

North Kesteven and West Lindsey District Council

Improved network control and visibility across multiple
local government organisations with Cisco Meraki



About North Kesteven and West Lindsey District Council

Located in central Lincolnshire, [North Kesteven District Council](#) and [West Lindsey District Council](#) serve a diverse range of towns and communities in a predominantly rural setting. The North Kesteven West Lindsey ICT Partnership provides IT services and solutions throughout both district councils, the parish council city of Lincoln and other public sector partners across the Midlands.

The Challenge: Limited Network Visibility and Control

With 700 employees and thousands of guests, network control is inevitably a chief priority. However, the ICT partnership's previous on-premise solution offered only limited visibility into network activity, making it difficult to identify and resolve potential issues.

Network limitations also prevented the partnership from managing its distributed rural sites from a central location, meaning staff had to travel to each site whenever changes were required. With eight sites to manage across a sprawling, largely rural geographical area, the network was therefore time-consuming and costly to manage.

For Cliff Dean, partnership CIO ICT Shared Services Manager, a complete overhaul was essential as it moved towards a cloud-based model.

"We needed a better solution – one that would improve governance and procedures while supporting mobile working," he explains. "But with a team of just 3.5 networking staff, we had neither the inhouse capacity nor networking knowledge to manage a project of such scale and scope. The partnership needed specialist support to design and deploy the equipment and provide skills transfer.

The Answer: Cisco Meraki

"We spent some time reviewing the market and assessing various offerings, but the turning point came for us when we received a Meraki Access Point after attending a Meraki webinar," continues Cliff.

"The timing was perfect as it coincided with the 2017 General Election, which gave us an opportunity to really test its capabilities. "Traditionally we receive many complaints about poor connectivity on election nights, but on this occasion, our chief executive and senior officers were delighted; participants could share continually updated information, while reporters livestreamed coverage throughout the night and published social media posts."

Fulfilling public sector expectations and budget limitations

Despite this success, the nature of Local Authority procurement and the perpetual need to deliver more with less meant Cliff and team had to demonstrate Meraki would deliver value for money. A thorough review of the total cost of ownership – including product lifetime usage – found that Meraki would deliver above expectations, and following a successful trial, the partnership opted for a subscription model, which aligned to its IT procurement roadmap and operational expenditure model.

Implementation

Cisco partner [Uccert Ltd](#) deployed a suite of [Cisco Meraki](#) products and services, all of which are now used seven days a week by three local councils, and on weekdays by seven district councils and one county council:

- APs
- switches
- security, including ISE
- firewalls
- central management of Meraki wireless, switching, security, ISE and firewalls

"The deployment was a great joint delivery effort between UCcert and our professional services team, particularly given that we were simultaneously migrating to a cloud-based service, says Cliff. "And with multiple local government organisations and around 28,000 users relying on our network, we couldn't just pull the plug and go offline, so everything had to be very carefully planned."

The programme of work was delivered on time and to budget, with UCcert's ongoing mentoring and knowledge sharing instrumental to the project's success.

The benefits

Flexibility and control

A single web-based dashboard enables remote management of all locations, access levels, and systems and endpoint monitoring of all devices entering the network, including employee and visitor BYOD.

The IT team can also define how users interact with devices and resources, directing access to appropriate wireless networks and remotely pushing required applications to devices.

Customisation

By implementing governance and control on SSIDs, Uccert Ltd has helped the ICT team customise network access and availability based on user and device type; for example, DWP provision of online job searches for service users, or secure encrypted connections for the corporate management team. Several SSIDs have been configured to meet specific needs:

- devices with RADIUS authentication
- a content management system that effectively reduces the network space available for less important tasks.
- iPhones with limitations on OS updates to prevent bandwidth hogging
- segregated internal open networks for corporate devices and other external devices
- a guest network.

“This allows us to segment various user and device groups, enabling customisable access to corporate resources like intranets, and designated bandwidth,” explains Cliff. “The result is more intelligent bandwidth consumption. And we no longer have to worry about who’s connecting to the network – or what they’re connecting to.”

Governance

Governance is vital for any public sector organisation, and the Meraki dashboard helps the ICT team understand how the network is being used now, while exploring how it can deliver an even better user experience in the future.

Compliance

The Meraki dashboard tools have proved particularly effective in supporting the partnership’s PCI-DSS compliance process, preventing the capture of credit card information, and continually running PCI compliance tests on network.

Security assured

The firewall platform offers greater visibility of potential risk, helping the team review its network usage policy and minimise potential breaches. The intuitive and simplistic provisioning of the firewalls removes any scope for basic configuration errors.

