

Colo in the age of cloud



by

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Colocation and managed services serve as a transitional space for production workloads that don't fit in the cloud or in a legacy data center.

If you're like most traditional IT organizations, you have a disaster recovery site residing in a colocation center 20 miles from your main data center. And if you're like most startups, your servers spin up and down on a public cloud running who-knows-what hardware.

Today, with startups outgrowing their clouds and legacy data centers aging out of usefulness, colocation and dedicated hosting serve as transitional space for production workloads, with a range of services to support enterprises.

Conventional organizations build or upgrade on-premises data centers because it's what they've always done, said Josh Hatten, consulting manager of a data center relocation consulting business within Eden Prairie, Minn.'s DataLink. But this conventional approach **doesn't always make sense** in terms of cost, uptime or performance, he said. Hatten's seen a general trend toward colocation over the six years since the recession hit, and IT organizations are increasingly **adopting managed services** such as infrastructure monitoring and management.

The colo compromise

Although most workloads can conceivably run in the cloud, colocation and dedicated

hardware aren't disappearing.

Many outsourcing providers such as [CenturyLink](#) and QTS blur the lines between colo, managed services and cloud. IT can customize a suite of cloud services -- backup as a service, disaster recovery ([DR](#)) [as a service](#), low-latency hybrid cloud interconnects -- and colocation space, while tacking on extras such as IT asset lifecycle management. This accommodates existing capital investments and workloads that require direct business ownership and control.

"The whole is bigger than the sum of its parts," said Patrick Gilmore, CTO of cloud and colocation provider The Markley Group in Boston. Markley recently added application and [server monitoring](#) to its portfolio of services. "You need to adapt to the way companies do things," he said. Over the past 20 years, an IT department at a financial, insurance and retail company evolved its backend infrastructure to fit its specific needs. "They're not going to change their entire system to save a bit of money."

Music streaming service Cloud Cover Music, based in Santa Monica, Calif., represents the other side of the equation: a move [off public cloud](#). Managed services on dedicated hardware from Tualatin, Ore.'s Peak Hosting offered the right balance between owning a data center and pure cloud.

"I get immediate monitoring at machine levels, as if I was in the data center myself," said John Shiple, CTO of Cloud Cover Music. It's cost effective because he doesn't have to pay for a sys admin to do the monitoring required on Amazon Web Services instances.

The combination of application and server-level monitoring services on dedicated hardware enabled Cloud Cover Music to optimize the code and catch problems before customers felt the effects, he said. This connects developers with operations -- without having to [restructure into a DevOps IT shop](#).

"We used ... a number of [cloud] companies on the server side [before transitioning to dedicated hardware hosting]," said Carrie Pobre, business development director at Cloud Cover Music. "Peak was a company that could provide that back-end service and structuring to allow us to scale," including a move into more advanced business analytics products.

By using selective outsourcing to handle routine IT tasks, the organization relies on [highly technical IT staff](#) at any time of day, but only when needed.

"You don't want to hire someone to set up an OS, do security patches, etc. These aren't part of your core business," said Markley's Gilmore.

Just as every enterprise has different skillsets and goals, every market has different needs. For Silicon Valley-based Colovore, managed services aren't as high priority as power and cooling density. The provider offers [water-based cooling](#) with [rear-door heat exchangers](#) and other facility infrastructure to support 20 kW per rack, priced by actual power use.

Silicon Valley, one of the largest data markets in the U.S., has different density needs than financial, government or other traditional enterprise IT markets, said Ben Coughlin, one of Colovore's founders. These companies are at the leading-edge of hardware and software deployments -- pushing densities higher -- in a region bursting with [IT talent](#).

The industry verticals are [big data](#), ad serving, bio informatics, gaming, content providers and cloud or [software as a service](#) (SaaS) providers. IT teams may not want to build racks and power systems, but they have highly technical staff at their disposal, and a lot of the newest tools to manage apps and infrastructure, Coughlin said.

■ 'Buy the base' bunk?

Many colocation providers today rely on lessees to adopt their cloud and managed services offerings. White space in colocation facilities has become increasingly commoditized in the years following the recession, to the point where a cabinet costs \$600 to \$700 per month in some facilities, Hatten said. Five years ago, TechTarget research valued colocation racks at \$700 to \$4,000 per month, depending on density.

If you don't have an existing million-dollar server investment to depreciate, however, don't assume that a [server refresh](#) into colo space is cheaper than hosted servers.

The adage of 'buy the base, rent the spikes' doesn't always work, Markley's Gilmore said. "There's an assumption that 24/7 servers are cheaper to own than rent," he said, and that's only true for the companies with massive buying power, such as Web-scale IT names. Over the past five to 10 years, [cloud prices from AWS, Google Cloud Platform and other providers have dropped](#) enough to make enterprises question buying the base, he said.

Understanding the base is also important. IT organizations must frame cost and return on investment discussions about cloud and colocation within an overarching data center strategy that delineates uptime and performance expectations for different workloads, Datalink's Hatten said. Otherwise, sprawl and inefficiencies will persist.

Know what you need for steady operation, and how much it will cost, Coughlin said. [Low prices typify standard AWS or Google instances](#), but when you tweak and customize deployments, "the costs on a public cloud will go through the roof," he said, giving the example of a company in the gaming industry that cut \$5 million in annual costs by leaving AWS to manage its own high-density hardware in the colo.

📌 Solving for skills, not space

Bidco, a Kenya-based retailer with locations in 15 countries on the continent, outsourced its IT infrastructure management to IBM, but remain in its existing data center.

Centralized back-end IT is an enabler for the business to continue [expanding across Africa](#), said company CIO Alkane Patel, but it's not Bidco's core business. When it came time for a server refresh initiative, Bidco decided managed services from IBM would yield the best results.

"Rather than finding a problem and pulling in partners to fix it, now we have proactive measures before a failure, with continuous updates and patches," Patel said.

While Bidco would like to use some cloud services, the bandwidth isn't good enough yet to support it.

"Within the next five to seven years, connectivity and support for cloud services in Kenya will pick up," Patel said. "Managed services are a good step, but [it would be simpler to] plug-and-play to the Internet and start using a good platform."

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