

Baiko Gakuin University

Optimal Wireless Connectivity Is Critical to the Use of ICT in Higher Learning

OVERVIEW

The Baiko Gakuin mission school was founded in 1872 in Nagasaki by American missionary Henry Stout, and his wife, Elizabeth. In 1967, the school established a university—Baiko Gakuin University which recently celebrated its 50th anniversary in 2017. Baiko Gakuin University is the 6th of its kind to be established in Japan, continues to nurture “glocal” professionals” who can contribute to their local communities while maintaining a global perspective.

REQUIREMENTS

- Network infrastructure which is secure and able to accommodate the university’s increasing use of cloud storage.
- A scalable network which is not only reliable, but also able to accommodate the increasing number of connected devices from both students and faculty.
- A campus network that is both easy and efficient to manage by a lean IT team.

SOLUTION

- High-performance, seamless, and reliable connectivity.
- Deployed Ruckus access points (APs) across campus buildings, both old and new.
- Ruckus ZoneDirector controllers were deployed so that the campus WLAN can be easily deployed, centrally managed and automatically tuned.

BENEFITS

- High-performance and stable Wi-Fi for all students and faculty.
- Reliable connectivity is now available in classrooms with high concentration of connected devices.
- Network management operations made more effective and efficient, freeing up IT staff resources.



Empowering Both Students and Teaching Staff by Tapping on ICT and Ruckus Networks’ Technology for Seamless Connectivity

Baiko Gakuin University have adopted wireless LAN solutions from Ruckus Networks since early 2016, and more recently in early 2019, also deployed Ruckus solutions at “Crosslight”, a new addition to the buildings on campus. This communications infrastructure is intended to form the foundation of the university’s future-oriented next-generation learning facilities.

Under the university’s long-term plan dubbed “Baiko Vision for 2020”, Baiko Gakuin University administrators are aiming to incorporate both information and communications technology (ICT) and internet connectivity for the benefit of both students and faculty members. The promotion of ICT is not merely positioned to execute on the Japanese education framework and policies, but also to modernize the school management systems.



As General Manager for Baiko Gakuin University, Masakazu Nishimura was charged with overseeing efforts to transform the school's communications infrastructure, alongside the modernization of administrative systems. Looking back, he notes that, "Our efforts to take advantage of ICT have been underway since before 2015. In that process, as we started migrating our faculty data management systems to incorporate cloud storage, we realized that we needed to think more seriously about connectivity and reliability." It was under those circumstances, says Mr. Nishimura, that he first encountered Ruckus Networks at the Makuhari Messe Convention Center, at a trade show in the spring of 2015.

"New to me was the discovery that Ruckus has technology that is able to deliver wireless connectivity with specific directional antenna patterns for every AP and device, unlike typical access points which simply send out signals concentrically. At the time, we were already considering adding APs to try and build a more stable network, with the goal of prioritizing quality over quantity," recalls Mr. Nishimura. It was Ruckus proprietary antenna technology that ended up giving the team at Baiko Gakuin University confidence that Ruckus solutions could help improve their robustness of their campus network.

Laptops Become Mandatory For All Students; a Direct Result of Implementing Ruckus Solutions

With a reliable and high-performance wireless network now in place, Baiko Gakuin University now requires every student to have a laptop, helping students take greater advantage of what ICT has to

offer. Currently, the school is moving ahead with efforts to provide students with a greater number of classes that incorporate active learning empowered by technology.

"Improving our wireless network was critical, as we were taking steps such as making laptops mandatory for students and abolishing the need for faculty to use desktop computers. Ruckus' proposed solutions were also priced very competitively, as we worked with the Hi-Elecom team to both evaluate and test their performance on our network," says Mr. Nishimura.

In terms of benefits, he notes, "The results have been obvious. Unstable connectivity is now a problem of the past, as we replaced infrastructure from competing brands with Ruckus' solutions. We've also seen a marked decrease in complaints about the wireless experience. Not only that, it has become easier to spot and manage system failures, greatly reducing our IT staff workload."

Besides testing for optimal coverage and signal strength prior to installing the Ruckus solutions, the university also installed two APs per classroom to better handle high volumes of connections, as part of their action plan to handle potential equipment failures and network downtime.

"We are still working through some remaining issues to maximize performance, though we are working towards a goal of receiving zero complaints with regards to network usage," concludes Mr. Nishimura.



NORIKO HIGUCHI
President, Baiko Gakuin University



MASAKAZU NISHIMURA
General Manager, Baiko Gakuin University

Innovation Driven by Freedom of Movement and Seamless Connectivity

“Our new building, which was completed in the spring of 2019, is intended as an interactive environment for creating a more student-centered communication, unlike traditional university facilities,” says Jihyun Chang, Assistant Administrative Manager for Baiko Gakuin University.

We define active learning as having comprehensive information exchange between students, as well as paperless communication between staff, all of which can be put into practice with laptop computers. In view of our university’s global vision, having an optimal wireless network environment is crucial in our efforts to provide a learning environment to help our students to better adapt to a connected and global future,” says Mr. Chang.

Mr. Nishimura also notes the usefulness of Ruckus’s WLAN solutions with regards to active learning, highlighting that the university information center is run by students, faculty and staff. “When these three groups are all connected to the wireless network, sharing information, and working together as one, this enables more collaborative work. This not only provides effective hands-on learning for our students, but also lets us put new ideas and innovations into practice much more easily thanks to the outstanding connectivity provided by the Ruckus solutions,” he added.

“The campus connectivity experience, as well as network stability, has improved greatly thanks to Ruckus’ technology that makes it possible to have a different directional antenna pattern for each device. What’s more, network downtime and AP failures have reduced greatly with Ruckus’ help. This will work to our benefit in the future as we look to expand our school’s wireless network in the future to accommodate more students, staff, and connected devices.”

— Mr. Masakazu Nishimura, General Manager,
Baiko Gakuin University

Mr. Chang also notes that the university has also benefited from work-style reform due to having ubiquitous connectivity, saying, “As we deployed the Ruckus solutions, we also switched completely to using WLAN-capable devices, freeing our staff and students from locational constraints. Staff no longer need to limit themselves to working from specific locations, while sharing information like teaching materials, student handouts, and presentations have become more efficient as both students and faculty make full use of their laptop computers.”

Efforts are now underway at Baiko Gakuin University to modernize university management systems, underpinned by the stable network and exceptionally efficient maintainability that Ruckus solutions deliver. As Mr. Nishimura notes, “The issue of how teachers and staff can educate students in a way that allows everyone to have the same perspective is a challenging one for many universities. At Baiko Gakuin University, we are taking an environmental approach to increasing the frequency of interaction with faculty and staff, by moving away from the need for offices for individual professors and bringing in a system of free movement between desks. I think that, in combination with the concept for our new building, the upgrades to our communications infrastructure that Ruckus is supporting will allow our students, faculty, and staff to work together as one.”



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