University Improves Caller Experience

Brandeis University uses Unified Communications to enhance communications services while reducing costs and management requirements.

<table>
<tr><td colspan="2">EXECUTIVE SUMMARY</td></tr>
<tr><td colspan="2">BRANDEIS UNIVERSITY
• Higher Education
• Waltham, Massachusetts
• 3200 full-time students; 1500 employees</td></tr>
<tr><td colspan="2">CHALLENGE
• Help ensure reliable communications
• Improve contact center experience
• Enhance emergency communications
• Support educational excellence</td></tr>
<tr><td colspan="2">SOLUTION
• Used the Cisco network as the platform for unified communications, including a public address system
• Merged previously separate contact centers
• Developed custom applications for IP phones</td></tr>
<tr><td colspan="2">RESULTS
• Improved parent, student, and faculty satisfaction
• Saved hundreds of thousands of dollars on a public address system
• Helped ensure that teachers have needed resources for rich-media lectures</td></tr>
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Challenge

Located in Waltham, Massachusetts, Brandeis University is a highly ranked private university with strong research, sciences, and social policy programs and an undergraduate enrollment of 3200. The university needed to overhaul its communications system for several reasons. The existing copper wiring, some of it as old as the university, was failing. The aging private branch exchange (PBX) system needed replacement. And the existing system lacked sufficient capacity for a new dormitory.

The university IT group wanted a new communications solution that would deliver a superior experience to students, parents, faculty, and staff. For example, anxious parents and students who call Student Financial Services prefer to reach a live person right away rather than navigating through menus. Campus safety requires the ability to alert students and employees anywhere on campus if an incident occurs. Faculty members who have issues with classroom technology or the online grading system might need to reach the help desk early in the morning or very late at night. Hourly workers want to be able to clock in and out near their reporting area instead of walking up to 15 minutes to a centralized time clock. And the IT group sought a way reduce the time needed to provision phones for incoming freshmen living in campus dormitories.

After investigating new PBX systems, the IT department realized that it could capitalize on its new Cisco® network for voice and video as well as data. "Using our new network as the platform for unified communications would increase our return on investment and also give us new capabilities," says John Turner, director of networks and systems, Brandeis University. "A unified communications solution would also avoid the high costs of replacing our copper telephone network."

After speaking with other universities that had adopted unified communications, Brandeis conducted a week-long test of unified communications solutions from Cisco and another vendor. Cisco Unified Communications won the test. "More than a telephone system, Cisco Unified Communications is a complete communications platform that also supports rich-media

conferencing, video, and more," says Turner. "It supports our current needs and also gives us flexibility to add new capabilities in the future."

Solution

Brandeis installed a Cisco Unified Communications Manager server on its main campus in Waltham and a Cisco Integrated Services Router with Unified Communications Manager Express in the New York City alumni house. Students receive a Cisco Unified IP Phone the first day they arrive on campus and keep it until they graduate. The IT group wrote an application for the enterprise resource planning (ERP) system that automatically adds new students to the Cisco Unified Communications Manager system, a feat made possible because of the open interfaces in Cisco Unified Communications, according to Turner. This eliminates the $25,000 annually that the university used to pay a service provider to provision phones.

> "We want to graduate the same number of students we admit, and anything we can do to make their experience pleasant is important."
> —John Turner, Director of Networks and Systems, Brandeis University

The availability of the communications system is critical in a university environment, and Brandeis uses a Session Initiation Protocol (SIP) trunking service from Zone Telecom for cost-effective backup. "Using a SIP trunk instead of a PRI [private rate interface] line for backup reduced our costs by $18,000 annually because the service provider does not have to provide a local loop," says Turner.

In the summer of 2007, Brandeis upgraded its IP network, adding Cisco Catalyst® 6500 switches in regional points of presence and Cisco routers in each building. The IT group also consolidated its data center infrastructure by deploying Cisco Firewall Service Modules (FWSMs) and Cisco Application Control Engine (ACE) modules. These modules, which fit right into Cisco Catalyst 6500 Series Switches, provide load balancing and application security to increase performance and availability. Each Cisco ACE module can act like multiple virtual modules, reducing the number of devices that the IT department must purchase and manage as well as data center space and power requirements.

