



Building a Future-Ready Network for a National Library in the Netherlands

Overview

As one of the largest libraries in the Netherlands, this national institution is responsible for managing the country's entire published record, both print and digital. Preserving and delivering such a vast collection calls for a network that's resilient, secure, and easy to manage. The organization partnered with Extreme Networks and Black Box to build a unified, automated infrastructure that scales effortlessly, keeps security tight, and takes the complexity out of daily operations.

AT A GLANCE

CHALLENGE

- Complex technical infrastructure supporting massive national digital and physical collections
- Multiple data centers and remote sites requiring seamless connectivity and secure access
- High-density Wi-Fi needs for staff, students, and visitors
- Growing requirements for data security, scalability, and simplified management

SOLUTIONS

- End-to-end Extreme Networks architecture with embedded automation and visibility tools
- Fabric-based switching for streamlined provisioning and scalability
- Wi-Fi 6E network delivering secure, high-speed connectivity across the facility
- Extreme XIQ Site Engine and ExtremeControl for centralized security and access management

RESULTS

- Simplified network administration through automation and integrated controls
- Consistent, high-performance connectivity across all users and systems
- Flexible infrastructure that adapts to future technologies
- Reliable, secure foundation supporting the library's national digital mission

BENEFITS

- Unified network visibility and policy control across all locations
- Less administrative overhead through automated provisioning
- Secure, high-density Wi-Fi for staff, students, and visitors
- Scalable design aligned with digital transformation goals
- Trusted partnership with ongoing optimization and support

Challenges

The library's work extends well beyond books on shelves. The technical infrastructure behind it handles the collection, digitization, and distribution of nearly every text connected to the Netherlands. This means working with varied document formats, maintaining large databases, and keeping collaboration smooth across several facilities.

With over 500 employees, researchers, and visitors relying on the network, the library needed solid office infrastructure and Wi-Fi that could handle the load. Connectivity had to stretch across cities and link into a national university network, which meant reliability and security couldn't be compromised.

As operations expanded, managing the network manually got harder. Administrators struggled to see what was happening across different systems, keep data protected, and scale services without things getting messy. What they needed was something integrated and automated, a solution that would take the pressure off management while supporting the rapid evolution of digital archiving.



Solutions

The library worked with Black Box to implement a complete Extreme Networks solution. What started 20 years ago has grown into a highly automated, scalable network that handles everything, including cataloging, content preparation, and regular office tasks.

Multiple data centers connect through Extreme Networks Fabric technology, which cuts down on configuration complexity and removes the need for external controllers. Inside the main facility, twenty-two data rooms contain Extreme access switches linking office PCs, printers, CCTV cameras, building management systems, and Wi-Fi access points.

For wireless coverage, the library deployed Wi-Fi 6E throughout the building using roughly 180 access points managed by two central controllers. This setup serves internal staff and visitors equally well. Extreme XIQ Site Engine and ExtremeControl handle centralized visibility and automated security, verifying that every device and user meets authentication and compliance standards. ExtremeAnalytics gives administrators real-time monitoring capabilities, letting them spot performance issues and fine-tune resources proactively.

Black Box engineers visit the site monthly for maintenance, hardware updates, and assessments of future requirements. This mix of long-term collaboration, smart automation, and regular support means the library can concentrate on its mission instead of dealing with network disruptions.

Results

The library's digital transformation over 20 years has been impressive. What used to be a paper-focused institution now runs a collection that's over 98% digital. Working with Black Box and Extreme Networks, the library gained the agility and resilience this shift demanded.

Automated configuration paired with real-time analytics made operations simpler while boosting network security. Administrators monitor, troubleshoot, and scale resources with ease now, even when adding new systems and services to the mix.

Beyond providing technical infrastructure, the library's partnership with Black Box brings strategic guidance and reliable support that help keep up with today's information landscape. Together, they've established a network foundation that encourages innovation, safeguards cultural heritage, and bridges knowledge across generations.

Why Black Box?

The library selected Black Box because of its track record in complex network environments, extensive understanding of Extreme Networks solutions, and genuine commitment to long-term client success. Black Box doesn't just bring technical skill; they provide proactive service that keeps everything optimized and ready to scale.

This project illustrates why public institutions and enterprises turn to Black Box for critical infrastructure modernization. They deliver integrated, intelligent, and adaptable networks that help organizations run smoothly today while getting ready for whatever comes next.