RETAIL OR WHOLESALE COLOCATION: FINDING THE BEST FIT FOR YOUR BUSINESS

LINES BEGINNING TO BLUR

When it comes to building, leasing or sharing space for your extended datacenter requirements, the world is effectively divided between wholesale data center providers and colocation companies.

The difference between them, though narrow, is sublime.

As Rich Miller, writing in Data Center Knowledge (1) observes, "In the wholesale data center model, a tenant leases a dedicated, fully-built data center space. In colocation, a customer leases a smaller chunk of space within a data center, usually in a caged off area or within a cabinet or rack."

And while the wholesale data center model offers greater control and security than shared colocation space, it's not a fit for everyone and, in fact, often comes at a steep price point. For example, the economics of wholesale space have historically been most attractive to companies requiring at least 1 megawatt of power capacity for their data center. In fact, as both power and space requirements increase, economies of scale are easier to realize and pricing, by way of total cost of contract ownership, improves significantly for the customer.

But that's not always entirely enough to offset competition from colocation companies.
For example, as recently as 2010, wholesale suppliers began competing for deals of 500 kilowatts. More recently, however, some industry sources say wholesale players are now considering requirements as small as 300 kilowatts.

Indeed, the lines are, per Bryan Loewen, Senior Managing Director at real estate firm Newmark Knight Frank, starting to blur
.
"We are definitely seeing a convergence of the wholesale and retail models coming together," said Loewen.

So, as a data center administrator, manager or C-level officer needing to evaluate wholesale vs. retail colocation, where do you start deciding which configuration best suits your long-term needs?

Let's begin by defining each and examining some of the dynamics behind them.

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WHOLESALE SUPPLIERS DEFINED

Enterprise class data centers are ideal for large organizations that need to share data between various divisions that do not share the same physical presence.

By hosting data in a climate-controlled environment, you can minimize the cost of sharing data between various divisions of the same organization. A wholesale data center provider rents / leases space to businesses and individuals who wish to host data in a controlled environment. This kind of arrangement can disperse the cost of building storm-resistant and climate-controlled structures, thus providing all tenants with maximum reliability.

Although opinions on the definition of wholesale colocation facilities vary, they share common characteristics:

- Redundant data center power
- Data center cooling redundancy
- Hardened data center buildings
- Fire suppression
- Security
- A real estate approach to data center space

By and large wholesale providers standardize their data center designs, building out "pods" of completed raised-floor space. Those spaces can then be partitioned for smaller deals.

According to this source (2), 2012 was a big year for gold-standard industry brands such as Apple, Facebook, Microsoft and Google, all of which invested heavily in wholesale data center space.

But it's clearly not for everyone. Unless your company is big enough or has the funds to finance such an endeavor, leasing space (e.g. retail colocation) will be the way to go. If redundant footprints are a requirement or servicing multiple markets without excessive latency you can multiply the millions spent by an even greater factor as your need for more locations just increased. Still, if you are Facebook or Apple, continuing to build data centers in places like Prinville, Oregon may be more cost-effective.

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COLOCATION PROVIDERS DEFINED

By one analyst's count (3), there are more than 400 providers of colocation services – known as colo for short – offering a huge range of options and price points. Colocation is different from traditional hosting, which IT folks may be more familiar with. In a hosting situation, usually the service provider owns the hardware and software and other infrastructure that serve up your applications. Providers can specialize in different types of services -- application hosting, website hosting, database hosting and the like.

In contrast, colocation customers own their servers, routers and other hardware and often tend to this gear with their own employees (although customers can pay for "remote hands" services for the vendor to, say, restart a server so their IT staffers don't need to travel to the colocation site just to do that).

Some colo providers specialize by going after SMBs, financial services firms or other categories of customers. While other play key roles in organizing and interconnecting parties that require the services of or interoperability of various other tenets that share the same location or market.

There are two general types of colocation providers: wholesale and retail. Wholesale colocation providers deal with large spaces – a 10,000-square-foot data center, for example. Except for the power and cooling infrastructure, it's essentially empty space. The customer, or tenant, does the work of rolling in the servers and racks, cabling up the gear and arranging interconnection with various networks and of course making sure it all works.

