

University Enhances Student Experience and Increases Efficiency

Nottingham Trent University adopted unified communications, collaboration tools, TelePresence, and lecture capture.

EXECUTIVE SUMMARY

Customer Name: Nottingham Trent University
Industry: Higher Education
Location: Nottingham, United Kingdom
Size: 27,000 students; 3,000 faculty members

CHALLENGE

- Optimize team performance for faculty, staff, and students
- Provide excellent experience for students who call the university
- Create new learning opportunities with video lecture capture

SOLUTION

- Cisco Unified Communications, replacing disparate private branch exchange (PBX) systems
- Desktop collaboration tools, including Cisco UC Integration for Microsoft Office Communicator (MOC)
- Lecture capture using Cisco TelePresence Systems, Cisco MXE 3500 Media Experience Engine, and Cisco Digital Signs

RESULTS

- Efficiently captured and transformed 100 hours of lectures weekly, with capacity for 520 hours
- Simplified faculty and staff collaboration with instant messaging and click-to-call
- Efficiently routed calls from 13,000 prospective students over four days to available agent

Challenge

Located in the United Kingdom, Nottingham Trent University (NTU) serves 27,000 students and is consistently ranked as one of the country's top universities for graduate employment. The university regards communications and collaboration as strategic tools for learning and administrative efficiency. "Advanced collaboration capabilities and video are essential to first-rate student academic experience, as well as supporting academic and professional colleagues, both inside and outside the classroom," says Mike Day, director of information technology for NTU.

Over time, NTU had accumulated disparate voice systems in 50 buildings spread over three campuses. University leaders wanted to replace them with a centralized unified communications system that would serve as the foundation for collaboration applications and video.

One goal was building an intelligent contact center that would enable 100 agents to efficiently handle thousands of calls daily during "clearing week," when U.K. students who do not receive offers of admission from their first-choice university vie for spots in other universities. "Making sure we can quickly route prospective students to an agent with the right skills creates a good first impression and helps us fill the class with the best students," says Thomas Farrand, team leader for unified communications at NTU.

The university also sought to optimize the performance of instructors and administrators who frequently work on virtual teams with members in different locations. The goal was empowering university employees in different locations to collaborate with presence, instant messaging, click-to-dial, and video conferencing.

"Cisco UC Integration for MOC simplifies collaboration by letting us simply click to dial an Outlook contact or to escalate from a Microsoft IM session to a Cisco voice or video call."

— Thomas Farrand, Team Leader for Unified Communications, Nottingham Trent University

And to enrich the learning experience with video, NTU needed a simple way to transform video lectures for viewing on and off campus on a variety of devices, including mobile devices, PCs, and digital signage in other lecture halls. “Making lectures available for viewing on the web would save part-time students the time and costs of driving to campus, attract distance-learning students, and enable all students to review lecture content,” says Jon Highton, application and collaboration services manager for NTU. Similarly, streaming lectures to other classrooms would allow more students to enroll in classes and enable two or more classes to come together to hear guest speakers. The law school already had a lecture-capture system, but video quality was poor.

Solution

NTU is achieving its goals with Cisco® Unified Communications, Cisco Unified Contact Center Express, Cisco collaboration applications, Cisco TelePresence®, Cisco Media Transformation services, and the Cisco Digital Media Suite. “Cisco provides all the components NTU needs for collaboration, including the unified communications platform, video endpoints, wired and wireless networks, and security,” Day says. “Cisco’s breadth of solutions makes it easier for the university to do strategic planning to stay at the forefront of communications and collaboration technology.”

“Our system can record up to eight hours of footage daily from each venue, so the Cisco MXEs can transcode up to 560 hours of video weekly. As a result, students can view lectures anytime, anywhere, using any device.”

— Jon Highton, Application and Collaboration Services Manager, Nottingham Trent University

The university began its transition to Cisco Unified Communications in a new campus center and two refurbished buildings. More than 3,000 university employees currently have Cisco Unified IP phones. Faculty and staff can work from any of NTU’s three campuses by logging on to a Cisco Unified IP phone to personalize it with their own phone number, speed-dials, and other preferences.

Other Cisco solutions are transforming the experience for students and increasing efficiency for faculty and staff:

- **Efficient contact centers:** The admissions office and IT helpdesk use Cisco Unified Contact Center Express to route prospective students’ calls to the first available agent with the appropriate skills. “During clearing week, IT managers monitor real-time statistics on a wall display and can instantly move agents to different queues and change skill levels to give students a positive experience with the university,” says Farrand. For helpdesk calls, the system assigns priority to calls based on the calling number and the interactive voice response (IVR) option that the caller selects. Calls from classrooms requesting assistance with audio/visual equipment receive highest priority.
- **Convenient collaboration among faculty and administrators:** Faculty and staff save time by checking whether colleagues are online or on the phone and then simply clicking to dial or send an instant message. They use Microsoft Office Communicator (MOC), which connects to Cisco Unified Communications Manager for remote call control. “Cisco UC Integration for MOC simplifies collaboration by letting us click to dial an Outlook contact or to escalate from a Microsoft IM session to a Cisco voice or video call,” says Farrand. A single call control system for desk phones and softphone clients also lowers operational costs.

