

When Experian decided to look at reducing energy bills in their data centres they contacted Nubis Solutions. As the density of equipment in the data centre increases so correspondingly does the heat output, which in turn places further pressure on the cooling systems required to keep the data centre cool.

Of the total power required to run a data centre, up to 40% of it is necessary to keep the environment cool. By deploying Cold Aisle Containment cooling power can be reduced by 25% when Nubis Cold Aisle Containment is deployed.

Experian is a leading global information services company that provides data and analytical tools to clients in 90 countries.

Nubis was asked to design a Cold Aisle Containment solution for the data centre at Fairham House, Nottingham.

The low density area in Hall B with 75 server racks arranged in 3 aisles was chosen for the trial to prove the efficacy of retro-fitting containment to the cold aisles in this area. The aims were to prevent hot and cold air mixing, and reduce the volume of cold air needlessly re-circulating back to the CRAC units without being passed through the racks.

The objectives of the project were simple:

- Increase power usage effectiveness in the company's data centres and reduce energy costs
- Support the company's efforts in achieving their Corporate & Social Responsibilities objectives

One key aspect of Nubis Solutions installations is that at no point is it necessary to open a cabinet door since our system attaches to the cabinet's external frame.



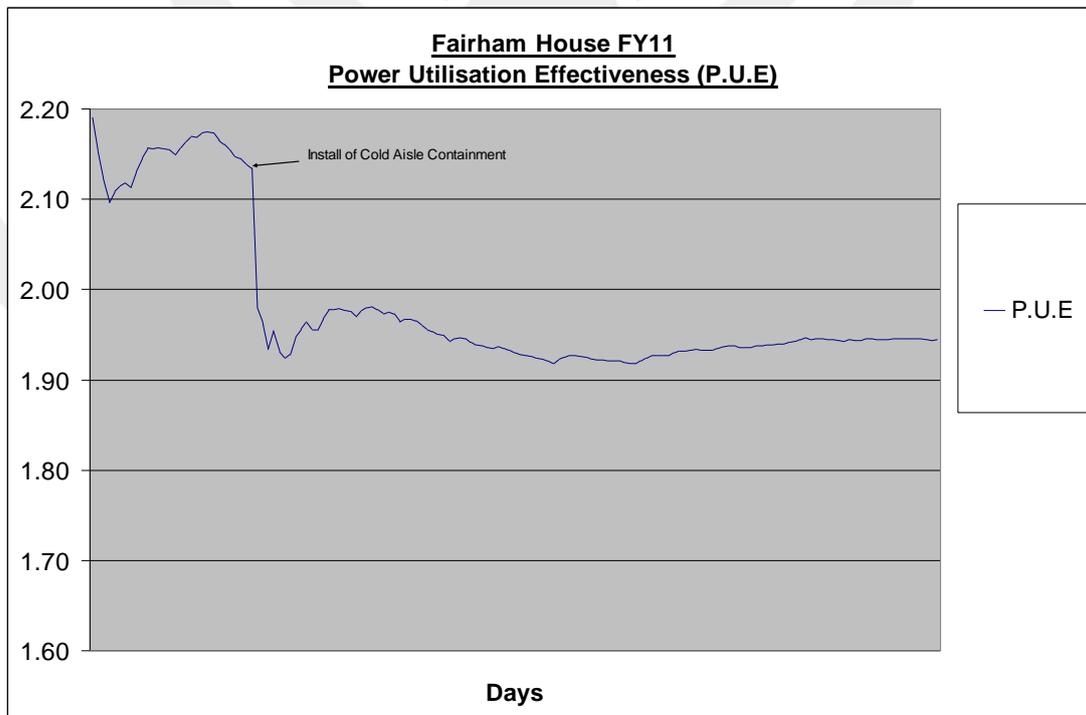
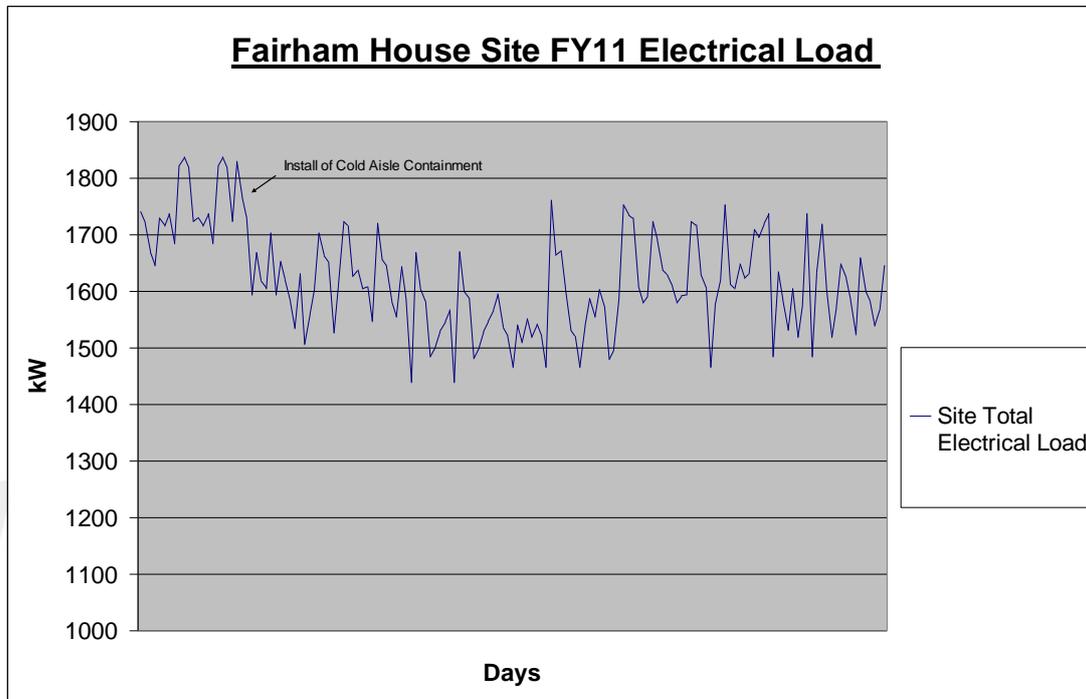
Hall B, Fairham House

