

Your Data. Safe in Our Hands.



KNOWLEDGE DATA CENTRES



Knowledge Data Centres

With offices throughout the North of England, Knowledge provides public and private sector organisations with a seamless array of data centre, server, storage, communications and I.T. support services.

The new North Tyneside Data Centre is the latest technology asset to be added into Knowledge's expanding regional fibre optic network infrastructure. This exciting facility compliments the existing Data Centre operations and provides customers with a new and dynamic range of technology services, including cloud computing, complex hosting and fibre speed, data replication services.

The North Tyneside operation has been designed from the ground up to deliver significant business and environmental savings to its clients. By encompassing the latest green technologies, it not only saves earth resources, but also provides clients with lower operating costs from the reduction in energy and carbon resources consumed.

Each Knowledge Data Centre includes an onsite disaster recovery and business relocation facility. This adds customer value by offering a full office relocation service which includes office space, desks, PC's and telephony. The ability to access business critical data and applications within hours of invocation, significantly improves an organisations ability to successfully mitigate and recover from a disaster level event.

www.knowledgedatacentres.co.uk



Location

Located in North Tyneside, 8 miles from Newcastle City Centre and within easy reach of all the major road networks including the A1 and A19 motorways.

Hotels: De Vere Village Hotel, Travelodge

Restaurants: Shiremoor House Farm, Frankie & Bennies at Silverlink Retail Park (All within 2 miles)

Public Transport

Newcastle Airport – 8 miles
Newcastle Central Station – 8 miles (East Coast Line to London)

Tube Metro System

North Line – Shiremoor 0.5 miles
South Line – Percy Main 1.5 miles



Fibre Speed Network Connectivity

Knowledge I.T. operates and manages its own regional fibre network infrastructure which can eliminate single points of failure, enhance network integration and improve service reliability. The Knowledge Network Operations Centre and the extensive technical engineering resources available, provide 24/7 cover for data centre services including server, storage and communications infrastructures.

The fibre speed network provides multiple Tier1 data interconnects that deliver high speed, low latency connectivity across the UK. This ensures all business locations can access centralised I.T. resources with equal efficiency.

Scalable Internet bandwidth is delivered using a triple peer, fault resilient, BGP4 connectivity solution, which guarantees a minimum 99.99% Internet service availability.

Internally, a TIA942 cabling infrastructure into the telecoms suite allows multiple carriers to interconnect with co-located or managed rack equipment to deliver enterprise class service delivery and scalability.

Cloud and Managed Service clients can take advantage of Cisco powered enterprise infrastructure, HP Blade server technology and EMC storage management assets. This delivers high availability server computing at a fraction of the cost.

All network services are accredited to both ISO 9001 Quality Management and ISO 27001 Information Security standards, which provide data centre customers with the business comfort, confidence and security their organisation expects.



