CURTIN UNIVERSITY
Ruckus Networks Connects Mauritius Campus to Perth's Curtin University

CASE STUDY

OVERVIEW

Curtin is an internationally focused research and teaching university based in Perth, Western Australia with campuses in Singapore, Malaysia, Dubai and Mauritius and has strong connections to businesses, industries and over 90 universities worldwide.

REQUIREMENTS

- A scalable Wi-Fi network solution to provide reliable access across the university campus

- Capacity to provide high user concurrent connections without performance degradation

- Provide a future-proof solution

- Provide client with a user-friendly and flexible central management interface for the wireless network for easy administration

SOLUTION

- Deployed 68 access points to provide campus-wide coverage

- Ease of management with Ruckus Virtual SmartZone

BENEFITS

- High performance network solution that meets current and future Wi-Fi needs with superior connectivity and coverage

- Improved density capabilities and overall throughput

- User satisfaction across students and university staff

CHARLES TELFAIR CAMPUS ELEVATES STUDENT EXPERIENCE WITH WI-FI REFRESH

The current generation of students have grown up with technology—using devices like laptops, smartphones and tablets. In order to keep students engaged, institutions of learning must change with the times. We are now in an era where curriculum for tertiary education are transitioning to a blend of online and face-to-face learning. On top of this, there has been a change in the lecturer/student role, where the lecturer now acts more as a guide in comparison to the sole expert, as information required by students are often just two clicks away. What's more, classrooms have become collaborative flexible learning spaces with technology and access playing a critical role here where reliable connectivity is no longer a 'nice-to-have', but a strategic component.

In Mauritius, impressive progress has been achieved in the education system in terms of compulsory primary education, free secondary education and more tertiary institutions providing quality education. In fact, Government expenditure on education and training for the financial years 2016/2017 and 2017/2018 are estimated at MUR 16,791 million and MUR 18,214 million, representing 12.7% and 12.4% of total expenditure respectively and with a new ICT Strategy for Mauritius's Education Sector, it is clear that access and digital technologies are becoming critical to not only making education more accessible, but also providing better services and enhancing the learning experience and teaching processes. And this is exactly what Charles Telfair Campus, part of Curtin University, is doing. The campus serves approximately 2000 students and faculty, located in Moka in Mauritius. Curtin is an internationally focused research and teaching university based in Perth, Western Australia with campuses in Singapore, Malaysia, Dubai and Mauritius and has strong connections to businesses, industries and over 90 universities worldwide.

CHALLENGE

The Campus was facing critical issues regarding their campus wireless connectivity. Students are heavy users of the internet with the use of social media and streaming educational content due to the needs of their respective courses. However, due to an aging legacy network, there was often frustrations from both students and the IT department due to network outages and downtime.

"Access to internet is a must at Charles Telfair Campus as it forms part of our curriculum. However, in the past, we received numerous complaints, especially when lectures were interrupted or when students weren't able to work on or submit their assignments. The students were impatient, and the IT department became frustrated," says Surendra Sewlall, IT Manager at Charles

> "We had to find an appropriate Wi-Fi solution which would be able to solve all our connectivity issues and of course, we had to ensure that we had a good return on investment in the medium and long-term. We definitely made the right choice—the system works perfectly without gaps. I do not think I would have been more satisfied with another brand."

SURENDRA SEWLALL
IT Manager, Charles Telfair Campus

> "We have been implementing Ruckus solutions for many years, but the one at Charles Telfair Campus was a different experience—being able to convince a non-Ruckus user to revamp his entire wireless infrastructure on Ruckus products was our greatest win in this challenge. Moreover, the testimonial of Suren about his appreciation on our implementation and his experience on the Ruckus solution validates our mission—which is, nothing is above customer satisfaction!"

SOURYANAND NARROO
Head of Datacom, Infosystems AA Ltd

Telfair Campus. "Some of the lectures are being simultaneously conducted with Curtin University in Australia—meaning campus-wide Wi-Fi and connectivity is a mandatory criterion. We needed a solution that would not only solve the unsteadiness of the current Wi-Fi connectivity, but also provide visibility over the wireless network for better monitoring and troubleshooting," says Suren Sewlall.

SOLUTION

Following a tender process, Ruckus distribution partner Westcon and integration partner Infosystems AA Ltd, headed by Souryanand Narroo, was appointed to design, install, and manage the project.

"We needed a solution with the required capacity to meet the demand for high user concurrent connections without performance degradation, while still being reliable and providing flexibility for the management of the network," says Sewlall.

Notably, the expectation from the customer regarding the new setup of the wireless infrastructure at the Charles Telfair Campus was very high. "It was very challenging for us to position Ruckus on this project since they did not have any past experience with the brand. Since the very first meeting, we always tried to reassure them that adopting the Ruckus wireless solution would not only be the most viable investment, but also a worthwhile one as we have seen the products outperform competitors in the toughest of environments," affirms Souryanand Narroo, Head of Datacom at Infosystems AA Ltd. "The key determinant for us to win this project was our past reference sites regarding similar successful Ruckus implementations particularly in the educational and banking sectors, which gave Ruckus an edge over its competitor brands."

Busy indoor locations like classrooms and education campuses can be the most challenging Wi-Fi environments. The Campus compared the performance of the proposed Ruckus access point (AP) with a competitor product to determine which one was best suited to their requirements as well as requested an RF plan to ensure better coverage across the campus before making a final decision. Due to cost, reliability and performance, 68 Ruckus 802.11ac APs were deployed to cover 4 floors, 62 locations including the classrooms and lecture halls, auditorium, canteen, libraries and staff locations providing capacity for up to 900 concurrent users, managed by the Ruckus Virtual SmartZone controller software. Dozens of users share the same crowded RF spectrum, all expecting fast, reliable connectivity. This solution delivered the right combination of performance, affordability and ease of management.

The Campus has experienced significantly improved Wi-Fi performance and user satisfaction since the successful implementation of the Wi-Fi network. "There has been a big noticeable change since implementation as connectivity has never been so steady, even during peak time periods. In fact, sometimes I even forget we have a wireless system as everything works and I get no complaints from the students or the staff. It was difficult to explain why we did not opt to go for a traditional big brand—but I think everyone now sees we definitely made the right choice," states Suren Sewlall.

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