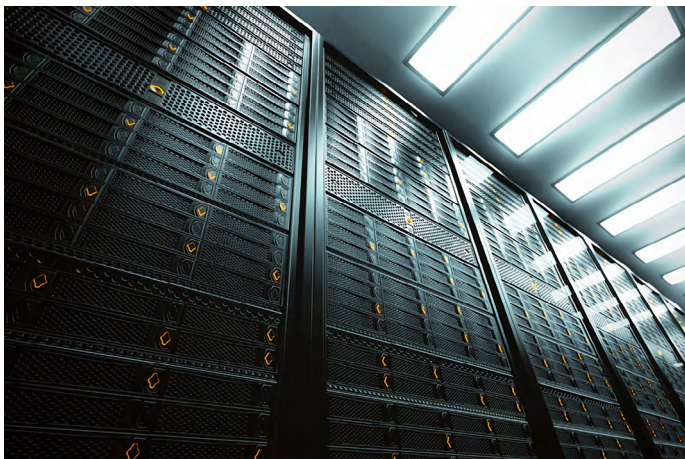


Johnson Controls

ensures business continuity and energy savings of primary data centre Ericsson (Westmeath Data Centre, Ireland)



Ericsson, a Swedish company founded in 1876, is a world leading company in the rapidly changing environment of communications technology – providing equipment, software and services to mobile and fixed network operators. 40 percent of global mobile traffic runs through networks supplied by Ericsson, and the company manages networks that serve more than 1 billion subscribers globally every day. With more than 35,000 granted patents, they have one of the industry’s strongest patent portfolios.



Headquartered in Stockholm, Sweden, Ericsson employs more than 110,000 people and has customers in more than 180 countries.

Retrofit delivers high reliability and Coefficient of Performance of 30

Johnson Controls was involved in a data centre retrofit for Ericsson, a leader in communications technology. The company’s data centre located in Athlone, Ireland, has a strategic importance, being the central point that feeds all the other sites. After leading a detailed energy survey, Johnson Controls replaced the refrigeration solution, which resulted in higher reliability and significant energy savings.

“The new data centre cooling application delivered immediate results in line with the Johnson Controls design and build proposal. The installation was complex due to the live operation of the data centre but the careful pre-planning and speed at which Johnson Controls completed the installation meant that there was no impact to the data centre operations. The retrofit has delivered everything which we originally required in terms of improved resilience, better control, reduced maintenance costs and of course ongoing energy savings. We are extremely satisfied with the new cooling solution and the excellent work performed by Johnson Controls.”

Steve Clinton, Ericsson Real Estate & Facilities Manager Ireland

Retrofit reflects demands

Ericsson required a new chiller solution to replace the three outdated Trane chillers that supplied the data centre’s cooling. For the new retrofit, the company needed a solution with tangible results, high reliability, as well as a centralized support and no downtime during the project.

Taking energy savings one step further

As technology is upgraded continuously, the load profile of a data centre evolves. To get clear insight into the requirements of the Athlone site, Johnson Controls performed a detailed energy audit, taking into account future demands. Thanks to the audit, Johnson Controls calculated the baseline of the cooling requirements and delivered a reliable prediction on true energy savings. It allowed them to propose a total turnkey solution centered around the YVAA high efficiency chiller and the plus dry-cooler. This solution supported by the elaborated results of the survey, convinced Ericsson to assign the project to Johnson Controls.

Built for the future

In November 2013, Johnson Controls started the implementation of two YVAA chillers and one dry cooler, 600kW each, with one chiller serving as back-up. Thanks to this back-up chiller, Ericsson can do loose maintenance on either machine without any disruption. The Building Management System (BMS) was also upgraded to ensure full-automated control of the cooling system. Another advantage is that the BMS allows the measurement of energy savings and performance in real-time.

To centralize the support and coordination of the project, Johnson Controls assigned a dedicated project manager to the project. Thus facilitating the communication and on-site support with Ericsson and allowing short response time in case of emergency, now and in the future.

Achievements

Thanks to Johnson Controls, the customer can now enjoy significant savings. The dry-cooler can take the anytime full load ambient temperature to 9°C and below and provides partial cooling when temperature is above 9°C ambient conditions.

During the winter months, Ericsson is achieving a coefficient of performance (COP) of 30, delivering 30kW of cooling for every 1kW of electricity consumed. Even before the project was finalized in December 2013, the customer had already noticed significant energy savings.

Because of the nature of the project, a swift but adequate implementation of the new installation was mandatory. Johnson Controls removed the old chiller and installed the new YVAA chillers within five days, ensuring the reliability and business continuity of the data centre.

The results of the project and the smooth deployment have convinced Ericsson that the retrofit division is the way forward when it comes to changing out their chillers. The relationship with Ericsson has grown to the extent that Johnson Controls is now responsible for the Planned Service Agreement (PSA) for the full site, including 11 chillers and 1 dry-cooler.

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