

ARE DATA CENTERS STILL RELEVANT TO THE CEO?

When it comes to building new data centers versus hosting new IT assets in the cloud, most IT and business leaders are going to look long and hard at the latter option before investing in the infrastructure needed for a new data center. But that doesn't mean today's—or even tomorrow's—data centers are going to vanish overnight.

With the growing adoption of virtualized computing technologies and cloud services, a corporate data center may very well be “out of sight, out of mind” for most business executives. “Companies are steadily moving from legacy data centers, deploying and adopting the software-defined data center stack and transforming their data centers into highly agile IT delivery systems, which allows for increased automation and flexibility,” writes Rackspace's [Ranjit “RJ” Singh](#).

That may make it increasingly difficult for IT chiefs to get buy-in for what they believe are needed investments. One certainty is that data is going to continue to grow—exponentially. As [InsideBigData](#) points out, many projections “are all in broad agreement that the size of the digital universe will double every two years at least, a 50-fold growth from 2010 to 2020.” So, there's got to be places to store and compute that data. The big questions are: Where are these places, and who pays for them?

HYPERSCALE GROWTH

It's tempting to assume that all the growth is going to the so-called hyperscale cloud providers such as Amazon, Microsoft, Google, and a small handful of others. And, as *Data Center Knowledge*

editor [Yevgeniy Sverdlik](#) writes, “Hyperscale cloud providers are sucking more and more customer workloads away from data center providers, while gobbling up more and more data center capacity to host those workloads, changing in a big way the dynamics in the global colocation data center market.”

In January, according to CNBC, Intel CEO Brian Krzanich told investors, “it is the data center that really powers the Intel of the future.” Nonetheless, just a month later, according to another CNBC report, “Intel's VP of its data center group, Diane Bryant, said its data center profit margins would drop over time to the low-to-mid 40% range, down from their historical norms between 45 and 50%.”

It's not hard to draw the conclusion that those hyperscale cloud providers are able to negotiate down the prices they're willing to pay for Intel products. But there is still a thriving market for corporate data centers and little evidence of a decline.

According to a survey by the Uptime Institute, “while the majority of IT organizations are moving some of their workloads to the cloud, the percentage of workloads residing in enterprise-owned/operated data centers has remained stable at 65% since 2014. The takeaway is that with the explosive growth in business-critical applications and data, enterprises continue to see the data center as not just important, but essential to their digital-centric strategies.”

WILL IT LAST?

Computerworld recently [detailed the tradeoffs](#) a handful of IT leaders are facing regarding applications they're not ready to migrate to cloud, even though they might want to. But, as the

article notes, the ratio of cloud to on-premises equipment will grow as the latter achieves end-of-life status.

Indeed, many may be asking the question, "If Everything is a Service, Why Do We Need Data Centers?" as articulated in [Drew Robb's Data Center Knowledge article](#). "To stay relevant, existing enterprise data centers need to be more agile and responsive to the needs of the business, and they must empower internal end-users by providing them with many of the same self-service and IT infrastructure on-demand capabilities that are available in Amazon Web Services, Azure or Google," Robb writes.

Some have a more draconian view of the future. "The Enterprise Data Center has become a bottleneck, it needs to be completely replaced," declares [Radiant Insights](#), a market research and consulting company, which argues that data centers built with Cat 5 and Cat 6 Ethernet cabling are unable to keep up with the speed at which data comes through.

Others are skeptical we'll ever see the end of private data centers. Writing in *Geekwire*, [Dan Richman](#) asserts that "private data centers aren't going away. Though the essential balance of power within the public-cloud world won't change much, competition may favor companies that best serve the organizations straddling private data centers and the public cloud—which is to say, most of them."

EYE ON THE FUTURE

Nonetheless, it's clear that we're all heading in a cloud direction, although the pace and degree of migration will differ from one enterprise to another. "What used to be a single cloud investment to replace a single on-premises application has morphed into entire layers of clouds in the IT infrastructure," [Russ Banham](#) writes at *Forbes.com*. "With different approaches available (public, private, hybrid) and disparate vendors, the onus is on companies to get the best out of their cloud platforms and provider relationships."

It's likely that most enterprises will take an opportunistic, hybrid approach: leveraging existing data centers for as long as they're financially viable; developing for and migrating to cloud when costs and speed are essential; and investing in new centers when there is a mission-essential need to do so. As Banham writes, "The bottom line is that today's data center no longer stands alone, but is increasingly a part of a bespoke IT infrastructure, one that includes many clouds and many vendors."

The tricky part is going to be determining where and when to invest IT dollars. It's likely that the most common question from CEOs in coming years is going to be, "Can't we do that in the cloud, instead?"