

CASE STUDY

UNIVERSITY OF ILLINOIS

The University of Illinois at Urbana-Champaign (UIUC) is a national and global leader in education, research and public engagement. Demonstrating its commitment to undergraduate education, Illinois offers more than 28,000 undergraduate students from 50 states and 100 countries, the opportunity to select from 150 undergraduate majors and more than 4,000 courses. Its award-winning faculty is Illinois' greatest resource. One indicator of that excellence is demonstrated by the success of its alumni: 11 have been awarded the Nobel Peace Prize—two in 2003 alone—and another 18 have won Pulitzer Prizes.

A Very Complex System Environment

Randy Cetin is the Campus Information Technologies and Education Services (CITES) Director at UIUC, responsible for the staff that run the University's central services. One of the groups reporting to Randy is the Production Applications Group. Within that group, Chris Newman is the service manager responsible for administration of NetFiles.

According to Cetin, "CITES broad, strategic goal is for the services we deliver to be as ubiquitous as possible, eliminate or lower access barriers and enable users at all levels to get started quickly and be productive."

In keeping with that goal, CITES began to look closely at a 10 year old legacy system built around a Unix cluster that provided email, file storage and web publishing. The overhead involved in managing that system was significant. The system itself was not scalable, required substantial resources to maintain and was challenging for end users to use.

With nearly 10,000 new students each year, working with that system was both a labor intensive and expensive process and Cetin knew students were less likely to use this or any other service if it was too difficult to learn. His team realized, however, that the vast majority of incoming students had used the Internet and were familiar with web browsers. Since UIUC faculty, students and staff had Macs, PCs and Unix – and since CITES wanted a way to conveniently share files across campus – access through a web browser appeared to be the lowest common denominator.



Key Facts

Industry: Higher Education

Product: Xythos Enterprise Document Manager

Audience: Students, faculty

Benefits

- Frees Help desk for other support issues
- Eliminates email attachments
- Saves file space by getting rid of duplicate files

Why Xythos?

- Access from multiple platforms
- Publishes directly to the web from common applications
- Integrates with existing campus authentication system



“Xythos Enterprise Document Manager is a solid product and Xythos has been a responsive partner.”

Randy Cetin
Campus Information Technologies
and Education Services Director
University of Illinois

Implementing A New Vision

CITES technical staff have extensive experience working with Solaris and a good relationship with Sun technical support and sales staff – so there was some preference to the underlying architecture. More importantly, CITES was looking for a solution that would not be tied to any particular architecture – but offered flexibility to be able to run on multiple architectures, including Linux, in the future.

The evaluation process, including identifying and procuring the right software, took six months with the team short-listing four vendors. The criteria included: 1) High availability architecture, 2) Access from multiple platforms, 3) A security framework that addressed the campus concerns of security and privacy, 4) The ability to integrate into one of the campus's existing authentication systems, 5) Specific functionality (including full control of access lists in order to allow/not allow permissions), 6) Cost (including TCO on manpower, maintenance and upgrading services) and 7) A large quota/capacity for students, faculty and staff. Lastly, the committee wanted to find a company with whom they believed they could work well.

As a result of meeting all the criteria, the committee decided to deploy the Xythos Enterprise Document Manager in a pilot program, opening that program to ~1,200 students, faculty and staff from across all departments. Over the next six months feedback was solicited on a regular basis. As a result of the pilot, UIUC confirmed that the Xythos service was useable and relevant, the infrastructure sufficient to meet its needs and identified the budget and staffing requirements that the university would require. A project plan and request for proposal were initiated – and Xythos was formally selected as most compliant with the stated requirements.

A Successful Rollout and Deployment

In the Fall 2003, a production deployment of NetFiles (powered by Xythos) was launched. CITES NetFiles was offered as a subscription service free of charge to students, faculty and staff on the Urbana-Champaign campus. The intent behind the subscription service was that users had to sign up for the service rather than auto provisioning an account for everyone. This provided an excellent indication of the level of interest in the service. “We marketed our service through emails, flyers and presentations to departments. As part of the retirement of the legacy service, NetFiles was also positioned as a transition path to accommodate users who had previously stored or published files on the legacy Unix Cluster. In the first month, ~2,000 people subscribed. We now have about 14,000-15,000 users – and this is the first academic year,” Cetin remarked. He and Newman also observed that although there were only ~1,100 users that had a need to migrate from the legacy system; the vast number of NetFiles users were new users who found that they could easily take advantage of the new functionality offered through the NetFiles service. Since its pilot, the service has grown to over one terabyte of traffic per month and receives more than one million hits per month. There are more than 1.3 million files in the system and NetFiles is being used by students, faculty and staff as well as by researchers who have found it



useful to share work with colleagues, not only at UIUC but worldwide, using a feature called Tickets to share files with colleagues who do not have accounts on NetFiles. Additionally, for students doing web publishing and working on group projects, having a place where they can work on their files as a group is something that UIUC has been seeking.

Cetin notes that there have been minimum maintenance expenses, little downtime and that upgrades to Xythos have been at an acceptable level, rather than a painful process. "Our expense and the time we spent were predictable – and that was good. We could plan for things in an appropriate and thoughtful way. We are projecting that by this time next year we will have more than 20,000 active users," Cetin remarked.

A Reliable, Robust, Scalable System

The Unix cluster was retired this past summer. Operationally, UIUC has a more reliable, robust and scalable service, there is less of a requirement for Help Desk support, NetFiles is compliant with both campus IT and security policies and cross-group collaboration has been successful. "We specked out a pretty robust system in terms of capacity – and looked at our redundancy needs as well. Throughout the growth period we have had no major emergencies and the upgrade process has been pretty smooth," observed Cetin. Newman added, "We gave our users 100 megabytes initially and are thinking of significantly expanding that. Last month we also saw 700 gigabytes of bandwidth, the biggest bandwidth usage to date. The service has taken off like we thought it would."

Users have responded positively to using the NetFiles Service and have been particularly receptive to its collaborative features, the ability to publish directly to the web from within common applications, being able to have better access to files from any location and to have an alternative to large email attachments. The CITES Service Managers appreciate that NetFiles has eliminated duplicate files – and that the single file instance feature allow users to work together on the same file, instead of sending multiple copies back and forth, and trying to determine what changes were made to which version. In addition, Newman can set bandwidth control limits by user or group over specified periods. "If you have the latest SolarStar jpeg, for example, Xythos stores only one instance. We save a lot of file space because of this feature alone," Newman observed.

Newman had been hoping to find a bulletproof solution. He is pleased with the planning and implementation that Xythos provided. "Xythos Enterprise Document Manager is a solid product and Xythos has been a responsive partner," he concluded.

**For more information please call 1.888.4XYTHOS
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