D-Link FOR BUSINESS

2022 / CASE STUDY

FEMW Irlandesas El Soto school (Madrid)

has gained recognition from the Google Reference School Network, thanks to the digitisation of its classrooms and educational platforms, which are supported by modern network infrastructure with Wireless and D-Link Switching solutions that have been installed by its partner Egson

Irlandesas El Soto
FUNDACIÓN EDUCATIVA MARY WARD

SUMMARY

Customer	School FEMW Irlandesas El Soto school (Madrid)
Sector	Education
Country	Spain
The challenge	Wired networking infrastructure and Wi-Fi for classroom digitisation
The solution	Smart Pro Managed Switches Wireless Unified Access Points Unified Wireless Controller
Results	High-performance classroom digitisation Wi-Fi for tablet and Chromebook Internet access. Robust security with classroom/ teacher network segmentation and access control.

The Mary Ward Education Foundation (FEMW) is a modern, bilingual, and catholic education project with eight schools in Spain. FEMW was the first Spanish educational institution to gain recognition from the Google Reference School Network, which distinguishes schools that have successfully implemented digitalisation within the framework of the various tools provided by Google for teaching.

The challenge

One of the linchpins of that digitalisation has been the FEMW-driven Digital Citizens Project, whose aim it is for students to develop digital skills at the highest level. For this purpose, teachers and students have been provided with Chromebooks, but the Wi-Fi infrastructure also needed to be updated in order to ensure the bandwidth required for classroom digitalisation.

The La FEMW solution

has relied on D-Link for the updating of two of its schools, in Madrid and in El Soto. Both projects have been managed by D-Link's VIP+ partner EGSON. In this successful case, we focus on the project for the FEMW Irlandesas El Soto School.

The Wi-Fi infrastructure has been deployed with 61 DWL-6610AP and 3 DWL-7620AP D-Link Access Points. DWL-6610APs are dual-band wireless AC 1200 access points with a plenum-rated chassis. They are designed for high-density user environments such as band steering to automatically connect each device to the best band (2.4 or 5 GHz), MU-MIMO, Airtime fairness, Wi-Fi Multimedia (WMM) and automatic RF management, so in this scenario, where APs are placed close to each other, there will be no overlapping of channels or frequencies. The DWL-7620AP models have the same functionality but improved performance with the Wi-Fi AC 2200 Wave 2, thanks to its three bands, one of which is 2.4 GHz and two of which are 5 GHz.

The 64 APs are managed in a unified way through the D-Link DWC-2000 Wireless Controller, which is designed for large-scale Wi-Fi networks. As well as simplifying unified management and enabling the itinerancy between APs with fast roaming, it has a Self-Healing function, so that if a point of access fails, users who are nearby increase their power.

All access points are PoE, so they receive data and power via the same data cable, which has simplified installation and saved costs. They have been connected to network electronics comprising x8 D-Link DGS-1510 Stackable Smart Managed Gigabit Switches. This assembly stands out because of its physical stacking capabilities, SFP+ ports for stacking or 10 Gigabit fibre optic uplinks, as well as integrating advanced Layer 2 and Layer 3 management capabilities at smart solution costs, deploying static routing, MSTP, DHCP server, spanning tree and an access control list. These are managed via Full CLI or a web interface, which is equipped with a VLAN Wizard for agile management of network segmentation, which is crucial in these environments.

Result

Manuel Sanchez Fernández, ICT Coordinator at FEMW schools, said, "The Wi-Fi network now has the coverage and performance we need so that each classroom can undertake its digital activities as normal, which is essential, given that one of the linchpins of our education project is the development of our students' digital skills." Ignacio Dávila, Technical Director at Egson, said, "We decided to rely on a very robust, high-performing, and well-proven D-Link solution in other schools, so it was the perfect choice." He added that "getting advice from the manufacturer is a major advantage when it comes to this kind of large-scale project."

Installed products

- 1 x DGS-1510-20
- 4 x DGS-1510-52XMP
- 2 x DGS-1510-28XMP
- 1 x DGS-1510-28X
- 1 x DWC-2000
- 61 x DWL-6610AP
- 3 x DWL-7620AP

DGS-1510 Stackable Smart Managed Gigabit Switches

Unified Wireless Controller DWC-2000

Access Point DWL-6610AP

Access Point DWL-7620AP