ARUBA CENTRAL TO SUCCESS OF MOBILE-FIRST STRATEGY AT PIONEERING UK SCHOOL

Ten years ago, Stanley Park High was given a once in a generation opportunity to rethink its approach to teaching. The comprehensive school, on the outskirts of London, has embraced that moment.

A central premise of the rethink is human scale education. The school aims to create learning journeys that are diverse, flexible, rich, experiential and active. It places an emphasis on social and emotional intelligence, as well as academic.

"We want to produce students with an intellectual curiosity," says CEO of the School Academy Trust, David Taylor. "Students with a confidence to take risks, and the ability to organise and present themselves effectively."

AN OPPORTUNITY TO RETHINK THE WAY EDUCATION IS CONSUMED AND DELIVERED

With a plan to relocate the school from a site built in the 1930s (with an original capacity of just 400) to a fit-for-purpose new build, Stanley Park High had a physical as well as philosophical clean slate.

"We had an opportunity to rethink everything – the physical space, the curriculum, and the ICT," says Taylor. "We recognised that teaching subjects in a silo, or having students sat looking at a blackboard for an hour, was no longer appropriate for the 21st century."

From an IT perspective, Michael Sullivan, IT manager, says there was an acceptance that the school couldn't be too caught up in technological detail: "Technology dates quickly. We knew that plans made in 2008 could look dated within five years. The broader idea was to create an environment that was scalable and flexible."

When the new building opened in 2012, network connectivity was largely fixed, with 12 IT suites dotted around the campus. By 2016, Sullivan remarks, it was clear the future was going to be wireless: "We wanted students

REQUIREMENTS
- Provide a real-time collaborative and learning experience
- Make it easy-to-share and to access work anywhere
- Ensure 24x7 availability of services
- Allow the school to shift from fixed to wireless as primary connectivity method
- Future-proof network, with means to add new capacity as required

SOLUTION
- Aruba Central cloud-based network management
- 802.11ac Wave 2 Aruba indoor and outdoor Instant access points
- Aruba 2930F Campus Edge switches
- Aruba AOS-8

OUTCOMES
- Seamless, high-performance roaming across the school
- Supports modern teaching methods, including cloud-based Mobile Learning Environment and full mobility for students
- Simplifies network management, with singular view of access and performance, easy-to-scale bandwidth, and granular reporting
- Maximises physical space, opening up the entire campus and enabling flexible use of classroom
- Supports continued innovation around location services, IoT and smart building management

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> **MICHAEL SULLIVAN**
> IT MANAGER, STANLEY PARK HIGH

to be able to roam seamlessly around the school, with no loss of connectivity or bandwidth."

Flexible enough to accommodate an evolving wireless strategy

In order to support the Stanley Park High IT staff and activate a managed services model, a cloud-based solution was defined, based on the Aruba Central management platform. This approach significantly reduced complexities related to management and provides a robust framework

for network security and access control. The solution is now providing full management and visibility for Aruba Instant APs and switches at Stanley Park High. In addition, advanced analytics services and connectivity health enable Sullivan and his team to improve network efficiency.

The site is covered with over 90 x 802.11ac Wave 2 Aruba 315 and 20 x Aruba 335 Instant access points, along with Aruba 2930F Campus Edge switches. Aruba Clarity, as part of the Central features, is used for predictive troubleshooting to ensure 24×7 availability. ArubaOS 8 allows for many beneficial advantages, including the automation and ease of firmware upgrades across the Instant access points as well as Live Update, which means that this can happen with no interruptions to services. The solution was designed and implemented by Medhurst, a long-time and accredited Aruba partner, ensuring a robust roll-out. Medhurst will also manage the support for five years and use Aruba Central for remote monitoring of the infrastructure. The school also access Aruba Central for tasks varying from generating reports and dashboards to self provisioning of user accounts.

"I was particularly impressed by the number of features going into Central," says Sullivan, "and the evidence of Aruba taking on board customer feedback. The robust Aruba solution and the partnership with Medhurst as our trusted partner and managed services provider, offers us the assurance and peace of mind that we require."

He says the reporting and ease of management will be invaluable as the school's wireless strategy evolves. Future plans include IoT and smart building management; the budget is in place to upgrade the network every four years.

Over the next couple of years, it is expected that the number of mobile devices connected to the school's network will more than double, and scalability and headroom for this growth was a key design criteria. "Wireless will eventually be the primary means of connection across the school," he says. "We have capacity for 2,000 devices to log on concurrently, with seamless roaming."

SEAMLESS ROAMING ACROSS THE CAMPUS

The Stanley Park High campus has capacity for 1,300 children, across two three-storey blocks. The three storey building is divided by a covered atri-um, with seating and study areas throughout. From the start of the 2017-18 school year, the Aruba wireless network covers the entire site.

Students are now free to roam around the buildings, even during study periods. There is no drop in connectivity, and there is consistent enough bandwidth to view heavy media files. The plan is to extend wireless coverage throughout the campus, including the outdoor areas, sports facilities and horticulture buildings.

The solution has allowed the school to accelerate the roll-out of mobile devices to students. After extensive testing the school is phasing in Chromebooks to all students (the ruggedised Chromebooks come with tamper-proof keyboards, two cameras, toughened glass, and are capable of withstanding a drop from one metre and a spill of one-third of a litre of water). Students can use the Chromebooks at school or at home.

"To make sure the learning experience was the same for all students, we chose a specific device for the students to learn on," says Sullivan. "It is fairer and more sensible to standardise on one device."

Supporting cloud-based interactions

The network also supports a new Mobile Learning Environment, based on Google Classroom. Students log on to view their entire course progress, with full history, and teacher notes. Teachers are now more engaged in how they review coursework – online feedback can be ongoing, as opposed to weekly, paper-based marking.

"We've aimed to reduce our print output to enable a greener footprint, and we'll be reviewing whether we need the 12 IT suites we currently have," says Sullivan. "The feedback from teachers has been very positive. They now have everything they need in one place."

Mobility as a central pillar of the student experience

This freedom and flexibility, Taylor explains, should inspire longer-term changes to how teachers teach, and students learn: "I visited a school recently where the teacher asked a class of 7 and 8-year-olds 'does colour matter?' Each of the students had an iPad® and could start to explore the subject. This is the type of open-ended learning environment we want to promote.Parents and governors are fully aware of what we're trying to do, and how we're doing it. Mobility, and the freedom and flexibility that come with it, is now fundamental to how we operate," concludes Taylor.