

# Critical Facilities

Our highly qualified and specialist engineers offer expert advice on the reinforcement or replacement of M&E and ICT systems which support critical facilities within buildings.





We recognise that today's building infrastructures demand a wide range of complex and integrated systems. Such integration can realise numerous technical benefits, whilst also adding life cycle value. Critical facilities comprise part or all of a building or development and typically include data centres, command and control centres, network nodes and data storage.

# Critical Facilities



## Expert and Impartial

In such a complex and fast changing industry, it is perhaps not surprising to find a predominance of contractors and advisers who rely on close ties to specific manufacturers for technical support. In contrast, our specialist engineers have wide experience of every type of system and we constantly update our skills to ensure that the advice to our clients is current and wholly supplier independent.

Whilst the importance of established vendor relationships for some clients is recognised, the impartiality of our advice ensures the appropriateness of all our design solutions. This also results in a truly competitive tendering and procurement process.

## Operational Reviews

The use of resources that support critical facilities, maintain or enhance resilience, should always be optimised to maximise benefits whilst minimising cost.

Initially, we agree a risk management strategy for the premises or, in some cases, the entire property portfolio, to understand the relative importance of each site or facility. We then undertake a non-invasive review of the systems to identify weaknesses and risks. This information is then presented as a series of recommendations in order of relative importance such that informed, risk-based, decisions can be made.

## New Facilities

New facilities, particularly data centres, are often designed based on the Uptime Institute's Tier Classification System and documents such as TIA-942. Whilst these generic requirements are useful as a comparison tool between sites, the documents rarely match the needs of particular clients or facilities.

We are committed to ascertaining the client's requirements and developing the design accordingly, rather than providing an off-the-shelf solution. Our extensive experience of new, existing and refurbished facilities and our understanding of the impact of fault or failure is fed into the brief. This is then agreed in close collaboration with the various stakeholders.

- Electrical Infrastructure
- Standby Generation
- Uninterruptible Power Supplies
- Gaseous Fire Suppression
- CCTV and Access Control
- Control and Monitoring
- Power Management
- Fuel Supply System
- Utilities
- Temperature and Humidity Control

We work closely with all stakeholders to understand each project's weaknesses and strengths and to maximise the value gained from remedial works. Our specialist team understands how supporting systems can be designed, configured and adapted to maximise infrastructure resilience and reliability.



## Client Focused

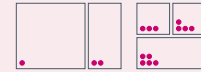
We believe that understanding our clients' businesses and their values is a fundamental prerequisite to the development of successful design solutions. From production of an initial brief through to hand over and acceptance, we constantly measure the evolving scheme against the agreed objectives in terms of performance, cost, programme and maintainability.

Our consultancy service can be tailored to meet any range of required duties. Our preferred approach to our commissions is typically consultant led; not only during design but throughout the installation. This facilitates the early identification of design issues and provides appropriate support to the installers.

## Added Value

Value management and value engineering is at the heart of our service. Regular value assessment checks are carried out based upon projected life cycle costs. These take into account the full range of relevant variables including capital cost, operational cost, carbon emissions and component longevity.

Once identified, we expect the contractor or supplier to participate fully in the continued search for value whilst maintaining adherence to the agreed principles of design. The preconstruction phase of a project is the final opportunity to realise significant value management potential and requires a coordinated team effort. This results in the final installation benefiting from the expertise of all its stakeholders, leading to effective and highly robust solutions.



- ITN HQ, 200 Grays Inn Road, London
- Citibank, Canary Wharf, London
- HSBC HQ, Hong Kong
- The Compass Centre, Heathrow
- CBQ Tower, Qatar

## Strategic Advice

- Setting standards
- Investigations and reports
- Condition surveys
- Risk assessments
- Scheme designs

## Operational Reviews

- Risk management strategy
- Condition surveys
- Operational life expectancy
- Single point of failure analysis
- Prioritised recommendations
- Holistic and integrated design solution

## Design

- Whole life costing
- Maintenance provisions
- Operational continuity

## Implementation

- Site monitoring
- Witness testing
- Integrated systems tests
- Maintenance monitoring



## Selected Projects

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186K Citipops - Nationwide  
186K Data Centres - Nationwide  
20 Bank Street, Canary Wharf  
Al Rayyan Data Centre, Qatar  
CBQ Tower, Qatar  
DS6, Canary Wharf  
Eurobrokers, London  
Guardian News HQ, London  
Heller Financial, Weybridge  
HSBC Critical Buildings, UK & CI  
HSBC HQ, Hong Kong  
HSBC Telecentre, Krakow  
ITN HQ, London  
Jebel Ali Data Centre, UAE  
LBBW HQ, London  
MOD, Whitehall, London  
NBO HQ, Muscat, Oman  
Newham General Hospital  
Sentrum Data Centre, Surrey  
Thames Water Control Centre  
United Arab Bank, Dubai  
University of Cambridge  
Veritas HQ, Reading  
World Business Centre, Heathrow  
Wyeth HQ, Reading

## Selected Clients

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Aberdeen Asset Management  
Barclays  
BDO  
Blackstone  
Bloomberg  
Briotech  
British Airports Authority  
British Gas  
Cantor Fitzgerald  
Cargill Investment Services  
Citibank  
Commercial Bank of Qatar  
Guardian Media Group  
Drexel Burnham Lambert  
Heller Global Finance  
Hilton  
HSBC  
Independent Television News  
JP Morgan Chase  
Lloyds TSB  
Lovells LLP  
Morgan Stanley  
National Bank of Oman  
Reuters  
Scottish Equitable

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