



## Disaster recovery data centre solution for leading high-street fashion retailer

Installation within a live operational call centre  
35% reduction in energy consumption

Estimated 18 Month ROI

Fully managed service - All equipment monitored 24x7x365

A scalable and resilient data centre for the future

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### overview

- ➔ A leading high street fashion retailer required a disaster recovery data centre to host a large part of the company's IT infrastructure. Keysource was appointed to design, build, install and manage the facility following a competitive tender.

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### the challenge

- ➔ As data centre usage had increased within the organisation in recent years, so had the need for a remote back-up site to ensure business continuity by safeguarding network and system availability. The company required a scalable solution – delivered within tight budget constraints – that could be developed in phases to handle existing and future capacity requirements.

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### the solution

- ➔ The first phase of the data centre build, located in a call-centre adjacent to an existing computer room, was designed and built to accommodate 20 racks of Wintel equipment at 13kW per rack position, as well as 100kW of non-Wintel equipment. The scalable solution means that the facility possesses the flexibility to expand capacity as the company's needs change.

As part of the design process, Keysource was able to minimise power consumption by utilising free cooling chillers to reduce costs and minimise the carbon footprint of the facility. Although these units have a higher initial capital cost they offer approximately a 35 per cent saving on the energy consumed by a conventional chillers, so the return on investment is estimated at approximately 18 months.

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With the data centre located in an operational call centre, also situated close to a residential area, it was critical to keep noise to a minimum during the installation process. Keysource overcame this challenge utilising its wide-ranging installation expertise to avoid any disruption both internally and externally. As lead contractor, Keysource managed the technology partners to ensure the facility was completed on-budget and on-time. In addition, the company provided all project management and site services in accordance with CDM regulations.

The internal design for housing and cooling the 20 racks of high density equipment uses a highly efficient in row cooling solution with hot aisle containment. In addition, the low density equipment will be cooled by conventional down flow CRAC units from the common chilled water installation, discharging cold air under the floor and presented in front of the equipment using vented floor tiles. Both UPS power and Cooling Infrastructure are designed for N+1 redundant configuration with a maximum IT load of 360kW.

The M&E infrastructure supporting the data centre includes an N+1 chiller solution with chilled water pipe work and a 1000KVA standby diesel generator located within a new plant compound in the rear car park that was developed as part of the project. Keysource's project management team handled all civil and groundwork to create the plant compound, install a new mains transformer and provide ducts for the fibre. Within the internal environment Keysource undertook all building work to create a new dedicated data centre to accommodate the equipment including secure access, raised floor, emergency lighting and fire suppression and detection systems.

Modular UPS systems were populated for the initial load to minimise capital expenditure and maximise efficiency, whilst providing a fully scalable and redundant solution to meet future capacity. Maintenance of cooling performance during mains failures was provided by a UPS to support the critical mechanical plant, which in conjunction with a cold water buffer vessel maintains the room temperature during generator start-up.

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## the benefits



- **Energy Efficiency** – using the most appropriate technology enabled Keysource to reduce cooling costs by up to 35 per cent and lower the environmental impact of the facility.
- **Project Management** – an end-to-end solution with highly-responsive client service and project management meant the data centre was completed on-budget and on-time.
- **Partnership Approach** – Keysource's unique consultancy approach resulted in a bespoke data centre solution that met the precise needs of a leading high street fashion retailer.
- **Fully Managed Service** – all equipment is monitored and proactively managed by Keysource engineers 24x7x365 resulting in Keysource being aware of any issues well before the client.

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## can we help you and your company?



If you feel you could benefit from Keysource's innovative data centre design and build services, please get in touch...

Keysource Limited, North Heath Estate,  
Horsham, West Sussex, RH12 5QE

T: 0845 2043333 F: 0845 2043334

E: [enquiries@keysource.co.uk](mailto:enquiries@keysource.co.uk)

W: [www.keysource.co.uk](http://www.keysource.co.uk)

Mike West, Managing Director of Keysource says:

“We worked closely with the client to create a cost-effective and scalable solution that addressed their business and operational challenges, creating a high density zone that could handle existing and planned capacity. Our flexible and adaptable development process ensured that they received the right solution that met their precise needs, provided value, and demonstrated measurable return on investment.”

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