

Performance matters

Site Selection: Focus on the long-term

There was a time when a data center's location was determined largely by the immediate benefits it offered. But times have changed, as network connectivity, energy security and access to services become more critical to a data center's ongoing viability. Today, it is paramount to use a long-term perspective in site selection.

On a granular level, the selection process is extremely complex. It can be helpful to keep a broader, strategic focus on two objectives: **mitigate service disruptions and support long-term efficiencies.**

Mitigate service disruptions

This includes both external and internal stresses. Sites with a historically low risk of natural disasters rate higher for continuity reasons. Another consideration is whether a site's local and state/provincial governments will support the data center's needs for years to come. Real estate taxes, utility prices and cost of living are all part of a long-term view. Upfront economic incentives such as tax credits, while important, are transient.

By contrast, the mitigation of internal disruptions can appear to be unrelated to site selection. But in reality, operational infrastructure is often shaped by site decisions. The proximity of renewable energy streams and the effect of seasonality on airflow management are examples of this connection.

Support long-term efficiencies

Project specifications can be helpful to site selection, but here again it's important to avoid a short-term view. The impact of climate on cooling power is more meaningful than low-cost construction labor. If the facility is modular and potentially mobile, the cost of acquiring land becomes more of a factor in site selection.

Access to wind, solar and other green energy streams is an important consideration for data centers with a microgrid strategy. Renewables also have a role in load shifting, which shows great promise as a source of energy efficiency.

Finally, it's a good tactic to solicit input from strategic suppliers whenever possible. These companies are part of the broader data center infrastructure, and they may offer insights into why a certain site is more optimal.

Data center tips



Despite best efforts, no site is perfect. Fortunately, data center solutions have become more adept at predicting where continuity is vulnerable. ABB's Decathlon® DCIM system and PowerStore™ generator are examples of how smart site selection is made even smarter through cooling optimization and power stabilization.

Ultimately, site selection is best looked at as one of many decision points in an integrated whole. It's a process where a strategic, long-term view will bring more clarity and deliver more enduring value.

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