

Brown Field Site Datacentre Conversion

Project Background

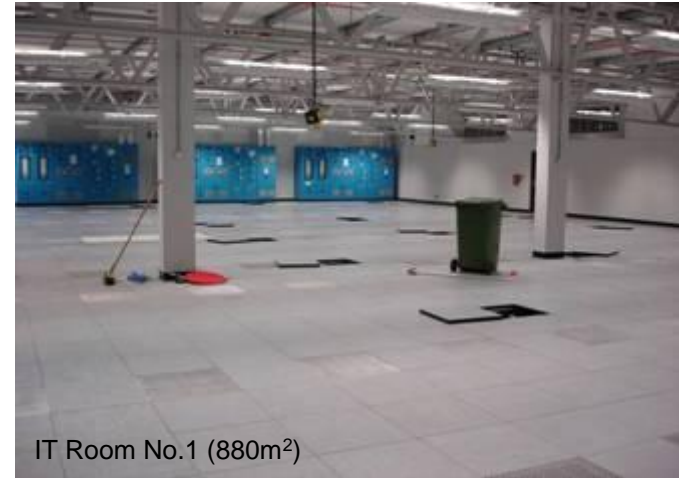
لا مشكله

Mafi Mushkila Ltd
www.mafi-mushkila.co.uk

Mafi Mushkila was retained by a major UK based insurer to complete a risk assessment of their existing datacentre estate, which resulted in the recommendation to construct a new datacentre, creating geographic diversity.

Mafi Mushkila developed the feasibility study and budget to seek board approval. Only sites within a limited radius of the existing datacentre facility would be suitable due to distance limitations of the IT systems. A risk assessment of potential sites was carried out by Mafi Mushkila that discounted sites that did not have suitable power, poor communications or had environmental issues. Mafi Mushkila assisted with the engagement of the professional team to develop the design to implementation.

The selected site was previously used as a distribution warehouse for industrial plumbing and electro-mechanical supplied; the asbestos roof had to be replaced before the refurbishment could commence. In parallel with construction and fit out, diverse private fibre routes were implemented between datacentres by the project.



Mafi Mushkila was responsible for all aspects of the project from inception to completion:

- procurement of site
- refurbish of building fabric
- construction of computer suites
- Mechanical & Electrical fit-out
- Inter-datacentre Dark Fibre
- IT Rack installation
- structured cabling implementation
- extension of SAN and IP networks
- relocation of WAN / MAN services
- migration of IT services (2000+ mainframe, midrange and Intel servers, storage arrays, tape robots, optical devices)

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Under Floor Cable Containment



CAT6 Distribution



ISF Racks & IBM AS/400 System



FTS Fibre Trunks



Panduit CAT6 Structured Cabling Patch Panel



ISF Racks



ISF Racks (Cold Isle)

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The specification of the datacentre is:

- 2,250m² serviced IT space available
- Power & Cooling capacity average 750watts/m²
- 10-minute UPS at full load
- 4-days fuel supply on-site
- Inergen fire suppressant in all IT and plant rooms

The datacentre provides:

- Diverse, resilient power and cooling infrastructure (N+1)
- Concurrently maintainable Mechanical & Electrical infrastructure
- Secure facility that meets industry best practices
- 24x7 on-site Mechanical & Electrical support team
- Unpacking, storage and build facilities
- Mechanical & Electrical workshops
- Customer engineering offices, storage and workshops
- Business Continuity space for up to 50 staff



Mafi Mushkila conducted a product / vendor selection on behalf of the client to select an integrated solution to deliver IT racks and copper / fibre structured cabling. IBM was selected to deliver the solution based on IBM ISF Internet Server Farm racks, IBM Fibre Transport Service (FTS) and Panduit CAT6 structured cabling.



<http://www.panduit.com/index.htm>



<http://www.ibm.com/uk/>

Within the scope of the project Mafi Mushkila implemented the Aperture Vista product suite, which was used during the planning and execution of the IT migration to plan the layout of the floor standing IT equipment and the rack mounted servers.



<http://www.aperture.com/>

Connectivity between IBM Mainframe services was limited to a maximum of 3km (ESCON, CLO links and Sysplex timers) ; the distance between datacentres exceeded this. It was not possible to implement relay stations to regenerate the signals. A solution was developed with IBM and ADVA that implemented CWDM technology; delivering 640 ESCON channels utilising 10-fibre pairs.



<http://www.advaoptical.com/>