



VERTIV COLOCATION DATA CENTER USAGE REPORT

Understanding Buyer Behaviors
for Colocation Services

Section 1: Methodology

Vertiv recently conducted an online survey of 226 U.S. enterprise data center managers regarding their use of colocation services – current and planned. For this survey, the term "colocation" includes multi-tenant data centers, off-premise computing, managed hosting and cloud hosting data centers.

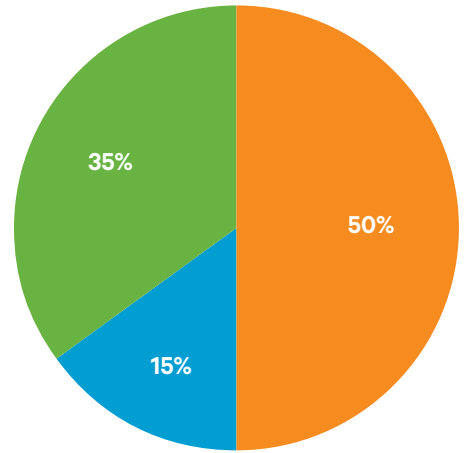
Respondent industries included financial services, education, manufacturing, healthcare, government, professional service and telecommunications. Organizations ranged in size from more than \$1 billion to under \$10 million.

The intent of the survey was to gain understanding of:

- How colocation services are currently used
- Future plans for using services
- Challenges in adopting colocation services
- Likes and dislikes about services

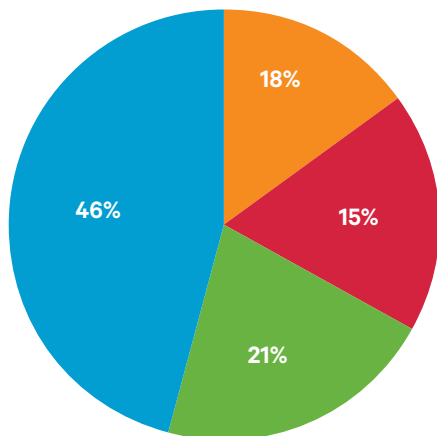
Sixty-five percent of respondents said that their organizations are using colocation data centers or will use them within the next 12 months. Among current users, most are recent adopters, with 64 percent indicating that have used colos five years or less. These numbers reflect the experiences of both large and small companies.

Are You Using Colocation?



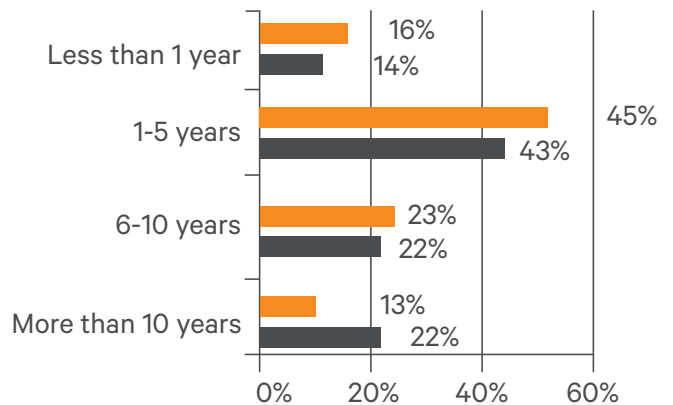
- Yes
- No, but we plan to in the next 12 months
- No, and we have no intention to use them

How Long Have You Used Colocation?



- Less than 1 year
- 1-5 years
- 6-10 years
- More than 10 years

How Long Have You Used Colocation? (by size of company)



