



Chevalier College Connects Better with Ruckus

Over 1000 Students Benefit from E-Learning Delivered through Campus-wide Wi-Fi Networks

Located in the Southern Highlands region in New South Wales, Australia, Chevalier College is a co-educational secondary school owned by the Missionaries of the Sacred Heart. The school is proudly committed to providing their 1,150 students with a quality and affordable Catholic education.

The school's network infrastructure is Apple based, comprising of approximately seven-hundred laptops and desktops for students, and over one-hundred laptops for teaching and support staff.

Students are challenged through a wide and varied curriculum, with technology embraced as a key tool for student learning. With this in mind, in 2009 Chevalier College sought to maximise e-learning capabilities for students through the delivery of a campus-wide managed wireless network.

Prior to 2009, College staff were already provided with Wi-Fi access through twenty standalone access-points (APs) dotted throughout the hundred-acre campus. The consumer-grade product provided only a limited wireless range, and carried a high administrative overhead for management and security.

Chevalier's experience with the existing wireless network led the college to seek a fresh approach to Wi-Fi. In fact, the school was already in the midst of trialling a replacement wireless product when Adrian Burgess was brought on board as the new Network Administrator.

"There seemed to be endless problems with products we trialled before Ruckus," comments Burgess. "Not only were there speed and connectivity issues, but we also had a number of older model Macs that the product had trouble supporting. Replacing these Macs just to suit our Wi-Fi was not a viable option."

The ongoing demands of administering the pre-existing Wi-Fi network extended to its reliance on MAC address filtering for securing the WLAN.

"Every time we wanted to add a MAC address to the APs we had to log into each AP, enter in the MAC address, upload it, then wait for the AP to restart. The whole process took around forty-five minutes to update the twenty access-points. It wasn't very efficient," Burgess concedes.



Widely recognised for its high standard of teaching, Chevalier College implemented campus-wide Wi-Fi networks to maximise e-learning potentials for its students.

COMPANY OVERVIEW

Chevalier College is a co-educational secondary day school located in the picturesque Southern Highlands region of New South Wales, Australia. Catering for 1,150 students, the school is owned by the Missionaries of the Sacred Heart, and is proudly committed to providing students and their families with a quality and affordable Catholic education.

REQUIREMENTS

- Compatibility with an Apple Macintosh environment of various models of desktops, laptops and handheld devices
- Centralised management and ease of administration
- Support for RADIUS authentication
- Integration with PoE infrastructure

SOLUTION

- Sixty Ruckus ZoneFlex 7962 dual-band Wi-Fi 802.11n access points
- One ZoneDirector 3000 Smart Wireless LAN controller

BENEFITS

- Single point of management for multiple wireless networks increases efficiency and maximises security
- Patented adaptive antenna technology automatically routes to best performing signal paths ensuring highest possible throughput levels
- High user density per AP enables simultaneous access on-demand in all classrooms
- Auto-discovery of ZoneDirector allows APs to self configure and adjust for dynamic performance
- Smart Mesh Network allows APs to be simply plugged into a power source and configured through ZoneDirector



"As a school network manager, I had to ask, 'is this product simple enough for even non-IT staff to manage?' With Ruckus, the answer is yes. ZoneDirector makes management and configuration really simple, and wins hands down with the management interface."

Adrian Burgess

Network Administrator
Chevalier College

Initially, to ease the administrative overhead of the WLAN, Burgess deployed a RADIUS Authentication Server for access control to the network. Chevalier College then began to investigate Wi-Fi offerings from a number of different vendors, determined to find the best-fit product for the school.

"We wanted a managed wireless product that would support the hardware we already had — that included the older spec Mac laptops as well as the recently deployed RADIUS server," states Burgess.

Chevalier's network infrastructure specialists, Cabling and Wireless (formerly AVC Network Infrastructure), were contacted and asked if there was a wireless product they would recommend. Having assisted the college for nearly a decade with the majority of their infrastructure needs, Cabling and Wireless possessed a strong familiarity with the school's ICT environment and was well placed for providing sound input.

Chris Arthur, General Manager of Cabling and Wireless comments, "When the College spoke about their plans for wireless, I suggested they include Ruckus in their trial. My experience told me it was a great product and one they should consider."

With a trial kit of three Ruckus ZoneFlex 7942 APs and a ZoneDirector 1000 controller loaned to Chevalier by Cabling and Wireless, Burgess set about testing the product in the area most reliant upon wireless at that time — the school's library.

Immediately Burgess was impressed

"We used three Ruckus APs in the trial — not only were we surprised with the fact they deployed in moments, but we also saw instant reliability and superior signal strength. And at the end of the day, it was great not to hear complaints from the staff or students," Burgess states.

After receiving three quotes from vendors, the decision was made by Chevalier College to proceed with a wireless solution from Ruckus. Burgess provides insight as to why Ruckus was selected, "First of all, Ruckus was the clear winner when it came to the technical trial. The APs are top spec with great throughput, and provided better coverage than we were expecting," Burgess said.

"Secondly, Ruckus came in at a good price-point and demonstrated a high ROI. The product was compatible with our existing equipment and was already equipped for the future expansions we had in mind." Burgess added, "Lastly, as a school network manager, I had to ask, 'is this product simple enough for even non-IT staff to manage?' With Ruckus, the answer is yes. ZoneDirector makes management and configuration really simple, and wins hands down with the management interface."

It's been eighteen months since the Ruckus ZoneFlex 7962 network with ZoneDirector 3000 controller was rolled out in Chevalier College.

Many classrooms have been equipped with or are adjacent to an AP, resulting in substantial wireless coverage throughout the school. Four wireless networks are effortlessly managed with ZoneDirector, enabling tiered Wi-Fi services for staff, students and guests. Each wireless network is tagged as a different SSID, allowing for separate access control methods including Radius 802.1x and Dynamic PSK which is a very easy-to-use feature of the ZoneDirector. The school is therefore able to provide network users with a high level of freedom within a secure environment.

Staff and students are blissfully unaware of the background workings of the WLAN. All they know is that Ruckus now enables Wi-Fi access from all computers simultaneously in any classroom, without the patched and bottlenecked experience they used to get.

