Developing a Data Center Strategy

Getting it right calls for a rigor and holistic approach

By Brent Olson and Jack Schwab

Today’s Environment
Many organizations face critical challenges with their data centers, such as:

1. An outdated design that is insufficient to meet the near-100% availability metric required by the business’ ever-increasing reliance on technology.
2. The facility is a static asset while the IT infrastructure housed inside is dynamic—becoming physically smaller yet requiring more power, more cooling and more network connectivity.
3. In-house facilities management organizations are unable to keep pace with the core competencies required to maintain the sophisticated needs of modern IT infrastructure.
4. Mergers, shadow IT capabilities and unmanaged growth have led to an inefficient glut of data centers and technology closets.

As a result, many IT organizations are reconsidering their data center strategy. Quantity, location, purpose, ownership, resiliency, redundancy, security and support are being examined for opportunities to lower cost or improve quality of service.

Point B’s Perspective
To address these challenges, organizations need to develop a well-thought-out data center strategy. This is a complex undertaking that requires a carefully planned approach with input from a broad array of business and IT stakeholders. Here, we offer several pragmatic suggestions for developing a data center strategy.

Fully understand your current state and future requirements. Start by examining your existing data center(s) in detail. A well-executed assessment answers three strategic questions: 1) What condition (good or bad) is your data center in today? 2) What is the expected lifespan of your current physical plant? 3) How rigorous and adaptable are the current IT Operations and Facilities Management processes?

Look to the organization’s future to build rigorous requirements. How the business will change and grow and how that growth will be fueled by technology over the next 3 to 10 years is critical to a data center strategy. Consider requirements from all business units, regardless of whether the IT team is responsible for fulfilling those requirements. The data center(s) defined by this strategy should house all technology, regardless of purpose or organizational ownership. Ideally, your data center strategy should be aligned with a well-defined IT strategy that describes technology’s role in the business for the next 3 to 5 years and a roadmap that lays out how technology changes will affect data center needs. After defining high-level requirements, dive into the details of those requirements: physical size, availability targets, power and cooling capacities and redundancy, technology density, quantity and diversity of wide area network (WAN) connections, physical security, monitoring, geographic diversity, and fire suppression.
Synthesize findings to build a robust strategy. Once you've defined the requirements and timelines, a strategy can be determined. Key considerations include:

- **Ownership and Management:** Options include private ownership and management, leased wholesale or retail colocation with private or vendor management, or adoption of an enterprise Infrastructure as a Service capability. Will owned facilities be purchased fully formed, built from the ground up, or result from refurbishing of existing facilities? Availability of capital, desired organizational core competencies, and speed to availability of the data center(s) will heavily influence your decisions.

- **Tier:** It is important to match the business requirements for availability to the redundancy, resiliency, and seismic survivability rating of the facility, aka its "tier."

- **Quantity and purpose:** Each data center must have a clearly defined purpose and capabilities aligned to the business needs of the systems it supports. Several factors can drive the need for multiple data centers including alignment of cost, availability tier of the hosted systems, proximity of technology to the end users, and separation of disaster recovery sites.

- **Location:** The location of each data center depends on its purpose and management structure. Cost factors can loom large; locating a major data center in some cities or states can result in material governmental incentives. The availability of local support personnel (employees or vendors) is also critical.

**Take a pragmatic view of buy, build, and colocation.** There's a common misconception that a "build" solution is cheaper in the long term. In fact, a long timeframe leads to greater variability of the business strategies, requirements, and technology needs driving the strategy. Organizations tend to discount the soft savings of speed-to-occupancy, lower risk of outages, flexibility, and of diverting leadership from high-value business initiatives to construction and maintenance. Colocation services have become a viable option for organizations of all sizes, providing the flexibility to adjust use to changing business and technology needs. But going "colo" raises issues of control, security and proximity, requiring careful evaluation of the provider’s capabilities and experience. For more information, see the Insights article titled “Building Data Center Facilities and Infrastructure” at [www.pointb.com](http://www.pointb.com).

**The Bottom Line**
Planning and deploying a data center strategy is a collective effort. You will need the input of business, IT, facilities, finance and executive leadership. Teams need to think holistically about the organization’s short- and long-term direction. Leading this effort requires a systematic approach to guide diverse stakeholders through the tough decisions that must be made. Challenging the entire organization to “look over the horizon” and put the current data center strategy under the microscope will ensure the best long-term results: a well-conceived and implemented data center strategy that addresses issues before they become problems and benefits the organization for years to come.