

Energy savings for Sussex college

Eaton has achieved major savings for Eastbourne College by providing comprehensive data centre solutions with low running costs. The school estimates that the combined savings will mean the new equipment will pay for itself in less than five years

Commenting on the project with Eaton, Ray Allen, information systems manager at Eastbourne College, said, "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. In short, choosing to work with Eaton was a very easy decision to make."

Eaton implemented the project which involved the deployment of a raised floor in the new data centre. Eaton provided all design and project management services and supplied and installed two 15kVA 3-phase uninterruptible power supplies (UPSs), four Delta³ Rack Systems (DRS) with accommodation for 96 servers and power distribution units for each rack.

THE INTEGRAL ROLE OF IT

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, spread 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.

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 to allow all of the school's servers to share the same location. In addition, the new data centre would be designed to allow for easy and inexpensive future expansion.

As an initial step toward implementing this project, the school requested quotations for the data centre infrastructure from two organisations that offered turnkey solutions. In both cases, however, the prices put forward were dauntingly high and, as a result, the school decided that it would be more cost effective, though much less convenient, to draw on its own resources to carry out the work.

"With this in mind, the school initially approached Eaton to supply equipment



racks with a value of around £4,000 to house its servers," explained Paul Ryan, UK segment sales manager for Eaton. "However, during a meeting with our data centre experts, the total scope of the project soon came to light. It became apparent then that Eaton's extensive portfolio of products and solutions meant that we could in fact provide all of the major infrastructure items needed."

ENTIRE PROJECT MANAGEMENT

In addition, Eaton could manage the whole project so that the school only needed to work with a single supplier. This proposal proved very attractive as it would ensure that all of the items of equipment used would be compatible and would work efficiently with each other. Also, should any problems occur during or after the implementation of the project, they would be resolved quickly, with no problems of divided responsibility. Finally, the price quoted by Eaton for the overall project was around half that of the quotes the school had received from the turnkey suppliers.

Key elements of the solution provided by Eaton include UPSs, which combine efficiency with reliability. 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 run-time 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 DRS used at the school has swipe-card controlled locks for extra security. The system incorporates Eaton enclosure power distribution units (ePDUS) with convenient and secure socket outlets for connecting power to the servers. Ample provision has been made to cater for future expansion.

The CRAC air conditioning system in Eastbourne College's new server room features traditional underfloor airflow and overhead return flow to deliver 15kW 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.

"Throughout the project, Eaton were continually on-site to ensure that the work went smoothly," said Allen. "This meant that when the inevitable minor problems did occur, they were sorted out quickly and



Above: Eastbourne College now has in place an infrastructure solution for its new data centre that cost only half as much as the solutions offered by the turnkey suppliers it first approached

effectively. It was refreshing to have such enthusiastic partners for a project and I have no hesitation in saying that Eaton is a great company to work with. 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."

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T: 08700 545 333

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