

5NINES Protects Customer Data With Reliable Power Distribution Solutions



A Vertiv Case Study

Background

As the owner of Northern Ireland's largest data center, 5NINES is a full-service provider of data center colocation and development services with a network of critical facilities across the world, including sites in the Netherlands, Finland, France, and the United States. The Northern Ireland facility is part of the Atlantic Link Enterprise Campus located next to a cable landing point that connects Coleraine and Halifax, Nova Scotia, and thus provides high security data storage with super connectivity across the Atlantic.

Challenge

During the first construction phase of its 45,000-square-foot, carrier-neutral Tier III data center, 5NINES sought a reliable and flexible power distribution network that would enable efficient service tailored to the needs of its tenants. Extensive metering capabilities were also required to manage tenant billing and capacity, while space restrictions posed a challenge given the amount of infrastructure required for the project.

Solution

To ensure reliability while delivering ultimate flexibility, E+I Engineering — a Vertiv company — collaborated with third-party contractors and consultants to architect a complete power distribution and monitoring system comprised of a full medium-voltage (MV) to low-voltage (LV) solution with the busbar and an energy management system.

The IP68-rated [Cast Resin Powerbar](#) was used for the connections to outside generators and the [High Powerbar](#) was used in ratings of 4,000 and 1,600 amps to connect the switchgear panels. The [Vertiv™ Powerbar iMPB](#) was tailored to give 5NINES a flexible and reliable over-rack busbar system.

Outcome

Working with E+I Engineering as the single supplier throughout the duration of the project improved efficiency and offered a high level of quality control. 5NINES was able to deploy a day-one power distribution system within the four-month project timeline, which delivered numerous benefits.

A back-to-back, LV switchgear arrangement offered space savings while a unique copper bending innovation reduced the footprint of the board. The Vertiv™ Powerbar iMPB solution ensured flexibility as the hot-swappable tap off boxes can be placed anywhere along the open channel busway and rack arrangements can be quickly adapted to meet new customer requirements without planned downtime.

Metering approved by the Measuring Instruments Directive (MID) was also integrated into the tap off boxes to enable power usage monitoring, giving 5NINES the visibility needed for accurate billing. Finally, a customized electronic energy management system provided enhanced control and allowed the 5NINES data center management team to produce precise client-specific reports.

Company Profile

The world's leading independent global colocation data center provider and developer

Industry

Data Center

Region

Coleraine, Northern Ireland

"Our number one priority is the security of the data companies choose to store here. That's why the entire center is covered by CCTV surveillance while all systems are backed up to ensure there is virtually no chance of an outage."

— Paul Besley,
General Manager, 5NINES

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