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Al focus: How data centers' thirst for power is redefining leadership needs across sectors

Data-center leadership is getting more complex as data centers become part of much larger ecosystems, and at the same time, demand for leaders is on the rise. Companies are struggling to fill the knowledge gaps in traditional talent pools. Our conversations with three leaders offer insights into how their organizations are meeting new leadership imperatives.



The rise of artificial intelligence has created an unprecedented demand for data centers, spurring organizations to invest billions of dollars in infrastructure in markets around the world. The global data center market is expected to reach \$584.86 billion by 2032, up from \$243 billion last year. And the power demands of data centers are expected to grow to about three times current capacity by 2030, rising in the US alone from between 3 and 4 percent of total power demand today to between 11 and 12 percent.

This growth is creating a new ecosystem, causing companies across the technology, real estate, and energy sectors to reshape their approach to operations. In particular, companies are seeking to meet data-center energy needs in traditional and innovative ways, including striking landmark deals for nuclear power, integrating carbon capture technologies to reduce emissions, and exploring experimental technologies, such as generators that create electricity through a flameless reaction of air and fuel.³

And that, in turn, is creating an intense worldwide competition for leaders capable of meeting the demands of an increasingly complex data center ecosystem. Historically, data center leadership has been sourced from the real estate sector (land, permitting, and operations) or the technology sector (hyperscalers or enterprise IT infrastructure), or the traditional telco sector. Today, those sources alone are no longer sufficient, in terms of numbers of qualified people or necessary knowledge. "Anyone who has ever done anything remotely relevant in this space is highly sought-after—and is not readily available," says an infrastructure investor.

Interviews with three leaders who are approaching this challenge from different angles suggest considerations for companies across the ecosystem that need to bolster their leadership ranks.

The new skill sets companies need

Companies building data centers or seeking to provide them with power need leaders with unprecedented levels of skill in three areas: unfamiliar technologies, negotiations and investment, and portfolio management.

Unfamiliar technologies

Part of the challenge for companies is finding leaders with expertise in technologies that are relatively unused or experimental. Microsoft, for example, is working with Constellation Energy to restart the Three Mile Island nuclear plant to power its AI and cloud computing data centers. Other companies, like Starcloud, are looking to outer space to build data centers designed for AI computing in low Earth orbit and drawing on solar power.

"Because there is no supply in the market, people are having to revert to some risky technology options," says the investor. While time will tell whether these ventures pay off, he warns that difficulty finding leaders with deep expertise in these technologies can be a barrier to progress now.

Negotiation and investment

Today's multibillion-dollar data center projects are also challenging companies to find leaders with strong expertise in negotiating and building investment coalitions. "I've seen more discussions around 'How do we bring investors to the data center space and how do we negotiate more complex deals," says an executive at a

[&]quot;Data Center Market Size," Fortune Business Insights, September 1, 2025, fortunebusinessinsights.com

^{2 &}quot;How data centers and the energy sector can sate Al's hunger for power," McKinsey & Company, September 17, 2024, Mckinsey.com

^{3 &}quot;Product," Mainspring, mainspringenergy.com

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leading technology company who is charged with finding carbon-free energy sources for its Al needs. "Now we're looking at blended finance to help us gain access to such energy assets." In response, this executive says, organizations are increasingly seeking leaders with a deep understanding of portfolio risk, asset allocation, and financial analysis, combined with the skills needed to negotiate complex deals.

Portfolio management

Another highly sought-after skill to emerge from explosive Al growth is portfolio management. In the past, the technology executive explains, the success of a data center hinged on selecting the right site, with ample access to reliable power, fiber optic connectivity, and a stable climate. However, as builds become more complex, and power sources more precious, executives say that data center projects are becoming "less about real estate acquisition and more around portfolio management and treating a portfolio of assets." Knowing how to quickly get new projects off the ground and understanding portfolio metrics are now critical capabilities.

Familiar and new spins on agility

Applying all of these capabilities—regardless of starting point—requires levels of agility and flexibility that have been more common in some parts of the data center ecosystem than others. For example, "Our teams are being asked to rethink how we approach energy," says one technology leader. In some cases, they add, this not only involves adopting new practices for data center design and computing power, or embracing project management duties, but also demonstrating a willingness to learn. "There are a lot of ancillary topics you have to get involved with in terms of copyright and regulations like the EU Artificial Intelligence Act, and understanding how it could create constraints on your business."

A former technology company infrastructure leader adds, "The amount of interaction there between government, regulatory, and energy is becoming so much higher. But there's a huge mismatch between government systems and regulatory infrastructure, and the speed at which enterprises need to move." As a result, this person says, many companies are looking for candidates with an unusual version of agility: people accustomed to working at a slower government pace, lobbying for change, and spurring government agencies into action—while being able to communicate about progress at the speed of business.

Finding the right leaders

As the need for leaders with this mix of skills and capabilities grows as fast as the data-center market, today's organizations are implementing what the infrastructure leader calls "a greater focus on the innovation energy engine." As the need for leaders with this mix of skills and capabilities grows as fast as the data-center market, today's organizations are implementing what the infrastructure leader calls "a greater focus on the innovation energy engine." This, they add, is prompting many companies to look for leaders with a willingness "to disrupt" rather than simply "run the day-to-day production operation or revenue operation for infrastructure."

Organizations are also evolving the way they attract and develop leaders in this area. On the one hand, the investor says, some companies are hiring people from the power development sector and reskilling them in data center proficiencies. The technology company energy executive, on the other hand, says the priority for many companies is to identify workers in more "commercial" spaces who are "keen to step into the technical side and have the right attributes."

Either way, organizations are shifting their focus from seeking leaders with experience in any one of the traditional sectors to using more holistic assessments of leaders' capability and potential. Past experience—whether scaling renewable projects or steering a software company through hypergrowth—matters, but it's equally important whether a leader demonstrates the capability to shape strategy and influence stakeholders, the potential to adapt and learn, and the cultural impact to align diverse teams around a shared mission.⁴

Regardless of a company's preferred approach to finding the leaders they need, one thing is for certain: the time to act is now. "There's a real sense of urgency for the team," says the technology energy executive. "Companies are really on the path of business growth so there's a lot of pressure right now around the AI space." For the companies that get it right, they add, the rewards include "an opportunity to bring ideas and innovations" to an industry in the throes of disruption.

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⁴ For more on how companies are effectively using assessment data, see Sarah Arnot, Sharon Sands, and Todd Taylor, "Leadership assurance: How data can improve every aspect of executive leadership development and succession planning," Heidrick & Struggles, July 31, 2024

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