

Landau Fort Academy Deploys 250 TP-Link Omada Access Points to Enable Microsoft Teams and Microsoft 365

New WiFi 6 Network Rolled Out Across Three Sites in One Week



Landau Forte at the Heart of the Community

Landau Forte Charitable Trust has a family of 6 academies across the Midlands with two based in Derby, Derbyshire and four based in Tamworth, Staffordshire. Each academy within the Trust strives to enable every child to reach their full potential. Being an integral part of the wider community is part of the Trust's mission statement providing opportunities for adult education as well as facilities for teams, clubs, societies, and community groups.

Spanning multiple buildings and sites, mobility is a key goal for the Management Team and Governors at Landau Fort Trust. The Trust's leaders clearly saw the importance of seamless services across the entire campus enabling teachers to focus on their core objective, delivering excellent quality learning. The Trust recognised the essential role IT plays delivering bespoke support to pupils with additional needs, for example, live streaming lessons for pupils with visual impairments so they have a clear view of all the teaching aids.





WiFi Overhaul

During discussions with the Infrastructure Team, it quickly became clear that the legacy Wireless N access points did not have the functionality to support Active Directory or to provide separate VLANs for stakeholders. Hampered by outdated infrastructure, teachers faced serious issues accessing learning tools when moving from one building to the next to deliver lessons. Poor wireless coverage also made it difficult to rely on digital learning aids or provide personalised SEN support. The legacy system was also incapable of providing a guest network which also hindered the Trust's goal to be an integral part of the local community.

With a clear mandate from the executive team, Tom Bowdley, IT Systems Manager at Landau Fort Academy was tasked with finding a cost-effective and robust WiFi solution for the Trust-wide use of Microsoft 365 and Microsoft Teams. Like most schools, digital and blended learning was essential during the pandemic enabling teachers and pupils to follow the curriculum even during periods of isolation. And like most schools, many of the mutually beneficial adaptations will remain in place like online parent-teacher meetings.

Restricted Mobility

Originally installed when the school was constructed, more than ten years ago, the wireless N access points were no longer fit for purpose. Separate networks provided coverage to Key Stage 3 & 4 and the Higher Education block.

Restricted by 2x2 MU-MIMO technology, the wireless coverage was slow, patchy and regularly lagged. It was also unable to support Active Directory, causing headaches for teaching staff moving between buildings plus it could not support VLAN's making it unfit for today's digital classroom. **“Being over a decade old, the access points just didn't have the functionality we needed. Not to mention they were no longer supported by the manufacturer, so it was a great opportunity to review the market,”** commented Tom Bowdley, IT Systems Manager, Landau Fort Academy.





Knowledgeable Partners

As a regular CCS Media customer, Tom naturally called his Account Manager to investigate the access point landscape. Faced with a wide selection, the CCS Media team helped Tom create a short list of brands based on the functionality required and the budget available.

Reflecting on the research process, Tom said, **“We had no choice but to replace the access points. We also had to be realistic about the budget too. The Omada range is ideal, with a great feature set, an intuitive interface and realistic pricing. And I won’t lie, the fact there are no ongoing license fees makes it a very attractive proposition. It was also really reassuring to be introduced by CCS Media to TP-Link’s Network Engineers so we could talk through the project and our requirements before and during the installation.”**

Free Network Site Survey

To ensure that Landau Fort Trust got the best value solution and coverage, CCS Media recommended a TP-Link Network Site survey. The free predictive site survey demonstrated the benefits of high-density WiFi 6 access points. The resulting heat map and bespoke report detailing the quantity and location for each access point to provide seamless, high-speed campus-wide coverage. **“The site survey results confirmed my gut feel that WiFi 6 was the most sensible and cost-effective solution for the Trust. It was instantly clear that we needed 4x4 MU-MIMO to boost performance and make sure we can accommodate the technological advances tomorrow will bring,”** commented Tom.

In total, 225 WiFi 6 Omada access points were ordered from CCS Media. It took an installation team two days to install all the access points using the locations identified during the site survey. Once the access points were in position, it took Tom just 3 days to configure and test the network. **“The Omada platform is so intuitive that it’s really easy to configure. When I wanted to double-check a setting, I had a direct line to the TP-Link network engineers who were happy to help me out there and then. I’ll be honest I wasn’t expecting to have the whole network upgraded to WiFi 6 in a week ready for testing.”**





Easy Network Configuration

For maximum performance, security and convenience three VLANs were created on the Omada network. The staff VLAN integrates their Active Directory configurations to provide a seamless solution across multiple sites. The second VLAN for pupils provides a secure location for lessons and homework to be hosted. Finally, there is a ticketed guest network using the Omada captive portal feature for VIP's and members of the community using the site for clubs and extracurricular activities. **“Understanding network usage is critical for us to maximise performance. We get real-time data from the Omada dashboard so we tweak settings based on real-world usage. And we have the peace of mind that Omada and Veeam integrate seamlessly,”** commented Tom.

Feature Rich and Cost Effective

Landau Fort Trust recognises its importance as a central and accessible location for clubs, societies and the wider community to meet. Hosting sports teams on the AstroTurf, dance theatres, slimming groups and children's parties clear signage and free WiFi are vital to the overall visitor experience. The Omada network is essential in connecting the digital displays around the campus used by both pupils and visitors providing updates and room locations.

Currently, three sites have been transferred to the Omada platform with plans to add seamless outdoor coverage to the existing sites, plus upgrade more schools within the Trust to WiFi 6. Reflecting on the first phase of the project Tom commented, **“The Omada range is a no-brainer. It has all the features and functionality we need at 20% of the price other brands quoted for the same project. And there are no ongoing license fees that need to be factored into future budgets. Our CCS Media Account Manager took the time to understand our project goals and provided us with a high-performance solution that didn’t break the bank, and has future-proofed the Trust for years to come.”**



Fast Facts

- x250 Omada EAP660 HD access points
- Omada OC200 Cloud Controller
- Access points installed and configured in 1 week
- 3 VLANs
- Active Directory integrated for seamless working environment
- Veeam integrated for back ups

Network Status Report

Check the Traffic Distribution

Network Technology at a Glance



DEVICE NAME	IP ADDRESS
Wlan %_047006	192.168.2.1
Wlan %_002000AP	192.168.2.2
Wlan %_002000AP	192.168.2.3
Wlan %_002000AP	192.168.2.4
Wlan %_002000AP	192.168.2.5