CHLORIDE POWER PROTECTION

Uninterrupted Business Operations

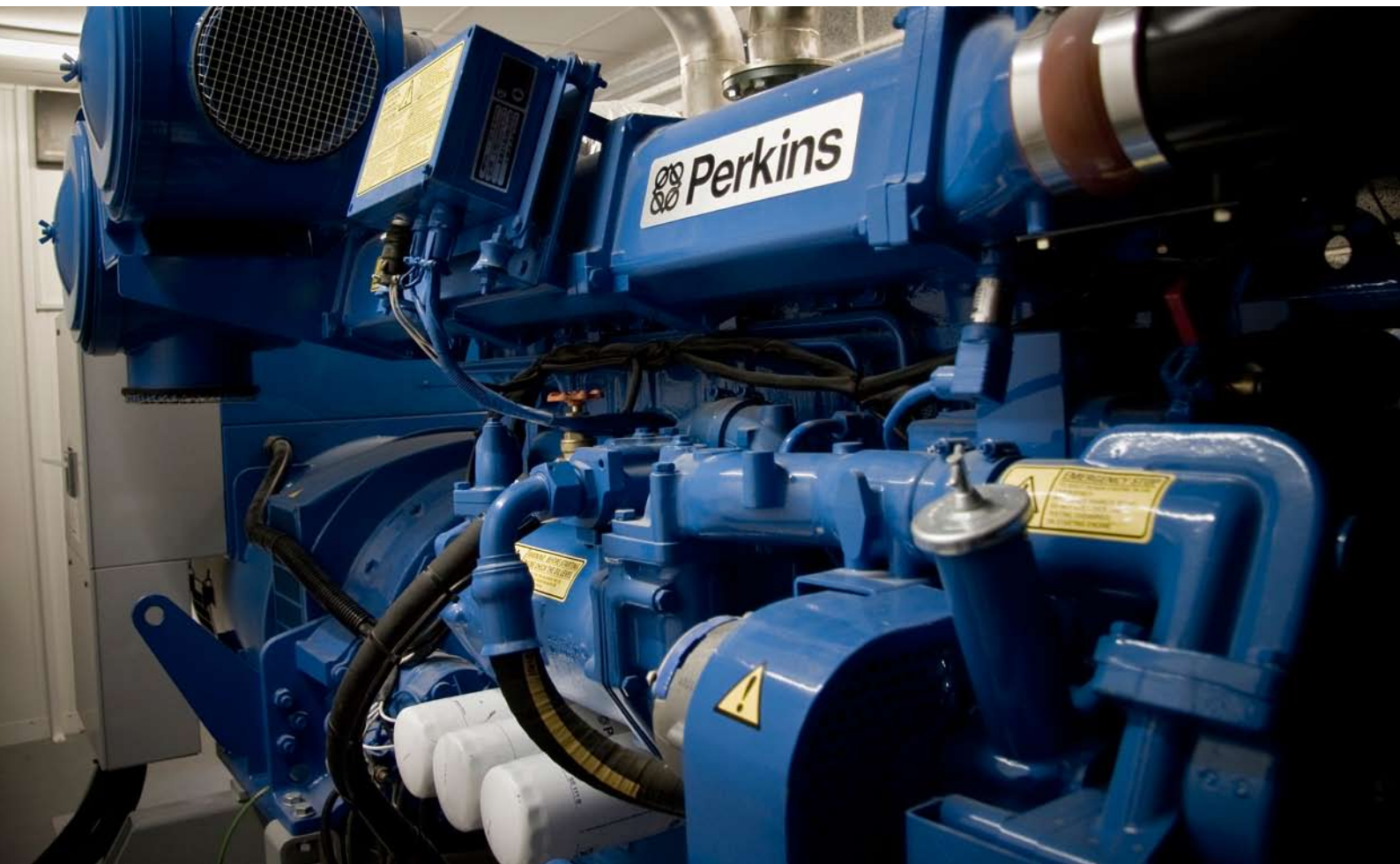
The North Tyneside Data Centre facility has been designed from the ground up to deliver service confidence at every level of development. The site benefits from its own sub-station with a 1.2Mva electrical supply.

The site is further protected by a Chloride E90 UPS system in a N+1 configuration and is monitored 24/7 by both Knowledge's Network Operations Centre and Chlorides Lifenet monitoring technical support team.

In the unlikely event of a total mains power failure, an 850Kva Perkins generator set, complete with 72 hours of full runtime capability is located within the building. A contracted refuelling service with two diverse distributors is in place to manage an extended power outage.

Standard rack power provision starts with a small 16amp power feed and power is scalable to deliver high density computing systems. Metered PDU's are provided as standard to all racks.

The facility also benefits from lightning protection which covers both the main building infrastructure and the power feed distribution system.





Advanced Data Hall Cooling

The Data Centre hall employs the latest technology advances in cooling using an Airdale Ultima Compact Free Cool configuration.

Using a chilled water N+1 system, the data hall benefits from a free cool mode when the ambient external temperature falls below 16 degrees Celsius. This technology investment delivers a lower energy consumption rating, saving earth resources and delivering a major reduction in the sites carbon footprint by up to 50% against traditional mechanical air cooling systems.

The Airdale system monitors, manages and consistently operates the Data Hall at a mean average temperature of 22 degrees Celsius, with a constant humidity rating of 50%.

