

University Cost-Effectively Expands Video Surveillance

Loughborough University can quickly deploy cameras in any location using IP-based video surveillance system.

EXECUTIVE SUMMARY
Loughborough University <ul style="list-style-type: none"> Higher Education Loughborough, Leicestershire, England 17,500 students
CHALLENGE <ul style="list-style-type: none"> Keep campus safe and protect property Further increase reputation as leading sports center Minimize video surveillance costs
SOLUTION <ul style="list-style-type: none"> Implemented Cisco Video Surveillance System Added cameras in PC labs, student residences, and library
RESULTS <ul style="list-style-type: none"> Encouraged good behavior through video surveillance Avoided US\$5,000 to US\$8,000 costs per camera for fiber-optic cabling Met security requirements to host teams for the 2012 London Olympics

Challenge

Located in Leicestershire, England, Loughborough University is one of the United Kingdom's leading universities, with an international reputation for excellence in teaching and research and strong relationships with industry. Loughborough is also the U.K.'s premier university for sport, employing leading coaches, sports scientists, and support staff.

Few crimes occur on the 437-acre campus, and the security department works hard to keep it that way by monitoring walkways and residence buildings with video surveillance. When several antisocial incidents and a theft occurred in the university's 24-hour PC labs, the IT department decided to install video surveillance cameras there, as well. "The local police told us that they assign more resources to investigate incidents captured on video because the chances of a conviction are higher," says Dave Temple, assistant director of technology strategy, Loughborough University.

Until then, the university connected each video surveillance cameras to the security gatehouse over its own fiber-optic link, which cost up to

US\$8,000 apiece, depending on the location. Only one person could view video at a time. So when the IT department made its request for additional cameras, the campus security manager suggested that the IT and security organizations collaborate to find a more cost-effective and flexible video surveillance solution.

"We wanted security personnel to be able to view real-time and archived video without assistance from IT," Temple says. "And we wanted the ability to quickly and inexpensively add video surveillance cameras in any location on campus." The flexibility to quickly add cameras anywhere was a requirement to host athletes during the 2012 Olympic Games in London, an opportunity of keen interest to the university.

Network Solution

Loughborough University already used a Cisco® IP network for voice and data, and decided to use the same network as the platform for video surveillance, as well. "We chose the Cisco Video Surveillance solution because it is open, giving us the flexibility to use any vendor's cameras, encoders, and storage," says Temple. "It uses inexpensive Linux servers, and the web-based interface minimizes training requirements. Plus, our experience with Cisco networking equipment has given us confidence in the quality of Cisco's products and support."

The pilot includes 25 video surveillance cameras in the residence halls, 10 in the computer labs, and 1 in the library. The IT department uses a web-based interface to indicate which users are authorized to view which video feeds, and to manage the software, cameras, and encoders. Authorized users can use any designated PC to select the video feeds that they want to monitor, or to view archived video.

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— Dave Temple, Assistant Director of Technology Strategy, Loughborough University

Business Results

Loughborough University is experiencing the following benefits from the Cisco Video Surveillance solution:

- **Crime prevention:** "The video surveillance cameras in the PC labs and other areas are clearly visible, which helps to encourage good behavior," says Temple.
- **Lower costs:** The only costs to add a new camera is for the camera itself and one switch port, which is a fraction of the cost of a fiber-optic connection. Loughborough expects to save more money by selecting future cameras, encoders, and servers from whichever vendor that offers the best solution, freely mixing products from multiple vendors.
- **Modular expansion:** Traditional video surveillance systems require their own storage, increasing costs. The Loughborough IT department connected the Cisco Video Surveillance system to its storage area network so that it could securely share the same storage space used by other applications. "When we add cameras, I just allocate storage space to the server from our storage area network and tell the Cisco Video Surveillance Operations Manager that the space is available," Temple says. "A modular system costs less to expand as we grow."
- **Viewing from more locations:** Authorized campus personnel can view real-time and archived video not only from the main console, but also from their PCs. One campus security officer can monitor real-time video feeds from around campus while another officer views a particular feed in response to a nuisance and complaint, and still another officer copies archived video onto a DVD to provide to the police.
- **Access control:** Administrators can limit the viewing privileges for library personnel, for instance, to the video surveillance camera in the library. The system produces a report showing which video each individual has viewed, helping the security department make sure that video is used appropriately.
- **Qualification to host 2012 Olympic teams:** The new video surveillance solution and other measures qualified Loughborough University to host Olympics teams. In June 2009, the Japanese Olympic committee announced that its teams would train at Loughborough University and live there in the weeks before the 2012 London Olympic Games. Hosting an Olympics team will solidify Loughborough's already strong reputation as a leading sports university and potentially attract more student-athletes and funding.
- **Partnership between IT, Security, and Facilities:** Pleased with the success of the IT-based video surveillance system, the three organizations also plan to partner on an IP-based building access controls system.

PRODUCT LIST

Routers and Switches

- Cisco Catalyst 6500, 3750, 3560, and 2960

Physical Security

- Cisco Video Surveillance Media Server
- Cisco Video Surveillance Virtual Matrix
- Cisco Video Surveillance Operations Manager

Next Steps

Loughborough University will include digital video surveillance cameras in new buildings, including a sports complex and a multistory parking structure. The IT department will also connect the 100 existing analog cameras to the IP network so that security personnel can centrally view feeds from any camera on campus, digital or analog. The university also plans to use its IP network for building access controls, increasing the return on investment from the IP network.



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