

TECHNICAL DATA CENTRE INFRASTRUCTURE

IP House provides world leading connectivity in a London-based data centre, close to the city's financial district. We deliver a privately owned, independent Cloud and Carrier neutral facility, built to Tier III standards and EN50600 accredited; designed to deliver rapidly scalable, future-proofed and highly available colocation solutions for customers.



“ Our customers can be assured that we are focused on both innovation and continual improvement. ”

A dynamic, highly experienced team, passionate about cost effective scalability and providing unique bespoke solutions for customers.

We protect our customers critical applications, intellectual property and reputation by providing secure, continuous uptime and connectivity.

POWER AND COOLING

Our power and cooling works together to deliver the reliability our customers depend on. The data centre comprises infrastructure solutions, which are at the forefront of industry innovation and deliver scalable, modular infrastructure systems built for rapid deployment.

ELECTRICAL POWER DISTRIBUTION AND PROTECTION

IP House is designed to Tier III standards with its own dedicated on-site substation delivering 2MVA of power. The electrical infrastructure is designed with the flexibility to add capacity in two phases:

Phase 1, Suite A is fully operational and customer-ready, with space for 192 high-density racks.

Phase 2, Suite B will be energised with a dedicated utility feed and power room adding over 300 rack footprints to the facility.

UPS – SCHNEIDER ELECTRIC'S SYMMETRA PX

2 x Symmetra UPS supply crucial power in a 4 x 500kVA fault-tolerant (N+1 configuration), with scalable infrastructure as the load requires. Our system topology provides redundant power and runtime protection within each unit. Symmetra PX are toolless modules with an average Mean Time to Repair (MTTR) of less than 10 minutes. With three-phase power protection, predictive self-diagnostics, hot-swappable static bypass switch and battery modules. Unity power factor correction uses double conversion technology.

PDU's – APC INTELLIGENT SWITCHED RACK POWER DISTRIBUTION

Advanced active load monitoring with remote on/off switching control of individual outlets for power cycling, delayed power sequencing, and outlet use management. Remote power cycling is used to reboot equipment and restrict unauthorized use of individual outlets. Power sequencing avoids circuit overload and user-defined alarms warn of potential circuit failures. Access, configuration, and control is deployed using StruxureWare for Data Centers™, Data Center Expert software.



STANDBY POWER

Dual FG Wilson diesel generator sets, 2 x 980kVA, 24-hour fuel storage with fuel callout contract in place. Each generator has a Perkins 4000 Series 8 cylinder engine with a 14,000 litre separate tank.

Our electrical infrastructure is energy efficient, modular and scalable, providing additional power without interruption or downtime. A fully redundant cutting-edge power system with dual UPS and on-site power generation which delivers the highest level of availability. Comprised of individual components for easy maintenance and operations within a live environment.

Automated predictive diagnostics with remote monitoring, configuration and alerts provides our customers real time visibility of incoming power configurations (N+1, N+2) for maximising efficiency.

CUSTOMER BENEFITS

- ✓ Fault Tolerant (N+1)
- ✓ Resilient Power Distribution with Runtime Protection
- ✓ Real time Monitoring of Power Consumption
- ✓ Reliable Power for Critical Applications
- ✓ Energy Efficient at Part Load
- ✓ Remotely Manage and Secure Individual Outlets
- ✓ Rapid, Toolless Scalability

MECHANICAL COOLING SYSTEM

The data centre comprises an N+1 direct cooling configuration with cold aisle containment, operating at a temperature range of 21 degrees C \pm 3 degrees C and humidity at 50% \pm 10% with cooling load per rack of 4kW at full occupancy.

HIGH DENSITY COOLING SYSTEM – MULTI-DENCO® DX

The air conditioning system utilises responsive state-of-the-art FläktGroup Denco DX CRAC units. Each unit delivers 70kW of down flow air combined with a pressurised raised floor to mitigate any air recirculation, bypass and negative pressure airflow and ensure maximum cooling is delivered to the high-density racks.

