

Woodleigh School

PROFILE



Industry
Education

Location
Victoria, Australia

Teachers
120

Website
www.woodleigh.vic.edu.au

THE NUMBERS

- 800 students
- 770 laptops and notebooks
- 30 thin client terminals (as at September 2011)

IN BRIEF

Objective

Reduce environmental footprint and cut the costs of powering and administering around 770 PCs, including desktops and laptops.

Solution

VMware View desktop virtualization enables IT staff to rapidly deploy operating system and application updates to thin client terminals while reducing power and maintenance costs.

Business Impact

- Reduced the time it took to deploy operating system and application updates from several hours to about 30 minutes
- Enabled administrators to fix issues with thin clients and user desktops from a central console while constantly monitoring system performance
- Reduced desktop power consumption by 66 percent

Woodleigh School Rolls Out Application Updates Faster and Cuts Power Costs by Two Thirds Using Desktop Virtualization

“We can now roll out updates to our Microsoft Windows 7 operating system and applications in only 30 minutes. If we had to do the same to desktop environments running on our previous fleet of Dell personal computers, it would have taken several hours.”

— Stephen Fraser, ICT Director, Woodleigh School

Woodleigh School is an independent, co-educational school located on Victoria’s Mornington Peninsula. The school comprises two campuses: one in Frankston South for about 220 students in Kindergarten to Year 6; and a second in Baxter for about 580 students in years seven to 12. The school’s 120 teachers aim to ensure all pupils are valued equally and develop skills across all facets of life.

To meet students’ and teachers’ requirements, Woodleigh School ran about 200 Dell Optiplex desktops and 570 HP Netbook laptops. Students and teachers used the personal computers to access Microsoft Office productivity applications, Adobe digital media tools, a games development tool and other third-party applications.

Power and Administration Costs Rising

However, by 2009, the school had become increasingly concerned about the costs of powering and administering these desktops and laptops. The school’s relatively small IT team — comprising ICT Director Stephen Fraser, a network manager and two technicians — also had to spend a considerable proportion of its time managing its personal computer fleet.

“As a result of these challenges, we realized that our existing desktop and laptop environment wasn’t the best way forward,” Fraser said. “We felt that a foray into desktop virtualization would help us reduce our environmental footprint and make our desktops easier to maintain.

“We had been using VMware® server virtualization at our junior and senior campuses for around four years to eliminate the need to purchase additional physical servers as the school expanded,” he added. “It also makes it quicker and easier to create server instances when rolling out new applications to teachers and students.”

VMware View “A Logical Way Forward”

With the school able to create new servers in a matter of minutes and run 25 virtual machines with no operational difficulties, extending VMware virtualization to the desktop was a “logical way forward”, according to Fraser. The school turned to VMware partner Computelec to provide engineering support for a network upgrade to underpin a desktop virtualization project. Dell and VMware also provided assistance; VMware technical staff helped the school optimize the performance of the Windows 7 desktop operating system in virtual desktops.

Early in 2011, Woodleigh School installed VMware View™ to run virtual desktops and applications accessible to users through around 40 Samsung SyncMaster NC240 thin clients in libraries and laboratories at its two campuses. To date, the thin clients have replaced 40 of the Dell Optiplex desktops.

“The virtual desktops mimic the operating environment of our Dell desktops.”

Stephen Fraser
ICT Director
Woodleigh School

The school's IT team also uses VMware View Manager to monitor each of the virtual desktops and correct any issues that may arise.

School Automates OS and Application Deployments

By deploying VMware View, Woodleigh School's IT function can easily update operating systems and applications. IT team members load the updates onto a parent virtual image, which then copies them across to remaining users in a matter of minutes. They can use the same process to create a new desktop image.

“We can now roll out updates across our virtual desktop fleet in only 30 minutes,” said Fraser. “If we had to push out significant updates or new applications to 40 fat-client personal computers, it would take more than two hours. If we had to do this across our entire fleet, it would take several hours' work spread across a few days to minimise downtime affecting users.”

The school's system administrators can now devote this saved time to other projects.

With the virtual desktops, applications and information located in the datacenter, the school can retain greater control over user entitlements and access privileges. Desktop virtualization also minimizes the risk of students inadvertently downloading malware that can capture personal and school records.

Downtime and Training Needs Minimized

“We can tell that VMware View is working well because our students are not coming to us with any problems,” said Fraser. “The virtual desktops mimic the operating environment of our Dell desktops, so we did not have to retrain any students or teachers.

“Also, thanks to the delivery of the PC over IP protocol in VMware View, the performance of the virtual desktops is equivalent to that of our previous physical desktops.” This has ensured students retain rapid access to the rich media content and resource-intensive applications necessary to complete assignments and course work.

Woodleigh School has deployed VMware ThinApp™ to package the GameMaker development environment—among other applications—into a single executable file isolated from the underlying infrastructure.

“GameMaker sits on the file system as a ‘thin application’ that many students can access at any time,” said Fraser. “This saves time because it eliminates the need for us to deploy multiple components across the thin clients; we just copy and paste the executable file.”

Power consumption reduced; desktop virtualization to expand

Over the next year, Woodleigh School plans to replace its remaining Dell desktops with thin clients running VMware View to further reduce power costs and cut its management load.

“The thin clients with VMware View use 66 percent less power than the Dell desktops, so we are expecting some big savings as we expand their use,” Fraser said.

The school is also considering deploying Microsoft Office365, a hosted subscription service that will enable students and teachers to access Microsoft Office productivity applications, calendar and email services from any device with a web browser.

“We envisage that students will eventually have their own laptops, Apple iPads or similar devices and simply pull up a virtual machine over the internet when they are at school or home,” Fraser said.

“The thin clients with VMware View use 66 percent less power than the Dell desktops.”

Stephen Fraser
ICT Director,
Woodleigh School

IMPLEMENTATION OVERVIEW

VMware Products:

VMware View
VMware vSphere

Applications:

Microsoft Office 2010
Adobe Acrobat
Adobe Photoshop
Adobe Indesign
Gamemaker for Windows
Microsoft SQL Server 2005
Microsoft Exchange Server 2010
Microsoft Office SharePoint Server 2007
Microsoft Active Directory 2008
File and print

Partner:

Computelec

Platform:

Samsung SyncMaster NC240 thin clients
Dell PowerEdge R710 rack servers
Dell Equallogic storage area networks