

WEST LONDON DATA CENTRE



Project Profile

Since 2009, we have been employed by a major telecommunications company to work on improving the efficiency and reliability of one of their largest data centres.

The data centre had been in operation for over ten years during which time redundant cables had been allowed to remain in place when a data centre tenant had moved out. This was due to the lack of detailed records leading to a fear that the wrong cable would be stripped out cutting off another client.

By 2009 the cabling under the floor was tangled and very untidy making it very difficult to keep track of which cable fed which cabinet and was fed from where. Once as many of the cables as possible were traced, Green Building Design were hired to plot these and recommended the strip out of over 500 redundant cables.

An additional problem we faced was that the data centre was running close to its capacity – indeed even though all cabinets

were dual fed there was a risk that failure of one PDU could lead to overloading of the reserve PDU, causing a knock-on effect which had the potential to knock out the entire data centre.

We had to calculate a rebalance involving an analysis of the loads drawn by and contracted to every cabinet in the data centre so as to ensure that the loss of one PDU or even UPS would not put the entire data centre at risk.

The end result was that we produced a new spreadsheet model incorporating every circuit in the data centre to that future loads could be monitored by the client preventing a recurrence of the issues faced in 2009.

The data centre is operating today with a much improved resilience compared to before. This was proved in 2012 when a component failed in one of the PDUs. The entire data centre remained operational throughout the PDU outage proving the resilience of the system.

Key Features

- Strip out of over 500 redundant cables simplified system reducing risk of errors in future
- Rebalancing of loads across PDUs reduced risk of power failure to data cabinets

PROJECT VALUE: Over £10million

CLIENT: Major Telecoms Company