> "Managers used to spend one full day each week calculating their employees' hours. Now they just need an hour, using a time-clock application on the Cisco Unified IP Phone that ties into our enterprise time-and-attendance application."
> —John Turner, Director of Networks and Systems, Brandeis University

Results

Attractive Communications Services for Students

Students use their Cisco Unified IP Phones for work and play, taking advantage of five-digit dialing, transfers, conferencing, and call parking. One student even wrote a wake-up call application. "Students just press the Services button, select Wake-up Call, and can then set multiple alarms based on day of the week, school holidays, and more," says Turner. The application won a

CIPTUG (Cisco IP Telecommunications User Group) Application Bake-Off award for Best Higher-Education Vertical Application and Best End-User Developed Application.

Improved Contact Center Experience

The ease of resolving financial issues is important to student and parent satisfaction, and Brandeis is using Cisco Unified Communications to improve callers' experience. "We want to graduate the same number of students we admit, and anything we can do to make their experience pleasant is important," says Turner. Previously, students and parents who needed to reach Financial Services, the Bursar's Office, or Financial Aid used a menu system, and sometimes became frustrated when they had to wait to reach a live person. Now the university uses Cisco Unified Contact Center Express so that callers reach a human right away and are then transferred to the correct department. All calls are answered by the first available agent. When the contact center experiences heavy volume, even the director of financial aid can log in to take calls. "Answering more calls with a live person has increased caller satisfaction, and callers are generally calmer because they have a shorter wait," Turner says.

Callers to the campus help desk also enjoy faster service. Using Cisco Unified Contact Center Enterprise, the IT group easily merged its previously separate faculty help desk, student help desk, and library services into a unified Library and Technology Services contact center. Each contact center is staffed at different hours, so callers can reach a live person any time from 8:00 a.m. to 2:00 a.m. The fact that faculty can get faster answers to questions about classroom technology improves educational excellence. "Some classes meet only 10 times a semester, so if we can help a professor who is having problems with classroom technology, we have just saved 10 percent of the course content," says Turner.

> "We constantly look for new ways to connect students and faculty. We are working with each university department to see which Cisco Unified Communications features will help them be more productive or provide a better experience to callers."
>
> **—John Turner, Director of Networks and Systems, Brandeis University**

Enhanced Emergency Communications

Student safety is of paramount importance to the university, and Brandeis also uses Cisco Unified Communications for campus-wide public address (PA) announcements. Administrators use Berbee InformaCast software to send emergency announcements to the built-in speakers of the Cisco Unified IP Phones in every office, public area, and dorm room. The IT group had the solution up and running in less than two hours and saved the hundreds of thousands of dollars for a separate network.

Fewer Hours Spent on Payroll

The university IT group wrote a time-clock application for Cisco Unified IP phones that improves job satisfaction for hourly employees and saves time for managers. Rather than walking up to 15 minutes to a time-clock location on campus, employees can clock in and out by logging into a Cisco Unified IP Phone near their reporting location. "Managers used to spend one full day each week calculating their employees' hours," says Turner. "Now they just need an hour, using a time-clock

application on the Cisco Unified IP Phone that ties into our enterprise time-and-attendance application."

Reduced Management for IT

The Cisco Unified Communications system can be managed by two people instead of five, enabling the IT department to retrain three people for other jobs. "In all cases our employees were pleased to learn new skills," says Turner.

Next Steps

Now that the Cisco Unified Communications platform is in place, Brandeis is considering additional plans to use it for other applications that increase efficiency and improve the experience for students, parents, and faculty:

- Hunt groups for small offices. Brandeis plans to provide hunt groups for small offices, so that if one person leaves for lunch, for example, phone calls are forwarded to someone else who can help the caller.

- Cisco TelePresence. By offering professors the option to teach classes without living nearby, Brandeis can even further enhance its ability to attract world-class faculty. Professors would be provided with a Cisco TelePresence unit, and students in classrooms with Cisco TelePresence units would experience the lecture as if the professor were physically present. Brandeis is also considering installing a Cisco TelePresence system at the Al-Quds University in Jerusalem to enable students in the two universities to discuss issues as if they were face to face.

- Additional unified communications applications. The university is considering taking advantage of Cisco Unified Workspace Licensing to use more applications, including presence. "We constantly look for new ways to connect students and faculty," says Turner. "We are working with each university department to see which Cisco Unified Communications features will help them be more productive or provide a better experience to callers."

For More Information

To find out more about Cisco Unified Communications go to: http://www.cisco.com/go/uc.

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