VERTIV.

Case study

South African government agency successfully completes high-pressure data centre migration and upgrade with Vertiv

Background

A South African government agency needed to move to a new office building, which meant relocating not only its 1,700 staff members but also the organisation's main 100kW data centre.

In tandem with the move, the organisation additionally wanted to take the opportunity to modernise the data centre and upgrade its supporting infrastructure. This data centre upgrade is part of the two facilities run by the client; one operational and the other focused on disaster recovery.

Challenge

The project had to be completed with virtually no downtime, coupled with a tight budget and an aggressive timeline.

Complicating matters, it faced added complexity due to the absence of detailed technical specifications during the initial tendering process. This created a potential for delays and increased costs. At the same time, the agency required a robust solution to monitor and manage real-time environmental and power conditions within the new facility.

Company profile:

Government agency

Industry: Public sector

Region: South Africa, Africa

ISF

ICT INFRASTRUCTURE

Solution

Vertiv's local partner, ISF Infrastructure, stepped in to design and deliver a turnkey solution, including:

- Vertiv™ Liebert® EXM2 uninterruptible power supply (UPS) systems with lead acid batteries for reliable power protection;
- Vertiv™ Liebert® PDX direct expansion cooling units with hot and cold aisle containment to maximise energy efficiency in a compact footprint, delivering high-performance data centre cooling solutions;
- Vertiv™ Liebert® RDU monitoring to manage temperature, humidity, leaks, smoke, vibration and digital inputs/outputs.

ISF Infrastructure also supplied fire detection and suppression equipment, and floor air grills.

Results

Despite significant site spacing constraints, as well as switchgear and cabling restrictions that limited the 100kVA UPS systems provided to 80kVA, the infrastructure was pre-built off-site to meet the challenging three-month completion window.

In addition, ISF Infrastructure and Vertiv were able to complete the data centre migration and upgrade seamlessly, without disrupting operations. The main data centre was unavailable for only 1.5 days in total, with zero official downtime, as the organisation's mirror site was still accessible.

Through the implementation of the Vertiv™ Liebert® RDU monitoring system, the customer is now able to monitor critical infrastructure and manage environmental conditions such as temperature, humidity, leaks, smoke, vibrations, and digital inputs and outputs, within its data centre in real time. The system also monitors key infrastructure appliances, including UPS units, precision cooling units, generator sets, and more.

By using more redundant solutions, the entire site has also essentially been derisked.

"When timelines are compressed and continuity is non-negotiable, having the right expertise, equipment availability and partner network is essential. By collaborating closely with ISF Infrastructure, we completed the data centre migration and upgrade on schedule, with minimal downtime and maximum operational resilience."

— Gary Chomse,
regional director for Central and Southern Africa at Vertiv

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