



## HP thin clients simplify life at Central Coast Grammar School

### Overview

Located about 100 kilometres north of Sydney, Central Coast Grammar is a co-educational, independent school serving more than 1,200 students from kindergarten to year 12.

The school has a philosophy of providing the best possible environment for learning and encouraging its students to excel in their chosen areas of study. Its academic facilities include a library, learning laboratories and specialised digital classrooms.

During the past few years the school has made significant investments in its information technology infrastructure. A 10-strong team of IT professionals manages the school's infrastructure, maintaining systems and providing the integration and pedagogy support required by both staff and students.

Last year the school began looking for ways to reduce the management and running costs of its fleet of desktop PCs. The school also had a stated objective to become "greener" by reducing factors such as power consumption.

Central Coast Grammar School decided on an HP remote client solution, which involved replacing their desktop PCs with thin clients. The thin clients are connected virtually to HP blade PCs that are located in a centralised data centre. Following the implementation, the school is saving around \$15,000 a year in direct leasing costs, plus additional savings have been experienced as a result of reduced power consumption and management costs.

### Business Challenges

Central Coast Grammar ICT Manager, Michael Lowbridge, recognised that having a large number of desktop PCs created a significant workload for his team. Spread throughout the school, the desktops were used by both students and staff. The campus is also covered by a wireless network and many students complete work using notebook computers.

In addition to ensuring the desktop and notebook PCs remained secure and were operating properly, regular visits were required to update software and replace failed hardware components.

"I realised that there had to be a better way to provide the computing infrastructure the school needed," Mr Lowbridge said.

"As well reducing the resources needed for management and maintenance, we also hoped to find a way to reduce the electricity being used by the overall IT infrastructure."

### **How HP helped**

While attending an industry conference, Mr Lowbridge saw a demonstration of an HP thin client computing infrastructure. The demonstration showed how computing resources could be centralised in a datacenter, with users accessing it via terminals.

"It seemed that this approach could help us meet our goals of reduced management and lower operating costs," he said.

Working with HP, Mr Lowbridge scoped out what would be required to implement a thin-client infrastructure within the school. It was decided to adopt a phased approach to implementation, replacing existing desktop PCs where it made the most sense and as they came to the end of their life.

HP conducted a training course for all IT staff at the school to help them understand the different approach required when using thin-client computers.

"It required a change in mindset from a management perspective, but HP really helped us all understand exactly what was required to get the system to work," he said.

So far the school has installed 120 HP blade PCs within its server room. These support 150 HP T5720 thin client terminals around the school. Because it is highly unlikely that all terminals will be used concurrently, the decision was made that this would provide sufficient resources.

Mr Lowbridge said there are 25 terminals in the library for student use and a further six for administrative staff. Each of 20 digital classrooms has four terminals, 10 have been placed in a LOTE (Languages other than English) lab, and the remainder are in the school's main administration department.

When staff or students turn a terminal on, they are greeted with a logon screen asking them for their username and password. HP's Session Allocation Manager (SAM) software then allocates them to a particular blade PC, based on the activity they want to carry out.

The blades have been configured in different ways, to support the various activities within the school. For example, those for the language lab have different applications from those used in the library. Users select the pool of blades they need and SAM sets up the connection.

"The users see the logon screen but then go onto a session based entirely on the server," said Mr Lowbridge. "They don't necessarily know that the applications they are using are not running locally on their terminal."

The infrastructure also makes use of Remote Graphics Solution protocols to allow students to plug selected USB devices (such as storage or a scanner) into the thin client and have it operate without the need for extra drivers.

Overall, the response of users to the terminals has been very positive, with both students and staff reporting few difficulties.

"The thin clients are standard so people are using exactly the same machine no matter where they are around the school," he said.

### **Value delivered**

Through the reduced power consumption and management and hardware costs, Mr Lowbridge estimates that the school is saving more than \$15,000 a year as a result of moving to thin clients.

The school's goal of becoming greener has been helped by the fact that the terminals consume around 20 watts compared with the more than 100 watts needed by an average desktop PC.

"Also, because the hardware will last longer, we have been able to lease it over a five-year rather than three-year period, which also helps to lower costs," he said.

From a management perspective, the terminals fitted in well with the school's existing Altiris management system. "It saves trips out to the classrooms, as management and problem solving can be done centrally," he said.

As leases on the school's remaining desktop PCs expire Mr Lowbridge plans to replace most of them with thin-client terminals.

"It's been a great move for us and one that sets us up nicely for future demands," he said.

### **Summary**

**Industry:** Education

**Solution:** 120 HP BC2000 blade PCs supporting 150 HP T5720 thin client terminals

**Software:** Windows XP operating system, Microsoft Office, various academic applications

**Challenge:** To maintain computing support for a school of 1,200 students while

reducing maintenance and running costs

**Benefits:** Significantly reduced costs, longer hardware life and flexibility of computing resource delivery

### **About Central Coast Grammar School**

Central Coast Grammar School is a co-educational school serving students from kindergarten to year 12. Located in leafy bushland 1.5 hours north of Sydney, it has a strong academic record and a reputation for excellence.

© 2008 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

5/2008