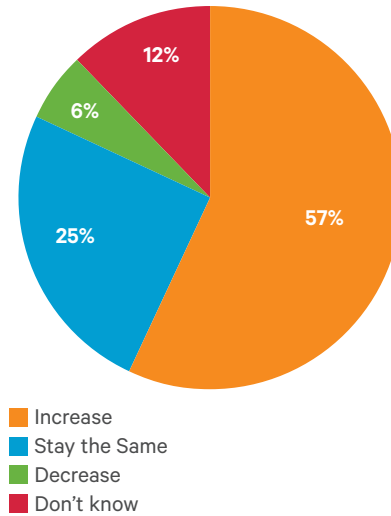
- Revs < \$1B
- Revs > \$1B

Section II: Key Findings

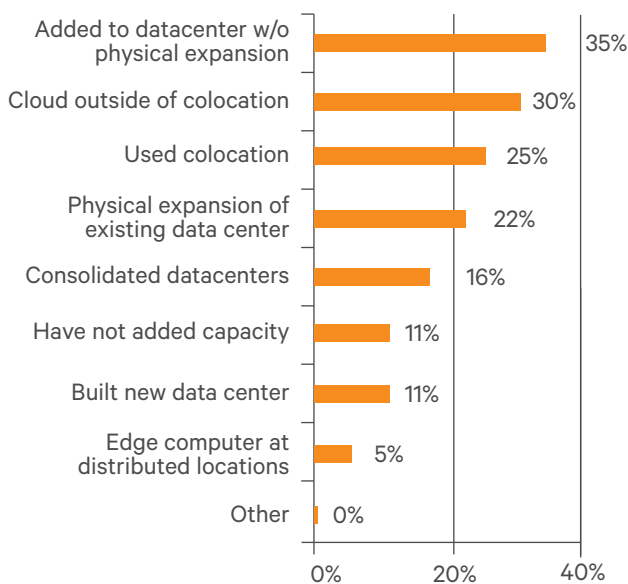
1. Colocation providers must prepare to meet new demand.

Fifty-seven percent indicate that they will increase colocation usage within the next 24 months. New enterprise data center construction has stalled in the last two years, with most capacity expansion in the time being achieved without physical expansion, through colocation or cloud services. In the next 24 months, these trends will continue, as new enterprise data construction continues to dwindle.

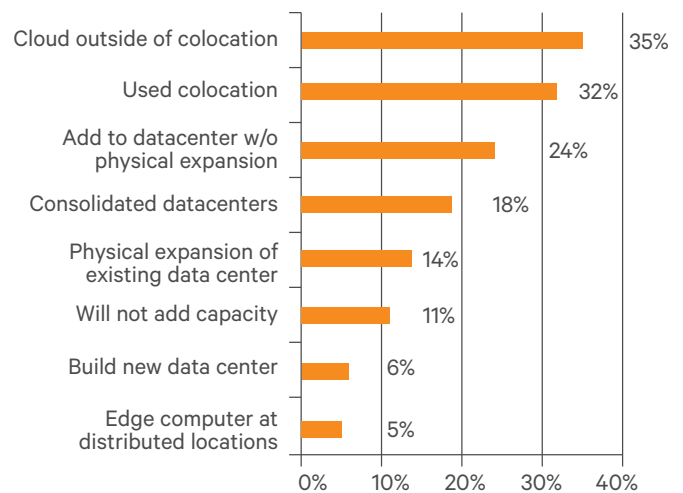
How Will Your Use of Colocation Services Change in the Next 2 Years?



