



Designed with the NHS, for the NHS:

Mavin Powercube British built, award winning, 100% custom, end-to-end Containerised and Modular Build DataCentre and Special Container solutions.

For more information
please contact us today:

T: +44 (0) 845 612 1155
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www.mavin.global



mavin POWERCUBE™
CONTAINERISED MODULAR DATACENTRES
+ SPECIAL CONTAINERISED SOLUTIONS



DESIGNED FOR THE NHS, WITH THE NHS

Mavin Powercubes custom modular containerised DataCentre and IT Operations solutions are proving increasingly popular within the NHS and wider Health Sector; within the UK and Worldwide.

Specifically, NHS Trusts that have chosen to deploy our flexible containerised solutions have enabled the re-purposing of traditional IT space into much needed clinical and or patient space. With a 30% design and build saving and fast delivery time compared to traditional IT bricks and mortar; combined with the highly efficient power and cooling, and the ability to re-deploy or scale up, our custom solutions have proven significant cost and ongoing operational savings, whilst supporting the critical 'green' agenda.

Mavin Powercube custom modular containerised DataCentre and IT Operations solutions:

Cost and time saving solutions which support green efficiency targets.

OUR PROPOSITION

Create a key differential for our clients by raising the bar for deliverable IT standards within the business-to-business marketplace

Mavin Powercube designs and builds scalable low-> medium -> high power; modular (and moveable) containerised N + 1 (minimum) DataCentre solutions.

- CUSTOM
- MODULAR
- SCALABLE
- EFFICIENT
- EFFECTIVE

Tailored solutions providing a unique fit for your business

Mavin Powercube design, build and maintain award winning, scalable and secure Containerised Modular Data Centres (CMDC's) and Modular data centre buildings. Our British designed and built CMDC delivers a 100% custom, end-to-end solution, including full environmental preparation, power presentation, module fabrication, detailed project management and full support wrap services.

Mavin Powercube has various design concepts incorporating a calculated balance between traditional, current and next generation ideologies. Referenceable within the Public and Private sectors, across University, NHS and Defence clients, our turn-key solutions are designed to maximise efficiency and space. We provide scalable, robust, resilient and redeployable critical infrastructure environments, entirely tailored to our client's individual operational requirements.

Mavin Powercube solutions have been successfully implemented by clients across the NHS including Queen Victoria Hospital NHS Trust, Brighton and Sussex University Hospitals Trust and Southend University Hospital NHS Trust.

INNOVATION

What you see is what you get with Mavin Powercube

Innovation is delivered not only through the physical custom and scalable nature of the CMDC and the progressive, increasingly environmentally aware technologies contained within, but also via its capacity to provide client organisations with the ability to manage their capital expenditure more effectively and efficiently.

This is achieved by providing a 'plug & play' / 'pay-as-you-go' architecture that enables tangible, real time, capacity planning.



Mavin Powercube's commitment to innovation has been recognised at the Data centre Awards, DCS and SVC Awards, Rail Business Awards and ICT Excellence Award for best value added service.





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DESIGN AND CONCEPT

Creating a balance between traditional, current and next generation

Mavin Powercube has various design concepts incorporating a calculated balance between traditional, current and next generation ideologies.

All concepts are designed to maximise efficiency, space requirement and provide scalable, fit-for-purpose environments for individual user requirements.

The CMDCs can be used as primary critical data centres, secondary DR facilities or scalable and secure hubs for wider and remote data centres.

Available in single or multiple formats, in a range of sizes and internal layouts, fitted with air or liquid-cooled, fully ruggedised technologies as required, our solutions can incorporate both ballistic and LPS 1175 SR rated finishes to provide operational integrity in the harshest environments. The CMDC is the 'go pretty much anywhere' DataCentre.



Definition of a Containerised Modular DataCentre:

Employing or involving a module or modules as the basis of design or construction.



PREPARATION

The level of physical site preparation varies depending upon the deployment location, accessibility of power, ground conditions and the historic use of the environment.