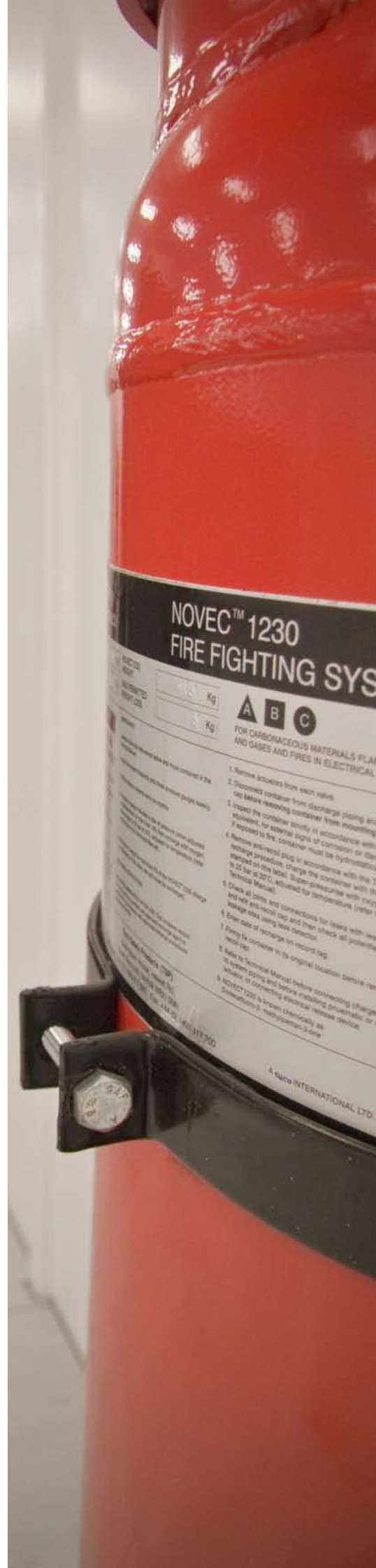


Fire & Smoke Detection Systems

Very Early Warning smoke detectors and fire suppression systems protect the facility 24/7. Utilising the latest fire protection technology, the data hall benefits from smoke detection systems at both above and below floor levels. The Very Early Warning detectors integrate into a VESDA facilities management protection system which employs a “Double Knock” option to ensure that false alarm discharges do not occur.

The fire suppression system uses the latest Novec 1230 fluid extinguishment. This new, sustainable, clean agent fire protection system allows the data hall to be protected at all times in automatic mode, even when it is occupied.

Novec 1230 fluid discharges as a colourless electrically non-conductive and non-corrosive gas that does not damage sensitive equipment. There is no post discharge residue and no costly clean up operations are required ensuing down time is kept to the absolute minimum.





Comprehensive Facility Security

Accredited to ISO 27001 Information Security standards, the North Tyneside Data Centre provides businesses with a safe and reliable foundation on which to deliver secure computing services for their organisation.

The facility manages the physical, operational and electronic information security requirements to provide secure, reliable and scalable infrastructure on which to conduct successful business. Physical perimeter security is delivered using a combination of CCTV in the wider business park and locally at the facility using the latest dual lens IP cameras. Manned external security is provided with Police response contract escalation.

Access to the site is via the Knowledge IT Photo Iprox card system. Operationally zoned access areas require additional Iprox verification and final entry into the data hall is by biometrics only. All key areas have internal camera monitoring and verification.

A motion detection intruder alarm system incorporating level 3 dual com alerting is also in operation. The facility is monitored 24/7/365 both externally and internally by our Network Operations Centre.





Physical Data Hall Characteristics

The data hall incorporates a high floor to ceiling aspect ratio providing 600mm of below floor cavity space, which incorporates a loose grid access floor rated to fire class zero. The uniformly distributed load is 8.0kN/m² and the floor panels are medium to heavy load which incorporate integrated anti-static tiles.

The data hall is located on the ground floor with dedicated ramp access for easy delivery and installation. The hall is partitioned for enhanced security with a Troax double skin steel modular system, which is fully fire rated to BS476: part 2:1987.

Height clearance is 4.0m throughout the hall and incorporates an intelligent motion lighting system. Power cabling is deployed sub floor within a structured cabling tray system and cooling vents can be deployed at any point throughout the cold aisle as required. Data cabling is delivered overhead using a structured cable tray system to all racks.



Bridging Suites & Meeting Rooms

Bridging suites and meeting rooms provide a comfortable, air conditioned working environment for clients to carry out on-site tasks. The rooms are provided free of charge and are available by reservation. The bridging suites remove the need to spend uncomfortable periods of time working within the data hall.

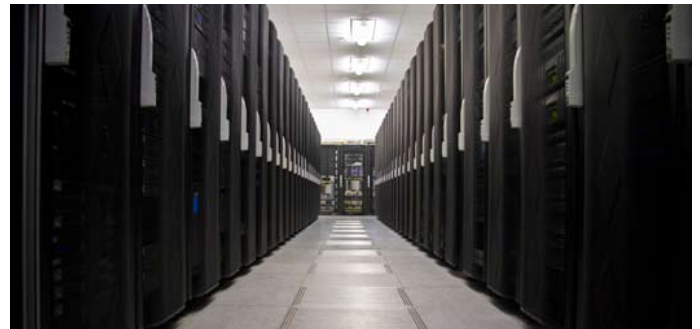
A fully furnished multi-media meeting room accommodating up to 10 people is also available for data centre operational meetings and service reviews. This popular facility is also available free of charge, on a reservation basis to the data centre customers.



Business Recovery Centre

The North Tyneside facility incorporates a 50 seat business recovery centre providing a complete office environment. These bright and airy offices have the latest voice and data services and come complete with desks, chairs, PC's, printers, Internet and telephony facilities.

The business recovery centre can provide an organisation with the perfect solution to their data and DR requirement. By implementing a solution which includes servers and data to be recovered to the Data Hall on the ground floor, key employees relocate to the high quality office facilities on the first floor to get on with the task of restoring businesses critical operations within hours of a disaster level event.



Total Quality Assurance Commitment

All Data Centre services are delivered with a comprehensive quality assurance commitment. Business management processes are certified to ISO 9001 and information security management systems are certified to ISO 27001 providing complete security assurance. Service delivery managers operate to ITIL standards and ensure consistent and reliable levels of support for absolute service confidence.