Following completion of the installation the room was left to stabilise its air distribution. Two days later the air temperature and floor static air pressure measurements were taken. The room air temperature had remained constant, floor plenum static pressures had increased by 80% and the cooling demand on the CRAC unit closest to the low-density area had reduced by 15%.

Four CRAC units were then progressively turned off to compensate for the increase in floor static pressures and the hall left to stabilise to ensure there was no undue rise in air temperature.

The results were impressive; estimated total savings are £34,952 per annum gained from turning off 4x CRAC units, the reduction in PUE (Power Usage Effectiveness) from 2.0 to 1.93, leading to a reduction in Experian's carbon footprint, and illustrating the company's commitment to its Corporate & Social Responsibilities.

The graphs below show the impact on electrical load and PUE.



## Benefits

- Maximise the performance, - and life expectancy of IT equipment
- Provide a simple and non-intrusive solution for reducing cooling power costs
- Avoid the cost of acquiring new facility space if cooling capacity is constraining IT growth
- Estimated total annual savings £34,952
  - Payback in 10 months
  - C&SR - PUE reduced from 2.0 to 1.93.

After reviewing the performance Experian are currently looking at deploying Nubis Aisle Containment throughout their other data centres.

## About Nubis Solutions

Nubis specialises in the design, build and installation of bespoke new and retrofit solutions crafted to optimise performance and increase the operating efficiency of data centre environments.

Nubis advises, surveys, and delivers solutions that get the most from your servers and data centre suites. Our knowledge and techniques will save you money and time, improve your green status by reducing your carbon footprint and make your data centre environments more stable and controllable.

*"When we looked at our options for retrofitting Cold Aisle Containment into the chosen trial area, our greatest concerns were its ease of installation and compatibility with our fire extinguishing system. Having looked at the options available, the Nubis system was the natural choice.*

*From initial discussions through design & installation and to final hand over, the process was seamless.*

*Based on the present level of savings being realised by the trial area, we have decided to undertake the full fit-out of our server areas using the Nubis system."*

**Paul Dennis, Experian Technical Facilities Manager UK&I**

### **About Experian**

Experian is the leading global information services company, providing data and analytical tools to clients in more than 90 countries. The company helps businesses to manage credit risk, prevent fraud, target marketing offers and automate decision-making. Experian also helps individuals to check their credit report and credit score and protect against identity theft.

Experian plc is listed on the London Stock Exchange (EXPN) and is a constituent of the FTSE 100 index. Total revenue for the year ended March 31, 2010, was \$3.9 billion.

Experian employs approximately 15,000 people in 40 countries and has its corporate headquarters in Dublin, Ireland, with operational headquarters in Nottingham, UK; Costa Mesa, California; and São Paulo, Brazil.

For more information, visit <http://www.experianplc.com>.

For further information please contact Nubis Solutions Limited at: [www.nubissolutions.co.uk](http://www.nubissolutions.co.uk) or Tel: +44 (0) 1223 207700



Nubis Solutions is an Endorser of the European Union Code of Conduct for Data Centre Energy Efficiency.