

TECHNICAL SERVICES

SERVICES	DESCRIPTION
<ul style="list-style-type: none"> Remote support 	<ul style="list-style-type: none"> Smart Hands available to provide: <ul style="list-style-type: none"> Build and configuration of networking equipment (routers, firewalls, switches, load balancers, packeteers, backup systems) Build and configuration of servers (Linux, MS, Solaris) including installation of Apache/Tomcat/IIS web applications Build and configuration of databases (SQL, Oracle) Diagnostic services
<ul style="list-style-type: none"> Storage services 	<ul style="list-style-type: none"> Providing hardware and O/S support for a range of technology platforms, including HP, Dell and IBM for rack and blade servers and SAN storage; and Linux, Microsoft and Solaris for OS
<ul style="list-style-type: none"> Business continuity services 	<ul style="list-style-type: none"> Using MDS' proprietary AMAR™ to provide intelligent monitoring of server and storage devices in order to proactively identify conditions that might lead to service deterioration or outage Cross-site backup service, enabling servers at Corsham to be automatically backed up to Crawley and vice versa. Files may be restored on a 24x7 basis. If archiving is required tapes may be stored off-site.



MANAGED SERVICES

SERVICES	DESCRIPTION
<ul style="list-style-type: none"> Design 	<ul style="list-style-type: none"> Design and design verification of high availability applications infrastructure to address the client's Service Level requirements Sourcing and procurement for hardware and software Sourcing and management of appropriate care and support packages
<ul style="list-style-type: none"> Build 	<ul style="list-style-type: none"> Build of servers, storage systems, networking equipment and monitoring systems to the client's Service Level requirements

MANAGED SERVICES

SERVICES	DESCRIPTION
<ul style="list-style-type: none"> Configure 	<ul style="list-style-type: none"> Configuration of servers, storage systems, networking equipment and monitoring systems to meet the client's/application's specific Service Level requirements
<ul style="list-style-type: none"> Test 	<ul style="list-style-type: none"> Testing (specific and stress) of servers, storage systems, networking equipment and monitoring systems to meet the client's/application's Service Level requirements Utilisation of HP Quality Centre to manage and validate application testing
<ul style="list-style-type: none"> Operate 	<ul style="list-style-type: none"> Provide operational responsibility for performance and availability of the infrastructure and platform to agreed service levels including, if required and relevant 1st, 2nd and 3rd line support
<ul style="list-style-type: none"> Consultancy 	<ul style="list-style-type: none"> Provide consultancy service to advise on high availability applications infrastructure and appropriate networking architecture to address the client's Service Level requirements, within given budgetary constraints
<ul style="list-style-type: none"> Database 	<ul style="list-style-type: none"> Providing management of SQL and Oracle databases, Support for high availability architectures.
<ul style="list-style-type: none"> Monitoring 	<ul style="list-style-type: none"> Monitoring, alerting and reporting on infrastructure, platform and software through MDS proprietary AMAR™

Call MDS Technologies on 0870 070 9277, for total security in your data and its delivery

MDS Technologies

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Service overview




MDS - CORSHAM II

STANDARD FACILITY FEATURES


SERVICES	DESCRIPTION
<ul style="list-style-type: none"> Co-location space 	<ul style="list-style-type: none"> Provision of whole rack or part rack space within a secure, climate conditioned, fire protected data suite
<ul style="list-style-type: none"> Racks 	<ul style="list-style-type: none"> Provision of (server) rack being of dimension of either 600mm x 1200mm or 800mm x 1200mm with 42"U" capacity Up to 16kW distributed via 3 phase supplies
<ul style="list-style-type: none"> Power 	<ul style="list-style-type: none"> 114MVA of resilient diversely routed and connected power from two seperate rings (South East & South West) Each data vault is compliant with TIER 3 principles; the high voltage system is distributed via a network of high voltage distribution boards in (N+N) configuration to the dedicated packaged substations in N+N for each data hall environment. The mechanical & electrical infrastructure for a standard 2MVA module provides 1000KVA of technical load and upto 1000KVA of cooling and ancillary power. Process and energy efficient design combined with use of ground source cooling is targetted to deliver PUE 1.45 and potentially as low as 1.2 Rack power availability in increments of <ul style="list-style-type: none"> 1kW to 2kW 2kW to 3kW 3kW to 4kW Above 4kW available on request A & B Power Feeds available
<ul style="list-style-type: none"> Back-up power 	<ul style="list-style-type: none"> 2 MVA Diesel generators in 2N configuration, synchronised to automatically share load in the event of an outage to support both critical and mechanical power Each diesel engine is supplied fuel from its own 2000 litre day tank and a 24 hour support tank




