RANGITOTO COLLEGE
– North Shore, New Zealand

Aruba connects New Zealand's largest secondary School, improving teaching and learning across the entire campus

REQUIREMENTS
- Campus wide connectivity for 3,200 students and 300+ staff members
- Ability to connect 10,000+ various mobile devices at one time
- Scalable solution to assist with the roll out of BYOD program

SOLUTION
- 802.11ac indoor Access Points
- VLAN pooling
- Aruba 7210 Controller

BENEFITS
- Assists Rangitoto College implement a successful BYOD program
- Supports creative and imaginative learning, bringing new teaching methods into the classroom
- Enables future adoption and growth of wireless network

Rangitoto College is a state coeducational secondary school, located on the North Shore of Auckland, New Zealand. The largest high school in New Zealand and quite possibly Australasia on a single site, Rangitoto College educates over 3,000 students from Year 9 throughout Year 13. Rangitoto College required a wireless network to support its best practice e-Learning initiatives, whereby 10,000+ devices would be connecting at any one given time. Enabling accessible and high-quality learning opportunities that improve student engagement and achievement is a key priority for Associate Principal of Rangitoto College, Don Hastie.

"We are using a range of cloud-based tools to support 21st century learning in the classroom. These tools enhance collaboration, communication and creativity. They are also designed to spur innovation, critical thinking and problem solving. Central to our approach is our Learning Management System, RangiNet and the implementation of Google Apps for Education across the school. Students need to use technology confidently and safely, in a way that supports modern learning and helps them participate in the future work force," explains Hastie.

"A dependable Wi-Fi network opens the classroom up to the outdoors so that students are less classroom bound. The ability to work in courtyards of the school grounds for example, helps increase the engagement of students."

Don Hastie
Associate Principal, Rangitoto College.

ASSISTS RANGITOTO COLLEGE IN IMPLEMENTING A SUCCESSFUL BYOD PROGRAM

As one of the leading schools in New Zealand, ensuring students and staff have the choice of the most effective learning methods is integral. With the New Zealand Government also supporting a wireless upgrade plan, Rangitoto College made the decision to replace its incumbent Cisco network in 2010, opting for a more robust solution that connects the entire campus.

"We wanted to implement the right infrastructure that could support our planned BYOD program. We went to tender and looked at various wireless solutions through which Aruba came out as the desired and preferred solution," says Hastie.

"Aruba was the only Wi-Fi provider that could meet each and every need of our school," continued Hastie.

According to Hastie, it was imperative to have a robust Wi-Fi infrastructure in place first, before implementing the rollout of the BYOD program at the school.

SUPPORTS CREATIVE AND IMAGINATIVE LEARNING, BRINGING NEW TEACHING METHODS INTO THE CLASSROOM

'e-Learning at Rangitoto College covers a wide spectrum of activities, supporting traditional learning, blended learning (the combination of traditional and digitally-enabled learning), and learning that is delivered entirely online.

According to Wayne Everett, IT Services Manager at Rangitoto, the College has significantly modified the way technology is used at the school in recent years.

"Over the last two or three years we've encouraged students to bring and use their own devices. Before that, the College had IT and computer rooms teachers could book out to allow students to engage and work with technology," explains Everett.

Now, with a wireless solution in place, students and teachers are no longer bound to the classroom and the BYOD program supports creative and imaginative learning.

"A dependable Wi-Fi network also opens the classroom up to the outdoors so that students are less classroom bound. They can go out onto the field and collect data for a sporting subject or if they're conducting a video analysis of a sporting movement, they can do so with their personal devices. What we've noticed is that there's been increased engagement and task focus in the classroom. The ability to work in courtyards of the school grounds for example, helps increase the engagement of students," says Hastie.

Connecting staff, students and parents enabling better collaboration

RangiNet is the College's online portal for students, parents and teachers. The secure virtual learning site provides access to a wide range of learning materials and organisational information for subjects across the entire curriculum. The portal provides students with a place to access resources to supplement their learning and allows students to submit assignments. Parents too, have access to all of these pages, as well as information that relates specifically to their child.

This inclusive portal is designed to empower parents, engage students in taking greater ownership and responsibility for their learning, and provide teachers with one central place to access relevant curriculum documents.

Additionally, Rangitoto implemented the use of Google Apps for Education across the school.

"We use The Google Apps for Education platform to support teaching and learning in the classroom. To access the platform, all students and teachers need to be connected to the Internet and our wireless solution is allowing us to seamlessly use this program. Teachers can see all the students in their class, share documents with them and take care of all the classroom administration function around managing a classroom – all connected wirelessly across the network," says Hastie.

Google Apps for Education allows students to access documents, spreadsheets as well as presentations that can not only be accessed from students' BYOD device at school, but also from home. By using this platform, teacher and student collaboration is enhanced and documents become paperless. Revision history allows users to review document edits over time and marking and feedback has become streamlined.

ENABLES FUTURE ADOPTION AND GROWTH OF WIRELESS NETWORK

Following a steady implementation of the BYOD policy throughout Rangitoto College, in 2016 all students in Years 9, 10 and 11 are now required to bring a device to school to support their learning. Aruba has exceeded connectivity expectations, now allowing Rangitoto College to expand e-Learning initiatives.

"Last year we implemented the BYOD program for years 9 and 10. This year, the program has been expanded to include Year 11. We will continue to grow the number of devices that are connected to the network, with Year 12 and 13 following in the coming years," explains Hastie.

Hastie explained that the College is also in the process of looking at access control systems across the school. Utilising a secure card solution that would rely on a wireless system, Rangitoto would have a more secure and simple way of accessing the Rangitoto College grounds.

ABOUT ARUBA NETWORKS

Aruba Networks is a leading provider of next-generation network access solutions for the mobile enterprise. The company designs and delivers Mobility-Defined Networks that empower IT departments and #GenMobile, a new generation of tech-savvy users who rely on their mobile devices for every aspect of work and personal communication. To create a mobility experience that #GenMobile and IT can rely upon, Aruba Mobility-Defined Networks™ automate infrastructure-wide performance optimization and trigger security actions that used to require manual IT intervention. The results are dramatically improved productivity and lower operational costs.

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