

ASK THE EXPERT

In the Era of AI, the Definition of Data Center Success Is Changing



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AI computing is changing every aspect of how data centers are designed, built, and operated. Its impact, however, extends beyond rapidly evolving technical specifications, increasing power density, and growing cooling requirements. AI is also changing how organizations measure the success of their data center investments.

For infrastructure projects to truly be successful in the era of AI, they must drive positive, measurable business outcomes.

In this Ask the Expert, Vertiv's [Martin Olsen](#), vice president of segment strategy and deployment for data centers, covers how the definition of success is changing for data center projects. Olsen also discusses steps data center leaders can take to ensure AI data centers deliver the business outcomes that support their organizations' most important strategic objectives.

There has been tremendous pressure on data center leaders to accelerate delivery timeframes for AI-ready data centers. How is that pressure changing as organizations increasingly focus on how data centers are driving business outcomes?

A: The pressure to accelerate data center project timelines continues to grow, but it's no longer enough for data centers to be completed on time. Data centers are increasingly judged by how quickly a project can achieve operational AI compute that is generating measurable value.

That means data center leaders must demonstrate how they are accelerating time-to-value rather than just time to readiness.

Organizations are also evaluating how effectively data centers can support evolving AI workloads over time. Adaptability has become a major priority because it allows AI investments to continue delivering value as compute technologies, workload profiles, rack densities, and infrastructure requirements change.

These two new success criteria, time to value and adaptability, represent a significant change for an industry where success was traditionally measured by how quickly construction could be completed and the facility opened. Today, success is increasingly defined by what happens next.

That is a major shift for the industry. Is this a reflection of how the walls that used to exist between the facility side and the IT side are melting away?

A: Absolutely. To fulfill the vision of truly accelerated computing, organizations need to take a systems approach to data centers and compute, creating an integrated plan for every aspect of the infrastructure that powers AI workloads.

Vertiv increasingly views AI infrastructure as an interdependent system rather than a collection of individual technologies. For AI facilities, accelerating time to value and preserving future adaptability require power, cooling, controls, and services to be considered together from the beginning.

Vertiv is helping companies accomplish that at scale by providing support such as design validation, standardized architectures where appropriate, commissioning expertise, and life cycle services. The objective is to reduce uncertainty across the system and create a more predictable path from design to productive AI capacity.

This systems-focused approach is aligned with NVIDIA's view of AI infrastructure, isn't it?

A: Yes, very much so. We work closely with the NVIDIA team, and both companies share the belief that AI facilities must be engineered as integrated systems rather than collections of individual products.

This systems approach is embedded in NVIDIA's reference architectures for AI computing environments, and Vertiv enables our customers to make those designs operational at scale. That includes power, cooling, monitoring, controls, and lifecycle services that support increasingly dense AI environments.

Our role is to help customers connect those infrastructure elements into a coordinated system that supports two

critical outcomes: bringing AI workloads online faster and preserving the adaptability required for future generations of compute.

How else is Vertiv helping customers accelerate the timeline for making AI workloads operational so they can start delivering value?

A: We are helping customers accelerate deployments in several important ways.

One way is by reducing the complexity of installing critical power systems through prefabricated and integrated power and cooling solutions, which accelerates deployment timelines.

We are also helping simplify the complexity created by extreme power density. Vertiv offers a broad portfolio of power and liquid cooling technologies with integrated deployment approaches that address the specific challenges of high-density computing.

Another important area is systems management. AI environments require precise orchestration across power, cooling, controls, deployment, and operations. Vertiv is developing capabilities that simplify that orchestration and help preserve design intent throughout the infrastructure lifecycle.

These technology and deployment capabilities are supported by Vertiv's global engineering, manufacturing, and service footprint. Together, they help customers reduce uncertainty, accelerate operational readiness, and reach positive business outcomes faster.

One of the topics that seems to increasingly come up in discussions about high-density data centers is the shift to direct current power systems. What guidance are you giving customers about DC power?

A: Vertiv has extensive experience working with both AC and DC architectures, and we are helping customers navigate the range of power strategies available for increasingly dense AI environments.

One of the most important things we focus on in these projects is reframing their strategy around more than just

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a binary decision about AC versus DC. We start by talking about the outcomes that they want to achieve for key objectives like energy efficiency, reliability, scalability, capital efficiency, and operational flexibility.

That conversation creates the right foundation for evaluating architecture options and implementing solutions that deliver exactly the business outcomes they are trying to achieve.

The same principle applies to many of the complex decisions involved in deploying AI infrastructure. When you build your strategy the right way with the right expert support, organizations can accelerate the path to operational AI capacity while building infrastructure that is better prepared to adapt as AI workloads and competing technologies evolve.

To learn more about how Vertiv can help you scale your high-density deployments and accelerate time to operational AI, visit...

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