Saigon South International School

- School in Vietnam using Meraki MR, MS, MX to support more than 1,000 students
- Reliable, high-performance wireless meets demand of students' mobile devices
- Easy management of campus network with limited IT resources

Saigon South International School (SSIS) is a private international school in Ho Chi Minh City, Vietnam. With more than 1,050 students in early childhood through grade 12, the SSIS curriculum follows an American-style method of education with a focus on student engagement and participation.

With a vast campus spread across 6 hectares, David Perkin, ICT Director, and his IT team are responsible for managing the network at a campus with 3 buildings, covering three elementary school, middle school, and high school, as well as a large outdoor area and green space.

Original Networking Challenges

Their existing network was comprised of several different vendors, making it difficult to easily see a holistic view of their entire network. They were looking for a solution that allows them the ability to manage their network in one place.

With more than 1,000 students and 250 faculty and staff on campus, SSIS needed to find a new solution that would help manage their bandwidth and network traffic to reduce costs and facilitate learning

Their existing firewall solution provided Layer 3 traffic shaping, but did not have Layer 7 traffic shaping - preventing them from controlling the bandwidth at an application level.

Why Cisco Meraki?

Mr. Perkin wanted a solution that provided centralised management and could control bandwidth at the student level. After a number of conversations with his peers and resellers, they decided to test out the Meraki platform, starting with the Meraki MX security appliance. They were immediately impressed by Meraki since they could manage their whole network, including Layer 7 traffic shaping from an easy to use web-based dashboard.

The team wanted to manage traffic and bandwidth per application by using Layer 7 traffic shaping rules, rather than having to cut off access to applications. "Instead of shutting off Facebook, for example, we want the ability to manage the bandwidth used by

Facebook. That way, the kids can still use Facebook, but they only use limited bandwidth," said Mr. Perkin.

His team wanted to manage their whole network for a large and distributed campus on a single dashboard to have ease of management and troubleshooting that they can do from their desks.

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> -- David Perkin, ICT Director at Saigon South International School

The Deployment

Mr. Perkin and his team managed the deployment in stages -- starting with the MX400 security appliance, followed by switches and wireless access points.

The deployment of Meraki was remarkably easy compared to other vendors. Using the Meraki cloud-based dashboard, Mr. Perkin and his team configured the switches and access points even before they arrived in Vietnam. With only three IT technicians at a distributed campus, the ease of deployment definitely helped the team. "Once they received the shipment, all the team needed to do was push the configuration they had set in the cloud, plug the switch and access point in to the Internet, and it would download the configurations", explained Mr. Perkin. This allowed the SSIS team to have a speedy deployment process.

Mr. Perkin noted that it was the physical aspect of the deployment that took the most time. "The hardest thing about putting the wireless access points up was the physical installation, such as mounting it to the wall. Once that's done -- the setup itself is rather easy thanks to the Meraki dashboard," said Mr. Perkin.

Currently, SSIS has 1 MX400 security appliance, 26 MS switches, and 140+ MR indoor and outdoor access points.

The Results

The installation of Meraki has enabled the school to use technology to improve teaching and learning. With wireless now covering the entire school campus, students have the flexibility of learning from anywhere. "Many of the elementary students use iPads outside to look and research in the garden areas, specifically to take pictures for a science unit of insects, plants, or flowers. With the school wireless, this learning process is seamless and easy for them," added Mr. Perkin.

The team can manage different levels of network access for students and teachers in different grade levels. "We wanted to use Active Directory to define different groups and set up policies based on whether they were students in high school or middle school, or whether they were teachers or employees, and this was something that Meraki allowed us to do," said Mr. Perkin.

Meraki has also allowed Mr. Perkin and his team to manage both a public network and a private network simultaneously. Mr. Perkin and his team manage a student network, a staff network, and a guest network (mostly for parents) on separate SSIDs. However, for specific events, Mr. Perkin uses the Meraki dashboard to spin up new SSIDs. "If we have a group of teachers coming from other schools to have a professional development day, we can easily set up an SSID to allow them onto the network - without them logging on to the school's private network."

The team used to experience cable damage often, with no way to quickly determine which cables needed to be replaced. "Sometimes a cable may not work properly from water damage or damage from animals. With Meraki, we have the ability to run a cable test to see if the cable is damaged." In some instances, a damaged cable would only allow one-tenth of the throughput, which slowed down the connection. With Meraki, the team is able to identify the damaged cable with the dashboard. "In the past we had to spend a lot of time and energy troubleshooting why students in a section of the campus were complaining about an Internet issue. Now we can go, look at the dashboard, test the connection, and we can tell that there's an issue with a cable, saving us a lot of time," explained Mr. Perkin.