



## Balcarras School | Case Study

**Sector:**  
Education

**Solution:**  
Professional onsite WiFi Survey

**Highlights:**

- Balcarras school wanted reassurance on the performance of its legacy WiFi network
- The School entered and won Redway Networks' competition to win a technical WiFi Survey
- Redway's engineer conducted the survey using Ekahau AI Pro with detailed WiFi heatmaps
- The WiFi survey confirmed that the network **was** functioning well **overall** but would need upgrading in the future
- Redway's engineer advised the network would need a redesign if the school was to move to 1:1 learning or BYOD
- The school was very pleased with its WiFi survey and has a comprehensive report to use for a future wireless upgrade

### Balcarras school gains network peace of mind with a Professional WiFi Survey

Balcarras school has gained valuable reassurance on wireless network performance with a detailed technical survey by Redway Networks that highlights the network's strengths and future IT needs. The survey was awarded as part of Redway's sponsorship of EduGeek's 20th anniversary competition with Balcarras School selected at random.

Jeff Arris, Network Manager for Balcarras School says: "With our existing wireless network now eight years old, we knew it would need upgrading at some point in the future but like most schools we face budget constraints. We wanted confirmation that the network was still reliable and that there were no immediate concerns that could impact staff or students. A professional WiFi survey, conducted by certified wireless experts like Redway Networks, was a great way for us to get a detailed network appraisal, so I was delighted when we won the competition."

## Highly regarded school

Balcarras School is a highly regarded, co-educational state secondary school and sixth form in Cheltenham, known for its consistently outstanding Ofsted ratings and high-achieving A-Level and GCSE results. Whilst the school primarily relies on wired desktop computers, laptops are used across the Science, Design Technology, Business and Sixth Form areas. The school's current wireless network was installed in 2017 and as was common for that time, it was designed for coverage rather than capacity.

## Good overall network performance

Using the industry-leading Ekahau AI Pro survey tool, Redway Networks' engineer conducted a comprehensive assessment of the school's wireless performance, producing detailed WiFi heatmaps that captured signal strength, noise ratio, data rates, roundtrip times and potential sources of interference.

The survey confirmed that the school's network was functioning well overall, with only a few minor coverage gaps mostly in areas without WiFi demand.



**“Redway Networks’ engineer was very professional and did an excellent job of the WiFi survey.”**

Jeff Arris, Network Manager, Balcarras School

## Looking ahead

Jeff says: “Redway’s engineer was very professional and did an excellent job of the WiFi survey. We were given a comprehensive report that confirmed our network is performing strongly, as we mainly use wired desktops. However, the report did highlight that if in the future, we moved to 1:1 learning or bring your own device (BYOD), the wireless network would need redesigning to handle the higher device density. Currently **our** network services around 300 wireless clients a day, but with 1:1 or BYOD this number could rise to **over** a 1,000 which would create capacity challenges.”

The survey also revealed that one of the school’s main bottlenecks lies in access points connected to legacy 100Mbps switches. Upgrading the core IT infrastructure would therefore be a key step before any future WiFi refresh.

Coverage and channel interference were satisfactory with the access points doing a good job of choosing their own channels. Noise or interference from non-WiFi sources was not an issue and round time trip was consistently low, suggesting that the network was not being overloaded. Overall Redway Networks gave the school’s network a clean bill of health for at least another year.

Jeff says: “We were very pleased with the service from Redway Networks, and I wouldn’t hesitate to recommend them. We now have a comprehensive WiFi survey report that we can share with the senior leadership team as a blueprint for a future wireless network upgrade.”

