

2e2 helps Telco achieve huge cost and carbon savings through Data Centre optimisation

The Client

2e2 worked on this project with one of the UKs largest mobile telecommunications and internet service providers who employ over 10,000 staff and deliver services to over 20 million UK customers each year.

Telecommunications is a particularly crowded industry and has one of the highest rates of customer churn. The most successful organisations are the ones which prioritise customer experience above all else.

Maintaining a quality and reliable service for tens of millions of customers depends on a robust, efficient and, most importantly, optimised ICT infrastructure to remain operable. Having expanded to occupy one of the largest sections of the market, the customer found their IT estate had grown with them, becoming prohibitively expensive to maintain.

The customer identified the need to rationalise their IT assets and examine data centre policies, processes and procedures in order to make significant cost savings and make service delivery more efficient.

The customer had also developed a strong reputation for their environmental programmes, and was certified by the Carbon Trust Standard in 2009 after saving 47,000 tonnes of carbon.





The Challenge

In order to recognise these cost savings the customer needed to reduce their number of Data Centres. One Data Centre in particular was targeted for decommission and closure was to be achieved by physically migrating I.T infrastructure from this location into a larger 'strategic' environment.

Unfortunately, this new strategic environment lacked the physical floor space, power and cooling capabilities needed to support the significant number of additional components that migration and amalgamation would bring.

Faced with this challenge the customer initiated a project focused on making available significant amounts of physical space, reducing the existing levels of power consumption and decreasing the current rate of growth.

As with any data centre optimisation, defining precise criteria for measuring the ROI was crucial to realising the benefits upon completion. Consequently the optimisation initiative was designed to free enough physical space to enable the customer to migrate business critical infrastructure from legacy data centres into the strategic environment, close the legacy building and measure the resultant decrease in operational cost.

The Solution

2e2 has developed a multi-stage methodology to optimise business critical data centres with minimal impact to business continuity, with a focus on identifying areas that would best achieve the primary business objectives quickly and cost effectively.

This drastically reduces to time-to-ROI and can bring almost immediate benefits in areas such as space reclamation, power usage and cooling levels.

Our multi-phased approach consisted of four primary stages;

Stage 1

Supporting the business by supplying project governance, project management, technical skills and resources for the discovery and reporting stages enabled 2e2 to analyse the data centre environments and capture information on which areas of the I.T estate needed the most attention.

Completion of data analysis enabled 2e2 to make suggestions for change and calculate the expected benefits of each.

These proposals concentrated on;

- The Data Centre Environment
- Associated Environmental Factors
- Technology

The results in each of these areas helped not only to confirm that the primary objectives were indeed achievable but also how best to achieve them.

In addition, the analysis highlighted other areas, away from the primary initiative, that could offer potential benefits to the business.

Stage 2

Designs were then created in order to offer a detailed overview of each proposed change in key stages of enablement covering;

- Space Reclamation
- In-Rack Optimisation
- Technical Refresh
- Consolidation
- Centralisation
- Migration Planning
- Asset recycling and disposal

Stage 3

Delivering change formed the chrysalis of stage three with 2e2 supplying the skills, resources and proven delivery capabilities required to successfully transform in areas such as;

- Decommissioning
- Optimisation
- Technical Refresh
- Consolidation
- Implementation
- Migration execution
- Test
- Disposal

With progress being constantly monitored and reported back through previously agreed reporting methods.

Stage 4

The final stage covered training in all areas new to the business and the handover of the resulting environments to the relevant support teams.

This ensured that 2e2 were able to offer governance, support and guidance in all areas from;

- Initial Engagement
- Planning
- Preparation
- Design
- Delivery
- Support

All supported by Project Management, on-going infrastructure management and reporting.

The Results

A consequence of 2e2's multi-stage project structure and concomitant reporting process is that ROI is both quickly attained and easily measurable. These efficiencies inevitably trickle down to the final results of the project, and in this case, many of the benefits surpassed the customer's stated expectations.

The customer's infrastructure and environmental targets were all surpassed. For instance, when removing outdated legacy hardware from the old data centre site, 2e2 were able to decommission and dispose of over 200% of the original target.

Similarly, the resulting floor space saving equated to more than twice the amount of space required to successfully migrate the I.T infrastructure away from the targeted data centre and paved the way for the successful closure of what was a very expensive asset.

In line with the customers' other environmental programmes, the optimisation project was able to deliver a 50KW reduction in power usage POST migration, 20KW above the customer's initial target.

In terms of cost savings the customer saw a 100% (R.O.I) within 16 months, 2 months ahead of the stated 18 month target, and as a direct result of the project as a whole, the customer achieved three year cost savings in the region of £2.3m.

These three year savings were realised in areas such as the successful decommission of an entire data centre, significant reduction in power usage, reduced cooling costs, reduced maintenance costs, reduced operational costs as well as cost avoidance with regards to IT infrastructure spend and hosting.

There were also additional benefits away from the primary objectives attained. For instance, many of the day-to-day operating policies, processes and procedures have been improved as a direct consequence of the knowledge gathering exercises integral to 2e2's methodology. The customer now has a more accurate picture of their I.T. inventory going forward, as well as higher rates of server and storage utilisation for the equipment moved to the new strategic environment.

The training delivered post-migration has seen a rise in the adoption rates of new technologies among technical staff, which in turn has more closely aligned the technical capabilities of I.T. with the wider business needs of the organisation.

Finally, the optimisation project has also helped the customer meet with Sarbanes-Oxley compliance requirements.