



The Founders Complex  
Mazenod College



## Daring to innovate, Mazenod College leads Laying the groundwork for supporting future curriculum change

Mazenod College was established in Melbourne's south-eastern suburbs in 1967 in an area of expected population growth. Although the beginnings were challenging, the college flourished as Melbourne's growth corridors shifted just as Mazenod's astute founders had foreseen, expanding to over 1,200 students and 120 staff in the 2013 school year.

### THE CHALLENGE

#### The time was right

Mazenod's school motto is 'leave nothing undared', and its ICT team certainly took this approach in developing a long-term ICT strategy in 2011. ICT Manager Ian Steel wanted to create a technology infrastructure that would support any and all curriculum needs for the next 5-8 years.

"Our principal objective is to support the school's curriculum through ICT," Ian says. "We wanted to build a platform that could respond dynamically to changes in that curriculum, enable rapid deployment of new software and even the addition of larger numbers of end devices."

The overall strategy was to achieve a level of flexibility that could deliver *any curriculum, anywhere, anytime, on any device*.

In August 2011, the time looked right. Impressed by new client virtualisation technology from VMware, Ian and his team began working intensively with long-term educational IT partner Computelec and its vendors to make the dream a reality.

**School:** Mazenod College is a Catholic secondary school for boys

**Location:** Mulgrave, Victoria

**Challenge:** Supporting school curriculum initiatives for the next 5-8 years

**Solution:** Mazenod created a scalable, flexible ICT platform based on virtualised desktops and thin/zero client devices.

#### Key Benefits:

- Reduced ICT costs and improved efficiency
- Rapid response to curriculum change
- Enabling anywhere, anytime learning from any device

## SOLUTION

### Daring but assured

Achieving the approach depended on strengthening the school's core infrastructure and making it more scalable and available. But it was also important not to increase the school's overall ICT expenditure. To achieve this, Computelec helped Mazenod shift budget previously spent on end devices to centralised server and storage resources.

Once the initial discovery phase of the project was completed, discussions took place around the value of blade *versus* rackmount technology. The decision to move to blade architecture was based on the simplified connectivity, density and scalability it offers. As these platforms are all modular and highly scalable, it is simple and relatively inexpensive to add additional blade servers or additional storage capacity when demand grows.

The school owns and operates 13 computer labs and over 450 mobile devices in class sets. As these devices were rolled over in the future, they would be replaced by thin clients, which connect directly via the school wired or wireless networks to the centralised core infrastructure.

Savings from purchasing these low-cost devices could then be directed to 'strengthen the core'. 2012 presented an opportunity to roll over 200 desktop computers. The desktop environment was virtualised, which has the added benefit of dramatically reducing the effort involved in their management. Virtualisation has also extended the life of existing mobile devices, which can now cope with demanding new software since it is accessed via the network, rather than loaded on and run from each device.

"We used to spend the school holidays re-imaging our desktops," Ian says. "But now, if a teacher wants to introduce another piece of curriculum specific software, we can add this to an existing image or create a new one on the fly. The whole process of installing, testing then deploying across our entire fleet can be achieved in well under a week."

Computelec also helped Mazenod redesign its network to facilitate higher speeds and greater resilience. Additional configuration also allows remote access to the virtualised environment – so students can log on to the school systems from their own mobile devices, or from their home computers via the internet.

Because there is a difference between being daring and reckless, Mazenod chose to undertake an extensive consultation period with Computelec. A decision was made to put in place a proof of concept to trial the technology on a smaller scale prior to delivering it into the learning environment. This pilot was so successful that it was left in place and expanded from 400 to 800 users.

Ian says the school really gave the system a pounding to ensure it would deliver the required performance. "We had 100 desktops running concurrently, then we got 400 students to log on together from mobile devices – and it all worked!"

## THE TECHNOLOGY

Mazenod chose to deploy two HP C7000 blade chassis populated with eight HP BL460 Gen 8 blades powered by the latest Xeon processors. The Generation 8 blades were configured with Intel Xeon CPUs, 192GB of RAM and the latest Fusion-io cards to deliver the performance necessary for wide-scale client virtualisation, with the ability to support up to 1,000 virtualised devices.

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## BUSINESS BENEFITS

### Ready for anything

Mazenod was one of the first schools in Australia to deploy wide-scale virtualised desktops in quite this way, with the master image stored on servers rather than storage devices. The result is a much faster and more affordable solution than previously available.

In summary, the benefits the Mazenod school community is now enjoying include:

- Access to the school's systems remotely, providing anywhere, anytime learning from any device
- The ability to introduce and rollout new applications and services, almost on demand
- Simplified and centralised IT management enabling the IT team to spend more time on projects which directly correspond to curriculum demands
- Reduced ICT services delivery costs
- Confidence that core school ICT systems are flexible and scalable enough to support future change in the way teachers and their students use technology in the classroom and beyond

Ian Steel says that it's an extremely exciting time to be involved in the technology space. "By virtualising our client environment, we know that whichever way the curriculum needs to be delivered, we can support it. We've done all the hard work in advance, which means we can easily support the future direction of curriculum delivery at the College in the years to come."

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