

Data Centers: To Build or Not To Build

Build or buy (that is buy space in a colocation facility)? It's a big question that companies requiring data centers have to answer. There are many factors to consider. To help cut to the core of this issue, we have Rob Moser, chief operations officer of Immedion, and Sheila Molino, senior vice president and corporate properties group relationship manager for Wells Fargo. Rob's work at Immedion involves offering retail colocation. Sheila is in charge of Wells Fargo's own data centers.

Q: What are the advantages of either building your own facility or utilizing the services of a colocation facility?



SM: The biggest advantage of the owner-built datacenter lies in the level of control. Control over location, design, and all aspects of operations including temperature levels, security, site access, and back-of-house maintenance.

RM: Building your own data center can be a very costly endeavor. Engineering a reliable, redundant data center means you need multiple generators, multiple UPS systems, redundant cooling, and multiple connections to the Internet. This requires a substantial initial investment and ongoing cost for maintenance and upgrades. Many small and mid-sized businesses may not have the capital or resources needed to build the type of data center needed to keep their IT infrastructure up 7x24. For larger companies that do have the capital or the ability to build their own data center, it comes down to these questions: What is the core competency of the IT department, and what is its value to the corporation? Most IT departments we work with are evolving into a strategic component of the business, upping the value stream, if you will, instead of just making sure the generators are running and the air conditioners are serviced. It's really about understanding the strategic direction of the business and how to best invest resources to meet the objectives of the company. So to maximize their internal resources, they work with partner to provide the infrastructure—the nuts and bolts—to keep their IT infrastructure up and running.

Q: What are the disadvantages of either building or using a colocation facility?

SM: A commonly cited disadvantage of the owner-built datacenter is the large upfront capital investment. Though the trend is to build smaller data halls as needed, thereby aligning the investment more closely to the need, this typically results in higher overall investment in the build. Another challenge is the time it takes to get the data center up and running. While employing off-site construction and modularity has improved speed to market, it still typically takes 12–18 months between finding and buying the land, through build, and commissioning to operational status.



RM: Colocation is a great fit for the majority of businesses. The only disadvantage that comes to mind applies to mass-scale organizations like Facebook or Amazon with very custom requirements. Those businesses are large enough to require data centers at a scale equal to a colocation provider. At that point, it may be more cost efficient to do it yourself. I think that really only plays when you are looking at the very large guys in the industry.

Q: Have the criteria for making this decision evolved other the last few years?

SM: The market is more accepting of co-location facilities than in the past. As providers have improved their offerings and proven that they're going to be around, we've seen, even within financial services, a shift toward being willing to utilize co-location services. There are specific opportunities where owner built doesn't make sense. For instance, in high-cost locations where there is a need to have the datacenter in market with the business itself, but the need is too small to justify the investment, co-location can be a better solution.

RM: The criteria have evolved. Companies and regulators are becoming more and more comfortable with the colocation model and are realizing the benefits of using data center facilities that include increased security, improved reliability, and cost efficiency. We're seeing heavily regulated industries like financial and healthcare institutions—customers that typically would have concerns about potential security issues—understanding that colocation providers can meet their needs.



Q: What new factors will help determine this choice down the road?

SM: Increasing levels of hacktivism, cyberthreats, and data breaches require understanding the level of control and risk mitigation required to protect different types of data and applications, while providing appropriate operational availability. These lenses need to be factored into the financial comparison to determine the best location between enterprise owned/operated and co-location provider sites.

RM: The biggest disruptive factor that we see coming down is cloud computing. While it's different from the "Do I build my own?" question from a data center perspective, it very much plays on the mindset that once you're comfortable with your IT infrastructure being physically housed in someone else's facility, it's not a far leap to transition your IT and data into a virtual cloud environment that may also be in the same facility. Meeting the challenges of cloud computing plays well into our advantages, because it allows customers not only to leverage the infrastructure that colocation providers have built, but it now also extends that infrastructure into the virtual computing and data storage components as well.

Q: Is there anything else you'd like to add?

SM: For most large enterprises, data center needs are not going to be addressed by a single-threaded approach—neither all enterprise owned/operated, nor all co-located—but rather will require a combination of both of these solutions.

RM: Colocation providers are becoming more accepted, and Immedion is a good example of that in our area. Our model is to go into tier 3 cities that are underserved or not served and have typically been overlooked by the bigger guys. The small to midsize companies in our geographic area are now exposed to and familiar with data centers and our services. Five years ago they would have had to go to Atlanta or Dallas to find a colocation provider, but now they have several local options.