The cooling system delivers an innovative and efficient system for managing hot spots, guaranteeing low energy consumption and low noise. N+1 dynamic management of the EC fans optimise consumption and cooling system redundancy. The units are positioned to absorb the local heat load of the servers.

It is designed to be robust, highly efficient, intelligent and responsive using StruxureWare for Data Centers™ DCIM Software to model and map airflows.

IP House monitor inlet temperatures and run predictive failure analysis for customers to ensure reliable, consistent cooling efficiency and protect against downtime.

CUSTOMER BENEFITS

- ✓ State-of-the-art Direct Cooling
- ✓ N+1 Configuration (Each AHU is independent)
- ✓ Maximum Cooling to High Density Racks
- ✓ Optimised Efficiency and Low Consumption
- ✓ Pressurised Raised Floor
- ✓ Airflow Modelling and Management
- ✓ Monitoring of inlet temperatures

FläktGroup

RACKS

Schneider Electric NetShelter SX 48U 600 x 1070mm rack enclosures are tall, compact and high density with additional capacity. These enclosures are designed for easy maintenance with a strong focus on maximising space, cooling, integrated power distribution, cable management and environmental monitoring.

NetShelter SX 48U racks were selected to optimise floor space, providing future-proofed capacity to facilitate business growth. These high-density racks yield the best ROI for our customers whilst achieving the most efficient airflow to equipment and business critical applications.

Toolless for seamless integration, empowering rapid installation of vertical rack PDU's within a Zero-U accessory channel, smart above rack cable management and split rear doors to improve access and serviceability to the rear of rack mounted equipment.

Vendor-neutral rack mounting compatibility conforming to EIA-310 19in specifications.

CUSTOMER BENEFITS

- ✓ Cost Effective Space Footprint
- ✓ High Density Racks for Future Proof Scalability
- ✓ Energy Efficient Airflow
- ✓ Toolless Rapid Deployment
- ✓ Environmental Monitoring
- ✓ Smart Cable Management

SOFTWARE AND ENVIRONMENTAL MONITORING

As a colocation provider we must adhere to the highest standards of uptime, security and resiliency. Monitoring and management is an absolute necessity for our customers, therefore software, environmental monitoring and security are essential components of our operations.

Our Data Center Management as a Service (DMaaS) solution enables the team to manage the entire data centre using a single software solution. Schneider Electric's EcoStruxure™ IT software architecture integrates all the different monitoring systems into one platform providing enhanced reporting and the ability for customers to make data driven decisions.

NETWORKING

HellermannTyton RapidNet copper and fibre cabling solution encompasses 12 port RapidNet cassettes with 48 pre-terminated copper ports in 1U of rack space. All RapidNet formats are based on a common cassette delivering consistent performance, breadth of range and maximum flexibility.

RapidNet is a pre-terminated system reducing installation times by up to 85% with copper and 95% with fibre compared to traditional field terminated systems. Category 6A support for high speed 10G networks and applications. Pre-tested, predictable and scalable with higher port densities.

CUSTOMER BENEFITS

- ✓ Up to 95% Reduced Installation Time
- ✓ Pre-Terminated
- ✓ Flexible and Reconfigurable
- ✓ High Port Densities
- ✓ Pre-tested for Minimal On-Site Testing
- ✓ UK Manufactured, Reduced Carbon Footprint

HellermannTyton



DATA CENTRE INFRASTRUCTURE MANAGEMENT (DCIM)

StruxureWare for Data Centers™, Data Center Expert Software is our end to end cloud-based infrastructure software management system.

Real time visibility and component monitoring of all data centre critical infrastructure: UPS Models, Chillers, Power Distribution Units (PDU), Rack PDUs, Computer Room Air Conditioners, Environmental Sensors, Power Metering Equipment, Surveillance, Static Transfer Switches and Standby Generators.