How Enterprises Have Expanded Data Center Capacity In The Last Two Years



How Enterprises Will Expand Data Center Capacity In The Next 2 Years

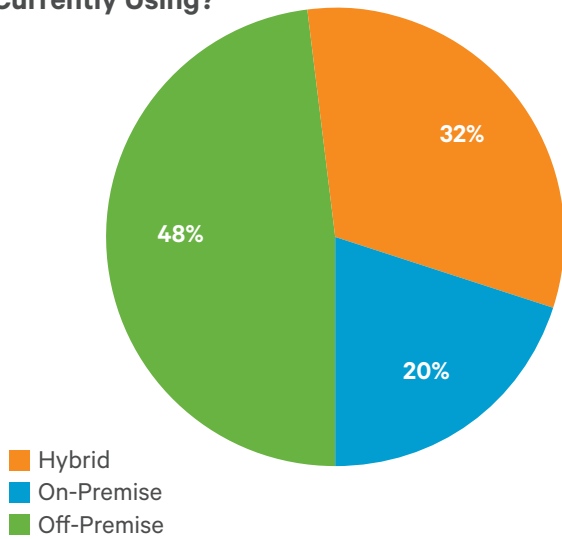


2. Colocation providers must go up the value chain, offering diverse services to support growth.

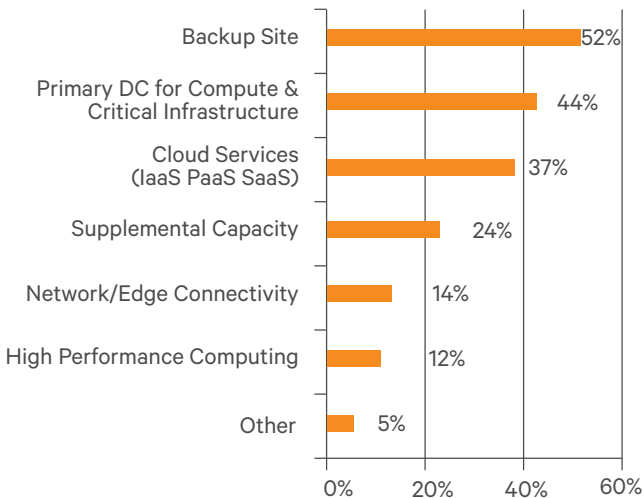
IT capacity is being deployed in many ways, with deployments becoming increasingly diverse and complex. Colocation providers must build and scale to support a variety of deployments.

Most enterprises now use a variety of data centers, with 47 percent using more than one type. Fifty-two percent include colocation in their mix of data centers, either exclusively or in combination with other types. Thirty-two percent of respondents are hybrid data center users, i.e. they use enterprise data centers and others. Smaller respondents indicated that they have fewer owned data centers.

What Types of Data Centers Are You Currently Using?



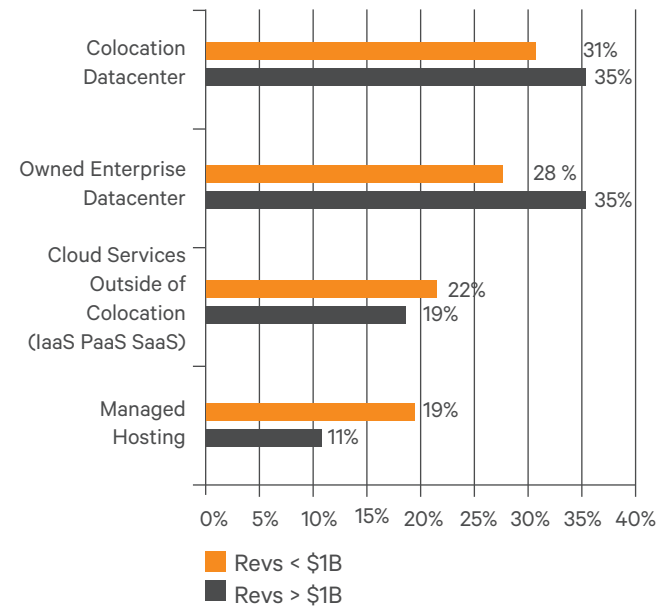
How Are You Currently Using Colocation Datacenters?



Most of the smaller respondents are retail colocation service customers, with less than 250kW in power provisioned. Approximately two-thirds of all respondents indicated that they do not yet have most of their IT power in colos.

How colocation data centers are being used is also diverse. More than 40 percent of respondents indicated that they are using colocation facilities to back up their primary data centers. More than one-third indicated that colocation data centers are their primary data centers for compute and critical infrastructure and nearly as many are using colocation for cloud services. Nearly a third of respondents are using colocation for cloud services, a growing opportunity for providers to meet customer needs and differentiate their services. Smaller enterprise companies reported being more reliant on colocation than large companies for backup, primary compute and cloud services.

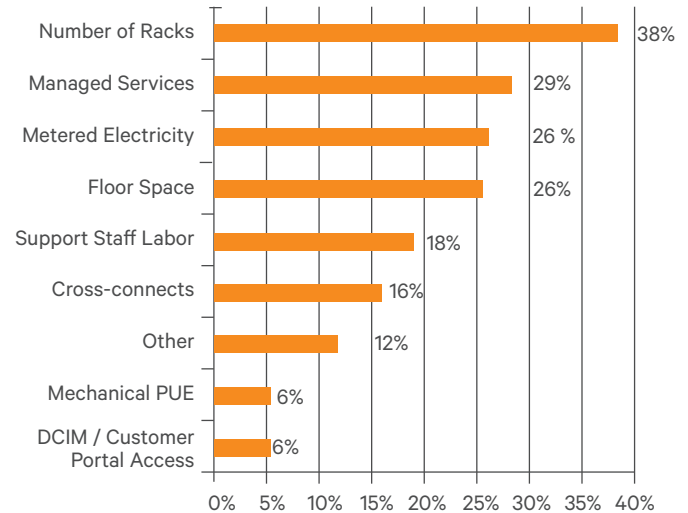
What Types of Data Centers Are You Currently Using? (by company size)



3. Pricing models are complex and based on a multitude of factors, and colocation providers must be able to demonstrate price transparency.

