



Dun Laoghaire Rathdown Lexlcon Library

- Centerpiece library in Dublin with large theatre spaces to small study rooms
- Indoor and outdoor APs, as well as UTM security appliances deployed



Based in Dublin, Lexlcon Library is part of the larger Dun Laoghaire Rathdown County Council, a large local authority responsible for architecture, traffic

engineering, social services, housing, and more. The library is a community space encompassing many elements, including a theatre space, exhibition and performance spaces, meeting rooms, 100 study spaces, and more.

The library is the centerpiece of a new public space and is beautifully designed. However, not long after it first opened its doors, the IT team began receiving notifications of poor Internet connectivity and other IT-related problems. Tom Mullin, Network Manager for the library, soon realised that the network devices installed were not adequate for library’s needs, and an update to the infrastructure was needed to resolve the issues.

Having previously heard of Cisco Meraki, Mullin trialed the system

with a free Meraki access point he received after attending a webinar. He was impressed that with Meraki, a single person can centrally and remotely manage the system. Meraki, he realized, lifted a significant burden on the IT department and could provide a reliable solution for staff and library guests.

Original Networking Challenges

- Although the library is quite new, opening in 2015, there were numerous problems with the original solution, resulting in complaints from visitors and staff.
- Previously, the system was managed by three different vendors, which was not a feasible long-term solution for the IT team.

Why Cisco Meraki

- As the building is relatively new and was still under architectural

warranty, the IT team needed to find a solution that would also meet the architect's design standards.

- Library users range from children to adults, so Mullin uses the content filtering on the UTM security appliance and customised logins to easily differentiate access levels.
- In addition to the everyday SSIDs on the wireless network, the IT team can quickly provision customised access for events and user groups wanting to use the library's various spaces.
- Mullin saw had previously been given a Meraki demo, which highlighted the centralised management and the ability to login from anywhere.

“We use the analytics to present data to senior management on how many people use the network; how long they're hanging out; which days of the week are busier; where people are moving around using heat maps; and whether using a Facebook splash page, rather than a library card, to log in to the WiFi is more beneficial.”

– Tom Mullin, Network Manager, Lexicon Library

The Deployment

- After receiving design approval from the architects, Mullin and the IT team began planning the deployment, from physical placement to connectivity to configuration.
- The actual installation just took a few short weeks for both the indoor and outdoor devices, including an integrated splash page where users must input their library card to access the network and library services.
- Based on VLAN assignment, users are automatically added to group policies. These policies have been created to ensure appropriate usage of the network by both user devices and library-owned devices.
- On the security appliance, firewall and content filtering rules block access to inappropriate or restricted content, while Cisco's Advanced Malware Protection (AMP) protects the network from outside threats.
- On an AP level, the IT team can customise the network setup

by only broadcasting certain SSIDs on certain APs, as well as defining the type of access each user has on each SSID on the network, including the use of splash pages and captive portals.

Results

- Overall, customers have been very happy with the Meraki solution, logging no complaints since its installation.
- Unique spaces that had been troublesome before, including a 100-seat theatre room, now flawlessly supports hundreds of users.
- Because a guest SSID can be configured in seconds, the internal facilities management has role-based admin access to quickly create temporary hourly networks for people booking rooms, including unique passwords for those bookings.
- Mullin has leveraged the detailed analytics in the Meraki Dashboard to better understand how the network and the library space is being used. He's presented statistics to key stakeholders, including the number of users, the length of their stay, daily/weekly comparisons, heat maps, and more. Using this information, the library can make data-driven decisions on growth and user interaction.
- In the future, the IT team plans to utilise the various tools in the Meraki Dashboard to better understand the library's users and how they consume information. They plan to implement Facebook login on the outdoor APs to gather statistics on the effectiveness of requiring people to use library card to access the network.
- The licensing structure includes numerous features to future-proof the solution, including firmware updates and new features, increasing the overall IT value.