Nominee: Keysource

Nomination title: Keysource & Willis Towers Watson

Keysource supports Global IT infrastructure transformation

When insurance provider Willis Group and risk management company Towers Watson merged in 2016, Keysource was appointed as the enlarged business' data centre transformation partner.

Designed to underpin part of Willis Towers Watson's global IT strategy and prepare it for future business activity, the project involved significant upgrades to two live data centre facilities in Ipswich and Reigate, including the delivery of two new data halls.

Keysource was chosen for its proven track record in delivering projects in live operational environments.

The team successfully delivered the project with zero downtime to IT services and provided Willis Towers Watson with more than just an upgraded technical specification. The project has allowed the company to consolidate its data centre estate, reduce overheads, offer a secure, highly available, service to customers and improve the efficiency of its business functions, helping cement it as a global leader in its sector.

Designing for the future

Following the merger, the group embarked on a global IT transformation project to consolidate and migrate to common IT platforms. The data centre upgrade was designed to create an EMEA-wide infrastructure for both Willis Towers Watson's internal applications and to process clients' data - often for financial services organisations that face stringent requirements on data security, governance and regulatory compliance.

The project was designed by the Keysource team to meet Willis Towers Watson's need for increased capacity, continuity for existing clients, high security and to future proof its IT infrastructure, in anticipation of any further mergers or acquisitions taking place.

Keysource worked in close partnership with Willis Towers Watson on the design and delivery approach. This was followed by the appointment under a design and build contract for a full turnkey project which would provision the upgrade to two data centres which service much of Willis Towers Watson's global business

- Doubling capacity across both sites, providing 1.2 MW of power at each location.

- Upgrading all low-voltage infrastructure including transformers, generators and switch panels to improve resilience.

- Providing a new cooling solution providing flexible rack density and high efficiency.

- Providing security, protection, monitoring and management system

Keysource's design provided Willis Towers Watson with its own on premise, data estate with cloud-like flexibility, enhanced security and resiliency assurance – a business-critical consideration for the organisations' customers.

Delivering scale and avoiding downtime

Keysource's approach to planning was a major factor in the success of the project. Initial design work and discussions began as early as October 2016 – six months before work commenced. This early engagement included a full consultation process and technological audit, to ensure the data centre design could meet the technology and business needs and enable future requirements.

This extensive preparation was essential to addressing the logistical challenges presented by the brief. Introducing a pre-planned communications schedule of meetings, updates and clear points of contact for each aspect of the project, allowed the team and client to ensure the delivery could work around key business activity, including client meetings, and that emerging issues were discussed and resolved quickly.

Delivering the project in a live environment added complexity. The existing facilities were in full production use throughout the upgrade, meaning any downtime would have been unacceptable to the WTW business. To avoid this, Keysource designed a programme of phased works, with contingency planning, which gave WTW transparency to risks associated with each phase, enabling works to be scheduled accordingly.

In addition, the data centres were located within Willis Towers Watson's fully-operational Ipswich and Reigate offices. This required Keysource to ensure construction did not disrupt the busy working environment of more than 1,000 employees in each location and, crucially, that all staff were safe in and around the construction site.

Working around the confines of the sites also proved challenging. The Ipswich site, a Grade I listed building, needed particularly careful management during the construction phase. One example involved removing three 25-tonne generators from the roof and replacing them with a new fit-for-purpose compound. Through meticulous organisation, managing all heavy machinery near the building and liaising with local authorities and businesses, the Keysource team delivered this without any disruption.

The team's planning paid off. Despite the challenges, the project was managed seamlessly, without a single server fail or downtime throughout the entirety of the upgrade. Client feedback was also incredibly positive.

Paul West, Global Data Centres Director at Willis Towers Watson said: "The delivery of the new data centre expansion was a crucial part of our IT strategy and has taken us to another level of resiliency. From designing to our requirements and delivering the project without downtime, the team at Keysource were instrumental in the project's success."

A fit-for-purpose platform that has unified the business

The upgrade has achieved significant benefits for Willis Towers Watson, including:

- Additional 3,000 sq ft of data hall space

- Concurrently Maintainable Infrastructure

- Flexible rack power density up to 12kW/Rack

- Annualised Power Usage Effectiveness (PUE) of <1.35

- Leveraging existing property assets to avoid additional costs of leasing more space, saving money through estate consolidation – Towers Watson uses colocation services in London which will be consolidated, reducing operating costs.

It has also acted to enable the consolidation of business-critical functions from each of the merged companies under a common IT platform.

One of the most important requirements for Keysource to deliver in this project was longevity. Willis Towers Watson has undergone several acquisitions and transformations over the past decade, with each requiring a significant IT and infrastructure upgrade to allow the new business' information to assimilate. This restructured data centre not only cements the 2016 merger, but provides a platform that is robust enough for the business to grow.

Why nominee should win

•   Providing more capacity with concurrent maintainability has future proofed Willis Towers Watson's for any further M&A activity.

•   Despite a challenging environment and complex brief, the Keysource team managed to deliver a truly transformative upgrade to Willis Towers Watson's IT infrastructure.

•   Keysource provided delivery flexibility which is crucial when dealing with sensitive activities which have real business impact.

•   The upgrade has demonstrated the ability to leverage existing assets and upgrade legacy systems to meet business IT requirement and strategy.

•   Despite completing the upgrade in a challenging, live environment, not a single disruption to Willis Towers Watson's IT or staff was recorded.