



## EDINBURGH NAPIER UNIVERSITY ENRICHES STUDENT LEARNING WHILE BECOMING SECURE AT ITS CORE



### WEB SITE

WWW.NAPIER.AC.UK

### INDUSTRY

EDUCATION: ACADEMIC INSTITUTIONS

### LOCATION

EDINBURGH, SCOTLAND

### KEY CHALLENGES

- Balancing empowerment of students with data protection
- Providing network flexibility and resilience
- Ensuring a seamless network experience

### SOLUTION

Edinburgh Napier University has security at the heart of its infrastructure through a VMware services deployment of NSX, helping the IT team provision new, compliant infrastructure quicker.

### BUSINESS BENEFITS

- New ability to support the University research strategy
- Increased Security
- Faster Time to Market
- Driving Innovation

Edinburgh Napier University deployed VMware NSX to create a seamless IT experience for students and staff alike. With a granular level of security at the network layer, the IT team can both migrate and provision new servers in half the time it used to take, helping them to get new services to students and staff quicker.

Edinburgh Napier University delivers the skills and experience that matter to over 19,500 students from more than 140 countries. With 1,500 staff, we combine professional know-how with an academic approach and continual investment in teaching and learning facilities to help our students succeed beyond university. The 2017 Guardian University Guide, which compares entry requirements with final degree awards, ranks us top in the UK for adding value to students.

### The Challenge

As one of Scotland's leading higher education institutions, Edinburgh Napier University is dedicated to giving students and academics the best learning and research opportunities. That means providing a seamless IT experience, with continuous access to the relevant applications, regardless of any disruption or upgrade work the IT team is carrying out behind the scenes.

Iain Russell, Head of Infrastructure for the University's Information Services Department, says, "the IT team has to manage disruptions that are both in and out of our control, but we can't let that affect the student experience. Whether we're running patches for a product upgrade or, if our energy company needs to take down the power of one of our buildings, we can't let it have an impact on students or staff."

Strict security protocols across the University meant that the IT team used to spend up to a week when infrastructure was needed for a new service or application. Vigorous tests were also required to ensure it was both compliant and could protect the institution's valuable research data. The time delay could frustrate members of staff, holding up delivery of new applications – or risking shadow IT, with their circumventing the IT team to deploy unapproved cloud services.

As Edinburgh Napier is home to one of the country's leading cyber academies, the IT team wanted a solution that could help enrich the learning of these students. "Our Cyber Academy students need to develop skills to help businesses and governments defend against the cybercriminals of tomorrow. Our environment needs to support their running tests to see how or why breaches would occur, but in a secure way. We have certain systems, such as finance and HR, that need to be off-limits, so wanted to strike a balance between providing an environment for students to learn in, whilst protecting the rest of the network."

“VMware NSX helps to protect our students and staff, which ultimately helps protect the University”

IAIN RUSSELL  
HEAD OF INFRASTRUCTURE FOR THE  
UNIVERSITY'S INFORMATION SERVICES  
DEPARTMENT

#### VMWARE FOOTPRINT

- VMware NSX
- vCloud Enterprise Suite
- VMware's Professional Services

#### APPLICATIONS VIRTUALIZED

- Hosted virtual learning environment
- Dedicated research server infrastructure

#### PLATFORM

- VMware NSX

#### PARTNER

- Phoenix Software



## The Solution

The University realised the incumbent solution could not deliver the micro-segmentation capabilities required, and came to consider VMware as a solution having seen NSX demonstrated at a VMware event. “NSX stood out to us as it was the only solution we’d seen that could help us seamlessly migrate different workloads with minimal disruption, while delivering the levels of micro-segmentation needed to ensure different departments would only have access to the data and infrastructure they needed,” explains Russell. “NSX couples security directly to the workload, so when a new server is needed to support a new application, its policies are automatically attached to it. That’s what we needed.”

After approaching VMware partner Phoenix Software for the solution, Edinburgh Napier opted to deploy VMware NSX with the support of Phoenix and VMware’s Professional Services (PSO) team. “The support of the PSO team was great. They got everything to market swiftly and smoothly, ensuring our team had the skills to establish and maintain a good working deployment. It was a big job, but they helped us do it with no impact to the students. It would have taken us twice as long to implement on our own without the expertise from Professional Services.”

## Business Results & Benefits

By deploying VMware NSX, Edinburgh Napier has achieved a number of business and security benefits. The first being better resilience across the institution’s campuses – the team can now move its applications between different servers to counter any disruptions – internal or external – should they take place. “The IT just works – and that’s what students expect. With NSX, IT is a well-oiled, slick machine. As soon as we foresee any disruption, we can move infrastructure around easily, with students none the wiser as to what’s happening behind the scenes.”

Meanwhile, with security at its core, the IT team has dramatically sped up the provisioning of new infrastructure. This means the IT team can provide very specific bespoke solutions for a variety of individual research projects and to other departments across the University in a quicker timeframe. “We can now provision new infrastructure in half the time we used to be able to,” says Russell. “Thanks to the security VMware NSX inherently brings to the estate, we know all new infrastructure is spun up fully compliant with any industry regulations – and able to protect our valuable research data. That means the IT team spends less time testing each new server – and can focus instead on creating innovative, new services that are going to further benefit the experience of the students. As a result the expectations of students and staff alike have increased.”

The University’s Information Services department also has a granular view of all aspects of security and can create specifically tailored policies for different segments of data. For the Cyber Academy, that micro-segmentation will empower students to be more creative with the ways they can examine and experiment with malware. “They will be able to hack into Cyber Academy-specific resources as part of their studies in an environment that’s separate from the rest of the University,” says Russell. “Micro-segmentation will give them a secure bubble in which they can experiment and upskill as much as they like, with my team safe in the knowledge that everything else is secure.”

Furthermore, as an added benefit, the University has been able to securely launch a shared resources set-up with other Scottish colleges and universities

“The student experience is paramount and, with VMware NSX, we can create an IT experience that is fully secure and just works.”

IAIN RUSSELL  
HEAD OF INFRASTRUCTURE FOR THE  
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DEPARTMENT

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– including Edinburgh College – who didn't have the resources to host and manage an environment themselves. “With micro-segmentation, each institution's data is kept under its own lock and key, so we can make the most of the same cloud while safe in the knowledge each institution only has access to the data they're supposed to.”

### Looking Ahead

Over the next twelve months, the University needs to meet the new General Data Protection Regulation (GDPR) from the European Parliament, the Council and European Commission, with compliancy required across all aspects of its infrastructure. “Thanks to NSX, we're secure at our core and will be able to embrace the changes from the GDPR, much easier,” says Russell. “We couldn't risk fines – we wouldn't be able to afford them – so VMware NSX has taken a weight off my shoulders!”

