ENVIRONMENTAL PROJECT OF THE YEAR WITH AMDOCS

A Vertiv[™] Case Study

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ABOUT THE COMPANY

Amdocs is a leading software and services provider to the world's most successful communications and media companies.

Amdocs and its 25,000 employees serve customers in over 85 countries. Listed on the NASDAQ Global Select Market, Amdocs had revenue of \$3.7 billion in fiscal 2016.

Industry:

IT & Services

Business Needs:

Maximising efficiency of the data center

Solution:

Liebert PDX with EconoPhase

Vertiv and Amdocs Win "Environmental Project of the Year" at the Prestigious 2017 ACR News Awards in London

Vertiv and **Amdocs** have been awarded the 2017 Environmental Project of the Year at ACR News Awards. Winners were selected by an independent panel of industry experts after rigorous assessment of a vast number of submissions. The panel recognised Vertiv's strength in project management and the application of the energy efficient **Liebert® PDX with EconoPhase™** as the ideal cooling solution for the Amdocs data centre project.

"As a data centre designer, the Liebert PDX with EconoPhase system allows me more flexibility for implementing freecooling in our computer rooms. Vertiv's deep technical knowledge allowed us to make an informed risk-benefit analysis and identify the most efficient thermal management solution for our Chiswick Park data centre. The Liebert PDX with EconoPhase offered enhanced freecooling capability and low TCO which were our key drivers, and the installation has exceeded our performance expectations".

Ronnen Perry, global technical manager, Amdocs

Business Needs

- A more economical mode of operation when external temperature is lower than the internal temperature of the facility
- Up to 50% energy saving
- Eco friendly solution
- Maximising efficiency of the data center

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The Most Advanced Refrigerant Economiser

The Liebert PDX with EconoPhase is configured like a conventional direct expansion (DX) air-cooled system, but with the incorporation of a refrigerant pumping module on the liquid line. This facilitates the transition to a more economical mode of operation when the external temperature is lower than the internal temperature of the facility. The Liebert PDX with EconoPhase provides up to 50 percent energy savings compared with the most efficient air-cooled DX models. It is capable of achieving partial Power Usage Effectiveness (pPUE) levels down to 1.05, equating to an annual energy cost reduction of up to £170,000 when compared to a typical 1 MW data centre with a pPUE at 1.3. This equates to a CO2 saving of 1,150 tonnes.

The intelligent Vertiv ICOM[™] control platform ensures the system is dynamic and responds to fluctuating loads and room conditions, and that resilience is in no way compromised. The system can be further optimised by deploying aisle containment in the IT environment, which allows the system to achieve 100 percent freecooling at external ambient temperatures of up to 20° C.

Tailored to the Customer's Requirements

The remit for Amdocs critical cooling design was simple – it had to be a standalone system independent from any landlord or incumbent tenant services, provide N+N resilience, be quick to manufacture and install and fit within the constraints of the site. Additionally, Amdocs is committed to reducing its carbon footprint and is an active participant in the Carbon Disclosure Project. Therefore, a key consideration for the project was maximising efficiency in its data centres, so freecooling was a mandatory requirement for the facility. Vertiv carried out a high-level feasibility study that compared the total cost of ownership for each applicable technology available from the portfolio. The study used energy modelling with design conditions specific to the customer's requirements, comparing the capital expenditure cost of equipment, installation and forecasted operational costs for a London location to help map the predicted life-cycle costs of the respective solutions.

It was Liebert PDX with EconoPhase that benchmarked itself as the perfect solution for the Amdocs data centre. It offers supreme levels of efficiency, an installation no more complex than a conventional DX system, and a great payback. The **Liebert® MC - Microchannel Condenser** allows a compact heat rejection plant, requiring only a minimal amount of roof space. To help monitor and manage the heat load, Vertiv provided the patented SmartAisle™ control system, which further optimises efficiency by ensuring that the cooling system adapts to the site requirements without the need for recommissioning or rebalancing.

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