

## UNIVERSITY OF PLYMOUTH USES CISCO TECHNOLOGY TO IMPROVE HEALTH, SAFETY AND SECURITY AND SHARE TEACHING RESOURCES ACROSS MULTIPLE SITES

The University of Plymouth is using Cisco’s Connected Real Estate framework across its multiple campuses to bring teaching, communications and building services onto a single, multi-site network, saving the University money and enabling it to manage resources much more effectively.



### Coping with five separate networks

The University of Plymouth is spread across six locations in the South West of England and has 27,000 students and 3,000 staff providing a curriculum in the arts, medicine, science, education and technology. The University has been using Cisco technology since 2000 to support the rapid increase in data traffic and to support several sophisticated on-line education applications such as e-learning, subject and department portals, an intranet and on-line communities for staff and students.

Roger Snelling, Network and Telephony Manager for the University of Plymouth, says, “When we changed the old network we chose Cisco because it offered the best solution and the best roadmap in terms of where we wanted to go. The decision at the time was not just a solution that would solve our data problem, but one that would take us forward into the future. The technology meant that we could stop spending so much time on trouble shooting and focus on quality of service and developing new services such as security, IP telephony and wireless connectivity.”

Since then the University has deployed a Cisco IP telephony system to improve staff productivity and provided wireless connectivity at the main campus sites which has maximised studying space to outside traditional classroom settings.

### EXECUTIVE SUMMARY

**CUSTOMER NAME**

- The University of Plymouth

**INDUSTRY**

- Education

**BUSINESS CHALLENGE**

- Future proof investment in proprietary service equipment
- Managing more than five separate service networks
- Refurbishment meant service control centre had no fixed location

**NETWORK SOLUTION**

- Cisco IP network supporting a Cisco Connected Real Estate solution

**BUSINESS VALUE**

- Delivers significant cost savings and fast ROI
- Brings data, voice, video and building services onto a single, multi-site network
- Protects investment in existing equipment
- Offers flexibility to change and expand the network

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### Cisco brings multiple services onto a single network

However, a major refurbishment programme, relocating the central security office to accommodate a new arts building, gave the University the opportunity to consider how it could use Cisco technology to reduce building automation, management system and building lifecycle costs.

The University of Plymouth had four separate, proprietary networks, along side a data network, to manage fire alarms, access control and CCTV. By converging these onto a single IP environment Plymouth could create a centralised (and remote) approach to monitoring, maintenance and control of all the campus sites.

Based upon Cisco's Connected Real Estate (CRE) framework and Cisco IP network technology, the University is developing a solution that will reduce costs for supporting existing, and setting up new, building systems in the future by using a "plug and play" approach to new solutions.

Snelling says, "The strategy was one of future proofing but also of protecting investment because we didn't want to lose the large investment we'd made things like CCTV cameras."

The CCTV system was digitised to insure the existing 100 CCTV cameras could be carried over the Cisco network. For flexibility, Plymouth has put a device at every camera so that images captured by the cameras are digitised at source. Because the Cisco IP network already extends to other sites, the University has been able to deploy CCTV cameras to other locations.

Plymouth is also looking at deploying other building and security systems over the network. It has started testing a swipe card system for building access and car park barrier machines so that these can be connected into the network. The University is also planning to use the network to manage other systems such as fire alarm and building management systems.

Central Data Control, an IP Consultancy, helped The University of Plymouth to develop and deploy the Cisco CRE solution.

### Cisco technology enables significant cost savings

Snelling says that the Cisco CRE strategy is proving to be cost effective. "The advantage of bringing everything together is being able to reduce the amount of management, support and costs compared to having five proprietary systems. For example, to move the CCTV control centre but retain the proprietary network would have cost around £80,000, but we knew we'd probably need to move it again for a similar cost. Enabling CCTV to be carried over the IP network costs roughly the same, but now we can expand and develop the CCTV system at little extra cost and control it from anywhere we like. So you can see it quickly pays for itself and is much more cost effective."

Safety and security is a major issue and covers a whole range of threats – from staff and students being attacked, being safe in halls of residence, buildings and equipment being vandalised or stolen and protecting the intellectual capital of a research department.

"It's the ultimate flexibility of the Cisco CRE solution that's providing the University with many management improvements and cost saving. We're starting to realise that benefit now, but as we deploy other services over the network those benefits will increase."

**Roger Snelling**  
Network and Telephony Manager  
The University of Plymouth

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As a result of the Cisco technology detecting and dealing with crime is now more efficient and more effective. Phil Harrison, security manager at the University of Plymouth says, “Previously staff had to trawl through a 3-hour tape for potential evidence of a crime, now they produce the CD with the crucial evidence which is then submitted to the police and CPS. This has meant an increase in successful prosecutions.”

With instantaneous retrieval the security team can be involved with this process whilst still maintaining an effective surveillance presence. Harrison says, “For the security team, the Cisco technology has allowed them to feel more empowered and more effective. We’re very enthusiastic about the flexibility of the IP system, specifically the ability to monitor “operations” from any PC on campus, or offsite if required.”

Deploying security services across the Cisco IP network compliments the role of the central control room in a fixed location. A security guard can now monitor any part of the campus – including a remote site – from virtually any PC on the network or from home. Guards in particular areas can monitor cameras covering those areas and respond to incidents faster. The solution also means that the University can outsource security monitoring to an external organisation if required and put in place disaster recovery provision. In the future, the University is looking at putting access control on the network together with intruder alarm management so that, for example, security staff will be able to set and unset alarms without having to visit the building.

Other services are also becoming easier to manage. Now the University can use more sophisticated applications like number plate recognition linked to back end systems. This means that information on things like who needs a parking space and when, can be integrated with access control systems so that parking space can be used more effectively.

The network also supports other applications such as a video conferencing system for the University, which is also offered to other organisations externally. A video streaming application is used by the medical school associated to The University of Plymouth so that a lecture can be broadcast in real-time to students at any site and the students can interact as if they were in the same room.

Snelling says, “It’s the ultimate flexibility of the CCRE in education solution that’s providing the University with many management improvements and cost saving. We’re starting to realise that benefit now, but as we deploy other services over the network those benefits will increase.”



**Five years ago the Cisco technology delivered an amazing service and it is still the case now**



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