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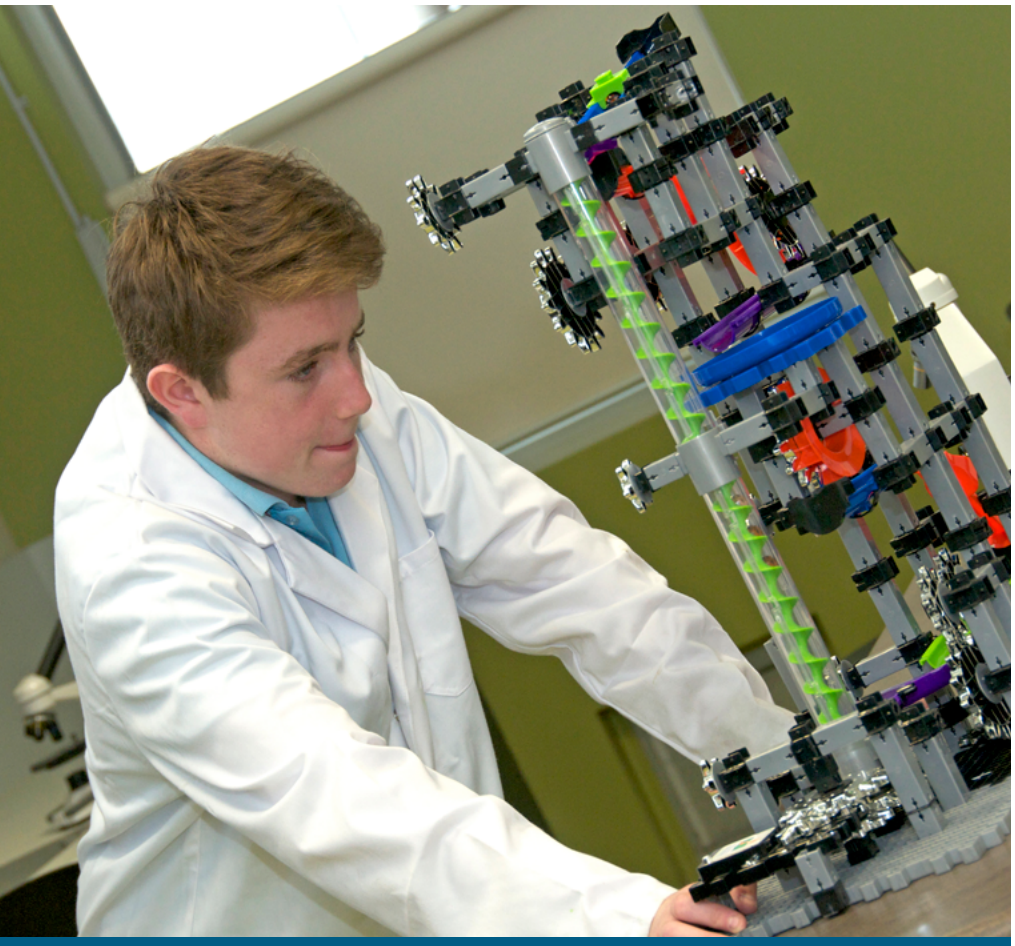
Early-adopter school gives next-generation firewall an 'A+'

Manor Lakes P-12 College in Victoria creates more engaging and secure learning environments for students with 10x faster internet through state-of-the-art firewall



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Christopher Mitchell, Technical Specialist, Victoria Department of Education

Customer profile

Manor Lakes College

Company	Manor Lakes P-12 College
Industry	Education
Country	Australia
Employees	1,900 students, 220 staff
Website	www.manorlakesp12.vic.edu.au

Business need

Manor Lakes P-12 College wanted to improve internet access for students and teachers to deliver highly engaging and flexible learning environments.

Solution

The school deployed SonicWall next-generation firewalls and SonicWall Analyzer for webbased traffic analytics and reporting.

Benefits

- School saves AUS$12,500 (U.S.$11,600) a year by removing proxy servers
- 10-times faster internet creates more engaging learning environment
- Video streaming integrated into study programs
- Strengthened network security and lessened burden on network management
- Teachers and staff gain flexible and secure virtual private network

Solutions at a glance

- Network Security

The internet is now tightly woven into many education programs. It helps inform and engage students during class time with their teachers. But for all the good the internet brings, there are also risks in the form of malware and viruses and content that is simply not suitable for a classroom environment. It represents a major challenge for educators and one that Manor Lakes P-12 College in Victoria, Australia, has been able to overcome.

"My most conservative estimate is that internet speeds have increased 10 times as a result of our administrative power through SonicWall. Everyone is really happy. I no longer get 50 to 80 people a day questioning internet performance. Finally, we can get the maximum benefit out of the internet for creating highly engaging learning environments."

Christopher Mitchell, Technical Specialist, Victoria Department of Education

The school, which teaches children from Prep to Year 12, has made IT a key enabler. All students have access to at least one school-owned tablet or laptop, and many — essentially older students — can connect their personal smartphones, tablets and laptops to the school network. Indeed, bring-your-own-device (BYOD) is well established at Manor Lakes and will be offered to every pupil in 2015 and beyond.

Need for greater control over connectivity

With so many devices connecting to the network, Manor Lakes P-12 College was experiencing several connectivity challenges. Students found the internet regularly crashed and teachers found that streaming media was impossible because of insufficient bandwidth. The IT team suspected that software updates and traffic to non-priority social media websites were the main causes of the problems, but lacked the tools to analyze the web traffic in detail. The two person in-house IT team, supported by Christopher Mitchell, a Technical Specialist provided by the Victoria Department of Education, spent many hours trying to make connectivity better for teachers and students, but nothing seemed to work. Mitchell says, "We received up to 80 questions a day from frustrated teachers and students about poor internet connectivity. We had to do something!"