The pre-surveys and planning of required 'ground-works' is critical to managing time-to-deployment and of course, cost. Mavin Powercube manages your entire project end-to-end, ensuring intelligent, high calibre services throughout.

From the ground up: finest engineering provides a strong foundation.



Mavin Powercube site build preparation:

End-to-end services supporting your project from concept to completion



BUILD

Mavin Powercube creates individually designed modular solutions with state-of-the-art precision

We build each client's containerised modular solution from scratch combining the latest energy efficient composites with specific design

Neutral

From a vendor platform perspective the CMDC remains 100% neutral. We do not dictate to the client organisation what make or model of IT Server or storage device to employ, therefore making our CMDC solution ideal for supporting heterogeneous environments.

requirements, supporting deployment agility, future scalability and fit-for-purpose operation.

Our UK build facility is complimented with state-of-the-art precision laser cutters, enabling multiple projects to be managed within short timescales.



100% neutral DataCentre:

Mavin Powercube containerised modular solution build.

DEPLOYMENT

The CMDC may be deployed as a standalone structure or internally within a host building

The cost for a CMDC is economical compared to a traditional design and build.

Being modular and therefore moveable, should an organisation wish to relocate they have the capability to migrate their entire DataCentre set-up relatively quickly and economically cost wise. The CMDC is an asset for the organisation.

Flexible, worldwide deployment options



"The decision to implement Mavin Powercube's CMDC Solution was driven by the necessity to partner with a DataCentre design and build specialist who would work pro-actively through the project's life-cycle, deliver an end-to-end solution and ensure that the operational result met with the business' evolving requirement and expectations."

Head of IT, UK NHS

COMMISSIONING

Ensuring your CMDC solution is 100% ready for deployment and securely hosting your critical IT environment is all part of the service

Dedicated to your project, the Mavin Powercube team will work efficiently and effectively with your project team to rigorously check, test and double-check that all individual components function according to design and that the overall solution is operating correctly and in line with the project designated industry standards.



Achieving an industry recognised 'Green Efficiency' status is high on the list of operational design requirements for the majority of our clients. Mavin Powercube's Containerised DataCentre solutions provide the platform for achieving this.

"Through their ongoing portfolio growth of services, solutions and hardware supply, Mavin have positioned themselves as a strong reputable partner that Weetabix can rely upon to deliver across a breadth of the Information Technology spectrum."

Group Head of IT & Business Systems, Weetabix

THE BOTTOM LINE

Got all the best equipment but wondering how to use it to get the best results and improve your bottom line?

*Lower than a traditional DC build
- 10-30% less per square ft*

*Our custom Modules with
N+1 cooling start from £45K*

*Significantly reduce CD set-up
cost element of any company
relocation*

Lower Costs
Faster Time-To-Market
Pay-As-You-Grow
Free Cooling System
Redeployable
Tangible Asset

*Typically 8 weeks rather
than 18+ months*

*Efficient FREE Cooling
Systems, increasing
operational efficiency,
decreasing costs and
assisting GREEN goals*

*Potential for resale and
Capex recoup*

Get the best results
with Mavin Powercube

- FASTER DEPLOYMENT
- LOWER COSTS
- CUSTOM
- PAY-AS-YOU-GROW
- RE-DEPLOYABLE
- TANGIBLE ASSET
- EFFICIENT
- FREE COOLING
- DECREASE COSTS

INDUSTRY STATISTICS

Go modular with a Mavin Powercube Containerised DataCentre and reap the benefits for your business

Mavin Powercube CMDC Features

- CUSTOM DESIGN AND BUILD
- ALL CRITICAL INFRASTRUCTURE
- ENERGY EFFICIENT TECHNOLOGY
- ACCOMMODATES ANY IT HARDWARE
- MULTIPLE SUPPORT OPTIONS AVAILABLE

Mavin Powercube CMDC Benefits

- FASTER TIME-TO-MARKET
- LOWER COSTS
- PAY-AS-YOU-GROW
- HIGH AVAILABILITY
- DEPLOY ALMOST ANYWHERE
- CAN UTILISE EXISTING ON-SITE COOLING, UPS AND GENERATOR PLANT

The CMDC advantage

About 5-10% of the cost of a DataCentre is taken up building the 'bricks and mortar' with another 70-80% going on the electrical and cooling systems.

