



MCR2: Technical specification

Opening in Q1 2025, MCR2 marks a significant chapter in our mission to deliver top-tier data centre solutions. With its focus on sustainability, tailored client offerings, and a strategic location, MCR2 is poised to become a pivotal asset for businesses seeking reliable and efficient data management solutions in the Manchester region.

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Our commitment to sustainability

Our sustainability strategy ensures best practices are embedded throughout the construction phase and MCR2's entire operational lifetime.

Key initiatives include:

- **Renewable energy:** powered by clean energy from renewable sources with solar PV roof panels and renewable HVO biofuels for emergency generators.
- **Highly efficient cooling:** a chilled water-cooling system with free cooling technology supporting: flexible power densities for scalable, adaptable data centre configurations; a significant reduction in power consumption; reduced water usage and lower environmental footprint; improved temperature control and stability.
- **Heat exchange-ready:** designed to handle external temperatures of 40+°C, and ready to support future local community heating networks.
- **Efficient construction process:** embodied carbon impact assessment conducted to minimise environmental impacts; a biodiversity plan developed to protect nature and reverse ecosystem degradation; an older building replaced with a modern, energy-efficient facility; materials sourced from local suppliers, where possible; waste from demolished building efficiently handled and recycled.



Full technical specification



Capacity

- Power circuits**
 - Standard full racks; 3.5kW per rack, supporting up to 30kW per rack, delivered on dual circuits providing 2N level of resilience.
- Rack sizes**
 - Quarter, half and full rack enclosures.
- Caged space**
 - Dedicated secure cages for multiple racks; custom-designed suites.
- Rack space capacity**
 - Up to 1,200 racks.

Power resilience and availability

- Mains feeds**
 - Multiple power streams from independent, dedicated transformers.
- Generators**
 - Multiple standby generators in N+1 configuration.
 - Fuel autonomy allows for 72 hours (min) at full load.
 - Generators run on HVO fuel.
- UPS battery backup systems**
 - N+1 UPS systems protecting all critical client loads.
 - Mechanical UPS systems providing backup to cooling and key infrastructure.
- SLA**
 - Power availability SLA 100%.

Cooling

- Data centre and plant room cooling systems**
 - Industry leading design PUE of 1.25.
 - Resilience N+1.
 - No water or maintenance within IT space.
 - Data centre temperature range 24 +/- 2°C.
 - Data centre humidity range 40-60% relative humidity.



Fire protection

Fire detection and prevention

- Fire extinguishant with double knock detection and VESDA® early warning systems.

Connectivity

Description

- Carrier neutral, multiple carriers' diverse points of entry. Tier 1 carriers and dark fibre available. Various resilient connection options.

Major providers

- ANS Group, Avensys, BSO, BT, Cogent, Colt/Lumen, euNetworks, Exascale, Gamma, GTT, Internet Connections, M247, Quickline Communications, RETN, SSE/Neos, Stelia, Vispa, Virgin Media, Vodafone, Wavenet, Zayo.

Peering

- IX Manchester and LINX direct peering — core Point of Presence on-site.

Rack cross connects

- Copper or fibre: to client requirements.

Metro and long reach network

- Direct connections to major Manchester and London data centres.

Security

Live monitoring

- Live CCTV monitoring, surveillance and incident response via on-site, police linked Alarm Receiving Centre and NSI Gold certified BS5979 SOC.

Perimeter protection

- Anti-climb full height perimeter fence, infra-red virtual trip wires, audio challenge and CCTV cameras with monitoring to BS8418 standards.
- Thermal imaging motion detection with Grade 3 intruder alarm systems.
- High speed, electronic security gates at building perimeter.
- ANPR number-plate recognition systems in operation.

Security resilience

- Security Operations Centre (SOC) has own on-site data centre, fibre, cooling and UPS systems with no dependencies on the wider data centre infrastructure for complete resilience and autonomous operation.

Secure visitor access

- Multi factor access control systems including anti tailgating man-traps protected by access card, PIN, volumetric and biometric (iris recognition) checks before access is granted to critical areas. 24/7 client access.

Security (continued)

Compliance and certifications

- ISO27001 certified (BSI) security to NSI Gold Approved BS5979.
- Caged area or single racks to PCI DSS.
- SC cleared technical support and operations staff.



Data centre services

- Remote hands engineering services.
- Scheduled engineering services.
- Structured cable installation.
- Custom connectivity installation.
- Install to rack and hardware installs.
- Power cycling of equipment.
- Hardware procurement & deployment.
- Tape rotation and storage.
- Consultancy and auditing.
- Secure storage and engineer breakout area.

Book now

Pre-tours will be launching soon for MCR2 — get in touch to book your no-obligation visit and see how our latest state-of-the-art facility is taking shape.

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