- **Voice-activated dialing:** Using Speech Connect for Cisco Unity, callers can quickly contact someone simply by speaking their name. Students and visitors especially appreciate voice recognition in faculty entrances, where phone directories typically are not available. This capability eliminates the need for paper phone directories and constantly having to replace them while also giving the university a tidier appearance.
- **Lecture capture:** NTU has deployed either Cisco TelePresence System Integrator C-Series units or pan-tilt-zoom video cameras in 14 lecture halls. Four Cisco MXE 3500 Media Experience Engines are used to transcode captured video for viewing on mobile devices, PCs, and Cisco Digital Signs in other lecture halls. "Our system can record up to eight hours of footage daily from each venue, so the Cisco MXEs can transcode up to 560 hours of video weekly," says Higton. "As a result, students can view lectures anytime, anywhere, using any device." Currently, approximately 1,000 students watch 100 videos monthly. By October 2012, the university expects to capture lectures in 25 theaters, increasing the amount of captured video by tenfold. Lectures are stored for about two weeks.
- **TelePresence:** Cisco TelePresence Systems in several large lecture halls help bring experts from other locations into the classroom and enable teams of students in different locations to collaborate on small-group projects. The vice chancellor recently delivered a lecture in Australia from a campus Cisco TelePresence system, avoiding travel time and costs.

Results

Excellent Caller Experience for Students, Faculty, and Staff

During the U.K.'s hectic clearing week, maximizing the number of prospective students who can reach someone in the admissions office on the first call helps NTU admit the best-qualified students. Over the first four days of clearing week in 2011, Cisco Unified Communications Manager efficiently handled 25,500 incoming calls, about half of those from students inquiring about admission. "Thanks to intelligent call routing and real-time reporting in Cisco Unified Contact Center Express, 100 agents were able to answer 96 percent of approximately 13,000 student calls during clearing week without having to route callers to voicemail," says Farrand. "Answering students' calls personally creates a good impression of the university, and also helps us admit the best qualified students." The university credits Cisco Unified Contact Center Express with helping to fill all remaining places.

Contact center agents use Cisco IP Communicator on their PCs. "Cisco IP Communicator increases business resilience, because agents can work from anywhere on campus, and could even work from home if necessary," Farrand says.

Enriched Part-Time Study and Distance Learning

Lecture capture supports the university's part-time and distance-learning programs by enabling students to view the same lectures delivered to full-time students, anytime, anywhere, on any device. A large window displays the lecturer's visual aids, such as PowerPoint presentations or an application, and an inset box displays high-definition video of the lecturer, helping to engage students.

Increased Administrative Efficiency

Cisco UC Integration for MOC makes it easier to reach out to colleagues with presence, instant messaging, or click to dial. "I don't need to know your direct dial, email, or IM address, because I can just click to reach you in the most appropriate way," says Farrand.

Agility to Stay at Forefront of Technology

To reduce costs, the university purchased 3500 licenses for Cisco Unified Workspace Licensing Professional Edition. The IT department can activate new users or applications on demand, as business needs change. Cisco Unified Workspace Licensing includes three years of access to the latest Cisco software updates for major, minor, and maintenance releases, as well as online tools and communities. This capability will help the university remain at the forefront of communications and collaboration technology without having to request additional budget.

PRODUCT LIST

Unified Communications

[Cisco Unified Communications Manager](#)

[Cisco Unified IP Phones 7900 Series](#)

Customer Collaboration

[Cisco Unified Contact Center Express](#)

Collaboration Applications

[Cisco Unified Workspace Licensing](#)

[Cisco Unified Communications Subscription Services](#)

[Cisco Unified Video Advantage](#)

[Cisco Unity® Connection](#)

[Speech Connect for Cisco Unity](#)

TelePresence

[Cisco TelePresence System Integrator C-Series
Codecs C90 and C60](#)

Video Content

[Cisco MXE 3500 Media Experience Engine](#)

[Cisco Digital Signs](#)

Routing and Switching

[Cisco Catalyst Switches 6500, 3750, 3560, 2960](#)

Security

[Cisco Firewall Services Module](#)

Next Steps

NTU continues to find new ways to take advantage of video to improve the student experience, including using the Cisco MXE 3500 Multimedia Experience Engine to allow searching within videos by keyword or speaker. Another plan is using the Cisco MXE 3500 to transform television programs from the U.K.'s Open University station for viewing on Cisco Digital Signs. "We also plan to create an archive of television programs in Cisco Show and Share to replace our existing DVD library, making it easier for faculty to view programs and include snippets in their lectures," says Higton.

Video conferencing is also on the rise, and faculty and staff have begun requesting desktop Cisco TelePresence systems.

"TelePresence is a better option than consumer video conferencing services in higher education, because it provides more control and resilience," says Higton.

Yet another idea is using Cisco TelePresence and Cisco UC Integration for MOC to extend office hours. "At the end of a term, students compete for time with tutors," says Farrand. "With Cisco

UC Integration for MOC, students can see if tutors are available before or after usual office hours, and then just click to send an instant message requesting a video conference. They can engage in a collaborative way, share documents, and bring in video if needed."

Day concludes, "Cisco Unified Communications provides a platform to continue adding collaboration capabilities, helping to enhance NTU's national and international reputation as a dynamic and forward-thinking institution."

For More Information

To find out more about Cisco Collaboration, visit: <http://www.cisco.com/go/collaboration>.

To find out more about Cisco Video Content, visit: <http://www.cisco.com/go/videocontent>.

To find out more about Cisco TelePresence, visit: <http://www.cisco.com/go/telepresence>.

To join conversations and share best practices about collaboration, visit: <http://www.cisco.com/go/joinconversation>.



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