Colocation users cited 22 different combinations of services used in pricing colocation contracts. The top four services included number of racks, managed services, metered electricity and floor space. Pricing is the biggest complaint of colocation customers (see #10 below), and providers can demonstrate higher value if they provide transparency in how they structure their SLAs around power and capacity usage and how they monitor and meter usage.

How Are You Charged for Colocation Services?

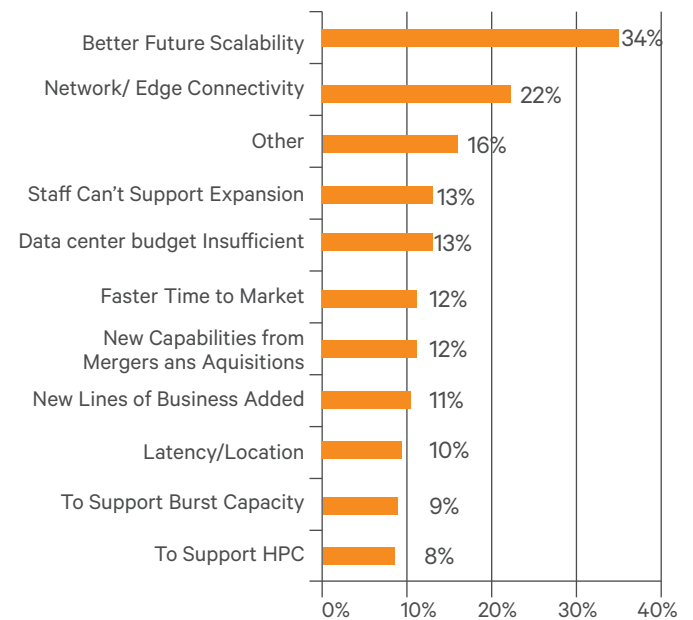


4. Colocation Providers Need To Be Able to Quickly Support Customer Scalability

The need to improve capacity scalability is the number one reason customers move to colocation. Other top reasons include edge connectivity, inability for internal staff alone to support data center expansion, insufficient budgets for enterprise data center expansion, and the need to support new business initiatives with faster time to market.

In the case of colocation companies building new data centers, scalability can be achieved by providing capacity in increments, which reduces capital expense. Scalable deployments can increase utilization rates to ensure that capacity that might become stranded is available for sale to customers. Where white space is limited, colocation providers have increased density to achieve higher capacity, using technologies such as containment and different types of power configurations.

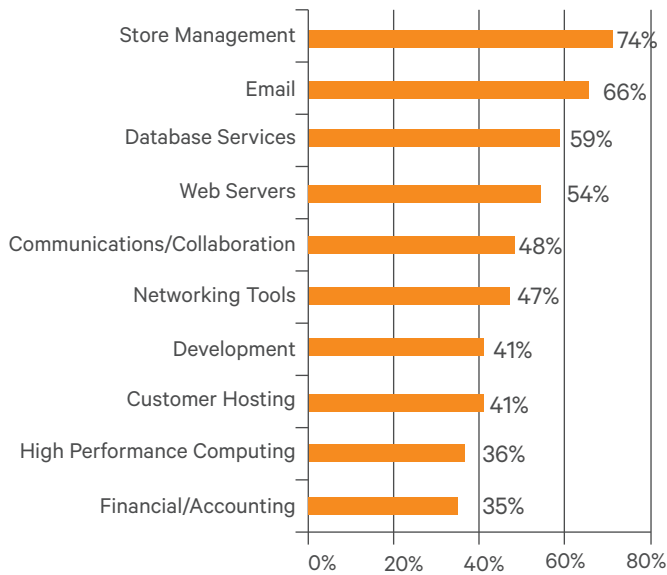
What Are The Primary Reasons You Have Moved or You Will Move to Colocation?



