

University Prepares Communications System for 7000 More Students

University of North Carolina at Charlotte adopted Unified Communications to prepare for more students and faculty

EXECUTIVE SUMMARY

UNIVERSITY OF NORTH CAROLINA CHARLOTTE

- Higher Education
- Charlotte, North Carolina
- 23,300 students; 1000 full-time faculty and staff

CHALLENGE

- Prepare for more students and faculty
- Improve callers' experience
- Accelerate innovation

SOLUTION

- Replaced PBX system with Cisco Unified Communications

RESULTS

- Increased contact center answer rate from 82 to 93 percent while handling 25 percent more calls
- Reduced average wait time for undergraduate admissions by 40 percent
- Made it easier for faculty members to collaborate
- Prepared the university to easily add more services in the future

Challenge

One of the fastest growing campuses in the University of North Carolina system, University of North Carolina (UNC) at Charlotte enrolls more than 23,300 students and 1000 full-time faculty and staff. The university expects to add 7000 students and 150 faculty members by 2012.

To prepare for growth, the UNC Charlotte IT group needed to upgrade its communications system and data center. The previous private branch exchange (PBX) system could not scale to support 11 new planned buildings and had become expensive to maintain. "We also wanted to improve the communications experience for faculty, staff, students, and parents," says Tom Lamb, chief technology officer for the university.

Major goals for a communications system included:

- **Better contact center experience:** At the beginning of each semester, the university receives approximately 8000 weekly calls regarding financial aid, account status, and class registration. The old PBX could not handle the volume, resulting in busy signals and dropped calls. Callers who did get through often hung up after becoming frustrated with long wait times or the inability to reach a live person. "Improving our service to callers was a priority for the vice chancellor, who was receiving complaints from parents," Lamb says.
- **Support for telework:** The university wanted employees to be able to work from home one day a week, a strategy to maintain business continuity during a pandemic, reduce carbon emissions, and reduce the need for new office space as more employees are hired. Teleworkers need secure access to the campus communications system and business applications housed in the data center.
- **Increased mobility:** Mobile university employees, including university leaders and IT personnel, need to be reachable in any workspace, not just their office. "Making it easier for faculty and staff to reach out to each other enables collaboration on research as well as on administrative projects," says Lamb.

Solution

UNC Charlotte addressed these challenges and prepared for growth by migrating from its old PBX system to Cisco® Unified Communications. The university deployed Cisco Unified Communications in six buildings in 2005 and began converting the remaining 39 buildings in 2007. “We chose Cisco Unified Communications not only for what it does today, but also for the flexibility that it gives us to introduce new communications services as our needs change,” says Lamb. For example, Cisco Unified Communications Manager supports Session Initiation Protocol (SIP), which will enable the IT group to provide university voice, voicemail, and other communications services to employees’ homes, supporting teleworking.

Faculty and staff now have more flexibility to connect, communicate, and collaborate from any location. They use either Cisco Unified IP Phones or laptops with Cisco Unified Personal Communicator, a desktop application that integrates voice, instant messaging, presence, voice message access, click-to-call, video, conferencing, user directory, and call history. A single Cisco Unified Workspace Licensing agreement provides access to all of these applications, simplifying management and administration. With Cisco Unified Personal Communicator, mobile employees can just bring their laptops wherever they go on campus to make and receive calls with their usual extension.

Several campus offices use Cisco Unified Personal Communicator to speed up decision-making. “An administrator who needs an immediate answer to a question can look at experts’ presence information to see who is available right now, saving the time to call multiple people and leave voicemails,” says Lamb. “And if we see that someone is on the phone, we can just send an instant message without even having to open another application.”

The university’s contact centers (the IT help desk, financial aid, graduate admissions, student accounts, and registrar’s office) use Cisco Unified Contact Center Express, which has transformed call handling to improve the caller experience. Skills-based routing directs calls to a qualified agent in any location, making it faster for students, parents, or employees to reach a live person. The contact center director can now view real-time metrics and, if needed, add new agents in any campus location to help ensure that callers receive prompt service.

At about the same time as the Cisco Unified Communications project, the UNC Charlotte IT team engaged Cisco to design a services-oriented data center that meets the university’s needs for scalability, performance, resilience, and manageability. UNC Charlotte is using Cisco MDS 9513 Multilayer Director Switches to create a single, high-performance storage area network (SAN) that supports virtual SANs (VSANs), reducing equipment and operational costs. A single Cisco Application Control Engine (ACE) 4710 Appliance provides load balancing for ERP applications as well as productivity applications and departmental databases.

“Before we had Cisco Unified Communications, I had to worry whether our infrastructure could support new communications services. Now, with our open platform, I’m confident that we can take advantage of new services as our needs change.”

—Tom Lamb, Chief Technology Officer, University of North Carolina at Charlotte

Results

Better Caller Service

The university provided its best-ever service to callers as the fall 2008 semester began:

- Decreased average wait time from 1 minute 32 seconds to 54 seconds for calls regarding undergraduate admissions
- Handled 1200 more calls about financial aid with only a 20-second increase in average wait time
- Increased answer rate from 82.3 percent to 93.4 percent for calls about graduate admissions while handling 25 percent more calls

"The vice chancellor is no longer receiving complaints from parents," Lamb says.

Enhanced Collaboration

The ability to see colleagues' presence information, whether they are available and how they prefer to be reached, speeds up collaboration. Mobile employees are now easier to reach because the Cisco Unified Mobility single-number reach feature simultaneously rings their desktop phones and mobile phone when their main office number is dialed. "It's not uncommon for researchers to work in several offices as well as a lab," says Lamb. "Now we can dial just one number to reach them in any workspace." And when mobile employees receive a voicemail message on their desktop phone, they receive an audible and visual alert on their mobile phone so that they can respond right away, enhancing collaboration.

Approximately 50 faculty members and staff are using Cisco Unified Video Advantage to add a face-to-face dimension to their voice calls. "Video saves time if you want a more personal experience than a voice-only call but don't have time to walk across campus," says Lamb.

Next Steps

With Cisco Unified Communications in place, UNC Charlotte is preparing to leverage the platform to evaluate other unified communications applications:

- **Emergency notification:** UNC Charlotte can use the system to simultaneously dial groups of students on their mobile phones and dorm-room phones to play a recorded message.
- **Communications interoperability:** Using Cisco IP Interoperability and Collaboration Solution (IPICS), campus emergency personnel will be able to communicate directly with the Charlotte Police Department, using any type of radio as well as cell phones, traditional phones, or laptops with the appropriate software.
- **Cisco Unified Mobile Communicator:** Mobile employees will be able to use Cisco Unified Communications applications on their smartphones.
- **Cisco Unified Sports solution:** The university is evaluating Cisco's multimedia digital signage for use in its arena to promote merchandise sales during games.
- **Cisco Virtual Office:** To support pandemic planning as well as its green initiatives, UNC Charlotte is planning to enable employees to access university voice, video, and collaboration services from home.
- **Increased video use:** Lamb expects that up to 200 employees will use video for collaboration. The scalable Cisco network can handle the additional video traffic.

"Before we had Cisco Unified Communications, I had to worry whether our infrastructure could support new communication services," says Lamb. "Now, with our open platform, I'm confident that we can take advantage of new services as our needs change."

For More Information

To find out more about Cisco Unified Communications go to:

<http://www.cisco.com/go/unifiedcommunications>.

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