SCC FOR BUSINESS PARTNERING

Cole Valley Data Centre

Data Centre Modernisation

Based in Birmingham, SCC-owned Cole Valley DC1 offers over 2,400 m² of Data Centre white space over five Data Halls.

Built to SEAP Level 3 accredited standards and conforming to ISO 27001 – Information Security Management processes - the facility offers highly resilient power and cooling infrastructure. Aligned to the Uptime Institute performance and availability criteria, the facility exceeds Tier III specifications.

Dual electrical distribution paths provide 2N redundancy on UPS systems, N+1 redundancy on heat rejection chillers and N+1 minimum on critical cooling systems. The site offers over 1,150 rack footprints across five Data Halls, combining private suites, shared colocation facilities and cages at both Standard and High Density configurations.

In recent years, Data Centres have become increasingly important to businesses of all sizes as a higher volume of customers choose to host their servers with a provider in a purpose built facility rather than investing large amounts of resources themselves.

SCC recognises that it is vital for you to ensure the Data Centre Provider you choose offers the right physical and technical facilities to meet requirements, which is why we have made considerable investment in building a number of state of the art facilities across the UK.

Our Capability

With three SCC-owned Data Centre facilities, and access to additional partner space across various UK locations, SCC has geographical spread and capability to deliver.

Colocation - From rack space to private suite, colocation is ideal when building and managing your own hosted setup. We can also leverage our vendor independence to source hardware for you.

Managed Hosting - We can provide a fully managed infrastructure including servers, storage, networking and firewalls via the specialised expertise of our highly qualified on-site support team who will manage and monitor your servers 24/7.

Connectivity and MPLS - Connecting your sites and your people through SCC investment in Wide Area Network technology, improving effectiveness, productivity and communication.

Backup Solutions - Dramatically simplify backup and recovery without any downtime, improving reliability whilst reducing costs.

Cole Valley

Power

Power is supplied to Cole Valley directly from the National Grid and diversely routed to the building. Each rack is fed from 2N centralised based APC Schneider UPS systems with an autonomous runtime at full load of 15 minutes. To eliminate the risk from outage or power failure, standby power generators are provided in an N+1 redundant configuration.

Cooling

Cooling within the Data Halls is delivered via hot/ cold-aisles arrangement or through cold-aisle contained pods. Data hall cooling units are provided at varying levels of redundancy (N+1, N+2) based on customer demand.

A chilled water service is deployed throughout the Data Halls with multiple chiller units presented in an N+1 redundant configuration. High cooling output, heat exchanger walls (Coolwall) are deployed within several Data Halls to provide efficient, low energy consumption cooling for IT equipment.

Automatic floor pressurisation systems (AFPS) ensures energy consumption is kept at the lowest possible rate, whilst regular airflow levels are guaranteed.

Security

The Data Centre has excellent perimeter security, with entry to the building requiring permitted access through turnstiles and secure gates. Cole Valley is monitored 24/7 by our onsite, directly employed, dedicated security team.

The facility is protected by over 120 cameras; covering exterior approaches, gates, car parks, doors and plant areas. Internally they monitor access points, service corridors, plant rooms, meet-me rooms, caged areas as well as individual rows of racks.

Images are monitored, recorded, encrypted and stored for 90 days. Access to the Data Halls is permitted only to pre- approved individuals. Proximity card access control is maintained with PIN confirmation for the most secure areas.

Connectivity

With multiple carriers providing diverse fibre routes into the Data Centre we can accommodate our client Wide Area Network requirements on a carrier neutral basis.

We also permit client specific communication links to be provisioned into the Data Centre. Resilient Internet connectivity can be provisioned on a cost per Mb/s per month basis.

Protected Environment

Data Halls are protected by VESDA (Very Early Smoke Detection Apparatus) style devices and are divided into multiple detection zones.

Two detection alerts within a zone are required to trigger the inert gas fire suppression which reduces oxygen levels sufficiently to quickly extinguish the fire.

Services

Built to SEAP Level 3 standards and conforming to ISO 27001 – information security management processes. Cole Valley has been formally assessed by CESG as suitable for the hosting of IL2, IL3 infrastructure and IL4 data.

Technical Specification

Power

- Diverse 10MVA supplies fed from the National Grid
- (2) 3MVA critical and (2) 1.6MVA non critical HV transformers (4.6MVA at 2N)
- (2) 2MVA critical HV transformers (2MVA at 2N)
- 11KV incoming underground supplies at 2N
- Dual power distribution paths directly to the rack

Standby power generation

- 9MVA standby power generation (6MVA at N+1)
- (3) 2MW diesel generators (N+1)
- (3) 1MW diesel generators (N+1)
- (2) Fuel storage tanks
- Refuelling contracts by local providers

Uninterruptable Power Supplies

- Minimum 2N Uninterruptable Power Supplies with battery back-up

- UPS backed power to critical cooling infrastructure, controls, pump sets

Cooling

- 5.1MW total site cooling (3.4MW at N+1)
- N+1 chiller plant and pump sets
- Room based cooling units to achieve 4KW average per rack (N+2 minimum)
- Specialist high density cooling systems to achieve up to 20KW average per rack
- Environmental range: 22°C (+\- 4°C), 50% RH (+\- 30%)
- Hot/ cold-aisle arrangement and pod based cold-aisle containment systems or bespoke high density systems

Fire detection and suppression

- VESDA style Aspirating Smoke Detection systems (data halls)
- Argonite and Inergen fire suppression systems (data halls and electrical switch rooms)

Connectivity

- Carrier neutral - Multiple telecommunication providers
- Diverse cable access entry points to facility
- Diverse Meet Me Rooms
- Diverse cable routing to each data hall suite

Physical Security

- 24x7 onsite SCC security desk
- External and internal surveillance coverage (120 cameras). Recorded images stored for 90 days
- Anti ram-raid vehicle entry barrier gate, anti climb fencing, protective landscaping
- Electronic proximity access control (Biometric authentication available)available)

Facilities

- Provision for 1,150 rack footprint
- Shared colocation space, dedicated caging or private data hall suites (100 to 240 rack suites)
- Onsite customer parking
- Multiple customer pre-staging rooms
- Customer break out/ rest area/ kitchen
- Secure loading bay/ delivery storage
- Onsite waste disposal and customer recycling facilities

Green Credentials

- Awarded Europe Green Grid Award for Sustainability (2011)
- All equipment is featured on the Enhanced Capital Allowance (ECA) approved government list, accredited by the Carbon Trust

Support

- Onsite SCC facilities operations team
- 24x7 SCC Managed Network Operations Centre
- 24x7 SCC Managed Service Desk
- 24x7 SCC "Smart Hands" service management changes

Accreditations

- ISO 9001 - Quality Management
- ISO 20000 - IT Service Management
- ISO 22301 – Business Continuity Management
- ISO 27001 - Information Security Management