
CASE STUDY



Campus Network Transformation

How The University of Buckingham modernised its network infrastructure with Extreme Networks Fabric



THE UNIVERSITY OF
BUCKINGHAM

The Overview

Founded in 1976, The University of Buckingham is the UK's longest-established independent university, set across a beautiful campus of historic listed buildings in the heart of the Buckinghamshire. The character and heritage of the estate is a defining part of the university's identity. However, that same architectural richness presents real challenges for modern infrastructure.

The University of Buckingham faced growing pressure on its network infrastructure. Ageing hardware, increasing student expectations, and a highly distributed campus environment had created reliability and performance challenges across the campus.

With connectivity now central to both teaching and student life, the need for a more stable and resilient network had become critical. Ensuring consistent access to digital services across campus was no longer optional, but essential to the student experience.

Working in partnership with Syscomm and Extreme Networks, The University of Buckingham embarked on a major network transformation project designed to modernise infrastructure, simplify operations, and improve resilience across campus.

“What would normally take nine to twelve months, Syscomm delivered in just 12 weeks.”

— Jeff, Extreme Networks

At a Glance

12 Week Deployment

The entire transformation project was delivered within an accelerated 12-week timeframe.

Approximately 70 Communications Cabinets

The project covered a highly distributed campus environment with complex infrastructure requirements.

25–30% Reduction in Switching Infrastructure

The university reduced unnecessary hardware while improving performance and resiliency.

Fabric-Based Network Architecture

The new infrastructure introduced self-healing capabilities and simplified management.



The Challenge

The University of Buckingham's campus is spread across a mix of historic and listed buildings, many of which were never designed with modern network infrastructure in mind. Over time, the university's network had grown to accommodate this environment, with approximately 70 communications cabinets across the estate. While the infrastructure had served the university well, much of the hardware was approaching or beyond end-of-life, and the complexity of the environment made consistent management and maintenance increasingly challenging for the IT team.



At the same time, student expectations around connectivity had changed significantly. The university delivers accelerated degree programmes alongside flexible evening teaching schedules, meaning the network infrastructure needed to support students and staff around the clock.

"The wi-fi link is their lifeline. It's their communication back to their friends, their family. It's how they live and breathe. So to have confidence and know that if a switch fails, we've got another one that's back up to have resilient paths. It just gives so much reassurance to me."

— Mike, The University of Buckingham

The Solution

Syscomm designed and implemented a complete overhaul of the university's network using Extreme Networks Fabric technology. The new architecture was designed around the five key campus hubs, creating a resilient and highly available fabric-based infrastructure across the university.

The implementation focused on simplifying the network while improving performance, resiliency, and operational efficiency. Rather than replacing hardware on a like-for-like basis, Syscomm took the opportunity to redesign the environment with a Wi-Fi-first approach. This allowed the university to significantly reduce unnecessary switching infrastructure while improving the overall user experience across campus.

"Resiliency without complexity through Fabric"

— Chris, Syscomm

The new Fabric-enabled infrastructure introduced self-healing capabilities and rapid failover functionality. This means that if hardware or connectivity issues occur, the network can automatically reroute traffic and maintain services without causing widespread disruption across campus.

The solution was specifically designed to support the IT team by simplifying management and reducing the complexity traditionally associated with large campus environments. The project also modernised communications cabinets throughout the estate, replacing years of organic growth with a cleaner, more standardised infrastructure.



The Results

The new infrastructure has improved campus Wi-Fi reliability, introduced resilient failover capabilities, simplified network management, and reduced the overall hardware footprint. By redesigning the environment with a Wi-Fi-first approach, the university was able to reduce switching infrastructure by approximately 25–30%, helping improve both operational efficiency and long-term value for money. The accelerated delivery timeline also ensured the university could begin benefiting from the improvements far sooner than expected.

Key Outcomes

Delivered in 12 Weeks

Completed significantly faster than a traditional campus network transformation.

25-30% Hardware Reduction

Switching infrastructure removed through optimisation and consolidation.

Self-Healing Network

Rapid failover capabilities ensure continuous service across campus.

Simplified Management

Reduced operational complexity for the university's IT team.

The Partnership

The University of Buckingham highlighted the collaborative nature of the relationship with Syscomm and Extreme Networks throughout the project.

In addition to designing and implementing the solution, Syscomm and Extreme Networks worked closely with The University of Buckingham to protect it from industry-wide supply chain pressures and pricing increases. By securing hardware ahead of market price rises, Syscomm ensured the university could maintain the accelerated deployment schedule while avoiding additional costs.

"They genuinely tried to understand the customer's problem and deliver the right solution."

— Mike, The University of Buckingham



About Syscomm

Syscomm are a UK leader in the development and deployment of enterprise communications. From networking, security, connectivity and Cloud-based solutions to unified communications and collaboration, Syscomm is your ideal partner on your digital transformation path. We help minimise business risk, simplify administration and deliver world-class results. For more information, please visit www.syscomm.co.uk