S&P Global
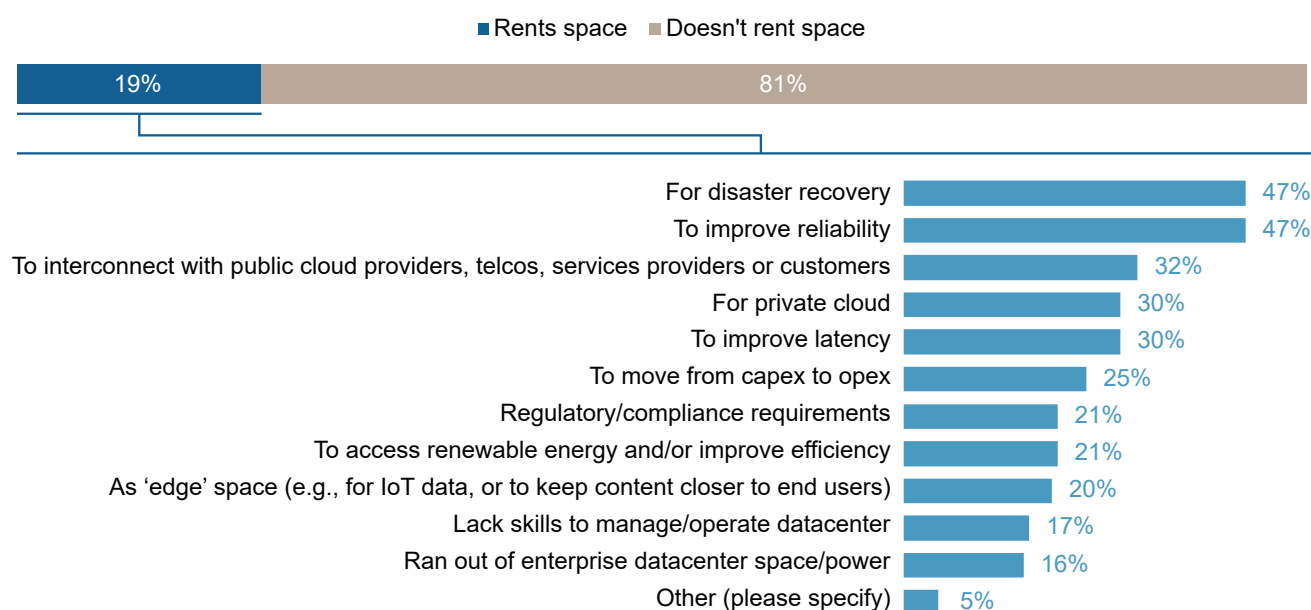Market Intelligence   **Business Impact Brief**

Transition to Versatile Digital Infrastructure Is Key for Success

The 451 Take

As business becomes increasingly digital, finding ways to meet the changing needs of critical workloads and core applications becomes a new imperative, and infrastructure versatility is vital. Recent 451 Research survey data found that 19% of organizations (see figure) lease capacity from third-party datacenter providers as they strive for infrastructure agility. Colocation supplements the company-owned datacenter assets and smaller server rooms that remain an important part of the organization's overall IT estate, and which are most often used to house local files, print servers and other workloads that may be latency-sensitive.

Business Drivers for Migrating Company-Owned Applications/Workloads

■ Rents space   ■ Doesn't rent space

19%	81%

Driver	Percent
For disaster recovery	47%
To improve reliability	47%
To interconnect with public cloud providers, telcos, services providers or customers	32%
For private cloud	30%
To improve latency	30%
To move from capex to opex	25%
Regulatory/compliance requirements	21%
To access renewable energy and/or improve efficiency	21%
As 'edge' space (e.g., for IoT data, or to keep content closer to end users)	20%
Lack skills to manage/operate datacenter	17%
Ran out of enterprise datacenter space/power	16%
Other (please specify)	5%

Q: Which of the following IT environments are currently in use to support your organization?
Base: All respondents (679)
Q: Why does your company rent space at a colocation provider?
Base: Respondents whose company rents space at a colocation provider (n=128)
Source: 451 Research's Voice of the Enterprise: Datacenters Q4 2020

However, since the start of the pandemic, enterprises have begun considering reducing their overall real estate footprints due to expanded work-from-home policies. If whole offices go away, where will those local workloads go? While some of the installed infrastructure will slowly disappear because of planned infrastructure modernization/consolidation efforts, the rest would seem to be a good candidate for colocation or perhaps the cloud if the latency levels are acceptable for the workload. According to our survey, all venues are under consideration, and many enterprises are likely to choose some kind of cloud, colocation or a managed infrastructure offering over the next two years.