STANDARD FACILITY FEATURES

SERVICES	DESCRIPTION
<ul style="list-style-type: none"> Cooling 	<ul style="list-style-type: none"> Data suite temperature maintained at 21°C +/- 3°C using hot/cold aisle principles N+1 on all cooling infrastructure Twin cooling circuits provided for resilience Fresh air make up via separate unit to incorporate heat pump
<ul style="list-style-type: none"> Humidity Control 	<ul style="list-style-type: none"> Humidity maintained at 50% +/- 5%
<ul style="list-style-type: none"> Fire Protection 	<ul style="list-style-type: none"> LPCB approved fire alarm & detection system, zoned to provide unambiguous indication of detector activation The system is monitored 24/7 by Data Centre Management and security system programmed to initiate the site fire suppression systems within any zone in which a "double knock" event occurs, providing a multi layer detection and firing strategy VESDA (Very Early Smoke Detection Apparatus) at both a high and low level installed in the return air paths of the computer room a/c units within the data halls and within the technical and electrical switch rooms Conventional smoke detectors installed in plant rooms and data halls ceiling/floor voids Mechanical plant & UPS rooms deploy a high pressure (100bar) spray mist system. Data halls and electrical plant rooms deploy an Inert Gas (IG55). The resilience of Inert Fire Suppression Gas is secured by an (N+1) bottle storage system
<ul style="list-style-type: none"> Maintenance 	<ul style="list-style-type: none"> State of the Art IEMS (Intelligent Electronic Management System) capable of real time monitoring of the entire electrical distribution network and support equipment Cooling system is controlled in zones, with all real time data for temperature and humidity and CRAC operational performance monitored by the IEBMS Digital leak detection to provide monitoring and alarm functions

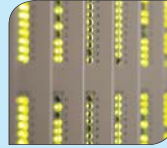
STANDARD FACILITY FEATURES

SERVICES	DESCRIPTION
<ul style="list-style-type: none"> Security 	<ul style="list-style-type: none"> The entire perimeter of the data centre facility is protected by a military grade fence. Access to the data centre site is controlled via a single point of entry through a high specification gated entrance controlled by security 24x7 CCTV with infra-red lighting and movement detection monitors. Event Capture incidents and activities within and external to building. Secure service corridor layout to prevent maintenance engineers from access of the secure technical areas
<ul style="list-style-type: none"> Patching to meet-me-rooms 	<ul style="list-style-type: none"> Internet connectivity provided by multiple Tier 1 carriers (BT, C&W) via diverse routing and via Vitesse dedicated diverse network through Bristol and Reading POPs Vodafone managed connectivity into core UK network and Vodanet (global network) providing high performance and high resilient mobile connectivity CAT 5 or CAT 6 cabling from meet-me rooms through to rack
<ul style="list-style-type: none"> DNS hosting 	<ul style="list-style-type: none"> Management of DNS records Member of RIPE with PA address space LIR Nominet TAG holder for IP addresses & URLs
<ul style="list-style-type: none"> Networking 	<ul style="list-style-type: none"> Configuration and provision of VPN access Provision monitoring and management of network devices within, or between, data centre(s) using MDS' proprietary AMAR™ system Provision of dedicated or shared switching and routing management using Cisco hardware Provision of dedicated or shared firewall and intrusion detection management using Cisco, Juniper or Checkpoint systems Local and remote load balancing services providing high availability architectures across multiple sites (BIG-IP F5 Hardware)

NETWORKING & CONNECTIVITY SERVICES

SERVICES	DESCRIPTION
<ul style="list-style-type: none"> IP connectivity 	<ul style="list-style-type: none"> Capped bandwidth packages of uncontended, dual resilient bandwidth via different carriers via diverse routing for the highest availability requirements, with variable bursting depending on needs Bandwidth packages of resilient but contended bandwidth via different carriers via diverse routing for high availability requirements, with variable bursting depending on needs Data transfer packages for intermittent high burstable usage Dark Fibre options via Vitesse
<ul style="list-style-type: none"> Mobile connectivity 	<ul style="list-style-type: none"> Access to Vodafone UK core network or Vodanet (Global network) via VPNs, leased lines as well as the unique "WASP" gateway Direct access to mobile aggregator platforms (e.g. WIN Plc)

TECHNICAL SERVICES

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<ul style="list-style-type: none"> Security 	<ul style="list-style-type: none"> 24x7 security operations centre to deliver security services including: firewall management based on (Cisco, Juniper or Checkpoint); Intrusion & DDoS protection
<ul style="list-style-type: none"> Zoning 	<ul style="list-style-type: none"> All access to shared data suites requires shadowing from MDS engineers Optional dedicated data suites available for requirements in excess of 50 racks (subject to overall power requirements) Cabinets (locked or biometric) sited in secure data suite accessible via IRIS biometrics Caging within individual data suites subject to impact on overall room cooling
<ul style="list-style-type: none"> Remote support 	<ul style="list-style-type: none"> Smart Hands available to provide: <ul style="list-style-type: none"> Physical checks (cables, lights, etc) Disk swap outs Hardware swap outs