

# 2020

# State of the Data Center:

ACCELERATING IT AND BUSINESS OBJECTIVES



Today’s fast-moving economic shifts make it imperative that businesses react and respond with agility. That’s why many companies are accelerating strategies such as multi-cloud and digital transformation, as well as empowering the remote workforce.

Amid these expansive changes, enterprises are increasingly turning to colocation services as a problem solver across multiple business objectives, according to a new Market Pulse survey and 10 in-depth interviews conducted by IDG. This whitepaper examines those findings, including technology trends and CIO priorities as well as how colocation plays a vital role in each.

## IT SHIFTS TO MEET **NEWLY INTENSIFIED BUSINESS PRIORITIES**

Technology is no longer just a hardware or software commodity. Innovations in IT infrastructure and systems have allowed businesses to move faster and adapt more readily to market and customer changes. This, in turn, better positions the business to remain competitive, fuel innovation, and capitalize on new opportunities.

### A New Age: The Need for Efficiency

The evolving economic conditions have heightened awareness around business-process effectiveness. CIOs recognize that going forward, a large portion of their workforces will likely continue to work from home, and they must create new, more efficient workflows. This need for adaptability is pushing them to consider access to applications and data in cloud and data centers.

“The very first thing we’re trying to deliver with IT services is to make people’s jobs more efficient,” said the vice president of enterprise applications of a software company who spoke to IDG.

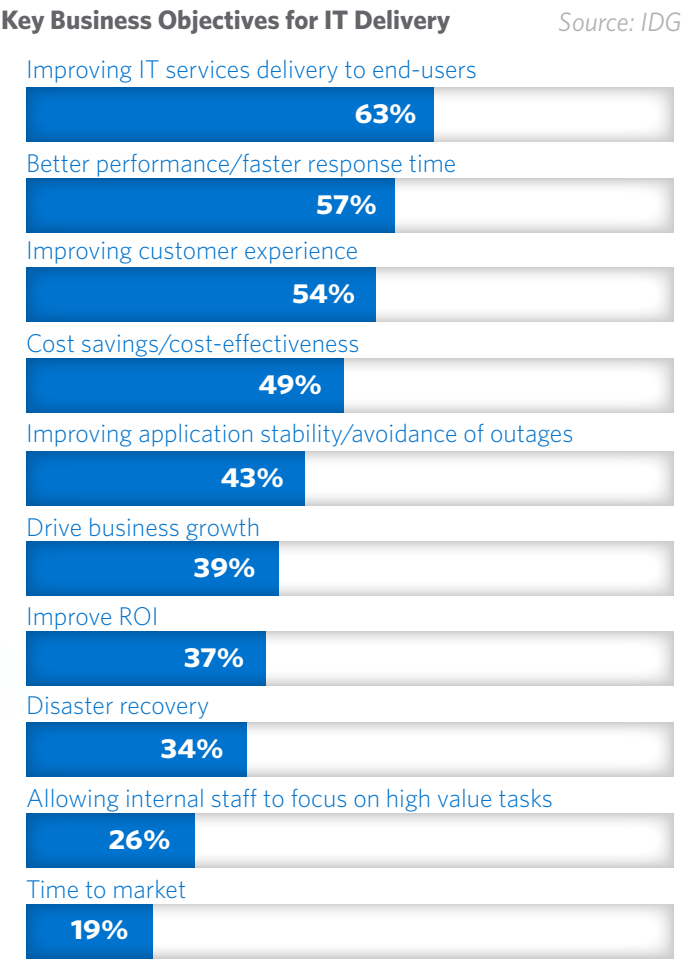
### A Sharper Focus on Digital Transformation: The Need for Speed

Digital transformation is not new. Yet today it is the top CEO mandate, according to IDG’s [2020 State of the CIO](#). Digitized processes are helping businesses respond quickly to evolving market conditions and customer needs.

“For IT, it’s all about delivering high performance so we can keep pace with the growth of the business,” says the vice president of IT for a financial services firm.

IT leaders recognize systems must be adaptable and fast to improve IT service delivery. Specifically, this survey found they are leveraging cloud and colocation partners to achieve key business objectives (see Figure 1).

Figure 1 **Better, Faster, More Efficient**



Acceleration of Cloud: The Need for Scalability

To help achieve efficiency, speed, and scalability, companies are pushing further into the cloud and embracing a multi-cloud IT architecture. The majority (55%) are using two or more public clouds, according to the 2020 IDG Cloud Computing Study.

Expect this trend to continue. The IDG Market Pulse survey revealed that companies are planning to shift additional workloads to the cloud within the next two years (see Figure 2).

