

	London Docklands Facility Specification				
Gross Floor Space	28,251 sq metres (302,000 sq feet)				
Internal Design Details	The floor space is divided into Facility Management Suites of various sizes and consists of physically separate areas for shared and dedicated facilities with their own access controls.				
Building Type	The building is a multi-story steel and concrete construction, purpose built as a data centre. Ceilings, walls, floors and doors comply at least with RF90 (fire resistance 90 minutes) in data centre areas, telecom rooms, and plant areas.				
Maximum Floor Loading Capability	The standard raised access floor loading limit is 500kg per sq metre that can be increased to 1 tonne per sq metre or greater with a suitable secondary steel work sub structure.				
Floor Specification and Dimensions	Data centre rooms have a raised access floor and typically have the following dimensions: Raised floors of 550mm with a floor to ceiling clearance of 3.95 metres.				
Site Security	The facility is physically guarded 24/7. Visitors are required to sign in at the gatehouse and again at the main reception building.				
	Proximity card access is then provided to the main Data Centre building and to specific Facilities Management Suites. There is an alarm system that will respond to doors left open, or to attempted unauthorised access. A record is kept of door openings and all proximity card transactions.				
	There is a CCTV coverage for the perimeter, common areas and facilities management suites.				
	The Data Centre site is protected by a perimeter fence, which is fitted with intruder sensing.				
Fire Detection/Suppression	The data centre area is fitted with a fully addressable 2 stage fire detection system that monitors the under floor, room and ceiling void space. The detectors are a 50% mix of optical and ionisation and are installed split across 2 separate zonal-loops, to meet BS 5839, 6266, 5445, 5588. The data centre area is fitted with a dry sprinkler fire detection system to meet BS 5306, 3115 and has LFEDA approval. Whilst dry sprinkler is the main fire suppression method used, gas suppression areas may be available on request.				
Fire Detection/Suppression Details	On receipt of 1st stage fire detection the local fire sounders will raise the local alarm, the local air conditioning systems will stop operation and the building will be evacuated. On receipt of 2nd stage fire detection there will be a second notification to the fire panel, the sprinkler system will be activated and the local power supply to the FM suite will be cut off.				
Cooling Facilities	In-room data centre air conditioning is provided at N+1 redundant unit capacity for the declared load. The heat rejection system is 30% glycol and condensed water which utilises dry heat rejection condensers on the rooftop.				
	The in-room units provide a full function, closed control air conditioning system, with cooling, humidity and de-humidification control.				
	Room design temperature: 22 degrees C, plus or minus 1 degree C. Room humidity: 50% rH. Plus 10% or minus 10% rH.				
	External Temperature Design: 35 degree C Dry Bulb.				
	There is a redundant "A" & "B" pipe work route to the roof top condenser system and N+1 pump system in the North Building to circulate the glycol condensed water to the data centre in-room air package equipment. The East Building works on "A" or "B" pipe work to room with N+N redundant units and N+N pumps.				



Power

Electrical Power Supply	6 independent 11kv three phase electrical supplies are provided from 3 separate national grid substations. Standby Generation is provided at N+1 redundancy via diesel engine driven generators.
	On-site fuel is stored to maintain full load operation for all generator sets for continuous running of 24 hours. Back up deliveries are available from diverse supply depots.
	Uninterruptible Power Supply System (UPS) is available to provide N+1 redundancy for critical computer supplies. The UPS can support the facility for 15 minutes at full load, whilst switching to alternate supply, or standby generation start-up/synchronisation takes place.
Electrical Power Supply Details	Standard power supply is 1KW per sq metre (94 watts per sq feet). Maximum power supply is 2KW per sq metre (188 watts per sq feet). Back up includes generator power that can provide full backup under max load, with redundancy. There is dual power supply to the buildings and UPS with built-in N+1 redundancy. The UPS can support the facility for 15 minutes. The generators can then support the Data Centre at full load for another 24 hours before they require refuelling. Telehouse have contracts with local companies to provide additional fuel after this period when required.
Power Service Definitions - Dual Power	2 power connections derived from a "A" and "B" separate source. UPS and generator supported delivered over 2 routes with 2 circuit breaker protection.
Power Service Definitions - Double Power	2 power connections derived from a single source. UPS and generator supported delivered over 2 routes with 2 circuit breaker protection.

	UK			
	Docklands		Metro	
	North Building	East Building	Wello	
Power Route Mains Incomers	2	2	1	
Diverse Power Route	YES	YES	NO	
Generator Fuel at Full Load	24 HOUR	24 HOUR	24 HOUR	
Number of Machines	4	5	1 (+2)	
Redundant Machines	N+1	N+1	N+N	
Fuel Supply Emergency Contract	YES	YES	YES	
UPS Autonomy	15 MINS	15 MINS	30 MINS (per sys)	
UPS Redundancy	N+1 on N+N	N+1	N+N	

