



Case study

Vertiv™ & Compass Datacenters collaborate on cooling flexibility for AI



Background

Vertiv's expertise in critical digital infrastructure and its ability to scale solutions uniquely position the company to support businesses adapting to the rising demands of generative AI and high-density computing. When Compass Data Centers sought to upgrade their thermal management systems, Vertiv became the natural choice. The collaboration between Compass and Vertiv engineers has led to the development of the groundbreaking [Vertiv™ CoolPhase Flex](#)—an industry-first innovation designed to support the sustained growth of AI infrastructure.

Single unit solution for dual-mode cooling

Vertiv CoolPhase Flex combines both liquid and air-cooling technologies within a single packaged system. It offers enhanced deployment flexibility, supporting hybrid combinations of air and liquid cooling, including direct-to-chip liquid cooling alongside air-assisted approaches, to meet the demands of today's high-density environments. The refrigerant-based heat rejection enables modular deployments, allowing Compass to rapidly expand capacity when and where they need it as their business – and their customers' businesses – grow over time. As a result, the Vertiv CoolPhase Flex hybrid packaged system addresses the diverse and unpredictable demands of modern GPU architectures, offering flexible, scalable, and future-ready thermal management options for evolving workloads.

Pioneering predictive analytics for optimized maintenance

Beyond cooling innovation, the partnership has also advanced maintenance strategies through predictive analytics. Vertiv developed the Vertiv™ Next Predict platform, a powerful tool that leverages predictive analytics to monitor the health of equipment. Using a sophisticated health score system, the platform enables early detection of performance issues, reduces unnecessary maintenance, and facilitates strategic lifecycle service planning. For Compass Datacenters, this technology has transformed operational efficiency by minimizing Compass truck rolls and providing greater visibility into equipment performance.

Company profile:

Compass Datacenters designs and constructs data centers for the world's largest hyperscalers and cloud providers.

Industry: Data center construction and operation.

Headquarters: 14555 N. Dallas Parkway, Suite 125, Dallas, Texas 75254.



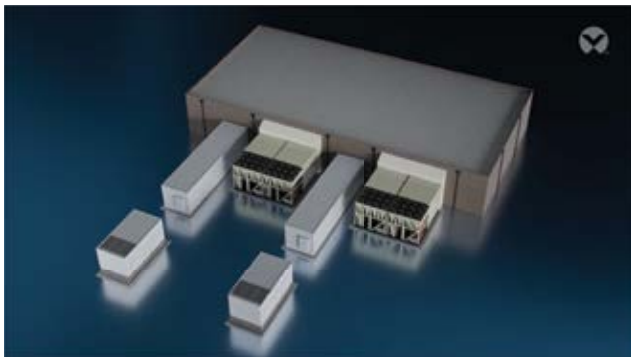


Adapting to evolving industry demands

In an industry where capacity demands are growing at unprecedented rates, Vertiv's ability to customize solutions at scale has proven invaluable. The collaboration reflects Compass's commitment to mass customization, delivering tailored solutions to clients without compromising scalability. Vertiv's proactive approach to anticipating trends, combined with responsiveness to customer needs, has solidified its role as a foundational partner for Compass Datacenters.

A partnership for the future

Over the past year, the Compass-Vertiv partnership has strengthened, offering innovative solutions and setting a new standard for AI infrastructure. With Vertiv leading the way in cooling technologies and predictive analytics, Compass Datacenters is well-equipped to meet the demands of today's and tomorrow's digital landscape. Together, they are shaping the future of data center innovation—delivering solutions that combine flexibility, efficiency, and scalability for a rapidly evolving industry.



“There were a million steps, moving parts, and decisions to be made over the 11 months, but thanks to this unique partnership we have a solution that creates incredible advantages for our customers..”

— **Michael Murphy,**
VP, Commissioning and Operations Engineering, Compass Datacenters.