



Eaton's Data Centre Solutions Provide Cost Savings for Eastbourne College

Location:

Eastbourne, East Sussex,
United Kingdom

Segment:

Data Centre

Problem:

Combine three small data centres into one carefully controlled and more efficient environment on a tight budget, whilst also allowing for easy and inexpensive expansion

Solution:

Two Eaton 9355 15 kVA three-phase UPSs, four Delta³ Rack Systems (DRS) with accommodation for 96 servers, rack power distribution units and a CRAC air conditioning system

Results:

Eaton's comprehensive data centre offering has provided Eastbourne College with an integrated and highly efficient infrastructure for its new data centre at half the cost of the solutions offered by turnkey suppliers. The combined savings means the new equipment is expected to pay for itself in less than five years

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Background

Eastbourne College is a leading boarding and day school for pupils aged 13 to 18 in East Sussex. Recognising the importance of modern computer systems in contributing to the learning and development of its pupils, Eastbourne College operates an intranet system that serves around 1,200 users, over two sites. Until recently, this service was supported by servers in three small data centres, all of which were far from ideal in terms of operating environment.

Challenges

As part of a major redevelopment programme at the school, the decision was taken to build a new data centre that would provide a carefully controlled environment as well as allow all of the school's servers to share the same location. In addition, the new data centre would follow a flexible design to allow for easy and inexpensive future expansion.

As an initial step toward implementing this project, the school also requested quotations for the data centre infrastructure from two organisations that offered turnkey solutions. However, in both cases, the prices put forward were too high and, as a result, the school had to make the decision to draw on its own resources to carry out the work.

Solution

The College initially approached Eaton to supply equipment racks with a value of around £4,000 to house its servers. However, during a meeting with the company's data centre experts, the total scope of the project came to light and it became apparent that Eaton's extensive portfolio of solutions could provide all of the major infrastructure items needed for the project, which included the deployment of a raised floor in the new data centre.

"As soon as we started talking to the people at Eaton we were impressed by their enthusiasm and their knowledge. It was immediately clear that they had a real understanding of our requirements, and that the Eaton range included equipment ideally suited to our application"



Ray Allen, Information Systems Manager at Eastbourne College.



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In addition, as Eaton was able to manage the whole project, the school effectively only needed to work with a single supplier which also meant that all the items of equipment would be compatible and work efficiently with each other. If any problems should occur during or after the implementation of the project, they would be resolved quickly. Finally, the price quoted by Eaton for the project was around half that of the quotes the school had received from the turnkey suppliers.

Key elements of the solution provided by Eaton included two 15 kVA 9355 UPSs, which combine class-leading efficiency with exceptional reliability. Eaton 9355 UPSs offer industry-leading power density with 13 per cent more power capacity than comparable UPSs. They also have a footprint that is up to 75 per cent smaller and so can be built in considerably smaller spaces yet grow as the user's needs grow. At Eastbourne College, the units are configured to give an N+1 solution to provide a very high level of power protection at an affordable price. Also they are designed for a runtime

of 15 minutes in the event of a power failure, which is long enough to allow the servers to be shut down in a controlled way, eliminating the risk of data loss or corruption.

The Delta³™ Rack System (DRS) used at the college has swipe-card controlled locks for extra security and incorporates Eaton rack power distribution units (PDUS) with convenient and secure socket outlets for connecting power to the servers. The DRS is designed to meet the demands of ever increasing equipment density while offering easy cabling access and installation. It is also designed to grow and change as needs evolve

Supplied by Eaton-Williams Group LTD, the CRAC air conditioning system in Eastbourne College's new server room features traditional under-floor airflow and overhead return flow to deliver 15 kW of cooling at 24 °C ambient temperature. Under most conditions, this system provides 'free' cooling, relying on forced ventilation alone, an arrangement that delivers big energy and cost savings. Refrigerated cooling is also available when required.

Results

By making use of Eaton's expertise, wide product range and project management services, Eastbourne College now has in place an infrastructure solution for its new data centre that is incredibly energy efficient and ready to grow with the College's needs. The solution was also delivered within budget and is expected to pay for itself within five years.

"This is a very important project for the school," said Ray Allen, "and we're delighted with the outcome. Although we expect our new data centre to meet our needs for some time to come, when we do have new IT requirements in future, we'll certainly be talking to Eaton, and I would recommend anyone currently considering new IT facilities to do the same. Big cost savings, excellent equipment and outstanding support is, after all, a very attractive combination!"



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