work for or buy from organizations who are actively committed to operating in a sustainable fashion.

Energy costs related to cooling account for nearly 37% of the overall data center power consumption, and are the fastest rising data center operation expense. This is one reason why many colocation providers are leading the way in sustainable business operations through energy-efficiency initiatives. They are using advanced cooling systems that optimize air flow with smart sensors, and some are switching to clean energy to power their facilities in efforts to offset environmental impact.

Did you know?

Energy costs related to cooling account for nearly 37% OF DATA CENTER POWER CONSUMPTION.

As a result of the rise of hybrid cloud architectures inside colocation facilities, more organizations have an opportunity to migrate some or all application workloads to them, and thus reduce their own carbon footprint.

For colocation providers, attracting and retaining sustainability-focused tenants means not only operating in a sustainable manner but also publicly sharing sustainability goals and results.

Here are three strategies to consider in order to show sustainability smarts:

1. Many organizations participate in voluntary sustainability reporting frameworks such as the Carbon Disclosure Project (CDP). This is an effective way to determine what data to track and how, as well as providing results in a manner that is consistent with what tenants are seeing.
2. Today's digital economy has resulted in massive amounts of data and information being passed through data centers. Take the time to create or curate content that explains how a hybrid approach to IT, which includes a mix of data center, SaaS, branch offices, edge computing and security services, can help tenants support new technologies while still saving energy and costs. Hybrid approaches, which are becoming increasingly common at colocation providers, do so by maximizing all usable power, space, cooling and connectivity.
3. Take advantage of innovations in wireless monitoring and cooling products designed to help operators gain control over unpredictable environmental conditions and capacity challenges. SynapSense optimizes cooling capacity through turnkey intelligent software and wireless nodes and reduce cooling energy use by up to 50%.

ABOUT PANDUIT

Physical infrastructure is a strategic foundation that can help futureproof your business. Panduit's physical network infrastructure solutions ensure smart, scalable, and efficient connectivity to help organizations compete and succeed in a constantly evolving global marketplace.

Alongside our vast partner ecosystem, Panduit provides the proven, flexible solutions organizations need to innovate, collaborate and win.

An Infrastructure to Build On

The Panduit family of Converged Infrastructure Solutions includes hardware, software, and services for simple, reliable solution deployments.

- Maximize revenue and profitability through optimized cooling, space utilization, lowered power, and new value-added service opportunities
- Improve productivity by accelerating data center deployment tasks and enabling intelligent management of data center assets
- Develop a positive path forward for your business to cost-effectively support and adapt to evolving technologies and changing business demands

Learn more at [Panduit.com](https://www.panduit.com).

Real Benefits To Count On

ACTION	TIME SAVINGS
Assessment	80%
Planning	80%
Fulfillment	90%
Deployment	65%

Panduit pre-configured infrastructure solutions help colocation providers control costs, meet SLAs, increase efficiencies, and simplify management.