The effects of COVID-19 and the movement of workloads to accommodate changes in workforce behavior and locales are a strong reminder that there is no 'one size fits all' for IT infrastructure. Organizations need to manage workload types on a case-by-case basis and continue to wrestle with cost/benefit optimizations across the board.

Business Impact

Enterprises still run their own datacenters but can use colocation for added services. 451 Research data shows that most companies still don't lease capacity from colocation datacenter providers as they're either running their own datacenters or maintaining on-premises equipment. Of those that do rent colocation space, the top reasons for doing so are for disaster recovery and improved reliability. Connectivity is another key reason. In addition to improved latency, customers are seeking interconnection services to directly access cloud platforms, or to perform business functions such as e-commerce, data interchange, financial exchange and settlement functions, and internet peering.

Organizations identify IT transformation priorities but face challenges. Organizations will prioritize IT to drive digital transformation and help take advantage of an improving business climate. According to 451 Research survey data published in April, respondents highlighted four major investment areas: security; modernizing legacy systems and applications; data management and analytics; and digital customer engagement. Each is noted for having the most transformational impact on enterprises in the foreseeable future. Staffing issues pose the biggest obstacle to digital transformation – specific skills shortages were most frequently cited (44%), followed by staffing shortages (40%). Access to specialist managed services and third-party support is one way to overcome these – be it for smaller firms (<1,000 employees), where staffing is the largest obstacle to digital technology strategy adoption, or larger companies (1,000+ employees), which are more likely to have issues with organizational complexity, IT silos, and disconnect between IT and the business.

Impact of cloud and emergence of new workloads shape infrastructure needs. Many organizations globally are migrating to cloud-based services and platforms as part of their digital transformation strategies. According to our survey, the larger the company, the more likely it is to leverage some form of cloud service for its infrastructure needs. The same is true of those companies thinking about using a new workload execution venue in the next two years. In addition to cloud, demand for edge computing is driving demand for specialist datacenter services. The advantages that edge compute architectures can deliver to these emerging workloads have driven a massive mobilization of resources from the entire IT ecosystem. We estimate the number of edge locations needed globally over the next four years will range from hundreds to billions, depending on the take-up of applications such as cloud-based edge computing and IoT.

Impact of COVID-19 remote working contributes to pace of change. As the pandemic hit and employees were sent to work from home, many companies needed to add bandwidth and reduce latency. According to our survey, just over 40% of colocation customers added interconnection as well as cloud access to support a more dispersed workforce. There has also been increased enterprise demand for remote/smart hands and managed services in general. Initially, this was out of necessity as enterprise IT staff couldn't access datacenters due to lockdowns. However, many have continued leveraging these services as the strain on their IT resources has been broader than anticipated, and the need for IT infrastructure agility accentuated.

Looking Ahead

The majority of businesses we polled indicated an expected decline in hosted, non-cloud infrastructure spending. We expect the hosted private cloud market to grow about 2.5 times faster than hosted non-cloud infrastructure through 2025. Public cloud's role in IT environments will also continue to expand, with 57% of organizations likely to use Iaas/PaaS and SaaS as primary workload venues come 2023. Enterprise need for edge computing infrastructure to support IoT deployments will continue to rise. We estimate that 15% of the total number of racks in global datacenters will be for IoT workloads and storage by 2024 – that's close to three million racks.

All the while issues of sustainability will build, and on a broader level, we expect environmental, social and governance (ESG) issues to become a growing part of the IT industry narrative in coming years. As businesses organize around their ESG commitments, they will increasingly want to know that their suppliers also take sustainability issues seriously, and that the technologies and services they procure can directly support their own strategies.

COVID-19 has led to new working conditions that are expected to stay, certainly in the short term, although about 20% of companies believe their working practices have been permanently altered. As the 'new normal' stemming from the pandemic sets in, enterprises will increasingly need IT infrastructure agility to support business-critical workloads and to improve digital infrastructure versatility in the short term, and better sustainability longer term.