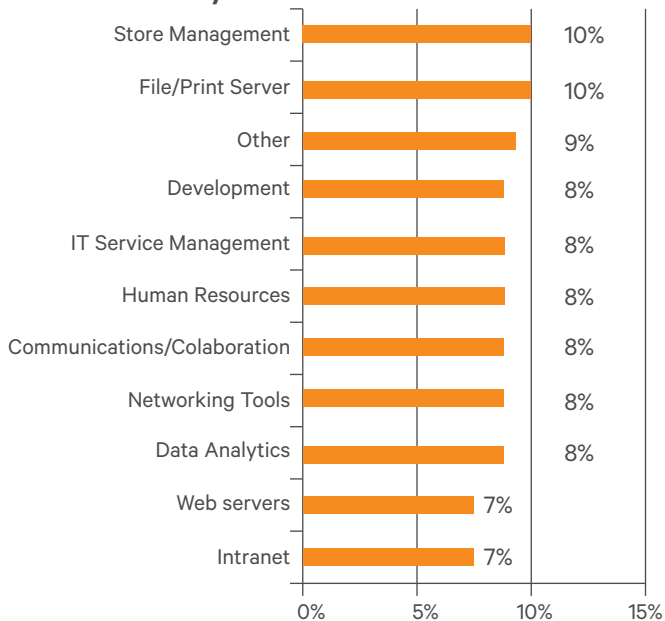
5. Colocation providers must continue providing support for customers migrating critical applications.

Most enterprises have moved storage management, email, database services and web servers to colocation. Over the next 12 months, applications not yet in colocation that will be moved include storage management, file/print servers, development, IT service management and human resources.

Which Applications Have You Already Moved To Colocation?



Over The Next 24 Months, Which Applications Will You Move To Colocation That Are Not In Colocation Today?

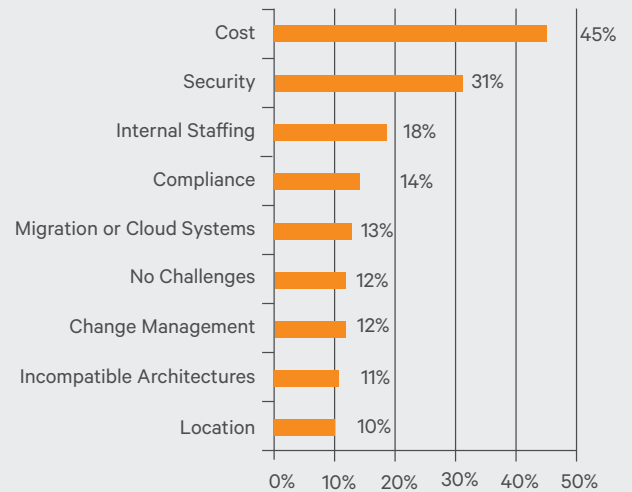


6. Cost, Security, Internal Staffing Limit Colocation Adoption

The move to colocation services is rife with complexity for managers outsourcing applications to off-site locations. It often requires new change management procedures, redeployment of IT personnel and changes in security processes and compliance.

Forty-five percent of respondents cited cost among their top three challenges in moving more applications to colocation. Thirty-one cited security concerns and 18 percent cited internal staffing-constraints. Smaller companies were constrained more by staffing, while larger companies were constrained more by the challenges of migrating cloud services and meeting compliance requirements.

What Are The Top 3 Challenges That Keep You From Moving More Applications To Colocation?



