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## How The IoT and Big Data Are Driving Holistic Data Centre Services For London's Playmakers

*IP House deploys Schneider Electric's EcoStruxure™ architecture with the help of APC™ by Schneider Electric™ Elite Partner Comtec Power at London's newest colocation data centre*

### **Executive Summary**

Located close to the financial sector of the City of London, IP House provides high performance colocation data centre services to customers for whom uptime, availability and service excellence are essential. Adopting a pay-as-you-grow approach to deployment, the company needed to build its capabilities in a modular, scalable manner to match customer demand.

IP House has utilised Schneider Electric's EcoStruxure™ for Data Centers Architecture, including its industry-leading modular UPS systems and Cloud-based Data Centre Infrastructure Management software (DCIM), to provide customers with services of the utmost reliability at competitive prices.

### **Introduction**

IP House is a specialist supplier of high-performance colocation data centre services. Located at the edge of London's financial district and situated next to the Docklands, it is an independent and privately owned company, founded in 2016, whose main facility was previously owned by a telecommunications provider.

Since its foundation, IP House has refurbished the facility as a Cloud and carrier-neutral data centre with superfast Internet speeds ranging from 10Gb/sec to 100Gb/sec, making it the perfect high-performance solution for customers dependent on connectivity to business-critical applications.

### **Challenge**

As a colocation provider, whose target customers are in the finance, gaming and managed-services industries, IP House has to adhere to the highest standards of uptime, security and resiliency. It has designed and built the communications, power and cooling infrastructure at its London facility to provide a competitive and customer-focused colocation service.

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“Uptime, security and service availability are our main priorities,” explained Vinny Vaghani, Operations & Commercial Manager, IP House. “With today’s businesses dependent on instant connectivity to critical applications hosted in the facility and a demand for technology that’s always available, our clients cannot tolerate any downtime or disruption.”

To offer high-end services while remaining price-competitive, the company follows a “pay as you grow” deployment strategy, scaling up to add infrastructure to satisfy customer demand. The 15,000 sq ft facility has two technical Data Suites, the first of which is now operational, with plans for the second suite to be brought online in the future.

### **Solution approach**

Understanding IP Houses need for a scalable, resilient and secure data centre solution, APC’s Elite Partner Comtec Power worked with the company to deliver a retrofit and upgrade project at their London facility.

Working with Comtec enabled IP House to design and build the data centre to meet the requirements for Tier III classification. “Their insight and experience played a critical part in the company’s decision making,” said Vinny Vaghani, “ensuring that our future clients would continue to benefit from the most innovative technology solutions available in the market.”

“Comtec's expertise in design and build were unparalleled and invaluable.” he continued. “Their familiarity with data centre technology and proactive approach to customer support during the initial stages were one of the key reasons they were selected to work with us.”

“As the newest colocation market entrant we wanted to acquire and leverage both the experience and expertise of the partners supplying our critical infrastructure. We’ve always had a great relationship and single point of contact via Ian Gregg, Data Centre Specialist at Comtec Power.” Vinny continued. “This meant that at every stage of the project we were able to communicate our requirements with someone who understood our objectives from the customers perspective. That level of service was outstanding and is something they continue to provide us to this day.”

The data centre contains industry-leading infrastructure solutions including Schneider Electric’s Symmetra UPS, deployed in an N+1 configuration with 4x 500kVA to deliver rapidly scalable and resilient power options. In addition, IP House selected Schneider Electric’s EcoStruxure IT, DMaaS platform for 24/7 advanced monitoring, management and data-driven insights.

“From the design stages through to the deployment of the first pod, our focus has always been built around three core principles.” said Vinny Vaghani. “The first was to partner with

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industry-leading vendors, which ensures we deploy the most reliable and innovative technology solutions. The second was to gain accreditations that would reflect our commitments to uptime, security and resiliency. The third was to develop a reputation for customer service excellence.”

The company has deployed industry-leading hardware and software products from Schneider Electric’s EcoStruxure™ for Data Centers architecture, which is comprised of three levels; connected products, edge control software, and cloud-based apps/analytics/services.

IP House’s infrastructure deployment strategy is based around modular growth, utilising components of Schneider Electric’s EcoStruxure™ for Data Centers Architecture to scale up and add capacity as customer requirements demand it.

Suite A is comprised of 192 racks, all of which are Schneider Electric’s 48U NetShelter SX enclosures. These are larger than the standard industry size and allow the company to offer higher power densities and more scalability or space for IT equipment to customers. High-density racks maximise the use of available space in the data centre and also facilitate the use of containment solutions for efficient cooling operations, both of which result in energy efficiency and ultimately, reduced operating costs.

