ColdLogik

CASE STUDY

PayPoint, Welwyn Garden City

Retrofit to working Data Center

2009

USystems

A brand of legrand

PayPoint

The Client

Convenience is everything! Being able to pop into your local PayPoint store to pay your regular household bills, load up your gas or electricity meter, top up your mobile phone or make many other payments in cash.

For PayPoint convenience is everything!

PayPoint is an international leader in payment technologies, its solutions transforming payments for everyone from consumer and financial services companies to retailers, utilities, media, e-commerce, gaming, and government clients.

PayPoint delivers payments and services by taking the complexity of multi-channel payments and translating it into convenient, simple, value-added solutions. It handles over £14 billion from 775 million transactions annually for more than 6,000 clients and merchants.

With the backing of 24/7 operations centres with dual site processing, PayPoint is widely recognised for its leadership in payment systems, smart technology, and service.

PayPoint currently have 26,700 terminals in newsagents, convenience stores, supermarkets, garages, and off-licences across the UK.

Chiller Delivery

The Brief

In 2009 PayPoint needed to increase the cooling density of their data centre by 50% without having to expand the real estate footprint and required a cost-effective cooling solution to enable this.

The site had an existing 40kW + 40kW CRAC DX system for which they required a Tier 3 (N+1) redundancy working system to attach to their existing infrastructure.

The project had to be installed and commissioned without any downtime to their server room operations as this is a critical Government hosting site.

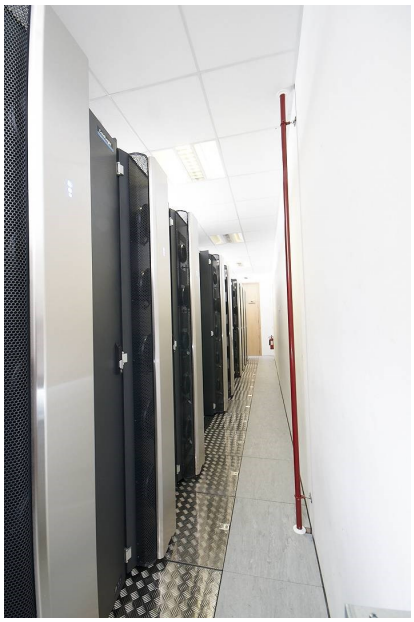
The Cooling Solution

The design comprised of 22 racks and a mixture of 15 C4 and C8 ColdLogik Rear Door Coolers (RDC's). Some RDC's were retrofitted to existing cabinets via interface frames onto, the rest onto USpace ColdLogik compliant cabinets all of which were installed into the working data centre without any shutdown of operations. The ColdLogik solution increased the kW capacity from 40kW to 100kW - as the building was on the edge of utility power feed maximum it also reduced this by 16kW (60-80amps).

The combined solution enabled a room density of 2-7kW per rack with duty transfers between racks during a 24-hour period. Prefabricated pipe work was utilised to enable a quick installation and the ColdLogik solution replaced the overloaded CRAC system which was retained as a backup.

Complementing the CL20 Rear Door Coolers were 2 x50kW chillers and a 100kW dry air cooler.

Because the client required the pipework to run through their offices to the data centre - to provide additional peace of mind throughout the data centre, a 100kW patented Leak Prevention System was included bringing together the cooling and data centre pipework.



Intelligent Design

Utilising a version of the Multi application tile (MAP) to replace raised floor tiles for ease of access to under floor valves and cables was a bespoke adaptation of the MAP tile especially for the PayPoint Densely packaged cabinet with retro fit adaptor frame and ColdLogik rear cooler installed without any downtime for the data centre.

Project Summary

Energy efficiency and cost savings

- Low CAPEX and fast ROI energy reduction from CRACs is 80%
- Year on year energy savings
- Low carbon
- Enhanced footprint
- High water supply temperature

Security and control

- LPS added leak prevention safety
- RMS full access and remote monitoring and control
- Tier 3 (N+1) redundancy

"The reduction in the building power draw has enabled major breathing space for IT loads"

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