The answer from an end-to-end solution provider

Mitchell saw how he could put things right. As part of his job, he supports IT for many schools in Victoria. In the vast majority of schools, Mitchell works with Dell technology and Dell ProSupport day-in and day-out. "Many of the schools I support in Victoria have Dell end-to-end comprising of Dell PowerEdge servers, Dell EqualLogic storage, Dell Networking and Dell tablets. Most recently, these schools have installed Dell KACE System Management Appliances," he says.

Through regular contact with his Dell account team, Mitchell was introduced to SonicWall next-generation firewalls. The firewalls deliver superior protection against malware, viruses and attacks. In addition, they also help IT teams regain visibility and control around network use. "My first thoughts were that SonicWall answered our business need, and so I visited a few schools in the area which were using the SonicWall solution," comments Mitchell.

This was followed by a visit from a SonicWall systems engineer, who discussed the technology in detail with Mitchell, the IT team and key stakeholders at the school. Soon after, the school decided in favor of SonicWall and Mitchell found the deployment process to be simple.

Products & Services

Hardware

SonicWall NSA 4600 next-generation firewalls

Software

SonicWall Analyzer

SonicWall Content Filtering Service (CFS)

He immediately deployed two SonicWall NSA 4600 firewalls in high availability.

Removing proxy server saves AUS$12,500 (U.S$11,600) a year

Identifying threats and containing intruders early will not only protect the functioning of the school but save Manor Lakes money from the cost of clearing up the damage. The school was previously using a proxy server, supported by a team of outside consultants, to protect the network from direct access to web sites, as well as a Smoothwall product to handle filtering. However, Manor Lakes replaced the Smoothwall filtering solution with the SonicWall NSA 4600 firewalls using Content Filtering Services, which the school finds to be far superior than any solution it's used in the past. Mitchell explains, "We were paying a team of consultants around AUS$12,500 a year to maintain the proxy server, which was a UNIX-based system. This is an expense that we no longer need with SonicWall and we can invest these resources into other areas of the network."

10-times faster internet creates engaging learning environments

Today, the school provides teachers and students with a completely different internet experience. With the NSA 4600 firewalls in place, the school has significantly increased speed of internet access and reliability. The solution greatly improved the learning environment and enabled the school to deploy new technology to aid students and teachers. The success of SonicWall gave Manor Lakes a business case for installing a second internet connection to the school to improve access while maintaining network protection and tight control of how it's used.

"Our second connection is a 100 megabit link, giving us much needed additional bandwidth," explains Mitchell. "With SonicWall, we can load balance between our internet connections and have granular control over how teachers, students and administration staff use the links. For example, we can restrict site access to specific groups, such as teachers."

The control over bandwidth along with the ability to limit the number of software updates taking place concurrently is having a sizeable impact. "My most conservative estimate is that internet speeds have increased 10 times as a result of our administrative power through SonicWall," says Mitchell. "Everyone is really happy. I no longer get 50 to 80 people a day questioning internet performance. Finally, we can get the maximum benefit out of the internet for creating highly engaging learning environments."

Video streaming supporting study programs

Mitchell points out that teachers can now integrate YouTube videos easily into study programs. In the past, streaming videos was virtually impossible because other applications, and updates, were consuming so much bandwidth. But things are different now. Mitchell says, "We ticked a few command boxes on the SonicWall and now YouTube streams uninterrupted. It's available for all teachers to use in classes and content is carefully controlled so only videos that are appropriate and relevant to students' study programs can be accessed."

Great security from deep packet inspection

When asked about the most impressive capability of the SonicWall NSA 4600, Mitchell comments, "My personal view is that Deep Packet Inspection is amazing. The inspection engine behind the SonicWall solution is not limited by file size or the amount of concurrent traffic it can scan. It scans multiple protocols across multiple network layers, restricting access among internal users or simply blocking web sites."

This not only ensures network users at the school stay protected, but also saves Mitchell a lot of time. Mitchell explains, "I used to spend many hours a week working with our previous

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> *Christopher Mitchell, Technical Specialist, Victoria Department of Education*

packet sniffing tool. It wasn't unusual for me to be working late into the night trying to identify protocols and block access ports. I am glad that is in the past now."

Flexible working and greater productivity through virtual private network (VPN)

Besides knowing the network is well protected, the school can offer staff and teachers a more flexible working environment. Personnel can take advantage of the firewall's VPN capabilities to securely connect to the school network from home or while on the move. A number of teachers are already using the VPN to better manage their workloads. Mitchell explains, "Administrative staff regularly log on in the morning before leaving for work for updates on the day ahead. For example, they can see whether a teacher has reported in sick and start making timetable changes there and then." Many staff at the school take part in a car-sharing scheme and non-driving staff in key roles are able connect to the VPN while traveling to work. "The biggest advantage is the flexibility of the SonicWall VPN. You can work at a time and place that best suits your needs," says Mitchell.

Analytics and reporting help prevent network intrusion

Mitchell immediately uses the same term — flexibility — when describing some of the firewall's key benefits for IT personnel. The team can react quickly to new threats to the network or new requirements from the school. Team members leverage SonicWall Analyzer for web-based analytics and reporting, and this tool gives them the insight they need to make decisions on the fly. "If there is an issue on the network, we can pinpoint the cause with the SonicWall Analyzer tool and take immediate action," confirms Mitchell. Using the tool, Mitchell was able to identify a virus emanating from a machine connected to the network and isolated the device. "With our old system, we had to wait two days to get web-traffic logs. That was 48 hours too late in my opinion. You need to stay on top of the network 24/7 and the Analyzer tool lets you do that."

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CaseStudy-ManorLakes-APJ-Metia-D1.pdf

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