Looking Ahead: The Need for Capacity

As evidenced by the research findings, technologies such as AI and machine learning, IoT, and data analytics are impacting infrastructure decisions. In addition, virtual/augmented reality solutions — which are seeing an uptick in training scenarios across industry sectors — are driving the need for capacity. All of these high-density technologies are also pushing enterprises toward edge computing to improve response times and save on bandwidth.

No matter where these applications and workloads exist, however, performance, reduced latency, and interoperability are crucial factors. For IT service delivery to be fast and reliable, companies must have superior interconnections. A machine learning solution, for example, must quickly connect to associated databases and applications, whether they’re in the cloud, colocation facilities, or on-premises data centers.

That said, colocation is gaining recognition as an all-

in-one problem solver for emerging tech. The reason why: It provides robust solutions for evolving business needs, such as on-demand scalability, capacity, network optionality, and direct on-ramps to the leading cloud providers.

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“At the rate we were growing and the rate of diversity we were experiencing with data and application requirements, we knew that to be able to scale and be flexible, we needed something else,” says the VP of IT at a digital media and publishing company.

That something else? “Leveraging a colocation service. Speed to market is a business driver, and the flexibility of using a colo and scaling on-demand facilitates that speed to market,” he says.

THE NEW ROLE OF COLOCATION: ACCELERATING IT AND BUSINESS OBJECTIVES

The digital media executive interviewed by IDG exemplifies why colocation is an optimal enabler for both IT and business needs. His company’s IT

Figure 2 More Workloads Move to the Cloud

	Currently	In 2 Yrs	Change
Website / Web app	36%	52%	16%
AI or machine learning (ML) applications	22%	33%	11%
Development / Test	25%	36%	11%
BI /Data warehouse (DW)/ Data Analytics	28%	38%	10%
Database (SQL, NoSQL)	30%	39%	9%
Internet of Things (IoT) connectivity and management	31%	38%	7%

Source: IDG

infrastructure includes an on-premises data center, two colocation facilities, multiple public clouds, and edge computing both in the U.S. and in Europe.

As his company’s final infrastructure decision maker, he chose colocation to gain “reliability, performance, security, speed, [and] reduced maintenance. It also allows us to manage risk.”

The majority of his company’s middle-office and mainframe legacy apps already exist in colocation facilities. “There’s about 20% left to shift,” he added.

Many other organizations are doing the same, increasingly pushing more workloads to colocation (see Figure 3) to help them achieve efficiencies, accelerate digital transformation initiatives, and gain agility for whatever business changes lie ahead.

Benefits and Possibilities

Colocation meets a broad range of business and IT objectives — including stability/uptime, security, cost savings, and the ability to refocus internal staff toward strategic priorities, according to IDG Market Pulse survey respondents.

“Running data centers is not our core competency,” said the senior vice president of production services for a financial services firm. “So, at all levels it made

sense to go to a colocation facility from both a business and technical perspective.”

Plus colocation fits across multiple use cases:

- *Efficiency in the New Age:* Colocation offers cost and IT resource efficiencies, from capacity infrastructure savings to freeing up IT staff to focus on critical business initiatives.
- *Accelerating Digital Business:* Colocation allows businesses to scale deployments up and down to meet faster time-to-market demands, while networking interconnect capabilities support multi-cloud strategies and empower remote workers.
- *Optimizing the Cloud Experience:* The right colocation solution enables direct connections from workloads to clouds. Companies can use cloud for burstability, while relying on colocation for high-performance compute, as well as a valuable failover for disaster recovery (DR).
- *Powering Emerging Tech:* Colocation is the optimal scenario for edge computing interoperability. It provides responsiveness for apps — such as analytics and AI/ML — that require significant bandwidth, high performance and low latency. Also, as 5G takes hold, colocation is the ideal solution for faster interconnectivity between clouds and networks.

Figure 3 More Workloads Move to Colocation

	Currently	In 2 Yrs	Change
Disaster Recovery / High Availability	48%	56%	8%
ERP	34%	42%	8%
Storage / Archive / Backup / File Server	34%	41%	7%
AI or machine learning applications	19%	25%	6%
CRM	14%	20%	6%
Other Line of Business (LOB) applications	24%	29%	5%

Source: IDG

- **Global Footprint:** Colocation provides cloud and network connectivity, offering enterprises global reach without needing a physical presence in every market.

## PRIORITIZING COLOCATION: CONSIDERATIONS AND BEST PRACTICES

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But not all colocation partners are purpose-built to provide business value and ROI for your particular needs. Critical qualities and considerations include interconnection solutions, high availability/uptime and performance, physical and data security and scalable campus capacity — all with cost-effectiveness in mind. Here are the key factors to keep in mind when evaluating your colocation provider.

### Connectivity

Whether you're shifting to a cloud-first delivery model or require DR, it's crucial to have robust connectivity with high uptime. Both are also priorities for enterprises as they move toward 5G adoption and edge computing.

