BLUECAT ™

IP Address Management, DNS and DHCP Solutions

BlueCat Provided Support and Expertise, as well as a Resilient, Scalable, and Redundant Network to University College Dublin

ORGANIZATION
University College Dublin

INDUSTRY
Higher Education

PRODUCTS
BlueCat IPAM
BlueCat DNS/DHCP
Core Services

RESULTS
Very smooth migration
Stable network environment
Reliable support

THE CUSTOMER

University College Dublin (UCD) was founded in 1854 as the Catholic University of Ireland by John Henry Cardinal Newman. After a few iterations as the Royal University and a constituent college of the National University of Ireland, UCD became an independent college in 1997. Today, UCD is recognized as one of Europe's leading research institutions, and it is ranked in the top 1% among international universities. Considered to be Ireland's most globally engaged university, UCD has a population of more than 30,000 students from 120 countries, and 5,500 students are located outside of Ireland. A major contributor to modern Ireland with a rich history, UCD has produced numerous Irish Presidents, Prime Ministers, as well as business, cultural, and sports leaders, including the writer James Joyce in 1902.

THE CHALLENGE

Over the course of many years, UCD built its own DDI infrastructure. The school's network consisted of BIND DNS and DHCP as well as several Red Hat servers. UCD also created an in-house IPAM solution that worked quite well and allowed its network team to easily create address ranges and edit IP data. While the system had served the school well, the network was growing rapidly and placing more demands on the current system. According to Anthony Grenham, the network manager, "Our system was quite functional, but it was difficult for us to maintain the skill sets to support the network. It was not sustainable with our current resources."

UCD relied on a very small team to manage its critical network infrastructure. The growth and increasing demand on the network put pressure on the already-tight resources, and the University did not want to be in a precarious position where its networks management group was stretched too thin. Grenham said, "As resources left the team, it was becoming harder and harder to run the in-house solution. It made logical sense to move to a managed commercial DDI project where we had robust expertise and extensive support."

In addition, UCD was in the process of upgrading to IPv6. "We were operating a dual stack. We had IPv6 running on a few test networks. As we looked for a new IPAM product, this was something that had to be addressed," said Grenham.

THE SOLUTION

As UCD looked for a network vendor, it considered all of the major players in the industry. The University conducted a one-day workshop to evaluate the different networking companies against its requirements. According to Grenham, "We did a bit of research on the biggest players. Because we are in the public sector, we had to go through a rigorous tender and procurement process. BlueCat was one of the vendors that impressed us and continued to the next stage of the process." After a detailed comparative analysis, BlueCat out-ranked its competition and could offer UCD a fully resilient, scalable solution with built-in redundancy.

UCD's busy networks team wanted a smooth transition with minimal downtown. Therefore, the BlueCat engineer needed to quickly understand the current system and carefully plan the migration. Grenham said, "It was important that the busy day-to-day operations of the UCD network and networks team were not impeded during implementation of the new system. This is where the skills of the BlueCat project engineer was a huge bonus to us. We didn't need to devote a lot of time or resources to the engineer. Essentially, he was able to plan the transition with limited demands on our current team."

VALUE/RESULTS

UCD's BlueCat solution has been in place for over a year, and the networks team has found the day-to day operations of the new system to be very straightforward. UCD sees daily concurrent connections of up to 18,000 devices on its wireless network and 7,000 endpoints on the wired network. Grenham said, "The BlueCat IPAM solution is quite intuitive. Their excellent support system is an added bonus, although we have rarely needed to use them. The system works with little maintenance required from my team."

Although security wasn't a factor in the initial project, UCD plans to deploy security at the DNS level to reduce the risk of threats against the system.

"We didn't have the skill sets and the resources to manage BIND and DNS services. We needed a vendor to support us, and BlueCat gives us the support we need."

– Anthony Grenham
Network Administrator
University College Dublin