Top Challenges To Using More Colocation

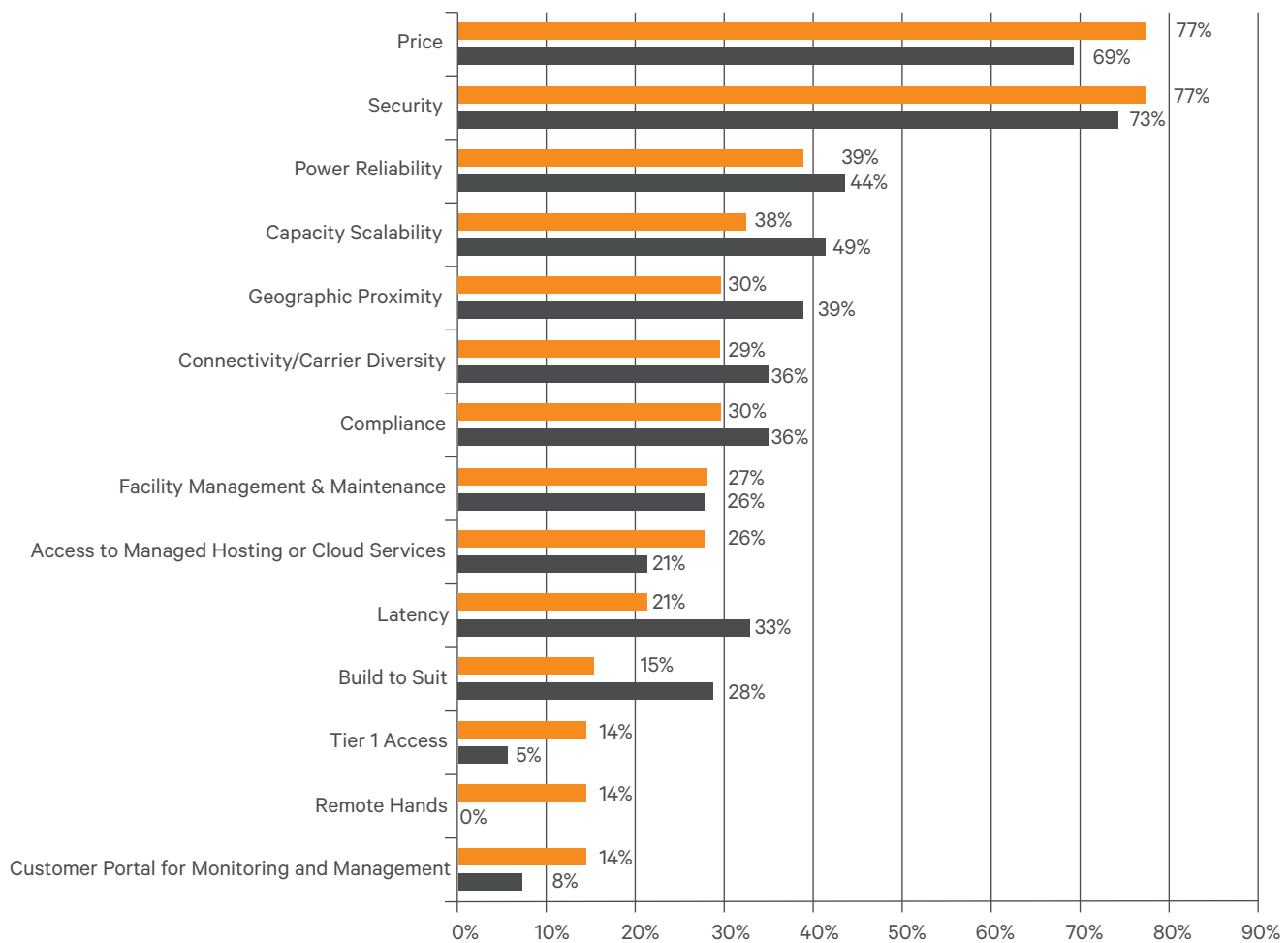
Sampling of Comments

- "Cost, Change management, Incompatible architectures."
- "Change management, migration of cloud systems, internal staffing."
- "Cost, location, siloed processes."
- "Security, change management, development of automated application management."
- "Internal staffing."

7. Colocation providers wanting to pursue larger customers must support more demanding requirements – and still compete on price.

Price and security are the top selection criteria for potential customers evaluating colocation providers, with the two criteria nearly of equal importance. Larger companies have more factors of importance than smaller companies, with seven factors selected in the top five by more than 30% of respondents. For smaller companies, power reliability and capacity scalability round out their top criteria.

What Are The Top Factors You Use In Selecting Your Colocation Provider?



8. Colocation has important benefits, but providers must mitigate the culture shock for IT managers of outsourcing operations.

