RMIT
Melbourne, Victoria, Australia

Aruba provides an end-to-end wireless and wired solution that delivers a robust, technology-rich learning environment at RMIT.

**Requirements**
- Campus wide wireless and wired network
- Seamless authentication and on boarding of devices
- Scalable, secure and reliable wireless solution

**Solutions**
- 4,500 Instant Access 802.11ac access points
- 1,200 + Aruba Switches
- AirWave for network monitoring and management
- ClearPass for automation of authentication
- Meridian for wayfinding and mapping

**Benefits**
- A robust, reliable and innovative wireless and wired environment servicing 30,000 plus concurrent connections across 150 buildings, providing half a terabyte of data per day
- Aruba empowers RMIT to deliver technologically advanced learning to students, spread across a large campus comprising around 8 per cent of buildings in the Melbourne CBD
- The unified wireless and wired cloud-based network centralises administration and creates IT efficiencies

"We chose Aruba because it is the leader in its field... we worked closely with team to deliver a wired and wireless network infrastructure to support ‘anytime, anywhere’ learning."

Stephen Castellas
Senior Manager, Global Networks, RMIT
SUPPORTING RMIT TO EMBRACE TODAY’S DIGITAL ENVIRONMENT

The higher education sector is going through a complete digital transformation. Students are empowered to learn wherever they are, across multiple campuses and locations, as well as at home and when they are out and about. Video, education applications and mobility have all contributed to this change in how students learn.

RMIT has adopted a wired and wireless infrastructure across its campuses, which are made up of over 150 buildings that account for approximately 8 per cent of Melbourne’s central business district. RMIT also has several suburban campuses, and has spread its wireless footprint to neighbouring areas including shopping centres and cafes.

“RMIT is no longer a nine-to-five learning environment,” said Mr Erbay. “It is all about learning anytime, anywhere, and so if you look at our core foundation, that is really at the heart of delivering the best student experience.”

The University worked closely with Aruba to deliver the wired and wireless network infrastructure required to support ‘anytime, anywhere’ learning. Mr Castellas said it was a seamless and smooth rollout of 4,500 access points, especially given the scale of the infrastructure being deployed.

“We chose Aruba because it is the leader in its field,” he said. “Historically we worked with HP and it was a logical step to move forward with Aruba”.

It took under a year from making the decision to overhaul RMIT’s wireless network to project implementation and completion.

ENABLING SEAMLESS DIGITAL LEARNING WITH 802.11AC

To meet the current needs of delivering half a terabyte of data to students each day, RMIT deployed 802.11ac access points (AP) and over 1,200 Aruba Switches to prepare for even greater future mobile dependency. According to Mr Castellas, students will typically have up to four wireless devices on them at any one time, including laptops, smartphones, tablets and wearables. Students rely heavily on video resources for their learning needs, as well as digital textbooks and online applications.

Unlike many corporate environments, the university infrastructure is designed to be open and accessible to virtually anyone. Utilising Aruba and Eduroam, students from any university in Australia can visit an RMIT campus, enter their student credentials, and have instant online access to the resources they need for study.

Switching to a more holistic IT infrastructure

Aruba Switches bring performance and reliability to the mobile-first campus. Unifying its wireless and wired network with Aruba’s Mobility Access Switches has increased RMIT’s IT efficiencies.

“Aruba’s Mobility Access Switches and enterprise management tools were critical to consolidating and simplifying our infrastructure to centralise network administration for our lean IT staff,” said Mr Erbay.

Aruba’s campus switching integrates seamlessly with the wireless network as well as with Aruba’s leading security and network management solutions.

Authentication made easy with ClearPass

Aruba’s ClearPass Policy Management provides secure, fast and easy network access. When a student signs up and enrolls with RMIT, they are issued with a student number, and this gives them access to all the applications and resources they require for their learning needs. Once students login using their student ID and a password, they automatically connect to the network for 24 hours.

“Generally the challenge in the corporate world is that you are constantly looking at ways to lock down access,” observed Mr Castellas. “In a university, it is the opposite – you need to keep access open for students, and what has helped us achieve more security in this environment is the implementation of ClearPass.”
Network clarity with AirWave

In order to optimise its network environment and understand how that environment is being used, RMIT also implemented Aruba AirWave. AirWave provides real time insights into network management and performance, and sends alerts to the IT department if there is ever an issue or anomaly within the wireless network.

“We use AirWave and we are just about to install the Aruba Clarity Synthetic component as well,” said Mr Castellas. “This allows us to run transactional testing between our access points. The feeds from AirWave provide real-time insights into our wireless environment and its performance.”

Campus way finding with Meridian

Due to the enormity of the physical footprint, it can be challenging for students to find their way around the various RMIT campuses. In order to combat the problem of getting lost, or not making it to a lecture or tutorial on time, the university undertook a project to install Aruba Meridian across its built environment.

The Meridian solution covers the 6 libraries of RMIT’s Victorian Campuses, with 5,000 beacons servicing campuses in Melbourne’s CBD, Bundoora and Brunswick locations as well as its remote campus in Vietnam. The solution allows students to easily find their way to a classroom or learning environment and provides alternative routes for students and staff with mobility issues.

“Our bigger picture plan was to integrate Meridian with the students’ timetabling,” Mr Erbay said. “Think of it like an airport where it tells you there is a ten-minute walk to the next gate.

It can be a little bit like a maze trying to find your way around Melbourne’s CBD, but Aruba’s Meridian technology has reduced disruption and created a better university experience for our students.”

Better learning outcomes for students at RMIT

Since implementing Aruba’s fully managed wired and wireless network, there has been a significant increase in satisfaction from both students and staff at RMIT. On day one of semester one following the roll out, the network successfully sustained 60,000 unique wireless device connections, and up to 30,000 devices concurrently.

“The best feedback I hear is when staff and students say that, ‘the wireless is great. It just works’,” said Mr Castellas. “Users are able to move from building to building without losing connection, and availability is second to none.”

The Aruba solution deployed at RMIT provides the university with a scalable and reliable solution that is able to support its mission to empower students to learn anywhere and anytime.

About Aruba

Aruba, a Hewlett Packard Enterprise Company, is redefining the IT edge with Mobility and IOT solutions for organisations of all sizes globally. The company delivers IT solutions that empower organizations to serve GenMobile – mobile-savvy users who rely on cloud-based business apps for every aspect of their work and personal lives – and to harness the power of insights to transform business processes.

With infrastructure services offered as software from the public or private cloud, Aruba enables secure connectivity for mobile and IoT — under one roof. Aruba allows IT professionals to build networks that keep up with these changes by migrating away from expensive-to-operate and proprietary infrastructures, which were originally designed for fixed network connections within the physical connections of the corporate headquarters.