On the retail side, spaces are usually smaller -- down to individual servers or "cages" -- and there is more setup help available, for a price. In general, says Jeff Paschke, senior analyst at Tier1 Research, expect to pay more for retail colocation than wholesale space on pure square foot comparison.
Common characteristics associated with colocation facilities include:

- Individualize environments including lockable rack cabinets or cages
- Power in a variety of formats, AC, DC and resiliency options with diverse feeds
- Carrier neutral facilities where the datacenter provider houses multiple carriers and effectively form a "connectivity hub" which is an ideal location for companies who need access to a variety of connectivity choices
- Cooling and redundant cooling options
- Physical security (including video surveillance, biometric and badge access, logging, and...
- Real-time live monitoring of all these functions for failures as well as various levels of further redundancy in systems of almost all of the aforementioned features.

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COLOCATION PROVIDERS DEFINED

Colocation facilities also provide exceptional economics of scale, resulting from grouping many small to midsized customers together in one facility:

- Higher reliability due to redundant systems and usually a higher quality of infrastructure equipment
- 24/7 monitoring by engineers
- Lower network latency and higher bandwidth at a lower cost by way of proximity to the end user or market served
- If carrier neutral, greater choice and lower cost from greater competition
- Specialized staff: network, security and facilities engineers, which would not be cost effective for any single client to keep on the payroll
- Remote technicians for the most mundane of tasks shared across a larger client base
- Coordination of smaller clients into larger interdependent ecosystems

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HOW "THE CLOUD" MAY FIGURE INTO YOUR DECISION

As a community we're all familiar with the endless refrains of vendors and analysts alike extolling the virtues and validation of "the cloud" as the next big thing in IT.

However, depending on what side of the fence you're on – a cloud provider yourself or a company looking to connect to one – will influence whether you "go" wholesale or retail when it comes to colocation.

The fact is that many if not most cloud providers are focused on the services they will provide and associated hardware versus using precious capital to build their own facilities or simply have a greater need to be closer to larger networks or internet hubs to connect to clients and to provide their services.

According to this article (4) cloud providers in general have a great need to lease colocation space in these areas because existing facilities have the infrastructure to get them up and running more quickly. A plethora of "Meet-Me-Rooms" already exist, allowing tenants to interconnect to exchange data quickly, reliably and cheaply because they are sharing a common building infrastructure.

Depending on the level of redundancy offered at these facilities, leasing retail data center space might actually be more secure than building a cost-conscious out-of-state facility. Unless your company is big enough or has the funds to finance such an endeavor, leasing space will be the way to go. Remember many "greenfield" facilities may only lie on one or two provider fiber routes meaning additional choice can be years and many millions of dollars to build into a region.

In fact, as more companies move to the cloud to expand their IT capabilities, the effect on storage requirements has been vast (5), causing companies to increasingly call on external data center services, which has caused increased demand for and overall higher consumption of colocation services.

"That pure-play mentality, I think, is breaking down a bit, especially for more middle-market operators," Steve Lee, managing director at Bank Street Group, says. Bank Street provides financial and strategic advice to companies in the data center and telecommunications sectors. Lee was one of the speakers at a recent Datacenter Dynamics Converged conference in New York City.

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HOW "THE CLOUD" MAY FIGURE INTO YOUR DECISION

There have been many examples recently where a company known mostly for colocation services either teamed up with a cloud-services provider or developed the capability in-house. For example Telx has deliberately created conditions to attract a variety of cloud-services providers to their data centers, it create a synergistic value for both the "cloud" provider and the "enterprise" consumer of the cloud service.

Telx and other providers have also connected their data centers directly to Amazon's public cloud, so their clients have the option to go with a commodity type provider if those capabilities make the most sense.

As Lee says, you don't have to reinvent the wheel. In other words, data center companies do not have to now hire a bunch of software engineers and IT experts with cloud infrastructure cloud-infrastructure expertise to add a cloud offering. There are plenty of quicker and easier ways to do it by simply aligning the needs of multiple customers.

"They don't have to invest significantly in people to become smart about a specific software platform," he says.

Pure-play data services – the story used to go – were a pure commodity, which meant the price would eventually go down, and it did not make for a good long-term business plan. The argument against managed services, on the other hand, was that the overhead was too high and margins were too low, compared to the business of simply providing data center space, power and cooling.

"Today, most people are cognizant of the pros and cons of each," Lee says. Capital players are seeing that there are no hard rules that apply across the board. More than anything, today, these players are looking for good sales teams.