Costs saving were made by replacing dedicated site-to-site connections with commercial broadband offerings. The partnership was then able to leverage the Meraki site-to-site VPNs in the cloud for site-to-site connectivity, putting it in an excellent position to make use of the SD-WAN functionality inherent in the Meraki MXs.

And because the Meraki MX appliance is a Unified Threat Management (UTM) device, the partnership has also applied built-in features such as Active Directory integration, ensuring are given a personalised experience through the network for groups of users.

Self-healing, intelligent VPN connections provide seamless site-to-site connectivity, with all traffic across both councils routing back through a central core switch and segmented based on virtual LAN assignments, essentially creating a DMZ perimeter.

Saving time and freeing up staff

The dashboard tools have also cut deployment times drastically, saving time and reducing costs. For example, existing configurations can now be cloned and replicated across devices in seconds rather than days or even weeks.

As a result, the network team now stands at just one, allowing everyone else to focus on other activities.

Environmental impact

The ability to switch off workstations and other devices overnight saves money and is reducing the partnership’s carbon footprint.

Results

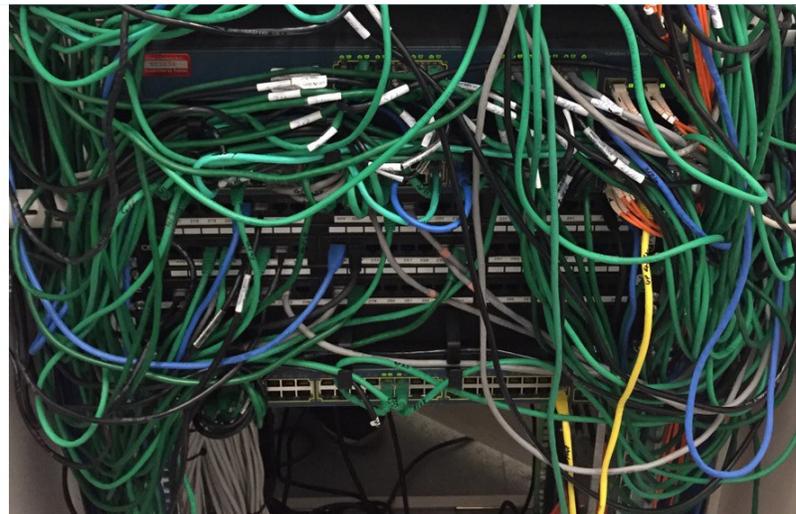
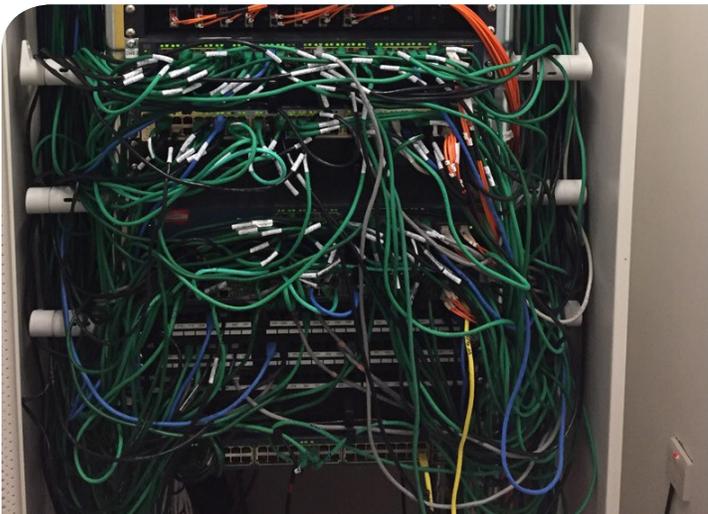
“Meraki makes deployment incredibly fast,” says Cliff. “It’s also feature-rich, graphically-based and user-friendly, with no need to know complex command lines. And with a complete Meraki infrastructure in place, any network anomalies can be identified and rectified any before end users even know they exist.”

The licencing structure offers a long-term supportable model, and not only does the partnership benefit from ongoing feature releases and firmware updates for a future-proofed solution, but they can also opt into a beta programme and take advantage of the latest Meraki innovations.

The future

As for what’s next, the partnership is planning to extend coverage across the area, with a view to generating around £100k in cashable savings.

“Thanks to Meraki, we’re now using best-in-class cloud-based solutions that securely support a mobile workforce and provide an agile foundation that can scale with the needs of the local community,” concludes Cliff.



The comms cabinet – before and after the upgrade