

## CASE STUDY

### Sustainable Cooling Technology Delivers Efficiency and Savings in UK Data Centre

#### Introduction

A major UK systems integrator in the broadcast sector sought a smart, environmentally responsible approach to cool their advanced data centre facilities. Their existing DX CRAC system was costly to operate, and the search for a cost-effective, low-carbon solution led them to the Free Air Cooling system.

#### Challenge

The challenge was to find a reliable, low-carbon cooling solution that would reduce both operating costs and environmental impact, while maintaining stable data centre conditions.

#### Solution: Sustainable Free Air Cooling Technology

The project involved a complete cooling upgrade, with the traditional method replaced by a single cooling evaporative system and extract fan. To ensure year-round stable temperatures and reliable performance, the solution included attemperation sections that mix warm and cool air for precise rack cooling. The fully automated control panel links seamlessly with the existing systems, providing easy management and operation.

#### System Features

The solution features a fully automated control panel, integration with existing infrastructure, and attemperation sections for precise temperature blending and rack cooling. The evaporative system and extract fan deliver reliable, energy-efficient cooling throughout the year.

#### Results

The outcome is impressive. With this advanced free air cooling setup, the site expects to recover the investment in under 18 months—thanks to major reductions in both energy and servicing costs. Ongoing savings are projected to reach thousands of pounds per year, helping the organisation meet sustainability goals without sacrificing reliability or uptime.

#### Project Delivery

The cooling upgrade was completed efficiently, ensuring improved performance with seamless integration to the existing data centre systems.

#### Conclusion

This case stands as proof that modern, energy-efficient evaporative cooling solutions can successfully transform data centre operations, boosting efficiency and cutting carbon impact. For organisations aiming to cut costs and improve sustainability, this technology offers a future-focused answer.