"They want to see a company that can execute on their business plan, so showing year-over-year growth is very important. Showing that pipeline is very important." The basics remain the basics.
Still, a diverse business model, consisting of a broad variety of services, is important today.

As Lee and the article's author conclude in their summary, "The data center market is changing by the minute and the convictions many held – successfully – five years ago, may no longer apply. This means a company that is very good at providing the most cost-efficient power, cooling and real estate, can continue doing what it does best, while delegating the cloud-services portion of its portfolio to someone who already specializes in or knows how to do it."

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THE ANALYSTS WEIGH IN

Depending on whom you follow and what they have to say, analysts who follow the datacenter industry both wholesale and retail are divided on which sector/class will have the upper hand in the days and months ahead. A sampling of these comments (6), which reflect this division, follow:

"Average prices are starting to fall, simply because the deals are much more competitive. Wholesale is really going mainstream. The appetite for wholesale space is huge. That's certainly causing (colocation) pricing to fall a little bit." Dan Golding, Managing Director, DH Capital, an investment banking firm that tracks the data center sector.

"The wholesale guys are stretching for smaller deals, and the colo guys are stretching for larger deals. That's an important point because it impacts everybody. There are more colo players now, which is part of it. From a tenant perspective, it's driving down colo pricing." Jim Kerrigan, director of the National Data Center Practice at Grubb & Ellis.

In this space, however, price is not always a reliable barometer of supply vs. demand. Often, there are other market forces, as well as technologies, at work.

For example, there's the following interview, (excerpted below) when Todd Weller, an Expert on Internet Service companies, published in The Wall Street Transcript (7) (TWST), his outlook for "positive drivers and demand pickup in the wholesale data center space"

TWST: You cover a few different segments related to the Internet sector - data centers, hosting, cloud computing. About which are you most bullish at the moment, and why?

Mr. Weller: Yes, we remain most bullish on network-dense colocation, because it is a beneficiary of various secular drivers like mobile, cloud, growth of Internet, social media, etc., and it's been - you're kind of making a play on the broad cloud theme as opposed to, you know, making a play on a single service provider, and then again I would emphasize the higher barriers to entry in that area.

We also continue to be positive on the wholesale data center, because we do see positive drivers for data center sector in general and feel like sentiment around that area, it remains lukewarm."

So, with all that said, what's best for your business? Here at Telx we'd like to make a suggestion.

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THE TELX PERSPECTIVE

As a retail colocation provider, Telx operates 20 strategically located world-class, carrier-neutral C3 Cloud Connection Centers™ in the U.S. Telx can provide solutions that reduce the cost of building your own enterprise data center and maintaining your own in-house data center servers. Our clients enjoy the value of an outsourced solution while continuing to maintain in-house control via the Telx Customer Portal. With a presence in one or more of Telx's data center locations, you can minimize the number of network hops between connections and leverage industry leading colocation facility features, including:

- Space & Power
- HVAC Protection
- Infrastructure Redundancy
- Security & Access Controls
- Network Choice
- Speed to Market
- Flexibility to Build New Offerings into New Ecosystems

In addition to the technical superiority of our Telx InterConnection Centers, there are a number of business benefits to colocation which include:

- Superior network performance, lower network costs, and proven redundancy for mission critical applications through Telx's 40,000+ cross connections.

- Connect with a network neutral, global ecosystem of 1,000+ telecommunications carriers, ISPs, content providers, software-as-a-service (SaaS) and cloud providers and enterprises in a secure, reliable environment. Reduce network costs by replacing local loops with less expensive and more flexible interconnection options.

- Connect quickly and seamlessly through fast, reliable networks to support faster time-to-market for new services.

- Protect your data center assets with Telx's disaster recovery, early warning systems, data backup and recovery, and diversification of communications technologies – plus the highest level of backup power and power generators.