If you go modular with our Mavin Powercube CMDC DataCentre, you can plan for a day when you will need to be able to draw 20kw per rack but only power and cool it for the 6kw per rack you need today.

With Mavin Powercube CMDC you can defer 40-50% of the upfront capital costs and also about half of the electricity and operational costs.

These numbers add up fast, citing the rule of thumb that over a 20 year lifespan the cost of running a DataCentre is three to five times the cost of designing and building it.



Innovative, effective, efficient deployment:

Mavin Powercube modular designs

DESIGN AND QUOTE

To request a budgetary design and quote simply answer the following 7 questions:

Email contact@mavin.global

- PHYSICAL SPACE AVAILABLE - (INTERNAL OR EXTERNAL)?
- MAXIMUM POWER AVAILABLE TO SITE?
- RACK QUANTITY REQUIRED?
- CURRENT IT LOADING (KW) AND PROJECTED FUTURE IT LOADING (KW)?
- COOLING RESILIENCE REQUIRED?
- UPS REQUIREMENT INCLUDING AUTONOMY?
- GENERATOR REQUIREMENT?



Engage with Mavin Powercube via the fully compliant and efficient Digital Workplace Solutions Framework

YOUR QUESTIONS

We welcome your questions. Get in touch to request more information from our team today.

INFRASTRUCTURE SUPPORT

Full infrastructure support whatever the size of your business

DATACENTRE SERVICES

Ask about our Core Solutions

DATACENTRE RELOCATION

Ask about our Economical DataCentre Migration Capabilities

COOPERATIVE SERVICES

We will work proactively with you

CONTAINERISED MODULAR DATACENTRES

A more flexible alternative to traditional DataCentre designs

DISASTER RECOVERY

PROJECT MANAGEMENT

We are here for you in a crisis
Detailed Project Management Environment
Preparation & Module Fabrication

**Get in touch with the
Mavin Powercube team on:**

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Mavin Powercube Case Study:

Queen Victoria Hospital NHS Trust Containerised Data Centre Project

Mavin - Powercube specialise in the Design and Build of custom Modular Containerised Data Centres. Following a highly competitive tender, Mavin were selected by Queen Victoria Hospital NHS Trust to deliver two custom Containerised DataCentres, integral to the Trusts implementation of a new Patient Imaging and Records Management System. The client was faced with two major issues when it came to planning the implementation of their new Patient System. Firstly, the existing Data Room was not suitable, neither in terms of physical space nor power and cooling. Secondly the new system had to be fully redundant which would have required a second Data Room, unfortunately the site didn't have any suitable areas within the hospital to relocate a single Data Room, let alone two!

The Project was time critical as the new system had to be ready for testing in May 2016 if the Trust were to avoid delays in going live with the solution and subsequently face financial penalties. This is also of course a working hospital and Mavin Powercube therefore had to work in close conjunction with the Trust to minimise disruption and ensure that the Theatres and Patient Access areas were available at all times.

Key points

Time critical

Space and scalability

Innovative design

Re-deployable

Resilience

Deployment

The Trust identified the timescales, budget and future use of the designated locations meant the build of a traditional bricks and mortar Data Centre wasn't viable. Furthermore, the Trust is undergoing a major refurbishment programme and the locations identified will likely be earmarked as new wards which would result in wasted investment for any permanent Data Centre. As such Mavin Powercube's Modular Containerised Data Centres were selected as these have the potential to be moved if required, can be deployed at a fraction of the time of a traditional built Data Centre and a fraction of the cost.

Following an order in late December 2015, Mavin Powercube delivered a fully operational Data Centre Solution to the client within 12 weeks.

Furthermore, Mavin Powercube provided the client with an efficient, cost effective system that not only took full advantage of the environment through the use of fresh air cooling, but also utilised full BMS and DCIM management combined with Intelligent Rack Management which offered the client the ability to truly maximise efficiency within the Data Centres, none of which had been possible within their previous Data room.

