



Co-op Data Centres

Case Study



About

The Co-op is one of the world's largest consumer co-operatives, owned by millions of members. It is the UK's fifth biggest food retailer with more than 2,500 stores, the UK's number one funeral services provider, a major general insurer and a growing legal services business.

The Project

Sudlows have worked with the Co-op for over 10 years and have been responsible for designing, building and maintaining its three major data centres across separate sites in Greater Manchester.

From an initial appointment in 2007, Sudlows have continued to work closely with the Co-op to ensure its critical infrastructure is constantly updated and suited to the growing and changing needs of the business and the sectors within which it operates. This has all been achieved without any disruption or downtime to their live data centre facilities.

2007 - Rochdale - Value: c£700,000

Following a tender process, Sudlows were commissioned to design and build a single Tier II, 30 cabinet data hall comprising 20 x 7kW medium density N+1 DX cooled cabinets and 10 x 25kW high density N+1 water cooled cabinets.

2008 - OBB - Value: c£150,000

Sudlows undertook a full CFD (Computational Fluid Dynamics) analysis and a complete reconfiguration of existing IT racks with migration into new secure IT cabinets within a live data centre. This was complimented with the installation of cold aisle containment which provided a significant improvement to the room cooling environment.

2009 - Salford - Value: c£2 million

Sudlows were commissioned to design and build a Tier II medium density cabinet facility incorporating 96 IT cabinets supported by cutting edge DX (N+1) cooling technology and an electrical infrastructure upgrade. The existing site generator was also synchronised with two new 800kVa generators.

2010 – Rochdale – Value: c£1 million

The design and build of a second Tier II data hall was required at the Rochdale site. Sudlows commissioned a 16 cabinet facility incorporating 6 x 7kW medium density DX cooled cabinets and 10 x 25kW high density water cooled cabinets combined with a 1MW site power upgrade through the installation of a dedicated data centre transformer and HV ring.

2011 – Salford – Value: c£3.5 million

Sudlows were commissioned to design and build a new Tier III compliant 2MW data centre with an efficiency performance target of PUE 1.2. The facility incorporated 70 low, medium and high-density IT cabinets and utilised a variety of leading cooling technologies. Critical back up power was delivered by two electro-diesel rotary UPS units deployed in an A and B arrangement for 2N resilience topology in a multi-award winning project which raised the bar in the industry.

2013 – Tytherington – Value: c£1.2 million

A new Tier III compliant medium density data hall was designed and built by Sudlows incorporating 48 x 7Kw IT cabinets in a cold aisle containment arrangement. The associated MEP infrastructure included 800kVa UPS (400kVa at 2N) and two chilled water circuits supporting four indoor CRAC units supplied via dual diverse power supplies.

2014 – Rochdale – Value: c£2 million

A third Tier II data hall was design and built by Sudlows at this site which comprised of a 32 cabinet facility incorporating 32 x 7kW medium density racks cooled by 2N diverse DX and Eco-cool systems. Sudlows also carried out a site infrastructure upgrade to deliver a secondary standby power 'B' path delivering a Tier III maintainable topology.

2016 – Rochdale – Value: c£300,000

Sudlows installed UPS support to transform the alternate 'B' power path from secondary standby support to an active path providing dual, diverse and conditioned power to the ICT cabinets.

Conclusion

The size and changing nature of the Co-op's business over the last decade has required an efficient and resilient infrastructure to support it.

The excellent collaborative partnership philosophy adopted by all the stakeholders in each project has ensured that each upgrade has been completed on time and to budget, giving the Co-op a critical infrastructure that will support the business well into the future.

Testimonials

Ian Dyson, Director of Trading IS, The Co-operative Group said;

“By defining what the business needs today and in the immediate future, we have been able to strategically scale and deliver our data centre facilities.

“We now have an infrastructure configured to allow for non-disruptive growth, preventing eager over-provisioning of infrastructure capacity and consequential energy wastes, yet ensuring the rapid deployment of services is maintained.

“Sudlows have continued to impress with their technical knowledge and service delivery.”

Andy Hirst, Managing Director of Critical Infrastructures at Sudlows, commented;

“The relationship and knowledge our teams have built up with the Co-op has allowed us to continuously improve the resilience and efficiency of their data centres.

“Responsible energy consumption, world class business performance and optimum space utility are at the very heart of the company's critical facilities.”



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