As most customers of colocation are small companies and relatively new at outsourcing their IT operations, they like the improved security and reliability offered by colocation providers, and the fact they no longer have to maintain infrastructure. However, outsourcing IT is a culture shock to them, and many expressed concerns about access, distance to their facility and a sense of loss of control over their IT operations.

Which Aspect Of Your Colocation Data Center Or Service Do You Like The Least?

A Sampling Of Comments

- "Being at the mercy of an outside company to respond promptly to our needs."
- "Having to drive out there to make physical changes."
- "Lack of operational control."
- "Recurring costs of seemingly one-time installations such as cross connects. Also older colo facilities that cannot bill actual power usage."
- "Slow response for smart-hands assistance."
- "1000 miles away makes it harder to manage. Too far away."

Which Aspect Of Your Colocation Data Center Or Service Do You Like The Most?

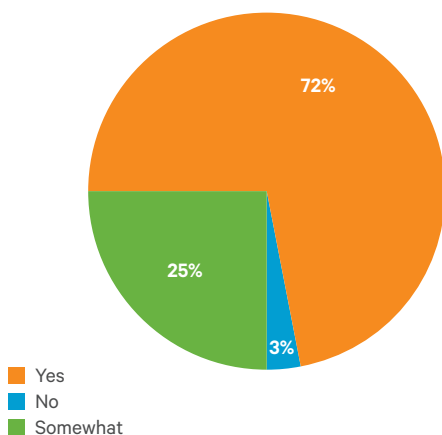
A Sampling Of Comments

- "Backup, control and maintenance handled for us, Large amounts of data sound and secure."
- "Ability to flex capacity with speed and no major cost outlay."
- "The abstraction from specific deployment types, and the ability to take advantage of the constant industry improvements in the world of container and virtual management."
- "Reliability and centralized access to cloud networks."
- "Traveling to the colocation site in Frankfurt."

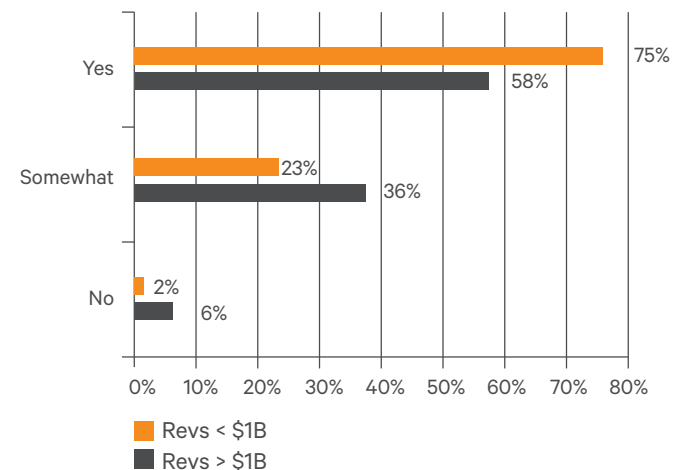
9. Customer expectations generally are being met.

More than 70 percent indicated that their expectations were currently met by colo usage, with respondents saying top advantages include disaster recovery improvement; lower, more predictable costs; better security; easier scalability; improved backup and staffing expertise listed as the top advantages. Larger companies were less satisfied than smaller companies.

Were Your Expectations Met For Using A Colocation Data Center?



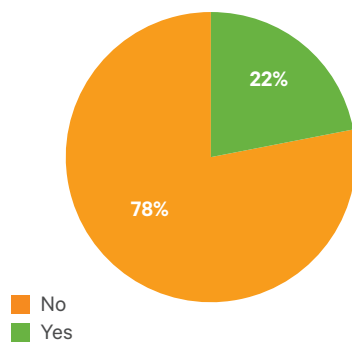
Were Your Expectations Met For Using A Colocation Data Center? (by company size)



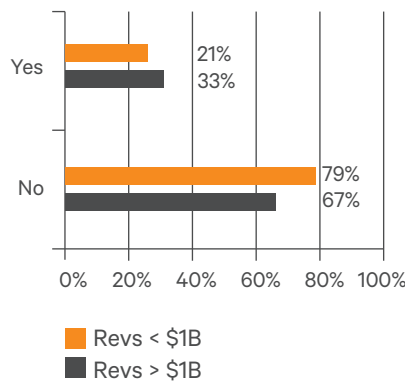
10. Customers aren't afraid to change providers.

