

SECURE, HIGH-PERFORMANCE SCHOOL-IN-A-BOX SOLUTION FOR ONE OF CHESHIRE'S TOP PRIMARIES



Gorsey Bank Primary School (GBPS) is located in Wilmslow and is among the highest performing primary schools in East Cheshire. It educates 420 pupils aged 5-11 years and was rated Good or Outstanding on each inspection criteria in its latest Ofsted report.

Providing the best possible learning environment is central to the ethos of GBPS, and teaching staff had long identified IT infrastructure as a catalyst for enabling greater digital learning opportunities. The school benefits from a 10 Mbps internet feed provided by the local authority, as part of the Cheshire and Merseyside PSN (Public Sector Network). A Netgear wireless LAN (WLAN) had been installed on-site several years ago to enable teachers with flexible Wi-Fi connectivity.

By 2016, however, GBPS began to experience performance issues with its WLAN, owing to increased traffic across the network. With the steady increase in applications, video streaming, and rich-media teaching materials, the network had effectively become overloaded at

peak times, resulting in performance bottlenecks that threatened to impact the educational experience. The problem was compounded by the increase in devices deployed across the school to support digital learning. These include smartboards and Apple TVs in each classroom, and a growing number of 120+ iPads and laptops.

GBPS was compelled to seek a replacement wireless LAN solution, to enhance security functionality, and provide an effective, transparent management console. This allowed GBPS to prepare for future growth in traffic and devices (including, for example, the plan to provide Google Chromebooks to all 120 Year 5 and 6 students in 2017).

INCREASED PERFORMANCE FOR A BETTER LEARNING EXPERIENCE

With the guidance of technology partner Exertis UK, GBPS was attracted to the capabilities of Fortinet, one of the UK education sector's leading providers of secure network infrastructure.

"Fortinet continued to safeguard our school and enabled many more positive, secure learning experiences for our students. Now we can grow and explore a whole host of new digital opportunities without performance constraints or any real impact on our IT management time."

– Lisa Woolley
Head Teacher at Gorsey Bank
Primary School

DETAILS

CUSTOMER: Gorsey Bank Primary School

INDUSTRY: Education

LOCATION: UK

BUSINESS IMPACT

- Ensured superior protection against the full range of security threats with a single appliance
- Assured the continued expansion of devices, applications, and network traffic to support digital learning, without impacting the user experience
- Supported far faster and easier security management and reporting processes across wired and wireless infrastructure
- Optimized the value of device assets and internet connectivity through QoS controls and the latest 802.11ac wireless LAN technology
- Enabled comprehensive security protection and actionable threat intelligence via the Fortinet Security Fabric

Fortinet's recommended solution was based on a FortiGate 100D security appliance to provide and manage a complete suite of security functions across GBPS's entire wired and wireless network, including firewall, antivirus, anti-malware, web filtering, advanced threat protection, and more. The FortiGate 100D acts as the central management and control console for GBPS's wireless LAN, which is now composed of 18 dual-radio FortiAP 221C access points that support the latest 802.11ac technology. The FortiGate 100D also manages a FortiSwitch 224FPOE, which enables extra APs to be added to the wireless solution without the need to replace the FortiGate 100D for a larger model in future.

The arrival of the Fortinet solution has increased the confidence of GBPS's senior leadership team by thoroughly safeguarding students with a comprehensive range of protection measures. These can be seen, reported on, and controlled through a single graphical user interface (GUI) that provides superior ease of management. Performance limitations are no longer an issue either. In fact, the throughput speeds are higher than they've ever been and the difference in experience is palpable. The team is confident that it has a robust solution in place to cope with increasing traffic and application demands.

Other benefits to GBPS include:

- Comprehensive security protection and actionable threat intelligence via the Fortinet security fabric owing to Fortinet's common FortiOS architecture across all its solutions, combined with the real-time protection of FortiGuard intelligence.
- A new defense in depth posture, with the outstanding security capabilities of the Fortinet solution complementing the standard content filtering service delivered by the PSN on its internet feed.
- More efficient utilization of GBPS's PSN internet feed, with Quality of Service (QoS) controls allowing the classroom to have priority access over non-essential traffic.

- Logical separation of staff, pupil, and guest access on the wireless LAN, with defined and fully-manageable usage policies in place for each.
- Internal segmentation of the wired and wireless network (teaching, back-office, pupil, guest), preventing the internal spread of any threats that penetrate the network.
- Audit trails of problematic or potentially troubling user behavior through user logging.
- The ability to support multiple WAN links allows non-pupil traffic to be routed over low cost DSL networks in future, if desired.

All the staff and pupils at GBPS are now equipped to pursue the next stage of their digital futures, safely and sustainably. GBPS is currently evaluating the possible rollout of FortiClient endpoint security onto all its devices, adding a further layer of protection against misuse and cyber threats.



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