

CASE STUDY



REQUIREMENTS:

- A secure network which was easy to manage, even remotely
- Faster, more stable connectivity to facilitate new e-learning methods
- Enough bandwidth to cater to usage on mobile devices

SOLUTION:

- Deployed 100 Ruckus Access Points
- Deployed 2 Ruckus ZoneDirector™ 3000 Controllers

BENEFITS:

- Great access to e-learning tools
- Faster and more secure Wi-Fi for students and staff
- Increased user satisfaction and fewer complaints

STAFF AND STUDENTS SEE FASTER AND MORE SECURE WI-FI FROM RUCKUS DEPLOYMENT

Yogyakarta State University (YSU) is located on the Indonesian island of Java. The university provides study programs covering common majors such as math, engineering, Indonesian language and literature with faculties in Education, Languages and Arts, Mathematics and Sciences, Social Sciences, Engineering, Sports Science, Economics and a Graduate School. YSU currently teaches more than 30,000 students and has around 2,000 faculty members and staff. Like every modern university, wireless internet access is critical.

THE CHALLENGES

Prior to the deployment of Ruckus Wireless technology, the YSU network was difficult to manage and had some security issues. For example, students and staff were accessing a common network, which resulted in the occasional misuse of others' accounts, and IT staff at the university found themselves spending three hours a day dealing with simple matters such as password resets.

If there was any issue relating to IT, students and staff needed to report it by going to the Computer Office in person, as opposed to being able to report it online. Any network problems had to be dealt with in person and there was no single security system. The capacity was also very limited: one access point could only handle 20 connected devices at a time.

Furthermore, the University put a strong emphasis on deploying the latest teaching methods in its seminar rooms and lecture halls, and that included enabling students to access the Internet on their devices. Using the old network, that simply wasn't possible.

"The University today is very different to what it was previously," commented Arif Kurniawan, Head of Network and Communication Division at Yogyakarta State University. "And as the University changed, so did our networking requirements."

"We needed a reliable, capable technology that supports the new e-learning methods," continues Kurniawan. "We had a network in place but it just wasn't delivering."



"We're so pleased with the Ruckus solution. There is less down time for students and staff and fewer complaints. The network is much more secure now, and we're already planning to expand the Ruckus footprint here at the University."

ARIF KURNIAWAN

Yogyakarta State University, Head of Network and Communication Division

THE SOLUTION

The University conducted trials using equipment supplied by Ruckus, Cisco, Juniper Networks and HP Networks. They tested equipment for administrative effectiveness and key product features that would answer the university's needs, and price.

"Ruckus was the standout solution," continued Kurniawan. "The features they showed us were simply superior."

The prominent features that Ruckus provided, which the other vendors could not, was the Dynamic Pre-Shared Key (PSK), Ruckus Zero-IT Activation™ and the ability to handle more users.

Ruckus' Dynamic Pre-Shared Key (DPSK) distinguishes lecturers' and students' networks, which makes Wi-Fi usage more secure. With the Ruckus Zero-IT feature, lecturers and students can directly conduct the authentication using their user ID, making user management much more efficient and simpler. By utilizing user ID and email, users can instantly access the Internet without assistance from the Computer Office, reducing the burden and cost of help desk tickets.

After the trial, the YSU deployed 100 Ruckus access points. Ruckus provided high capacity, high throughput designed for high-density mobile device environments such as YSU's auditorium where 3,000 users congregate, digital classrooms and lecture halls, or outdoor areas. Ruckus networks satisfy bandwidth hungry and latency sensitive applications such as Video and Voice over Wi-Fi.

The access points feature Ruckus patented BeamFlex™, ChannelFly™ and BeamFlex+™ Adaptive Antenna Technology respectively, which provides strong connections regardless of device location or orientation. YSU is managing their access points with a Ruckus ZoneDirector™ 3000 Controller. Currently, there are a total of 171 Ruckus access points deployed across the Yogyakarta University campus to date.

THE BENEFITS

The Ruckus deployment resulted in no more down time, increased user satisfaction, an improvement in the efficiency of students' learning and studying process and more security in the storage of important data. Complaints about the wireless network also decreased by 50% once the Ruckus installation was complete.

Yogyakarta State University will be extending the utilization of Ruckus technology by adding 100 more Ruckus access points to cover other areas of the campus.

"We're so pleased with the Ruckus solution," concluded Kurniawan. "There is less down time for students and staff and fewer complaints. The network is much more secure now, and we're already planning to expand the Ruckus footprint here at the University."