

ARUBA CUSTOMER STORY

PADUA COLLEGE

Brisbane, Australia

Australian college simplifies and secures the connected experience across wired and wireless networks



Modern schools understand that in order to deliver a world-class learning experience, the network is foundational. For Padua College's Network Manager, Rama Chintapalli, seamless connectivity has been top of mind, particularly when planning for growing device density, traffic capacity and IoT initiatives.

"The groundwork for our network was laid around four years ago, but it's continued to evolve since then to meet the changing needs of our students. The one constant has been reliability – even in the face of growth and new challenges," explained Chintapalli.

REQUIREMENTS

- A single-vendor wired and wireless network
- Comprehensive management and monitoring insights
- Enterprise-grade, intelligent network switches – from edge to core

SOLUTION

- Aruba Dynamic Segmentation to separate and secure traffic
- Aruba ClearPass Policy Manager with profiling
- Aruba AirWave for network monitoring and management
- Aruba 315 access points for superb Wi-Fi performance
- Aruba 5400R series core network switches and 2930F edge switches

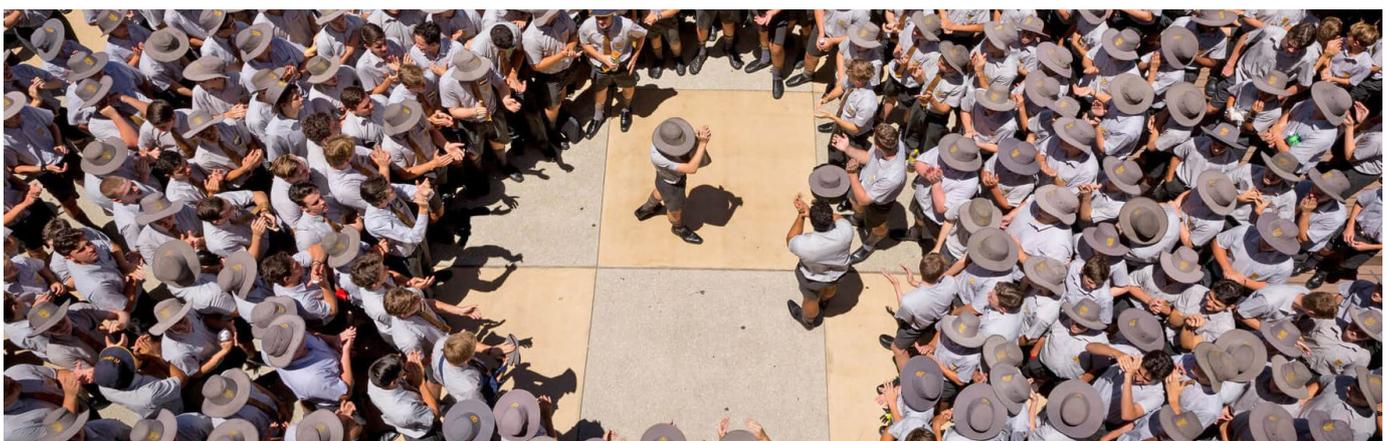
BENEFITS

- Centralised and simplified network administration and management
- Dynamically segmented traffic delivers consistent, high performing network
- Automated policy enforcement to support IoT
- Always-on connectivity for over 3,000 simultaneously connected devices
- Reduced IT intervention with automated and secure device onboarding

"Aruba has fulfilled all of our connectivity requirements – from monitoring to management of our wireless and wired environment. We wanted one solution and Aruba delivered the complete package."

Rama Chintapalli

Network Manager, Padua College



ARUBA PROVES YOUR NETWORK CAN HAVE IT ALL

Padua College is an independent day school for boys from years 5 to 12. With over 1,300 students moving between their city campus, sports fields and outdoor education facility, they needed a network that would deliver a seamless experience for staff, students and guests regardless of their location.

To achieve this, Padua College began by targeting a replacement of existing switches and wireless network infrastructure in 2016. Armed with a wish list of functionality and a desire to move towards a modern, single-vendor networking solution, they selected Aruba.

What followed was the introduction of a complete monitoring and management solution, culminating in the deployment of Aruba Dynamic Segmentation to dramatically simplify and secure the network.

CONNECTED SOLUTIONS TO ADVANCE THE NETWORK

Aruba's ClearPass played a pivotal part in establishing role and device based secure network access control for BYOD and school issued devices. In peak times, this could be up to 3,000 devices connecting across 3 campuses. With ClearPass, IT could automatically enforce policies based on user's roles, device type, authentication method, device health and more –all while delivering the critical visibility required to establish security controls for a Zero Trust model.