With Data Center Expert DCIM all power, cooling, security and environmental monitoring is centralized within a fully integrated, comprehensive management platform. Alerts can be instantly viewed and managed providing unparalleled physical threat management. Data trends are analysed to mitigate potential threats to security or operational continuity.

StruxureWare for Data Centers™, Data Center Operations manages our operations inventory, calculates PUE and activates real time device alarms. Instant fault notification and escalation enables quick resolution of unplanned critical infrastructure events reducing MTTR: Intelligent Software for higher levels of availability and efficiency.

The Data Center Operations Module is used to map the facilities physical infrastructure, plan future capacity, manage the network and map airflow to ensure cooling is optimised. The colocation and capacity modules produce heat maps and rack visualisations modelling efficiency.

By sharing information between platforms, we can generate current asset inventories, space management analysis, create concept fit-out schematics and 3D visualisations of the data hall and racks. Future capacity forecasting, consolidation and migration consulting, and scalability planning delivers comprehensive long term IT strategies for our customers.

CLOUD BASED MONITORING

EcoStruxure™ IT is our cloud-based connected device application with remote live sensor visibility for real time monitoring and alerts. Predictive analytics and monthly insight reports drives our continual improvement, innovation, energy optimisation and performance.

Proactively monitoring all aspects of the data centre infrastructure with advanced software architecture assists us with the important decisions, which ensures our customers remain connected, so they can focus on their business goals.

CUSTOMER BENEFITS

- ✓ 24/7 Remote Visibility
- ✓ Cloud Based Monitoring
- ✓ Instant Fault Notification for Fast Resolution
- ✓ Optimal Uptime: Increased Availability and Efficiency
- ✓ Advance Security and Predictive Analytics
- ✓ Intelligent Data Driven Insights
- ✓ Real Time Responsive Monitoring and Alerts
- ✓ Connected Device Software Architecture
- ✓ Open and Flexible Architecture which Expands as you Scale
- ✓ Future Trends for Future Proofing
- ✓ Vendor Neutral

PHYSICAL SECURITY

IP House operates an advanced security system comprising of 24-hour surveillance and on-site security.

Access is restricted to pre-authorised personnel only and protected with IP access control, multiple man traps and anti-passback. Our purpose built data centre benefits from the omission of windows, greatly reducing the potential risk of intrusion. Our CCTV with ANPR incorporates Grade III intruder protection, perimeter detection with anti-climb deterrent, intelligent motion detection and anti-intruder measures. Customers can be assured that we exceed the highest standards of security to protect their critical applications and data.

CUSTOMER BENEFITS

- ✓ Controlled access policy
- ✓ 24/7 security, External and Internal IP CCTV including ANPR
- ✓ Grade III Intruder and perimeter detection with anti-climb
- ✓ IP Access Control with multiple man traps and anti-passback
- ✓ ISO 27001 Accredited

ACCREDITATIONS

- ✓ ISO 9001: Quality Management
- ✓ ISO 14001: Environmental Management
- ✓ ISO 27001: Information Security Management
- ✓ ISO 50001: Energy Management
- ✓ EN 50600: The European Standard for the physical security of data centres based upon the criteria and classifications for availability, security and energy efficiency

IP HOUSE BESPOKE SERVICE BENEFITS INCLUDE

- ✓ Scale As You Grow
- ✓ Rapid deployment
- ✓ Modular power solutions
- ✓ Efficient cooling topology
- ✓ Scalability Strategy and Implementation
- ✓ Real time component monitoring
- ✓ Predictive failure analysis and advanced reporting
- ✓ Owned, designed and managed by technical experts
- ✓ Complete 360 facility oversight
- ✓ Holistic data centre services
- ✓ Bespoke solutions
- ✓ Dedicated customer service





☎ 0207 538 4788
✉ enquiries@ip-house.co.uk
🌐 www.linkedin.com/company/iphousedc
🏠 IP House Ltd,
20 Lanrick Road,
London, E14 0JF
🌐 <https://www.ip-house.co.uk>