



Eaton UPS in CE Colo data center environment

Location:

CE Colo Czech Data Center, Nad Elektrárnou 1428/47, Praha 10, Czech Republic.

Challenge:

In 2015, CE Colo started to address the technological renovation of the existing UPS system. Two independent manufacturers capable of delivering technologies that are required for the challenging data center environment were selected. The reconstruction of the existing functional system required the implementation of a new solution to prevent the renovation from having any impact on the 24/7 operation and the customers.

Solution:

Eight UPS 93PM / 200 kVA from the Eaton portfolio with modified air flow and three EBC-LI-128S1P Li-Ion batteries were selected for the reconstruction. Eaton met the requirement of the Li-Ion batteries, which are smaller and also lighter compared to the lead-acid batteries, which was reflected not only in the operation effectiveness, but also in the space savings.

Results:

The solution from Eaton provided an ideal combination of technologies that meet the client's needs. The optimal capacity and technological configuration brought about the required results, i.e. increased capacity of back-up systems, as well as lower operating costs. The seamless implementation without any hindrance to the data center operation was one of the conditions for the development of potential future cooperation.

"We really appreciate the service support from Eaton, which is provided at a high professional level, even in comparison with other manufacturers on the market. The annual savings of tens of thousands of euros can be used by the data center to invest in further development, and thus the replacement of UPS's within the operating life also provided economical return"

*Lubomír Pinkava, Operations Manager,
CE Colo Czech*

Background

CE Colo Czech s.r.o., which operates a data center in Prague, was established in 2011, when SITEL Data Center (SDC) was acquired and renamed. The history of the data center's main operations building dates back to 1999, and the grand opening of the data center as the first carrier-neutral data center in the Czech Republic took place in 2001.

Today, CE Colo provides co-location type services, i.e. it operates the non-IT infrastructure for commercial customers and is recognized as one of the market leaders. CE Colo provides space for all locally operating global operators, national Internet peering points, content providers, as well as corporate clients.

The CE Colo data center provides a highly available and safe environment for IT technologies, it holds internationally recognized ISO certifications and recommends high-quality and professional services to its customers.

Challenge

In 2015, CE Colo started to address the technological renovation of part of the existing UPS systems for power supply lines A and B. For safety reasons, two independent manufacturers capable of delivering technologies that satisfy the challenging data center environment were selected.

This strategy is more demanding in terms of the operations, but it provides higher assurance of the power supply system stability. The reconstruction of the existing functional systems required the implementation of a new solution to prevent the renovation from having a significant impact on the 24/7 operation and the customers.

Main parameter for the selection of supplies was the technological maturity of the offered technology, service support and operating effectiveness. Eaton was selected as one of the two strategic partners based on a detailed assessment of the technologies and their applications in the data center operating environment.



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Solution

The replacement of the uninterrupted power supply of the B1 and B2 systems was carried out in order to prevent the reconstruction from having any impact on the customers. Eaton was addressed with a request for the provision of technological parameters and subsequent detailed consultations due to the clear requirements for technological maturity, which can be met only by a limited number of manufacturers in the market.

The manufacturer was directly invited to the project for consultations beginning with the pre-design preparations. Eaton oversaw the implementation, which took place in three stages.

The first stage covered the simple replacement of the existing systems, and the second and the third stages covered the extension of the installed power and the migration of part of both sources to the Li-Ion batteries.

For the reconstruction of the B power supply lines, a total of eight UPS 93PM / 200 kVA from the Eaton portfolio with modified air flow were selected, and three sets of EBC-LI-128S1P Li-Ion batteries were subsequently added.

Eaton has met the requirement for the implementation of Li-Ion batteries, which are smaller and also lighter compared to the lead-acid batteries, which was reflected not only in the operation effectiveness, but also in the space savings.

The installations and testing were carried out in compliance with the capabilities and needs of CE Colo, and no unwanted faults endangering the data center operation and availability occurred during the entire process.

Results

The solution from Eaton provided an ideal combination of technologies that meet the client's needs. The configuration brought the required results, i.e. an increased availability and capacity of the back-up systems, as well as lower operating costs in the amount of tens of thousands of euros.

The new UPS's have significantly lower losses as compared to the original solution, which means lower indirect costs for the operator.

The possibility to adjust the air flow direction so that it complies with the needs of the data center and the implementation of the Li-Ion batteries provided not only the required operating effectiveness, but also the important space efficiency, allowing the use of this space for other technologies and important infrastructure elements.

The seamless implementation without any hindrance to the data center operation was one of the conditions for the development of potential further cooperation in the next and future stages.



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