



Case study

Telefónica Germany upgrades data center operations with Vertiv™ PowerIT rPDUs for enhanced real-time monitoring



Background

Telefónica is a leading global telecommunications provider offering mobile, broadband, and digital services worldwide. In Germany, Telefónica is responsible for the operation and modernization of all data centers and core network sites nationwide, maintaining critical infrastructure that serves millions of customers, as well as companies, through its extensive network coverage and innovative solutions.

Reliable data center operations are essential to Telefónica's ability to serve its customers. Critical components, such as power distribution, cooling, monitoring, and control systems, form the backbone of Telefónica's data center infrastructure in Germany.

Challenge

Telefónica needed to gather real-time environmental, power, and thermal data across a large number of data centers and core network sites. Continuous monitoring down to rack and outlet level was required to improve transparency, uptime, and operational efficiency.

Solution

Vertiv and the Telefónica Group have maintained a strong, multi-year partnership across Spain and Latin America, deploying energy-efficient critical infrastructure solutions.

For this collaboration, Vertiv delivered [Vertiv™ PowerIT switched rPDUs](#) (rack power distribution units), engineered to Telefónica's specifications. The intelligent units provided detailed, real-time monitoring while allowing installation during live operations without downtime.



Company profile:

Leading telecommunications provider.

Industry: Telecommunications.

Region: Germany



Each rack PDU was delivered as a bundle consisting of one red and one blue unit, including sensors and mounting accessories, and equipped with customer-specific halogen-free power cables.

The comprehensive solution included:

- Vertiv™ PowerIT switched rPDU with integrated environmental sensors.
- Integration into existing monitoring and DCIM (data center infrastructure management) systems via SNMP (Simple Network Management Protocol) and Modbus.
- Integrated RCM monitoring, including Type B for standard-compliant fault current detection.
- Individual configuration (e.g., socket types, phase distribution) to suit the rack architecture.
- Scalable solution for highly dynamic load profiles and dense IT environments.
- Hot-swappable controller modules to support maintenance activities without impacting operations.



Vertiv™ PowerIT switched rPDUs

Outcome

The implementation upgraded Telefónica's data center operations in Germany, leading to the following results:

- **Seamless integration into Telefónica Germany's digital twin environment** with nationwide real-time monitoring of power, capacity, and temperature down to rack and outlet level.
- **Increased uptime and business continuity** through continuous monitoring and service-friendly controller module replacement.
- **Optimization of cooling and energy usage** based on real-time environmental data.
- **Establishment of a solid foundation for DCIM** and a scalable database to support future AI and ML-driven optimization.

“Thanks to Vertiv rPDUs, Telefónica Germany benefits from full visibility of its infrastructure in real time. The result: optimized operations, data-driven decisions, and the ability to pave the way for automated, AI-powered data center operations (AIOps)”.

— **Robert Krüger,**
Infrastructure Solution Architect,
Telefónica in Germany.