

CASE STUDY

Queen's University Belfast proactively protects against advanced Malware using Infoblox



THE CUSTOMER – QUEEN'S UNIVERSITY BELFAST

The Queen's University Belfast is a top-ranked and world-renowned public research university in Belfast, Northern Ireland.

Founded in 1845 and led by Chancellor Hillary Clinton—former U.S. Secretary of State—the university was established with collaborative innovation at its core. Queen's is one of the largest employers in Northern Ireland, with nearly 4,000 faculty and staff. Nearly 25,000 students attend the university. Queen's students, faculty, staff and guests are located in more than 80 countries, creating a vibrant, diverse multi-cultural community.

Queen's IT investments include advanced online learning opportunities via "Queen's Online," including access to over 1,700 PCs providing secure highspeed broadband wireless internet connection based in 20 centers around campus. The University is also in the process of developing a new, state-of-the-art remote learning platform known as The Bridge. The Bridge offers participants around the world a fully immersive online learning and teaching environment. It combines a traditional physical lecture theater with real-time video collaboration for up to 64 remote users at once. Head of Networks David Nelson and his team are responsible for managing and protecting the Queen's University network, and with protecting all users, data and devices wherever they live.

THE CHALLENGE

Improve visibility into network operations, enhance security

The IT team identified several priorities to update its IT systems: improve operational efficiency, centrally manage network operations, enhance network visibility and proactively protect against the widest range of advanced DNS-based threats such as ransomware and data exfiltration.

In order to resolve these pain points, the Queen's team needed to replace its aging legacy network management system. In place for many years, this system did not support delegated administration and offered limited DHCP resilience. Further, it was not IPv6-capable, offering IPv4 support only.

“Advanced malware exploits such as Phishing and data exfiltration are especially concerning for research-focused institutions such as Queen's. These types of attacks put universities in a challenging position because we need to protect against theft of intellectual property, or for instance, protect against a cybercriminal leaking research before it's ready to be published. We wanted to ensure that our new IPAM solution would incorporate threat detection and prevention. Infoblox with its BloxOne Threat Defense solution was able to demonstrate the ability to protect our users against sophisticated DNS-based threats, which is where 91% of threats occur.”

David Nelson,
Head of Networks,
Queen's University Belfast

Further, in order to realize their objectives on optimizing the university's security posture, the team needed to implement robust DNS-based malware protection, and effectuate a separation of internal DNS from external DNS operations.

Proactively protecting against DNS-Based Threats

The IT team at Queen's is highly cybersecurity conscious and understands the vulnerability of DNS as the leading threat vector in today's rapidly evolving security landscape. David Nelson and team are also well informed of the unique cybersecurity challenges that higher education institutions are facing. He states, "Advanced malware exploits such as Phishing and data exfiltration are especially concerning for research-focused institutions such as Queen's. These types of attacks put universities in a challenging position because we need to protect against theft of intellectual property, or for instance, protect against a cybercriminal leaking research before it's ready to be published. We wanted to ensure that our new IP address management (IPAM) solution would incorporate threat detection and prevention. Infoblox with its BloxOne Threat Defense solution was able to demonstrate the ability to protect our users against sophisticated DNS-based threats."

Optimizing network visibility and efficiency

Queen's is now benefitting from BloxOne Threat Defense, Infoblox's subscription-based, hybrid security solution that leverages the cloud to detect more threats and protect users anywhere while tightly integrating with the on-premises ecosystem. It also provides resiliency and redundancy not available in cloud-only solutions. With Infoblox, the customer can centrally and automatically secure devices, apps, virtual machines and switch ports wherever they reside, all using a common console.

Nelson continues, "Since we can only protect what we can see, we needed greater visibility into our network and the ability to report on usage more efficiently. Infoblox provides centralized management through a single console and delegated administration across our multiple teams throughout the university. As a result, we can ensure highly available core networking services such as DNS and DHCP, and thus reliable access to all applications and services online."

By switching to Infoblox's BloxOne Threat Defense solution the university has also been able to better focus on priority and urgent tasks, enhance operational efficiencies and reduce costs.

Looking to the future

Queen's University Belfast has committed to protecting users anywhere with Infoblox into the future and is well positioned to further simplify its IT experience with [cloud-managed DDI services](#).

For more information

Learn more about how you can proactively detect malware and protect your users and data via DNS. [Speak with an Infoblox representative](#) or [start your free trial](#) of our BloxOne Threat Defense technology today.

Customer: The Queen's University
Belfast
Industry: Higher Education
Location: Belfast, Northern Ireland,
United Kingdom

INITIATIVES:

- Enhance cybersecurity posture
- Improve visibility into network operations
- Secure core network operations, devices and user data
- Migrate legacy database and DHCP/DNS services to a resilient, supported solution

OUTCOMES:

- Proactive threat detection and protection against advanced malware
- Centralized network management through a single console
- Delegated administration across multiple teams throughout the university

SOLUTIONS:

- BloxOne Threat Defense
- Enterprise-grade Core DDI
- Reporting
- Education and Training



Infoblox unites networking and security to deliver unmatched performance and protection. Trusted by Fortune 100 companies and emerging innovators, we provide real-time visibility and control over who and what connects to your network, so your organization runs faster and stops threats earlier.

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