## PolyU is the first university in Hong Kong to deliver a full 802.11ac all-wireless network for #GenMobile

THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學

This increasingly mobile world has produced a new generation. #GenMobile is a group of people that are obsessed with their mobile phones, whether it's to play games, exchange emails, or jot down notes in a lecture. This group of people are changing the way they work, live and communicate because of their mobile devices. With the rise of the #GenMobile, the university has seen an explosion in the number of devices connected to the campus network. Individuals carry and connect multiple devices like smartphones, tablets, laptops wirelessly at the same time. A connected, integrated mobile life style means the University have to ensure that the network services run smoothly and that the internet service quality is more than adequate as well as being safe and protected.

As a technology leading university in Hong Kong, The Hong Kong Polytechnic University (PolyU) constantly strives to offer ultra-fast, high-density and reliable Wi-Fi service to its students and staff for the innovative learning, teaching and research community.

### REQUIREMENTS
- High density, ultra-fast Wi-Fi
- Future Mobile apps development including location-based solutions
- Future-proof Wi-Fi network for a superior eLearning experience
- Streamlined management

### SOLUTION
- Wave 2 802.11ac AP225
- 7200 Series Mobility controller
- Aruba AirWave Network Management

### BENEFITS
- Improved Wi-Fi security and coverage and performance for a future proof network for in a Gen-Mobile campus
- Enabling the future development of mobile applications with location based solutions
- High-density, fast and reliable Wi-Fi network that meets rising mobility demand and use of e-learning tools

"The use of technology in higher education sector is constantly evolving and we live in a generation where students are expecting stable access to quality mobile services. The new networking standards must support innovative use of connected devices and advanced mobile applications that support online learning, interactive teaching, data centric research and the innovations that are flowing from the emergence of the internet of things." said Gerrit W. Bahlman, Director of Information Technology, PolyU.

### THE NEED FOR A ROBUST, HASSLE-FREE AND SECURE NETWORK

Today, students are bringing up to four electronic devices to campus and the wireless network can sometimes detect up to 20,000 unique devices during peak periods. The future of education is being defined through the intersection of technology and smart devices. In recent years, PolyU has introduced a number of technologies to support online and interactive learning including the deployment of the latest virtual desktop infrastructure. The "Virtual Student Computer Centre" (vSCC) and the PolyU online Learning Management System provide students with access to learning resources from anywhere at anytime using any device. Students can store and access all of kinds of electronic materials in the online and use them remotely everywhere. All they need is a reliable wireless connection.

"Thinking mobile is a design mindset. Once you ask 'why not mobile' , your approach to build a technology platform changes. Services anywhere means academic and administrative staff can work differently and more flexibly. Innovation and

creative service provision is a natural consequence. But, the infrastructure has to be sound, safe and secure." noted Bahlman.

## Fully deploying an 802.11ac infrastructure

Unlike traditional firewalls, Aruba's next-gen mobility firewall is aware of user roles, device types and app flows. This is carried out through a centralized management system, Aruba AirWave, which provides granular visibility and controls that let you optimize how devices and apps perform on your network. With thousands of devices connected to the network at the same time, it is crucial to obtain visibility on network usage.

The university deployed Wave 2 Aruba 802.11ac access points across the campus in September 2016, managed by the latest and most advanced 7200 Series Mobility Controllers.

"From the beginning to the end of the deployment, Aruba offered direct and in-depth customer service to us. The team addressed to our feedback, needs and wants to ensure that we could deliver an ultra-fast and high performance Wi-Fi network, which would be essential to the user experiences and meet the rising demands of mobile generation #GenMobile." commented Bahlman.

## Optimizing performance and coverage with AirWave

Aruba AirWave, a powerful and easy-to-use network management platform to provide IT staff with visibility into the devices, users, and applications running on the wireless network, to manage its Wi-Fi infrastructure.

> "With AirWave, we can troubleshoot any application issues in a timely manner. AirWave is a centralized interface, which can provide us with real-time monitoring, proactive alerts, and historical reporting so that our IT staff can use this information to continuously optimize wireless coverage and performance."

**Gerrit W. Bahlman**
Director of Information Technology, PolyU

### FACTS OF POLYU

PolyU was established in 1937 as a Government Trade School and is now a widely recognized university that excels in professional education, research and far-reaching partnerships. It also boasts an impressive network of talents – 5,000 staff, 30,000 students and 365,000 alumni. In addition to classrooms, laboratories and other academic establishments, the campus offers recreational facilities and a full range of services including restaurants, bookstores, banks and student hostels which are located in the vicinity of the campus.

"PolyU is a large campus, if we are able to detect the root cause of the issues, this will help us minimize problems in the future." said Bahlman.

### BUILDING THE #GENMOBILE CAMPUS

The Wave 2 Aruba 802.11ac APs has an integrated Bluetooth Aruba Beacon, an easy to manage tool that can provide advanced location and indoor way finding, as well as proximity-based push notification capabilities.

"The Bluetooth Aruba Beacons offers accurate positioning that allows us to send SMS notifications and announcements to students and visitors based on their location. For example, we can send out welcome messages to our new students during orientation week. With the capability to provide smart location-aware services, we can deliver a new range of services for our students, staff and guests." said Bahlman.

### LEADING THE UNIVERSITY INTO A DIGITAL FUTURE

"The deployment of Aruba's 802.11ac network in PolyU has demonstrated that Aruba can support the increased use of mobile phones and smart-learning tools inside the classroom and across the campus. We need solid infrastructure that will enable our University's digital future," said Bahlman.

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