Top Data Center Provider Achieves 20% Efficiency Savings in New Facility

TelecityGroup is Europe’s industry leading provider of premium network-independent data centers offering a variety of flexible, scalable data center and managed services. By specialising in the design, build and management of highly connected and secure environments, TelecityGroup offers customers a comprehensive environment for housing their technical, web and internet infrastructure. The company operates 23 network-independent data centers strategically located across seven European countries which includes Powergate, TelecityGroup’s new state-of-the-art high-density data center in London.

Challenge:
As a company that is committed to minimising environmental impact, TelecityGroup wanted the new Powergate data center to use the most energy efficient design principles. Although their other data center sites employed efficient practices using enclosed hot aisle solutions, they wanted the Powergate site to facilitate the use of high and low-density equipment in a single environment. In addition, TelecityGroup required flexible high-density solutions which could accommodate up to 20 kW, and were available at a lower cost and reduced project time-frame than their existing sites solutions. “The key benefit that we were looking for was a ‘fast to deploy’, flexible solution that allowed us to accommodate equipment from almost any manufacturer, available at a price point close to standard rack technology,” stated Adriaan Oosthoek, Managing Director UK and Ireland for TelecityGroup.

Solution:
TelecityGroup decided to populate the new Powergate data center with cabinet and thermal management solutions from Chatsworth Products (CPI). These solutions matched TelecityGroup’s key business drivers by providing

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**Powergate**, TelecityGroup’s eighth London data center is at the forefront of data center innovation offering colocation facilities with up to 20kW power per cabinet.
high-quality, high-density products that offered the flexibility and short project time-frame they desired.

CPI’s F-Series TeraFrame® Cabinet System was selected for the 5,000 square metre data center. This cabinet line allowed TelecityGroup to pick from virtually infinite sizes to meet their exact data center and equipment needs. The configured solution includes 47U cabinets in both 600, 700 and 800 mm widths and 1050 mm and 1200 mm depths.

To manage high-density equipment while meeting the company’s energy efficiency goals, unique airflow management techniques were implemented using CPI Passive Cooling® Solutions. These solutions are designed to reduce operational costs by completely isolating hot exhaust air from cool supply air, maximising cooling unit efficiencies. The passive cooling components installed include Air Dam Kits to block airflow around the top, bottom and sides of equipment, and telescoping Vertical Exhaust Ducts that move equipment exhaust out the top of the cabinet and up into the plenum.

“We were able to deploy CPI’s cabinet and thermal solutions without any modification to the data center infrastructure, making this a fast, flexible and cost effective decision,” declared Oosthoek.

The Powergate data center officially opened in 2008, and shortly after the first high-density customer went live. At this time 166 F-Series TeraFrames with CPI Passive Cooling Solutions have been purchased for the Powergate facility, with plans to add additional cabinet solutions as the data center becomes fully occupied. “TelecityGroup’s experience with these products and CPI as a company has been very positive. A great deal of our customers use CPI’s solutions and have all been extremely satisfied with the products and the benefits they provide,” said Oosthoek.

By implementing CPI’s solutions, TelecityGroup has been able to operate the Powergate data center in an extremely efficient manner. “With CPI’s passively cooled cabinets, we have reduced the energy required to cool the environment. This has provided a positive environmental benefit and a 20% savings on power and cooling costs, which we have passed on to our customers using the solution," explained Oosthoek.