

# SCC Fareham Data Centre

## Driving sustainability with digital transformation



### MEET THE CLIENT

SCC is a distributed cloud and colocation specialist supporting UK clients in the public and commercial sectors. With a strong portfolio of UK data centres, including a state-of-the-art, Tier 3+ 100,00 square foot facility, SCC is a highly regarded market leader.

### THE CHALLENGE & OPPORTUNITY

In 2018, SCC began exploring how digital transformation could yield significant energy efficiency and sustainability gains. As a hybrid and distributed cloud expert, SCC was experiencing the booming demand for agile, highly available data centre facilities. To continue providing exceptional, future-proof services, they knew that introducing more power into their data centres was critical. SCC also saw this evolution as a perfect opportunity to harness sustainability innovations – to do right by the environment while delivering to customers.

SCC acquired a site in Fareham due to its capability for efficiency gains. Built around a higher density, additional power load, and designed with cold aisle-containment, the site architecture had the potential to drive SCC’s power, efficiency and sustainability objectives. CRAC units, cooling units, and chillers, all maintained by Airedale, were in place. The two organisations quickly formed a relationship underpinned by shared values.

### THE PARTNERSHIP STORY

SCC selected Airedale as its first strategic partner for this major data centre project. In part for their technical credentials and product performance, but also for their unmatched knowledge and drive around efficiency and sustainability.

*“We wanted to kick-start an ongoing programme, not just a one-off project, and this was our first step on a journey to greater data centre sustainability,”* explains Laurence Hamer, Head of UK Data Centre Services at SCC. *“At SCC we have the ‘three Rs of sustainability’ – Reduce, Reuse and Recycle. We want to live that message in our facilities by reducing energy use, and embedding sustainability into our daily site activities,”* Laurence explains.



*"We had already improved efficiencies and reduced fuel consumption, resource waste and our carbon footprint through reviewing everything from generator testing to firmware, and hardware quality and renewable energy," Laurence adds.*

***"But bringing Airedale on board was the final piece of the puzzle. They proposed their IQity solution with ACIS controls to harmonise our data centre cooling operations to achieve maximum efficiency."***

## THE PROJECT TECHNICALITIES

The team took a holistic approach to data centre cooling. Airedale installed temperature and humidity sensors in aisles to enable better communication between units, which were repositioned to optimise control reference points. This provided more granular visibility of the condition of the air feeding the data halls. With this information, Airedale could identify where CRAC unit energy consumption could be reduced further.

Richard Nicholls, Sales Engineer at Airedale, explains, *"we initially looked at how to sequence chillers to reduce power drain. To work with the existing water system, we developed infrastructure that reduced energy consumption by bringing fan speeds as low as possible, while maintaining the flow of pressure in the data hall. This achieved significant energy usage reduction and increased system resilience."*

*"Site investigations revealed that intelligent management of precision cooling units would make major energy efficiency gains,"* Richard continues. *"We switched all fans running a 2N arrange to hot standby. This allows all cooling units to contribute positive pressure in the floor void, at a new reduced fan speed."*

Richard adds, *"additional sensors enabled us to shift set point management from the supply air path to within the cold aisle itself. This provided better quality data on conditions at rack level, so we could fine-tune supply air temperatures, raising them where possible to deliver additional energy efficiency. Live psychrometric plotting meant we could run the system at its most efficient settings whilst meeting strict SLAs, and the whole system is security hardened, reverting to local unit control in the event of power failure."*

## THE PROJECT RESULTS

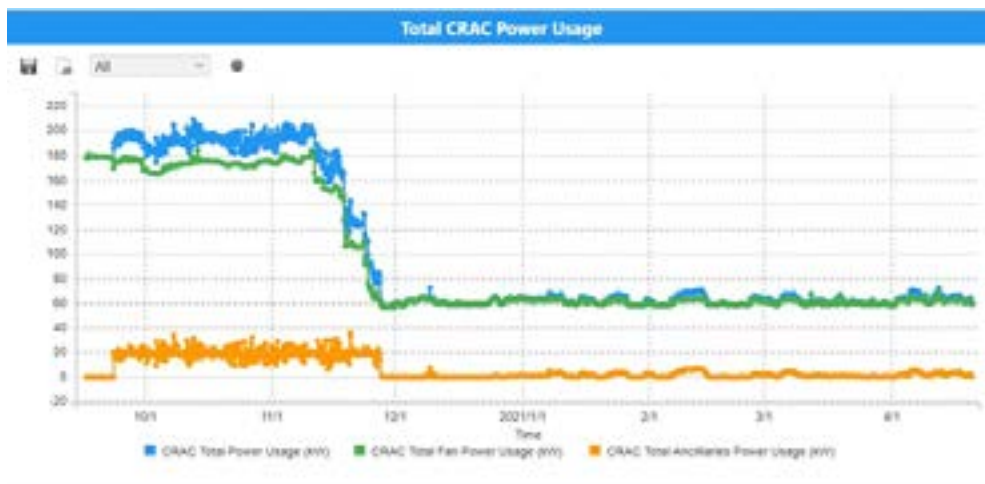
*"Richard Nichols and his team provided a solution which enabled SCC to control efficiency and sustainability strategy, reduce risk and energy consumption, and improve performance,"* shares Ross Pollock of SCC. *"Their IQity solution with ACIS software enabled us to enhance control of CRAC Units by better utilising available chilled water and reducing fan speeds. All while maintaining pressure. increasing the availability of plant through automation and protecting our SLAs."*

***"The overall project was delivered smoothly, on-time and on budget. It was a real pleasure working with Airedale team to achieve such outstanding results."***

Laurence adds, *"we have already started technical reviews and feasibility discussions with Airedale to build on success at Fareham and implement similar controls at our Tyseley facility."* *"I'm very positive about the enhancements and efficiencies we can now deliver. The Data Centre Teams are constantly building their knowledge and with the support of Airedale, we will continue to provide reliability and uptime for our clients, while focusing on strategies that are sensitive to any environmental impact".*

## THE RESULTS, VISUALISED

Evidence of the reduction in power utilisation and increase in energy efficiency at the Fareham data centre is shown below. Power consumption was peaking at 210kW and now runs at around 65kW to cool the same IT load.



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*By proactively analysing how we could enhance our complete system, Airedale helped us to understand the cooling solution that would best fit our data centre. They worked seamlessly with our on-site team to meet our efficiency objectives, while enabling a longer-term sustainability strategy.*

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Laurence Hamer, Head of UK Data Centre Services



Airedale is a world leader in the design and manufacture of innovative, high efficiency thermal management solution. They specialise in air conditioning, cooling systems, chillers, condensers, and air handling units for critical facilities.