"You can't be any closer to the edge than if you're in a colocation facility, especially when utilizing public clouds, because your infrastructure is right down the aisle from AWS, Microsoft Azure, Google Cloud, Oracle Cloud Infrastructure, you name it," said Steve Smith, Chief Revenue Officer at CoreSite. "Being able to connect to these cloud services over a direct, private connection will give you the best performance you can possibly get to meet business demands."

Connectivity is important for companies adopting multi-cloud and hybrid cloud strategies. You'll need connections with multiple cloud providers not only within one colocation facility, but also across data centers in different geographic regions. In this way, colocation provides broad scalability, connecting your workloads across markets on-demand.

**Best practice:** Ask colocation vendors about their interconnection capabilities, and whether they support unlimited capacity to help you scale on-demand while reducing costs and improving performance. For example, CoreSite established one of the first exchange platforms of its kind — the [CoreSite Open Cloud Exchange®](#) — which virtually unites enterprises, networks, and cloud service providers. It provides direct access over a one-to-many Ethernet exchange to private and public cloud providers, as well as network and IT solution providers to significantly improve performance and reduce latency.

### A Robust Ecosystem

Most companies have a hybrid IT infrastructure today and recognize they need strong partnerships to support it. The IDG Market Pulse study found that IT leaders shifting additional workloads to colocation want providers that have an expanded ecosystem of partners.

For example, a media company producing a movie requires interconnections to many different providers to move that content around, such as public cloud services, bare-metal compute, content management systems, production solutions — as well as powerful networking connections for video and sound files. Having access to these providers with one well-connected colocation solution can make a significant difference in terms of data transport costs, security, and quality of service.

"The idea is that you can easily connect workloads and reach ecosystem partners," said CoreSite's Smith. "That can be done through a marketplace service in the colocation campus, where customers can reach out for the services and solutions they need. Another option is to utilize our Open Cloud Exchange®, which is a direct, private Ethernet solution where companies can connect to CSPs, networks, or other enterprises in real time and turn those connections up or down based on demand."

**Best practice:** Look for a vendor whose ecosystem includes managed services providers that can help you get started — and this is especially important for enterprises taking their first steps into

colocation. Based on your needs, these providers can establish your colocation space and equipment, ensure your connectivity, and even manage it on your behalf. For example, the [CoreSite Interconnect Gateway<sup>SM</sup>](#) is a fully managed solution that provides secure, high-bandwidth direct connectivity to leading public clouds, network service providers, data centers, and corporate offices to improve application performance and reduce network costs.



## Scalability

Data growth is a constant. [Statista](#) estimates data creation volumes will reach 149 zettabytes by 2024. Strategic CIOs recognize they must keep a steady eye on the cost-efficient ability to scale up and down, while ingesting, storing, processing, and transferring data.

The digital media executive said he'd walk away if the colocation provider "can't commit to scalability, doesn't have the right infrastructure, or doesn't have the right footprint."

Furthermore, the ability to scale will become increasingly important as your company adopts compute-heavy applications like data analytics, AI, and machine learning.

Enterprises are also increasingly looking to colocate their dedicated infrastructure in the same location as their cloud on-ramp. This offers the flexibility to grow their footprint as they realize which applications are better supported in their own infrastructure, while still maintaining cloud adjacency for data that moves back and forth between workloads in the cloud.

**Best practice:** The [IDG 2020 Cloud Computing Survey](#) found that 13% of companies have already repatriated workloads from the cloud to their on-premises data centers due to substantial data-transfer costs. Another 15% plan to do so in the next 12 months. You can avoid this scenario with a colocation partner that offers strong cross-connect capabilities. The right colocation solution provides real-time connectivity from your colocation infrastructure to the cloud right inside the facility — allowing for cost-effective, flexible growth.

## Security

Physical security is table stakes. If your colocation provider doesn't provide protections like perimeter fencing, biometric scanners for access, and 24/7 security personnel, look elsewhere.

In terms of data security, the right provider must have network connections and infrastructure with built-in protections. They should also have an array of compliance certifications from the International Organization for Standardization (ISO) 27001 to the National Institute of Standards and Technology (NIST) 800-53 and beyond.

Some companies cite security and compliance as reasons they avoid cloud — and even colocation. Yet, 53% of IDG Market Pulse respondents said increased security was a key driver for moving workloads to colocation facilities.

"Security drove [our colocation decision]," said the application development and infrastructure lead for a financial services company. "There is a big emphasis on cybersecurity from the top of the company. We know that the data is a lot more secure in colocation than if every vendor stored it separately, wherever they wanted."

And in fact, security and compliance are reasons a colocation's ecosystem of partners is critical. For example, "When we do disaster recovery and backup, they are already interconnected in colocation," said the director of networking services for a healthcare organization.



