Case Study

SOLiD Connectivity Helps Large Data Center Campus Meet Mission-Critical Mandate

Challenge

Modern data centers face significant challenges in meeting demand due to escalating cloud computing and artificial intelligence (AI) workloads. Typical service level agreements (SLAs) mandate near 100% uptime and “five nines” reliability, requiring peak performance and minimal downtime to avoid excessive fees and penalties. When hyperscale data center operations are down, reliable in-building mobile communications become mission-critical to ensure smooth operations.

A very large data center campus required seamless in-building coverage, as well as mobile connectivity outside between the various buildings. The need for reliable 5G connectivity that works with all the major mobile networks is particularly vital today, with the prevalence of bring-your-own-device (BYOD) policies among many data center operations teams.

Poor or absent in-building mobile connectivity prevents ops teams and technicians from connecting with vital support personnel or troubleshooting resources, posing a risk of costly service outages. Yet, energy-efficient building materials, interior walls, and loaded equipment racks block 5G radio frequency (RF) signals from outside networks, leading to dropped connections and missed calls.

Results

E2 Optics selected the SOLiD ALLIANCE distributed antenna system (DAS) platform to provide dedicated connectivity while offering scalability, sustainability, and cost savings. The ALLIANCE DAS edgeROU was deployed to cover the interior of the data center, while the HROU was selected to provide outdoor connectivity between buildings across the large campus.

The SOLiD ALLIANCE solution is ideal for campus environments. The ALLIANCE DAS portfolio offers the most remote options on the market, featuring power classes from sub-1W to 40W for various use cases, all compatible within the same system. This flexibility allows the platform to scale to any size data center and layout, supporting mixed-use spaces with cost-effective solutions.

Partner

E2 OPTICS

Location

Idaho

Solution

SOLiD ALLIANCE edgeROU DAS

SOLiD ALLIANCE HROU DAS

Why SOLiD

Agility is critical in the fast-paced hyperscale data center market, and when operations are down, time is of the essence. Data center ops teams need always-on, seamless mobile connectivity for voice, data, and IoT device communications to meet strict SLA uptime requirements. The SOLiD ALLIANCE edgeROU DAS ensures reliable mission-critical communications in today's data center, eliminating the risks of poor or nonexistent in-building mobile connectivity leading to costly service outages.

The proven ALLIANCE DAS platform enables affordable scalability, allowing data center operators to add more 5G capacity as needed. With a modular design, SOLiD's DAS solutions offer maximum flexibility and scalability for easy upgrades and long-term value.

Moreover, the SOLiD ALLIANCE edgeROU DAS is the smallest, lightest remote, consuming one-third the energy of competitive products in its class while offering more bandwidth, higher RF output, and a low total cost of ownership (TCO). With data center power consumption continuing to escalate, and reliance on AI technology further driving up energy usage, sustainability is more crucial than ever. Built on a history of reliable, sustainable solutions, SOLiD's DAS platforms are designed to deliver the highest performance with the lowest carbon footprint at a reduced TCO.

EDGE CONNECTIVITY. SOLiD COVERAGE.

The efficient use of fiber optic assets is the foundation of a 5G world. The data transmission capacity demanded by 5G networks increases as new bands and larger channel bandwidths enable massive wireless data. Providing the necessary bandwidth to the edge cannot happen without fiber-optic infrastructure.

To learn more about our unmatched optical transport solutions, contact us at info@solid.com

"We chose the SOLiD ALLIANCE edgeROU and HROU fiber-to-the-edge DAS solutions to guarantee seamless connectivity across the expansive data center campus, both inside and out. For our client, mission-critical communications are vital to minimizing downtime risks, ultimately saving them both time and money."

Alexander L Danilyuk
DAS Division Manager,
E2 Optics