



Data Centre Planning and Relocation



IT Fit Out and Relocation



IT Scheme Design & Cost Plan



Data, Telephony & Audio Visual Design



Infrastructure Planning

## **CASE STUDY: DATA CENTRE AND PATCH CABINET REFURBISHMENT: 30 MANAGED CABINETS**

### **The Challenge**

- Our client's Newcastle office hosted a 25 cabinet Data Centre that was at risk of failure due to the approaching end of life of the electrical and air conditioning services. In addition, the core network infrastructure was running at capacity and had become unstable.
- The structured cabling within five patch cabinets also needed enhancing to facilitate a VoIP telephony installation.
- Overall the building infrastructure was in a state that meant the technical services had become unmanageable and were preventing the proposed expansion of hosting services.
- The project brief was to install new M&E and IT infrastructure services that would eliminate the risk of failure and increase the capacity of the hosting environment.
- The room hosted revenue generating equipment so it was essential to minimise any downtime during the works and to design services suitable for this production environment.

### **Data Centre Strategy**

- Technology Moves Consulting (TMC) was appointed to develop an upgrade strategy and then to project manage the technical aspect of the refurbishment works.
- Through a series of site meetings with the client's local IT team, TMC established comprehensive technical requirements that were issued to the project design team for incorporation in to the refurbishment designs.
- TMC generated and presented to the client a cost benefit analysis of hosting the services at a 3<sup>rd</sup> party location versus refurbishing the existing room. The option for refurbishment was preferred due to lower ongoing operational costs.
- The client also completed a review of existing core network hardware to evaluate the benefits of upgrading core services as well as taking advantage of the available downtime periods.

## Migration Planning and Procurement

- TMC represented the client in design meetings with the M&E consultancy and developed a new room layout based on 'hot aisle/cold aisle' principles.
- TMC generated heat and power loads for each cabinet in order to specify the capacity of the electrical and air conditioning services.
- The technical solution was documented by TMC in a scheme design, associated cost plan and detailed migration approach and these deliverables were submitted to the client for approval.
- TMC managed the tender of the structured cabling work package leading to the appointment of the best value installer.

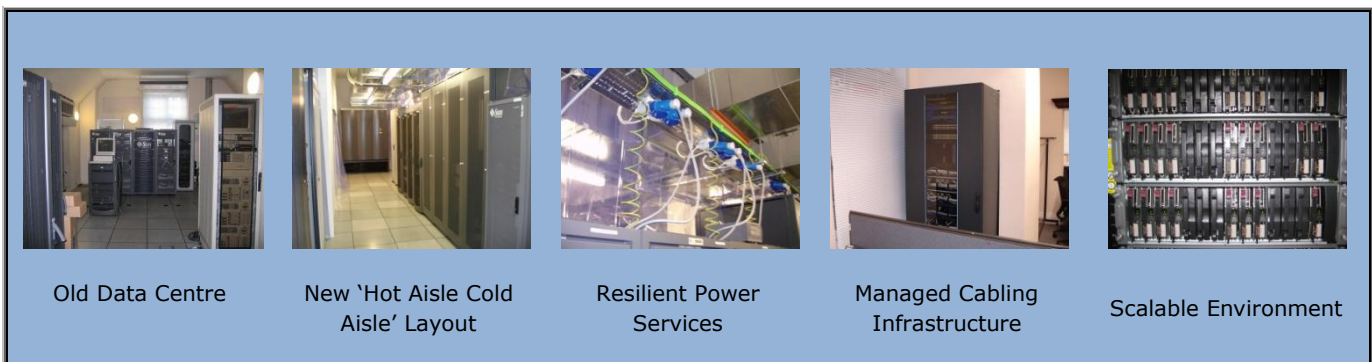
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## Data Centre Refurbishment

- The Data Centre refurbishment was scheduled to take place over two weekends to allow for the upgrade of the core network and then the physical reorientation of the cabinets.
- New UPS and air conditioning units were installed into the IT room prior to the migration under the supervision of TMC in order to avoid any disruption to the live services.
- During the second weekend of works all 25 cabinets were removed and the floor lifted to allow the installation of new under floor cabling. Once complete the cabinets were repositioned according to the new floor plan and services restored.
- The floor patch cabinets were sequentially upgraded and all services re-patched and tested.
- TMC managed a thorough test plan to ensure all services in the Data Centre and patch cabinets were restored prior to the end of the agreed outage period advertised to customers.

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## The Results



- All technical services fully operational prior to end of agreed outage period.
- Stable network environment with increased operational capacity.
- Full documentation to facilitate efficient management of the new operational environment.
- Project closure documentation including final project cost plan and as built drawings.