



SCHOOLS (K-12)



MENTONE GIRLS GRAMMAR SCHOOL Mentone | Australia

MENTONE GIRLS GRAMMAR SCHOOL IS DEDICATED TO EDUCATION EXCELLENCE THROUGH THEIR E-LEARNING PROGRAMS. Mentone Girls School's Meru wireless solution is improving student productivity due to increased performance and improved connectivity.

"Meru Networks' wireless LAN gave us freedom from wires and opened up possibilities for learning." **Kay McCullough** | Vice Principal and IT Director

Challenges

- ❑ Support diverse educational applications including science labs, Web page design and interactive language learning.
- ❑ Ensure consistent service without dropped connections that consume valuable classroom time.
- ❑ A wireless network that is easy to install, easy to manage and easy to scale as user demands increase.

Results

- ❑ A strong and stable network connection supporting 500 users of 802.11a/b/g/n.
- ❑ Comparisons of multiple wireless architectures and vendors found that Meru was the most cost-efficient.
- ❑ High performance wireless access for users of laptops and other mobile devices.

The School

Mentone Girls' Grammar School (Mentone Girls) is dedicated to excellence in the education of girls, providing outstanding preparation for tertiary studies. The mission of the school is to prepare students to make a difference, and to rise boldly to the challenges of their times.

Mentone Girls endeavours to give each girl an abiding passion for learning, to prepare her to become a confident, creative and articulate woman who has the skills, knowledge, values and attitudes to shape her future, lead with wisdom and compassion, and contribute meaningfully to the international community.

In 2008, Mentone Girls unveiled its' "new WAVE", a set of eight strategic ventures that will set the foundations to re-shape girls' education for the 21st century. One of these steps included continuously enhancing the school by offering a stimulating, functional, safe and attractive learning and working environment for students from kindergarten to year twelve.

The employment of information technology has been a focus for Mentone Girls for many years. From Prep onwards, every student is given a network account that provides access to a broad range of desktop programs, centralised file storage, a local intranet, network printers, personal email boxes and the Internet.

To leverage their access to the abundant, modern equipment that is used across the curriculum, students receive specialised tuition from information technology teachers in an exciting program designed to help them make the best use of the technology that surrounds them, from notebooks and computers to interactive whiteboards; from digital imaging equipment to extensive intranet resources.

Kay McCullough, Vice Principal and IT director at Mentone Girls, said, "This is a very exciting time for Mentone Girls' Grammar. As we enter a new phase in technology and Web 2.0, students need the very best in technology to enhance their learning experience.

"We aim to make Mentone entirely & consistently wireless enabled in 2010. This includes the new early learning centre we are building across the road from the existing school."

With the support of the government's Digital Education Evolution initiative and a fully committed faculty, Mentone Girls is taking steps to becoming a totally connected environment for e-learning. The National Secondary School Computer Fund has given Mentone Girls a good reason to evaluate its existing technology capabilities, to teach its students to live and work in a digital world through the latest upgrades to information and communications technology at school.

Challenge

Mentone Girls encourages students to be Internet-savvy. Students and teachers incorporate the use of online resources in relevant classes. Some of the applications of the school's multi-modal approach to technology include creating web pages, learning languages, displaying concepts in science and programming in non-traditional areas such as robotics. But to do this, the school needed reliable wireless access to the school network and the Internet.

The 500 students and staff have a good number of PCs on the campus, connected by Cat 5 cables, and they also have just enough notebooks shared amongst them, regularly used in the science laboratory, and transported to other learning areas. As part of the government grant, Mentone Girls has ordered 60 more notebooks for students in years nine to twelve, used across many areas in the Senior School.

Unfortunately, the school's previous wireless network was not able to deliver consistent access for this kind of arrangement.

McCullough said, "The main problem we had at Mentone Girls was that teachers and students did not have access to a steady wireless network. The complicated and outdated system deterred them from using the wireless network—classes were often frustrated with the weak connection. Continuous disruptions from these dropped connections take up valuable classroom time, and in turn, discouraged teachers to use online resources. We needed a seamless, dependable wireless connection."

"To achieve the successful transition to an efficient, functioning e-learning school, Mentone Girls needed a suitable wireless network foundation that was easy to manage and expand, before fully investing in more mobile technologies."

Continued.

For more information about Meru Networks wireless networking solutions, visit | www.merunetworks.com |
For more information about Mentone Girls Grammar School | visit www.mentonegirls.vic.edu.au |

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Solution

Based on a positive referral from another leading Melbourne school, Mentone Girls employed Wavelink Communications via one of Wavelink's resellers, Leading Solutions (recently acquired by Synergy Plus), to implement a Meru Networks 802.11n wireless local area network (WLAN) in the science laboratory for a one-month trial.

After a successful pilot program, the teachers and students found the new wireless network consistently delivered a strong and stable network connection. After comparisons with wireless network solutions from other vendors, the Meru solution was found to be the most cost-efficient and best performing. Mentone Girls decided to replace its existing 3Com WLAN with a Meru Networks 802.11n wireless LAN, to provide comprehensive wireless coverage across the school.

The new Meru wireless network now supports the student body of 500 with 25 x dual radio a/b/g/n access points and a MC3000 controller.

McCullough said, "The improved performance and ease of configuration has definitely made a huge difference to our daily school life. Meru Networks' 802.11n WLAN solution met Mentone Girls' wireless network and Internet access requirements so well during the pilot phase that it was easy to imagine what Meru Networks could do for our girls' e-learning environment, and for our plans to provide Internet access across the entire school grounds. Our roadmap is looking at around two to three years from now. In time we plan to look at more mobile technologies for students, achieving a consistent, wireless 1:1 program commencing at year seven, when small, light weight devices are sufficiently powerful and cost effective."

Benefits

The system has been extremely well received by Mentone Girls. Staff and students found the Meru Networks' 802.11n WLAN solution to be reliable in offering uninterrupted wireless Internet access on a consistent basis. The school's deployment of the Meru system has resulted in increased performance and improved connectivity, as well as a general boost in productivity for the students.

McCullough said, "Meru Networks' wireless LAN gave us freedom from wires and opened up possibilities for learning. Now everyone is able to focus on the variety of resources online, instead of fumbling around with dropped connections."

The ease of installation of the new wireless infrastructure for the school is another reason why Mentone Girls chose Meru Networks. Meru Networks' WLAN solution uses unique architecture that enables all access points (APs) to operate off a single, seamless channel, which eliminates the need for complex coverage surveys and channel planning. Mentone Girls can easily and rapidly install more APs anytime, anywhere.

Meru's single-channel solution means channel-replanning is not required, and by simply adding more APs the coverage holes created by Mentone Girls' new building across the road can be plugged seamlessly. The solution enables school IT administrators, who may not be wireless experts, to easily compensate for any other coverage holes by adding additional APs.

McCullough said, "The Meru WLAN solution gave our school an easy to implement, problem-free solution. The new Meru 802.11n infrastructure has much higher throughput and can support much higher densities of wireless users that previously – this means that we can plan for every student at our school to have access to the network. We are very confident with the new infrastructure and we are already thinking about placing more access points to expand coverage even further, depending on the school building program."



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