- Reduce costs and gain the flexibility to expand business opportunities and service offerings without making additional IT investments

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THE TELX PERSPECTIVE

The following chart compares and contrasts Telx solutions (retail colocation) with wholesale data providers, specifically in the areas of:

Category	Telx Benefits	Telx Solutions	Wholesale (DLR, DuPont, Sentinel)
Lease Duration	Flexibility	Short-term lease options allow customers to incur less costs up front and enables flexibility for changing requirements.	Long-term leases: minimum 5 years. Most aggressive rates require 7-15 year terms. All include 3% annual increases
Space		Flexible footprints allow customers to expand through ramps or utilize ROFRs rather than purchase entire footprint up front.	Requires entire footprint to be taken immediately. Some potential ramps for large footprints but contractually built into lease schedule.
Power		Customer orders power circuits on an as needed basis rather than purchase all power up front. ROFR is available to reserve furture power.	Customers must purchase total required power for the design up front regardless of the initial need.
Connectivity	Reduce Costs	Access to 350+ carriers/network providers Direct access to several Exchanges and 110+ financial customer ecosystem.	Access to a limited number of carriers/network providers Generally no financial ecosystem; DuPont does has direct access to SFTI
Customer Portal		Submit orders, track installations, create trouble tickets and track inventory. Telx MarketPlace provides access to a vast ecosystem of partners enabling reduced costs access to service providers.	DLR offers a customer portal for trouble tickets only
Security	Infrastructure & Support	Security is designed for a multi-tenant environment including: bio-metrics and cameras designed to cover every aspect of the entire datacenter.	Security is designed at the campus level or building. Customers areas require customer CAPX to deploy camera and monitoring.
Space Configuration		Caging, Cabinet and power feeds are included in the service order for the space and are installed by highly trained personnel.	Installation of all cabinets, racks, caging and power is pushed to the customer or sub-contractor at a premium.
Tech Support		24/7 on site technical support. Personnel trained and experienced in supporting retail customers needs of all sizes.	Customer may purchase 24x7 technical support. Technicans are typical remote after business hours which leads to delayed response times.

Apart from the advantages called out in this graph, consider the Telx proposition as it parallels the emerging cloud computing paradigm.

First, expanding your footprint – as you would a virtual server in a cloud – is based on YOUR need and the changing requirements of YOUR business. Secondly, like cloud computing, retail colocation is very much an on-demand proposition, (e.g. purchasing power on an as-needed basis rather than having to purchase all of it up front). Thirdly, like a traditional colo/cloud provider, all technical support and environmental requirements are included in your OPEX or operating costs rather than as a CAPEX or capital expenditure related cost you still have to allot above and beyond your monthly leasing costs.

In brief, none of these outcomes, their flexibility, versatility and client-centered outcomes are possible when choosing to partner with a wholesale data center provider.

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SUMMARY

Given the vagaries, variances and variables associated with your business –similar to a site acquisition in which you may lease, build or buy outright – not every business can be easily or successfully slotted into a wholesale or retail datacenter shared space outcome. There are indeed advantages and, on occasion, liabilities associated with either model and what may suit you today may not work as well tomorrow and beyond.

However, if you're persuaded by the retail colocation configuration we've discussed here and would like to learn more, we invite you to contact Telx to learn more about how we can help you connect your business to its future success.

SOURCES

1. Rich Miller, Analysis: Colocation Trends.
http://www.datacenterknowledge.com/archives/2011/02/11/analysis-colocation-pricing-trends/ Data Center Knowledge
2. Albert Ahdoot, Wholesale Data Center Space: To Lease or To Own?
http://www.colocationamerica.com/blog/wholesale-data-center-space-to-lease-or-to-own.htm Colocation America
3. John Edwards, Grow your data center with colocation
http://www.computerworld.com/s/article/9218207/Grow_your_data_center_with_colocation Computerworld
4. Albert Ahdoot, Wholesale Data Center Space: To Lease or To Own?
http://www.colocationamerica.com/blog/wholesale-data-center-space-to-lease-or-to-own.htm Colocation America
5. Yevgeniy Sverdlik –Converged NYC: Slow death of the pure play data center.
http://www.datacenterdynamics.com/focus/archive/2013/03/converged-nyc-slow-death-pure-play-data-center DataCenter Dynamics
6. Rich Miller, Analysis: Colocation Trends.
http://www.datacenterknowledge.com/archives/2011/02/11/analysis-colocation-pricing-trends/ Data Center Knowledge
7. The Wall Street Transcript: http://finance.yahoo.com/news/positive-drivers-demand-pickup-wholesale-151700615.html
Positive Drivers and Demand Pickup in the Wholesale Data Center Space: Expert Analyst Todd Weller Shares His Outlook for Internet Service Companies