**Best practice:** Look for a colocation provider with ecosystem partners that provide additional security services — such as data monitoring and distributed denial-of-service (DDoS) prevention solutions — right inside their facilities. These capabilities can be tailored to your industry and business growth needs. Also, ask whether they provide additional security, such as System and Organization Controls (SOC) 1 Type 2 and SOC 2 Type 2 reviews of their data center facilities. These reports provide customers with the assurance of corporate controls, including security and environmental compliance, and demonstrate commitment to the most stringent standards of excellence.

For example, CoreSite's datacenters provide several layers of physical access control, including perimeter fencing, mantraps, biometric, and badge access to each layer of the facility up to and including every computer room and customer's dedicated space. Each CoreSite datacenter has camera installations across all public spaces and at the egress of every computer room. In addition, all of CoreSite's datacenters are examined and assessed for compliance by an independent CPA firm, a globally licensed PCI Qualified Security Assessor, an ISO Certification Body, HITRUST CSF Assessor, and a FedRAMP Third Party Assessment Organization. CoreSite completes annual compliance examinations for the colocation services offered across all of the operating multi-tenant data centers in its portfolio.

### Optimizing Internal IT Staff

Many of the IDG Market Pulse respondents emphasized the need to remove IT staff from day-to-day data center operations. Doing so presents a host of benefits and possibilities.

"Colocation was an opportunity to reallocate staff and therefore reduce the overall work overhead for IT costs," said the healthcare enterprise IT architect. For example, it has given his organization the ability to better enable standard deployments and create self-service functionality.

The digital media VP of IT added: "The foremost objective is to allow internal staff to focus on business opportunities in the areas of development and innovation."

It may seem basic, yet it's important to look critically at colocation capabilities. Connectivity, security, and a robust ecosystem all play roles in ensuring your IT teams aren't wasting time with handholding activities.

**Best practice:** Do your due diligence. Scope out the colocation provider's internal skills and expertise, facilities, and service-level agreements. Also, find out about their power-cooling capabilities. There are significant savings to be gained here. These power and maintenance efficiencies are substantial compared with what a company can achieve in its own data center. In addition, CoreSite has 100% uptime SLA with a record of [eight-9s uptime](#) in 2019.

## TAKING THE NEXT STEP

Colocation provides multiple ways to accelerate business and IT objectives. Yet, just like every long-term technology investment, it requires strategic planning.

To find the right fit, start with an audit of objectives, applications, and workloads. This will help you understand what makes sense for cloud or colocation. Next, create a map of where workloads will sit, which clouds you'll use, and how everything will connect.

"It may sound straightforward, but it can get complicated and seem overwhelming," said CoreSite's Smith. "The key thing is, you don't have to do everything all at once. Figure out a starting point, and then get a partner to help chart and navigate your path."

Accelerate your business and IT objectives.  
**[Get more information at CoreSite.com.](#)**

## Strategic tips for SMBs

Most small- and medium-sized businesses (SMBs) have similar business objectives to larger enterprises. They too must constantly keep pace with changing market conditions — albeit often with leaner budgets and workforces.

Those leaner resources may help explain why SMBs have slightly different expectations for colocation. For example, the IDG Market Pulse study found that companies with less than 5,000 employees are more likely to be extremely or very confident (78%) that colocation will accelerate their digital initiatives than their larger counterparts (62%).

Specifically, SMBs expect that colocation will give them flexibility to: shift staff toward business-critical projects (51% of SMBs vs. 28% of large companies) and shift budgets toward digital business initiatives (49% vs. 36%).

“One of the biggest challenges that SMBs face is leveraging technology to manage growth and reach new markets,” said Steve Smith, Chief Revenue Officer at CoreSite. “Technology helps them become a global player, reach customers around the world, even with a smaller employee base or fewer financial resources.”

With an eye toward cost and performance considerations, SMBs should work with a

colocation provider that has access to a robust ecosystem of service providers that enable their cloud- and digital-transformation objectives, including:

- On-demand bursting capacity for seasonal or one-off projects
- Orchestration of workflows between data centers and cloud
- Global footprint to “follow the sun” for optimal workload management and performance
- A shared services or managed hosting environment

Finally, the right colocation provider should offer room for growth.

“For any size enterprise, with growth comes complexity,” Smith said. “The data pipeline gets bigger, the costs become a concern, the workloads strain internal resources.”

The right colocation provider can play a critical role in accelerating and optimizing technology objectives — no matter how much you grow.

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## About the Research

In March and May 2020, IDG conducted online quantitative surveys among 300 U.S.-based IT leaders across all industries. Respondents work at companies with 500+ employees, and either have

or plan to adopt a colocation solution. Researchers also conducted 10 one-on-one qualitative interviews with senior IT executives at large enterprises to gain further insights into their use of colocation services. The research was sponsored by CoreSite.