Powercube Containerised Data Centres are designed and manufactured from scratch which gives the added benefit of the Trust being able to choose a fully custom system ensuring that features may be designed in or out as required.

From a financial perspective, the client received two fully operational and fully redundant Data Centres for less than £650,000.00 including a full civil works package.

"The team at Mavin don't just make you think you are important to them as a customer; they ensure this really is the case and prove it, time after time."



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Detailed project breakdown:

Civil Works Programme

- Provision of Principal Contractor Services throughout the build phase
- Full Ground survey throughout the site including areas identified for trench runs
- Full Asbestos survey (ground based asbestos was identified and had to be removed prior to any works commencing)
- Ground penetration testing to calculate structural support requirements of both Data Centres
- Digging of Power and Fibre trenches required to carry cabling to the units. South unit also required laying of new power cabling from a sub generator to the Data Centre
- Pouring of foundations to support the 2 Data Centres
- Making good of all ground

Data Centre Design & Build Programme

- Work with Trust to design 2 custom Modular Data Centres to meet the strict requirements of the Trust including physical space restrictions, acoustic considerations due to proximity of patient wards and timescales for deployment
- Physical builds of 2 identical Data Centres the physical dimensions and characteristics of each being:
 - 11.5mtrs in length x 3.6mtrs in width and 3.2 metres in height
 - Separate Staging Room and Data Room
 - Minimum of 8 racks with ability to increase to 10 if required
 - Fully operational Active / active arrangement with auto switchover to the Trusts two on site generators

"I personally thank you for your professionalism, flexibility, technical support and ability to deliver to what were extremely tight constraints. I highly recommend Mavin Powercube as a strong and flexible turn-key alternative to the traditional bricks and mortar DataCentre."



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Project breakdown continued:

Installation of M&E to meet the specification requirements of the Trust

- UPS to provide minimum 10 minutes failover
- N+1 External Air Handling units to provide free air cooling with DX to provide 70kw cooling
- Hot Aisle and Cold Aisle containment with cold air delivery via ceiling plenums
- Vesda / StatX Fire Suppression in both Staging room and Data room with integration to Powercubes BMS system and the Trust's on site Fire Alarm System
- Door Access control to both main entrance and internal Data room. System to be fully compatible with the Trusts own Door Access System
- CCTV located both internal and external with link back to Security office
- Intruder Alarm system compatible with the Trust's own alarm system
- Fully managed BMS and DCIM solution providing full monitoring and reporting of:
 - UPS
 - Door access
 - Fire Suppression
 - CCTV
 - Intruder Alarm
 - Rack Management, PDU monitoring
 - Air Handling System

Fully managed Support and Maintenance Service

- Web based portal access for the Trust to raise support and change tickets
- Full M&E Maintenance programme to provide scheduled maintenance to all M&E equipment as required
- Proactive monitoring of the BMS & DCIM solution enabling Powercube to alert the Trust in the event of any alarms being triggered
- Quarterly meetings to provide full rundown of BMS & DCIM reports with a view to identifying further areas of efficiency improvements, for example increasing internal ambient temperature, highlighting rack over or under utilisation



"Just as our Clients are critically important to our business, so are our people. Each and every member of the Mavin team has been hand-picked for their particular skills and expertise."



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Project Completion

In delivering the above solution within the tight requirements of the Trust, Powercube again demonstrate turn-key capability as a leading Containerised Modular Data Centre provider. We continue to work with the leading vendors in order to improve and take advantage of the latest technologies whilst ensuring that our clients receive a fit for purpose cost effective solution. Following this project, the Trust has demonstrated the units to a number of prospective clients, with two already placing orders with Powercube, again highlighting their satisfaction.



For more information and detail on this Case Study or other products and services we offer please call our team today: 0845 612 1155 or email us: contact@mavin.global



“Mavin’s customer base is diverse. The majority of Mavin’s clients are recognisable brands or organisations.”



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