

CASE STUDY

Wellington College

Aerohive's 802.11ax Access Points are Enabling Enhanced Learning at Wellington College



Wellington College

Wellington College is an independent, co-educational day and boarding school in the village of Crowthorne, Berkshire. Inaugurated by Queen Victoria in 1859, Wellington College currently has approximately 1,100 students between the ages of 13 and 18.

Whereas many other colleges focus on examination results and view league table position as the main criterion for success, Wellington's ethos is focused on each and every individual who passes through their gates. The college aims to inspire and support students so they can become the very best they can be, in every single way.

Wellington's curriculum is vibrant, demanding and progressive, and with the College's ground-breaking Wellbeing course and classes in Philosophy and Thinking, Wellington has become nationally renowned as a centre for curriculum development.

Wellington's stunning examination results and university outcomes speak for themselves.

The Challenge

Wellington has been utilising Wi-Fi for many years. Over time, Wi-Fi has become an essential element in the classroom, to the point where the College has restructured the way technology is used to enhance teaching and learning. Collaborative learning is one of the main focuses of the College, and Wi-Fi is a key enabler. The College therefore needed to ensure access to a reliable, easy and manageable service for both its staff and student body.

The main requirement for Wellington was to have a system that would link in with all of the solutions provided by the College's security vendors. User appeal was also a driver – the IT team wanted a seamless solution that would work with Active Directory, as well as with the school's single sign on. While the IT team took cost into account, their main concern was implementing a solution which would actually work and be fit for purpose.

"We needed something that was able to address the high density of clients we're seeing today, while simultaneously being flexible and capable to adapt to increasing demands in the future," said Tony Whelton, Director of IT Services and Development at Wellington College.

The buildings where the Wi-Fi was to be installed presented an added challenge. The College is just over 150 years old and encompasses a number of buildings of varying types of architecture. For example, the walls around the older dormitories are extremely thick, making it difficult to achieve good coverage throughout the entire space. Additionally, being of older architecture, IT teams needed to ensure no damage would be done to the original structures while installing new systems.

Wellington also has some brand-new buildings, including the new English building and Performing Arts Centre, which are made of completely different materials and present their own set of challenges. The oval-shaped Performing Arts Centre is the first building on campus capable of holding the entire student body and staff – along with their mobile phones and other devices. With the potential of having up to 2,500 devices in close proximity, density was an issue to consider.

Whelton noted: "In our theatre alone, we're expecting to see upwards of 2,000 clients using the Wi-Fi simultaneously. In this same area, we also need to support various bandwidth-intensive video-streaming services. For this environment in particular, having 802.11ax APs is a no-brainer."

"Wellington College is one of the most prestigious schools in the United Kingdom, and we are extremely happy to continue our reputation for being **on the forefront of technology by implementing the new Airohive 802.11ax APs in our facility."**

– Tony Whelton,
Director,
IT Services & Development,



The Solution

"After weighing up other solutions and learning more about Aerohive's architecture and new 802.11ax offering, Wellington chose Aerohive because of its reliability, ease of use, manageability and forward-thinking approach that aligns with our own vision," said Whelton.

The deployment began by replacing Wellington's old Meraki units with new Aerohive units and was carried out over the College's summer holidays. Up against a tight two-month deadline, Wellington College was pleased that the installation of the required access points was completed seamlessly and on time.

Since the initial deployment, Aerohive has installed 450 access points across Wellington's academic, social and boarding areas, allowing for a range of devices to run across the College's network, including laptops, mobile phones and tablets.

"We already run a 'no 2.4GHz' policy throughout much of the college, operating APs exclusively in dual 5GHz mode. To support collaborative learning in our classrooms with every student using the Wi-Fi, 2.4GHz simply isn't suitable," noted Whelton. "One thing I love about Aerohive's AP650 is that we have the flexibility to support legacy 2.4GHz devices where needed, but can shift to a 5GHz-only environment, gaining extra capacity at the flick of a switch."

The Results

With lessons planned around the use of Wi-Fi, any length of downtime would mean they would not be able to go forward. From the IT team's point of view, that would be a disaster. Stable, reliable Wi-Fi is a must have. With Aerohive, Wellington has benefitted from 100% uptime across the College – including all of the dormitories, which is "a massive achievement" – enabling students to enjoy a Wi-Fi rich environment, and helping teachers to enhance the way they teach.

Today it is mandatory for each Wellington student to have at least one digitally linkable device. As a result, the number of devices that connect to the College's Wi-Fi is staggering. On an average day, up to 4,000 devices connect to the network simultaneously.

"With 802.11ax APs, it's not just planning for the future, it's about handling huge numbers of legacy clients (802.11ac and below), with little effort," added Whelton. "With these APs being so powerful, combined with the flexible dual 5GHz radios, it means we can provide the best possible service for existing 802.11n and 802.11ac clients, while being ready to deliver additional capacity for a future 802.11ax environment."

In the time since Wellington adopted Aerohive, the College has put technology at the heart of teaching and learning and has now become a Microsoft Showcase School. This would have been impossible without an incredibly stable network enabling devices to connect, day in and day out, lesson after lesson.

"Teachers remember the days when things used to go wrong – but things don't go wrong anymore," added Whelton. "They can rely on Wi-Fi working within the classroom. It is now expected. It just works."

For the eight-person Wellington College IT team, working with Aerohive has meant that they too can count on Wi-Fi being there. Not having to worry about downtime has meant Wi-Fi has gone from being a helpdesk ticket item to just being something that works. Aerohive's ease of use, reliability and easy integration has allowed the IT team to reallocate resources and focus on other areas.

Future Outlook

Wellington has now been running the Aerohive network for three years, to the College's full satisfaction. So far, Wellington College has rolled out 450 access points across all of the schools' buildings.

Now that Wellington has a reliable Wi-Fi solution in place indoors, the College aims to install outdoor access points enabling Wi-Fi across its 400-acre campus, including the school's golf course.

Whelton said: "Over the next year and beyond, we're planning to upgrade many of our wireless clients to 802.11ax. On top of that, we fully expect an influx in 802.11ax guest and BYOD devices. Aerohive's 802.11ax APs provide us with a forward-looking and adaptable infrastructure to meet future demands."

Thanks to Aerohive's scalability and seamless integration, Wellington College is able to look forward to future deployments with optimism, in the knowledge that they will see immediate positive results.