Most colocation users indicate that they have not changed providers, but they are not afraid to change. Having used colocation services longer, larger enterprises are more likely to have switched providers than smaller companies. Pricing, cost and inability to meet capacity needs were mentioned as the key reasons for making changes. Thirty-six listed cost or pricing as the key driver for changing providers.

Have You Ever Switched Colocation Providers?



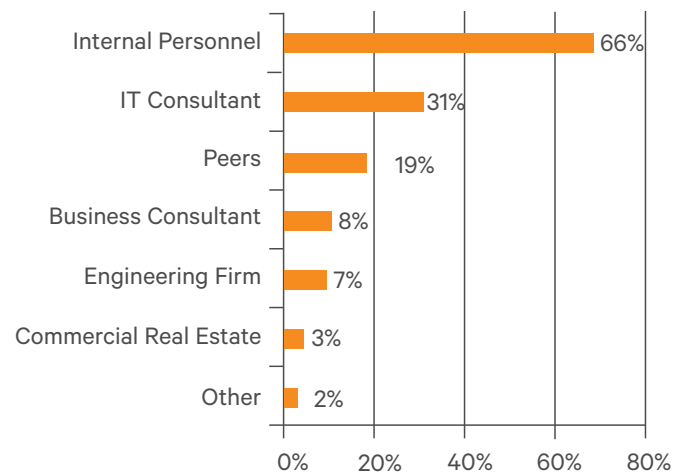
Have You Ever Switched Colocation Providers (by company size)



11. Colocation providers would benefit by engaging third-party IT consultants as part of their business development programs.

While nearly two-thirds of respondents rely on internal personnel to make recommendations for moving to colocation, nearly one-third use IT consultants when researching potential partners. Within the company itself, IT Managers/Directors and CIOs are primarily involved in the selection and final decision processes. With C-level executives making decisions, colos must focus on making the business case first while providing technical specs second.

Who Do You Rely On For Evaluating Colocation Or Other Off-Premise Solutions?



Why They Changed Providers

Sampling of Comments

- "Issues with support and pricing. Being charged a lot for small requests."
- "Pricing model and capacity availability."
- "SLA not met."
- "Better price, newer data center."
- "Merger of colocation provider."

Section III: Conclusion

The Vertiv survey indicates general satisfaction with current colocation services among enterprise end user customers, and validates the trend reported by other sources that the use of colocation will increase in the coming years.

Colocation providers enjoy a high retention rate – three-quarters of users have not changed providers. That is due in part to customer expectations having been met.

However, the early stages of colocation deployment are now over for most companies, and they are looking at future IT application deployments in colocation and the cloud that are more diverse, complex and business critical. Colocation providers will have to differentiate themselves with new services, especially around the cloud, will have to offer a greater number of services to capture larger customers, and will have to demonstrate price transparency to retain customers. Price will likely remain among the top criteria for selecting colocation providers.

This complexity will also likely mean that smaller companies will continue relying on outside IT consultants in selecting colocation providers, and providers would be well served to identify these consultants and nurture relationships with them.

Both colocation providers and their customers continually seek ways to reduce operating costs. While reliability is critical to the colocation business and important to customers, it is also a feature common to the offerings of most colocation providers. Customers are more concerned with whether a given provider can support capacity scalability and meet security requirements as IT operations grow in complexity.

Companies moving to colocation need a higher degree of hand-holding to smooth the process of migrating operations and applications to outsourced data centers. Well-defined SLAs and transparent pricing can help alleviate concerns. Customers expressed satisfaction with providers who offered exemplary support services. Providing highly personalized services can separate smaller colocation providers from the very large cloud hosting companies. Customizing SLAs and adding cloud services are ways to attract and retain new business.

Vertiv believes that innovations in power, cooling and data center management infrastructure can play an important role in keeping colocation provider costs in line, enhancing revenue and profitability and ensuring continued protection of increasingly complex IT applications. Importantly, new infrastructure technologies that reduce operational costs, eliminate stranded power and cooling capacity, reduce the maintenance burden and provide greater insight and control of data center conditions can help colocation providers operate at peak performance. In turn, they can improve customer SLAs and enhance profitability and be more attractive to potential new customers.

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