

ARUBA CUSTOMER STORY

JAMES COOK UNIVERSITY

Queensland, Australia

ArubaOS 8 + Mobility Master delivers connectivity for 22,000 geographically dispersed students, boosts attendance and improves services at multiple JCU campuses.



With 22,000 students across several locations, including Townsville, Cairns and Singapore, as well as several smaller operations across Queensland, providing students, staff and guests with a seamless campus-wide wireless network was top of mind for Swain Kirk.

"As one of Australia's top tertiary education institutions, we needed a solution that had high availability in a very dense environment, and would provide students with an incentive to remain on campus for their learning," said Kirk.

REQUIREMENTS

- High density, unified Wi-Fi
- Scalable, campus-wide connectivity
- Ease of management

SOLUTION

- 802.11ac Indoor & Outdoor APs
- 7200 Series Mobility Controllers
- ArubaOS 8 Operating System
- ClearPass for access control
- AirWave for network management

BENEFITS

- Pervasive 802.11ac-enabled Wi-Fi serves 22,000 students, staff and guests
- Access boosts student engagement and provides an immersive wireless experience
- Ease of management using ClearPass, AirWave and ArubaOS 8
- Enables future adoption of Meridian and wireless Aruba beacons for wayfinding, location services and notifications
- High availability and business continuity with ArubaOS 8
- Better user experience with automated RF optimisation

"Aruba is a strong partner in our mission to provide a total solution for our students and staff,"

Swain Kirk

Head of ICT Infrastructure Services, James Cook University in Australia





ARUBA KEY PARTNER FOR JAMES COOK UNIVERSITY WIRELESS ROLLOUT

As a large tertiary education institution, James Cook University (JCU) recognised the need to roll out a future-proofed wireless solution that could meet the connectivity and learning needs of its student body, as well as staff and guests.

“It was essential we rolled out a solution that would provide for coverage both indoors, including dormitory buildings, as well as the outdoor areas of our campuses,” said Kirk.

JCU selected Aruba, a Hewlett Packard Enterprise company. “Aruba was the only company that met all our requirements in terms of wireless connectivity, as well as our network management needs and our future plans to roll out beacons for wayfinding, attendance and announcements.”

MOBILE FIRST ARCHITECTURE ANSWERS JCU'S NEEDS

In order to meet the needs of its students, staff and guests, JCU deployed a multi-campus-wide enterprise Wi-Fi system comprising over 2,700 Aruba 802.11ac indoor and outdoor access points, in addition to 7200 Series Mobility Controllers.

The organisation also increased the efficiencies of its wireless network by deploying AirWave, to optimise the Wi-Fi experience, as well as ClearPass for strong network security.

“We use ClearPass for all authentication on the network,” said Kirk. “We assign roles to users depending on their requirements, which is critical for managing the overall strength and resiliency of the implementation.”

JCU First Global User of ArubaOS 8

JCU was a first adopter of Aruba’s new ArubaOS 8 operating system globally. ArubaOS 8 provides JCU with the advanced network monitoring capability it requires using Mobility Master to manage and configure the institution’s high-density network.

ArubaOS 8 was critical for the successful management of the 802.11ac access points, particularly within the student accommodation buildings on campus. JCU was the first organisation globally to implement ArubaOS 8, and permits configurations to be pushed out to APs, as well as to have a top-down view of traffic within the network.

Aruba ArubaOS 8 and Mobility Master also provide automated RF optimisation with AirMatch in dense environments for enhanced user experience and Controller Clustering for seamless failover to significantly enhance high availability and reduce downtime.

AIRWAVE PROVIDES TRAFFIC CONTROL

According to Kirk, the biggest issue JCU faces is the sheer number of access points, as well as the volume of data transmitted across the network on a daily basis.

“We rely on AirWave to provide a clear path to the controller, as well as an overview of the health of the APs and the network,” he remarks.

“Without AirWave, we would miss events occurring on the network,” he adds. “At any given time, due to construction, there could be APs that are out of service, and without AirWave it would be easy to miss that fact.”

Managing the Internet of Things

Along with campus-wide access to Wi-Fi for students, staff and guests, JCU also operates a major Internet of Things network using ClearPass to securely onboard devices. The IoT network has sensors placed on the Great Barrier Reef, as well as in the Daintree Rainforest. Both networks monitor the health of their respective environments. A further IoT project is tracking meat from cattle in a program called “Paddock to Plate.”

“We have been working on a system where the majority of our IoT devices are pre-registered using ClearPass,” says Kirk. “That way they can automatically connect to the network, and deliver their data to researchers with minimal intervention.”

Leveraging Meridian on Campus

JCU has recently trialled Meridian, in conjunction with a new student services mobile application. This will allow students to find their way around campus, as well as to broadcast proximity-based announcements through Bluetooth-enabled Aruba beacons, for example if there is a change to a lecture theatre, or an emergency.

“We will be rolling out Meridian in the near future, in conjunction with a revised student services application currently under development,” he says. “We will use a combination of GPS for wayfinding, and Bluetooth for announcements, with the aim of dramatically improving student services.”

Aruba Enables Greater Engagement on JCU Campuses

Today, JCU’s students, staff and guests have constant access to reliable, always-on Wi-Fi, regardless of where they are on campus.

According to Kirk, one of the goals of having Aruba Wi-Fi is the enhanced learning environment it provides, as well as the level of network access that today’s #GenMobile students expect, regardless of where they are located on campus.

“We provide a network that has better performance and improved benefits for users than they experience at home, with the goal being to keep them on campus to fulfil their learning requirements,” he says.

Aruba Powers JCU into the Future

Aruba’s Wi-Fi platform, in conjunction with AirWave, ClearPass and ArubaOS 8, is providing JCU with a wireless network able to fill its requirements today and into the future. It provides a fully immersive mobile experience for millennial students, and serves an extensive Internet of Things network for research staff.

JCU views Aruba as an equal partner in its wireless journey. “Aruba is a strong partner in our mission to provide a total solution for our students and staff,” says Kirk. “The best feedback we get from students is their silence – everyone is satisfied with their connectivity.”

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.