“Our market research revealed that demand among our target customers was for higher rack densities,” said Vinny Vaghani, “IP House can provide peak power densities of 6kW/rack without making any modifications to our core infrastructure. We can maintain an average power density of 4kW per rack and by making changes to the local circuit breakers we can offer even higher power densities of up to 14kW/rack.”

When planning to upgrade the existing data centre, one of IP House’s main priorities was to prepare the facility for scalable, modular growth. “We needed a resilient power distribution system that would give us the flexibility to add capacity to Suite A and Suite B in two phases,” Vaghani continued. “As part of the retrofit, we deployed two Schneider Electric Symmetra PX UPS systems, which provide us with the perfect mix of modularity and scalability, while protecting our customers from downtime.”

Symmetra PX allows backup power to be added in smaller increments of 25kW, up to the maximum 2MW capacity that is envisaged for Data Suite A. Once operational Suite B will have its own independent plant room with a separate utility feed and an additional 320 racks, bringing the total to 512.

The power distribution system in Data Suite A also comprises Connected Products including transformers, rack PDU’s (power distribution units) and switchgear. The PDUs were chosen in part because they provide intelligent monitoring, outlet switching, tool-free mounting and has the ability to integrate with NetBotz sensors.

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“The original facility had only a single power distribution system,” continued Vinny Vaghani. “As part of the retrofit, we deployed a truly diverse power feed via the addition of a secondary switchgear that mirrors the first. The new switchgear was supplied by Schneider Electric and installed with the expert partnership and guidance of its Elite Partner Comtec Power.”

### **Edge Control ensures advanced management**

Another key aspect of the facility is Schneider Electric’s StruxureWare for Data Centers™, Data Centre Infrastructure Management (DCIM) software, which enables the infrastructure equipment to be monitored and managed from a “single pane of glass”, while providing seamless integration with the company’s building-management software.

IP House makes use of several Schneider Electric software modules and include Data Center Expert, which monitors alarm notifications and manages the physical infrastructure, reporting on availability, temperature, humidity and airflow to provide instant notification of any faults.

In addition, the company uses the StruxureWare for Data Centers, Data Center Operations Colocation Module to map the facilities physical infrastructure, plan future capacity, manage the network and map airflows to ensure sufficient cooling. Other benefits include the ability to model effects of changes in cooling equipment to the data centre environment and anticipate its potential impact on customers.

The final component of IP Houses software solution is Schneider Electric’s [EcoStruxure IT](#); the Industry’s first vendor-neutral Datacentre Management as a Service (DMaaS) architecture, purpose-built for the hybrid IT and data centre environments. It provides global visibility from anywhere, at any time on any device and delivers data-driven insights into critical IT assets, which helps customers mitigate risk and reduce downtime.

### **Results**

Thanks to its deployment of industry-leading power and UPS (uninterruptible power supply) systems, high-density racks and DCIM (data centre infrastructure management) software from Schneider Electric, IP House’s new data centre is a highly resilient facility that meets the requirements of a Tier III data centre, as defined by the Uptime Institute. It is therefore ideally equipped to meet the high-availability service demands of the company’s key customers.

“When choosing the software platform we went through a thorough selection process”, said Vinny Vaghani. “We particularly liked the vendor neutrality aspect that Schneider Electric’s EcoStruxure IT system offers. We can integrate it with any equipment that communicates over standard TCP/IP protocols and manage the entire data centre using the same solution. Previously, the monitoring systems were completely separated, integrating them all into one platform gives us enhanced reporting and the ability to make data-driven decisions.”

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In addition, the EcoStruxure IT Mobile Insights Application allows updates to be sent to mobile devices at remote locations, allowing the facility to be monitored 24/7 by both staff and field by service engineers. Comtec Power remains linked to the IP House facility via the application and has the ability to monitor the same alerts in real-time, providing expert support in the face of downtime or an unplanned event.

IP House maintains that the reputation of Schneider Electric's EcoStruxure architecture, coupled with the control and management features of the EcoStruxure IT platform provides a vital advantage when addressing the high-availability market that is its principal target.

"Our customers are always interested to know how we're using Big Data analytics and advanced software to control and monitor the environment", said Vinny Vaghani. "They know that our infrastructure is not only of the highest quality, but is proactively monitored and response is immediate in the event of an unplanned alert. None of which would be possible without utilising Schneider Electric's EcoStruxure for Data Centers architecture. It's been an important factor in our decision making and one that we believe will benefit both our customers and business, long-term."