

# CAMPUS TECHNOLOGY

## INNOVATOR 2005: Northeastern University



### INNOVATION:

Northeastern On-Demand: Application and File Access, Anytime/Anywhere

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### Challenge

Service expectations for higher education are increasingly based on a 24/7, constantly connected world. As new classes of students come in, **Northeastern University** (MA) is seeing more savvy uses of technology and more impatience with not having it available in the expected "instant" timeframes. Faculty and staff are plugging in all over the world and needing access to their tools and information. "Information Services finds itself needing to deliver the Northeastern experience whenever and wherever our community members want it," explains Richard Mickool, NU's executive director for Information Services.

### Technology Choice/Project Design

There are two major components to the solution: 1) delivering and managing a large portfolio of applications, many needed remotely, and 2) central file-sharing and storage capabilities for easy access to data in remote labs, off-campus, and mobile environments. For delivering applications, NU looked at server-based solutions such as Citrix ([www.citrix.com](http://www.citrix.com)) and a product from Softricity ([www.softricity.com](http://www.softricity.com)), called SoftGrid application virtualization. For file storage and sharing, NU looked at webDAV technologies such as Apple's ([www.apple.com](http://www.apple.com)) Digital Locker and Xythos ([www.xythos.com](http://www.xythos.com)) WFS. Both component areas required: 1) scalability because they would be used by tens of thousands of people; and 2) reliability because this would be the mainstay of how people consume and share applications and data; 3) a quality user experience—it had to be at least as good in speed and functionality as users were used to when applications and data are installed locally; 4) integration—it had to be able to integrate with the central authentication approach so that users could link to NU's portal and use their enterprise logins; and 5) manageability— NU needed technologies that eased IT administrative burdens so IT could deliver more service with less effort.

Citrix wouldn't allow users to run the native Windows 32 applications in their own virtual space and have them available quickly at the labs. So the university chose SoftGrid for instant, on-demand application deployment and centralized management, and Xythos for central file storage and sharing over the LAN or Internet.

### Key Players

The initial focus is aimed at students, faculty, and staff. Ultimately, everyone who is part of the Northeastern community will benefit from this new 'On Demand' experience. The pilot projects are central IT department initiatives, but they rely heavily on a partnership with the staff of the College of Computer and Information Sciences and feedback from a variety of community members.

### Results

The College of Computer and Information Sciences has moved to SoftGrid for application delivery, and central IS has moved one of its public labs to it. The pilot for Xythos is being used by a couple of hundred people; rollout of both technologies to the entire campus will occur throughout the fall 2005 semester.

Two factors set this project apart: 1) NU is taking advantage of a relatively new technology—SoftGrid application virtualization environment—on a large scale; and 2) the solution is designed and delivered through collaborative efforts between central IT and a college unit, "too often not achieved on college campuses," says Mickool, "but for us it has been a mutually rewarding partnership."

Xythos changes people's ability to share information easily, and makes their data portable so that they can access it in many more locations. This is important because NU users work in various locations at various times—behind a desk on campus, at home, at an Internet café. Because users have control of file-sharing capabilities, less administration is required by IT, which no longer has to set up a network share for particular groups or maintain access permissions. In addition, because users share files, they no longer will have to send many large attachments through e-mail, positively impacting overall bandwidth and performance. SoftGrid has many benefits:

***Simplifying remote campus support and updates.*** NU can package applications at its Boston location and then automatically update all other sites. This eliminates the need to send technicians to remote campuses for updates, patches, and last-minute deployments.

***Anytime, anywhere application access.*** SoftGrid's ability to detach the machine from the user simplifies end user support and enables more flexible lab management. Because SoftGrid-enabled applications can be delivered on-demand, anyone can log on a computer at any location across campus or at NU's remote sites and, via Active Directory, immediately obtain all their necessary apps.

***Accelerating application deployments.*** By eliminating application conflicts, regression testing, and on-site deployment, NU can cut turnaround time for deployments in half.

***Eliminating application conflicts.*** NU can run what were previously conflicting applications on the same client without concern— and without spending time on regression testing. This is particularly important for the lab environments, which run large numbers of applications with varying versions.

### Surprises

"Honestly, the biggest surprises were that the solutions were cool and worked!" says Mickool. "They are really going to change our capabilities to deliver services and our community's options for consuming them." One big obstacle for the NU was users' ability to rethink how these technologies would fundamentally change what they did and how they were doing it, in order to take the risk to change, Mickool explains. The other big obstacle was freeing up and scheduling people to work on these initiatives. "Everyone is so maxed out dealing with crises and maintaining the status quo, it is very difficult to invest time in initiatives that change the status quo, no matter how positive the long-term return is," Mickool observes.

### Next Steps

The next step at NU is to roll out the SoftGrid and Xythos technologies campuswide so that the institution can realize the maximum benefits. The university will then turn to using these technologies to really personalize the experience. The goal is to be able to automatically authorize and deliver applications to individuals through the university's portal, and based on personal attributes. "Consider the possibility that when a student registers for a certain course, he is immediately given the ability to access and run the statistics package that is the required tool used in that course," suggests Mickool.

### Advice

"Press everyone to think differently," Mickool advises. New expectations sometimes need to be met with revolutionary approaches, tools, and practices, he explains. He suggests looking at it from the point of view of how you as an individual would want to do business with your organization. "You don't want to be treated as a faceless number or part of some vanilla, one-size-fits-all technology solution available 9 to 5, so why would our fellow faculty, staff, and administrators?" he asserts, adding, "Keep this mindset with you for the long term, but make sure you take small first steps so that you can implement them. Don't get bogged down in trying to solve all the problems up front."

This article originally appeared in the [8/1/2005](#) Issue of Campus Technology

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