

# WiFi and Mobile Computing Specialists

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## CASE STUDY: Bournemouth School for Girls



BOURNEMOUTH SCHOOL  
FOR GIRLS

### *Ensign Delivers Innovative Aruba School WiFi, BYOD and Secure Network Access Solution to Bournemouth-Based Grammar*

Bournemouth School for Girls (BSG) is one of the top schools in the South West. Serving approximately 1,100 pupils and with more than 150 staff members, it was found by a recent Ofsted inspection to be 'outstanding' in all areas - an accolade given to only 128 of the UK's secondary schools nationally.

### The Challenge

- Replacement of the legacy infrastructure to achieve site-wide Wi-Fi coverage, alongside the facilitation of growing laptop and mobile usage.
- BYOD and guest access management; allowing students and guests to gain secure network access using their own devices.

### The Solution

- 53 Aruba Networks Access Point
- An Aruba Networks 3400 Controller
- The Aruba Networks ClearPass Access Management System

### The Results

- The Aruba Networks Solution enables BSG to split their network using VLAN steering, creating a safe and secure school Wi-Fi and BYOD environment.

Since its inception, the school has quickly gained a reputation for excellence both academically and in top-level sport, drama and the arts. With a site which spans six buildings, the school boasts specialist facilities dedicated to science, performing arts and technology. Keen to further enhance the learning experience offered at the school, and to evolve the way their students access online resources, BSG has adopted a progressive attitude towards digital technology.

“The education sector has experienced a growing need for networking. We knew that advancing the wireless network, whilst accommodating Bring Your Own Device (BYOD), would help to alleviate the pressure put upon the increasing demands for the use of our IT suites,” said Rob Davies, IT Manager at Bournemouth School for Girls.

#### Driving Change in School WiFi

Having developed their wireless infrastructure from just three access points to one which covered approximately half of the school estate, BSG found that the demand for laptop access was becoming a managerial challenge, and further expansion of the network was a necessary step alongside a progression from 2.4Gb to 5Gb throughput speeds.

Facilitating laptop use across the entire campus was a primary requirement; however, once full site coverage had been achieved, the school looked at ways to help students and teachers to benefit from using their own mobile devices on the school premises.

“Our existing wired and wireless networks were beginning to age and so we seized the opportunity to upgrade both at the same time. In addition, many of our teachers were pushing for BYOD implementation after seeing the benefits of mobile and 3G technologies within the classroom,” commented Mr Davies.

#### Selecting Ensign and Aruba Networks

In order to achieve the coverage, capacity and resilience that BSG required to support not only their computer suites and laptops, but also growing BYOD usage, the final solution would have to feature enterprise grade wireless as well as network access management possibilities.

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On selecting a provider, Mr Davies remarked: “We considered a number of options, taking into account their solution and position within Gartner’s wired and wireless infrastructure magic quadrant, but in the end Aruba Networks met all of our requirements.

“The ClearPass element to Aruba Networks’ offering was a real plus for us as it allowed the support of secure e-learning with school-owned laptops but also aided us in implementing and developing our own BYOD policies.”

For BSG, Aruba’s ClearPass Policy Manager presented an easy way to enable tablets and other mobile devices to access their network without compromising their all-important wireless security. The management software allows the school’s IT administrators to ‘onboard’ devices securely using their existing Active Directory usernames and passwords, and also to define groups of users with various access rights, making the whole process easy to implement and track.

## **Deployment**

Ensign undertook a comprehensive site survey which provided BSG’s IT management team with a thorough report containing the access point locations and the performance expectations of the network.

“Due to the requirements of the school, the timescales were extremely tight. The entire project had to be completed over the 6-week summer holiday, including the cabling of new buildings, to ensure that the corporate network was up-and-running for the commencement of the school year in September,” remarked Ian Price, General Manager at Ensign.

Ensign’s engineers worked tirelessly to ensure that the school’s deadlines were met, placing the 53 Aruba Networks 105 access points in strategic locations around the campus.

## **Results**

Since the installation, over 600 girls in the upper school, as well as BSG staff members, have been given access to the BYOD network with great success, with a further roll out to the rest of the school planned. The Ensign and Aruba Networks solution enabled the school to split their network using VLAN steering, creating a safe, stable and secure school wireless environment. The new Aruba 3400 controller and ClearPass Access Management system allows personally-owned smart devices entering the network are accurately identified and securely provisioned on to an Internet only VLAN (which is filtered by the South West Grid for Learning), all of which is done using the same Active Directory credentials for standard login.

The simplicity of ClearPass has made BSG’s BYOD implementation hassle-free, providing the access expected by users whilst blocking unapproved websites such as Facebook, and keeping corporate data separate and safe.

“We have been able to sit back and let ClearPass do the work; from an admin point of view it has been great,” explained Mr Davies. “The ability to allow pupils to conduct their own web-based research has not only been good for engagement but has also encouraged better group learning.

“Throughout the project, Ensign have always been willing to go the extra mile and have bent over backwards to meet all of our deadlines. It has been a very good project and has been very well received by teachers, students and management alike.”

## **Future Network Development**

Keen to ensure that the wireless network and its components remain a core part of what BSG continues to offer its students, the school is now looking to expand the wireless coverage out into the playing fields, as well as exploring firewalling and device monitoring solutions.

Headteacher Alistair Brien commented: “I am delighted that we have been able to make such an important step forward with such ease. Pupils and staff are now able to access the Internet using their own devices in a safe and reliable way; this has enabled us to embrace the use of smartphones rather than, as in the past, seeing them as a distraction.”