A CASE STUDY FROM KOHLER UNINTERRUPTIBLE POWER

Proximity Data Centres

Proximity Data Centres Limited is the UK's fastest growing regional edge colocation provider.

With mainstream adoption of 5G on the near horizon, and new advances in artificial intelligence (AI) and machine learning already a key business initiative for companies operating across the globe, data and the speed in which it can be accessed will be increasingly crucial to shaping the future of these technologies. Through its proposed network of 20 regional data centre locations located closer to where businesses operate, Proximity will be able to reach 95% of the UK population.

Recently, KUP was identified by Proximity Operations Director, Charles Galtrey, for a replacement UPS system at its Wakefield Data centre. The existing UPS needed to be replaced due to its age, ongoing maintenance requirements, costs and efficiency, another important factor is the increasing demand for colocation at the site and the requirement to be able to increase the capacity in stages.

As well as its experience in managing projects of this type, the contract was awarded to KUP based on its considered recommendation, which identified the best scalable solution for Wakefield Proximity Data Centre's requirements, not simply replicating what was previously installed. The recommended replacement UPS was identified as the PowerWAVE 9250DPA.



Independently certified as the most energy efficient UPS on the market today, the PowerWAVE 9250DPA boasts not only the lowest cost of ownership in its class, but also delivers energy efficiency in true online mode, across a broad spectrum of loads.

The high-level efficiency provides top-ofthe-market performance and can reduce operational costs and help to minimize environmental impact.

KUP installed four frames with five 50kW modules paralleled - the UPS is currently supporting 200kW with an expansion capability of 550kW N+1 with additional breakers for a further 300kW. The scalability of the solution was incredibly important as the business infrastructure is expected to grow over the next few years, allowing Proximity to increase the UPS capacity as the business grows within the Data Hall.

To meet the rapidly expanding need for edge colocation space, the data centre service has been designed to offer colocation contracting for a range of Proximity clients, whether they use public cloud and CDNs, are looking for multi-site rollout, regional business, or are a government organisation requiring regular local access to critical IT infrastructure. Maintaining 100% uptime requires comprehensive UPS systems to ensure that a loss of mains power to the Data Hall doesn't bring extensive financial penalties, loss of power to Proximity internal monitoring systems and Operations desk. A power loss would not only impact internal infrastructure and monitoring, but also Proximity customers.

The superior level of UPS module efficiency reduces energy losses that create pure costs as direct electricity spend and costs for cooling, achieving low cost of ownership. Thanks to threelevel interleaved technology, the PowerWAVE 9250DPA achieves an efficiency of over 97% in a wide operating range, when the load is between 25% and 75% of nominal capacity. The impact of the Wakefield installation has been significant - the running costs have decreased in line with the client's expectation, with a potential saving of £10,500 per year from the UPS and a further savings on cooling of approximately £2500 per year. The increased efficiency will have a knock-on effect to reduce energy consumption and therefore the data centre's carbon emissions; a part of its ISO 14001 commitment to reduce power consumption.



Following the Wakefield project, KUP fulfilled Proximity Data Centres' invitation to upgrade another UPS installation at their Chester data centre site. Specifically, the requirement was to replace a UPS system and aging batteries within the Mechanical Plant at Chester Gates. The new system comprised one Kohler PowerWAVE 9250DPA system containing three 50kVA power modules and a common 80 kW battery with 43 minutes' autonomy. This included two strings of new batteries which were installed into the existing rack.

The upgrade brought several benefits. The risk of the legacy UPS failing was removed, while H&S issues relating to the battery were mitigated. Cooling requirements for the room were reduced, which contributed to an 11kW energy saving, equating to 96,360 kW/h/year at 13.5p/kW/h; a cost saving of approximately £13k/year.

Charles Galtrey, Operations Director of Proximity Data Centres, comments:

"In today's hyperconnected world, customers are demanding services faster than ever before. Therefore, businesses need to have access to their data as quickly and seamlessly as possible. Our network of data centres empowers our customers to keep up with these rising demands, equipping them with the tools they need to embrace changes in today's digital-first era. Being able to support our customers and the growth of our business with the right infrastructure within our data centres is critical. At both our Wakefield and Chester data centres. KUP has helped us to safequard our power protection infrastructure for the future."

He continues: "KUP is a great company to deal with, with knowledgeable account managers, experienced engineers, and 24/7 support. They were able to provide the right solution for my requirements and the equipment supplied is scalable, resilient and highly efficient. I have no hesitation in recommending KUP and have done so many times in the past."



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