For additional insights, control and troubleshooting, Padua College also deployed Aruba AirWave, providing overall effective management of their infrastructure. IT now has critical and granular visibility into all things connected, including real-time and historical connection information.

"ClearPass has provided us with a lot more control and visibility over what the students are accessing. If someone is having an issue, we can isolate and rectify the problem faster," said Chintapalli. "We were able to achieve this out-of-the-box, but we saw an opportunity to get more out of it. In an environment like ours that features numerous device and user types – from laptops and printers to content streaming devices – separating and securing network traffic became our priority."

From Aruba ClearPass to Dynamic Segmentation

With the foundations in place, Chintapalli and his team turned their attention to Dynamic Segmentation. Rather than manually coding each switch, they wanted to automatically profile and authenticate each device, and prioritise traffic accordingly. This process – known as

Dynamic Segmentation – effectively extends the power of ClearPass by unifying policy enforcement across wired and wireless networks, keeping traffic secure and separate. No more manually configuring ports, and a marked reduction in resource-intensive configuration changes for new and existing equipment thanks to the ability to centrally orchestrate dynamic device access.

"While it did require an investment of time upfront to define the policies and deploy the solution, the long-term savings – both time and money – significantly outweighed any concerns in the short-term," said Chintapalli. "We were also still able to work on a number of other critical IT initiatives concurrently."

For added peace of mind, Dynamic Segmentation allows Padua to control different devices on the network, even if they haven't been seen before. Those that are unknown are dynamically isolated, with restrictions relaxed only when the device is successfully profiled. "In an education setting," explains Chintapalli, "this zero-trust approach is particularly important. We don't trust anything until we see what it is, who it is and what they're trying to access."

Education made easier with IoT

Like many schools, Padua College rely on a number of IoT devices to help deliver their curriculum. With a robust network capable of supporting 102 Vivi boxes – a device that provides web-enabled media streaming – teachers are now able to create interactive learning environments in any classroom across all 3 campuses. When the Vivi box is connected to dedicated ports in each classroom, ClearPass and Dynamic Segmentation profile, authenticate and prioritise the devices allowing for simple plug and play connectivity.

TRUE NETWORK VISIBILITY TO GIVE BACK CONTROL

Pre-Aruba, Padua College had a 1Gb internet link, however with the school network using a single VLAN, broadcasting and bandwidth issues were a daily struggle. Today, the design of the network gives Padua College complete control. The network is separated into four categories – senior,



junior, teachers and BYOD – allowing them to quickly know where traffic priorities lie.

“These insights have shown us that restricting connections to only school-issued Windows devices, or dictating when students can download app updates, has minimised bottlenecks on the network,” shared Chintapalli.

A dual approach to providing guest access with minimal intervention

Improving the guest Wi-Fi experience was another key initiative tackled by Aruba and Padua College. Campus guests were keeping IT busy manually connecting them to the network – not to mention the challenges of managing the plethora of different devices that this varied audience brought in with them.

In response, a two-pronged approach was deployed – one for business hours and one for after hours.

After hours, an SMS-based solution prompts guests to provide their mobile number to automatically connect without IT intervention, ensuring contractors and visitors can stay connected on weekends, or before and after school hours. During the day, a challenge response – in the form of an email to Padua – during the onboarding process ensures IT know exactly who is where, or if a device is encountering onboarding or connectivity issues. This solution has the added benefit of preventing students from accessing the guest Wi-Fi rather than the student network which is more tightly controlled.

FROM STRONG FOUNDATIONS, BIG PLANS GROW

An enduring partnership with Aruba has ensured a next-gen network experience to support Padua College’s digital curriculum, and staff and student technology expectations – all backed by direct access to technical support from the highly responsive team at Aruba.

“We’ve had a really good relationship from a technical support perspective. We can call the Aruba team at any time and get advice – and the deployment has been most successful due to that support”, explained Peter Yeates, Padua College’s IT Manager. “For Rama to be able to ask a highly technical question and get an answer quickly, that has been a huge benefit.”

Looking ahead, Peter and his team have plans to further consider Aruba CX Switching. “The ability to see the bigger picture from edge to core is very impressive,” Peter shared. “We need to be able to see and analyse that sort of data so we can then use it to verify business decisions. Instead of relying on being told ‘this happens all the time’, we can look at the data and validate it’s actually only 5% of time. That’s very valuable when you consider we’re a little team running a big enterprise”.

The IT team also have plans to further shore up their network in preparation for robotics and virtual reality curriculums, and keep a firm eye on trends to remain one step ahead of the technology curve. Whichever way they choose to go, their solid network foundations have put them in good stead to deploy and support whatever comes next.

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.



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