

University of Wisconsin-Madison

Measuring Information Technology Services

Provided by the Division of Information Technology

In 2007, the University of Wisconsin-Madison created a new position, Chief Information Officer (CIO) and Vice Provost for Information Technology, to lead campus in aligning our information technology (IT) resources and services so that the University can achieve new levels of excellence. The office oversees the resources of the Division of Information Technology (DoIT), including its roughly \$70 million budget and nearly 700 staff. The CIO also works closely with IT groups, departments, schools and colleges to find an appropriate balance between enterprise and distributed IT services.

During the first few months in the CIO position, I have had the pleasure of meeting with campus leaders, information technology professionals, governance groups and advisory committees to discuss their IT services needs and to begin to establish shared priorities for campus technology services and infrastructure.

At the same time, we have begun a new IT strategic planning process. In conjunction with this process and in my dual role as Executive Director of DoIT, I have assembled this report on some of the division's major IT initiatives, with progress measures over time. Assembling this information for DoIT was a significant task, and I know that undertaking this same task for campus-wide IT services will be much more challenging. I strongly believe that developing a portfolio of all campus IT services and measuring the value that each service brings is an important component in our quest to always improve and advance our services.

Although this report only documents and acknowledges a portion of IT service on campus, it does begin to articulate our shared value to UW-Madison. As we move forward, let's look for opportunities to create a comprehensive inventory and assessment of IT services across campus. Next year, about this same time, I would like to release a report that more completely chronicles all of UW-Madison's IT services. Together, I believe we can develop a shared vision and plan for achieving our collective goals.

Ron Kraemer
CIO & Vice Provost
for Information Technology



DoIT DIVISION OF
INFORMATION TECHNOLOGY
University of Wisconsin-Madison

BEHIND THE SCENES: I.T. INFRASTRUCTURE

21st Century Network

Building by building, DoIT has been implementing a major network upgrade. This fast, reliable 21st Century Network is more secure from attacks, equipped to deliver data, video, voice and other services. Its 10 gigabit backbone enables UW-Madison researchers to transmit massive amounts of data with other institutions through Internet2 and BOREAS Net, and is capable of evolving to meet changing research and academic needs. DoIT works closely with the campus-wide Network Advisory Group to address evolving network needs.

The Network has paved the way for the implementation of a campus-wide wireless service and firewall deployment, which saves departments significant staff and hardware expenses while at the same time providing more robust security features. More than 350 Authorized Agents have been trained to manage portions of the Network for their buildings.

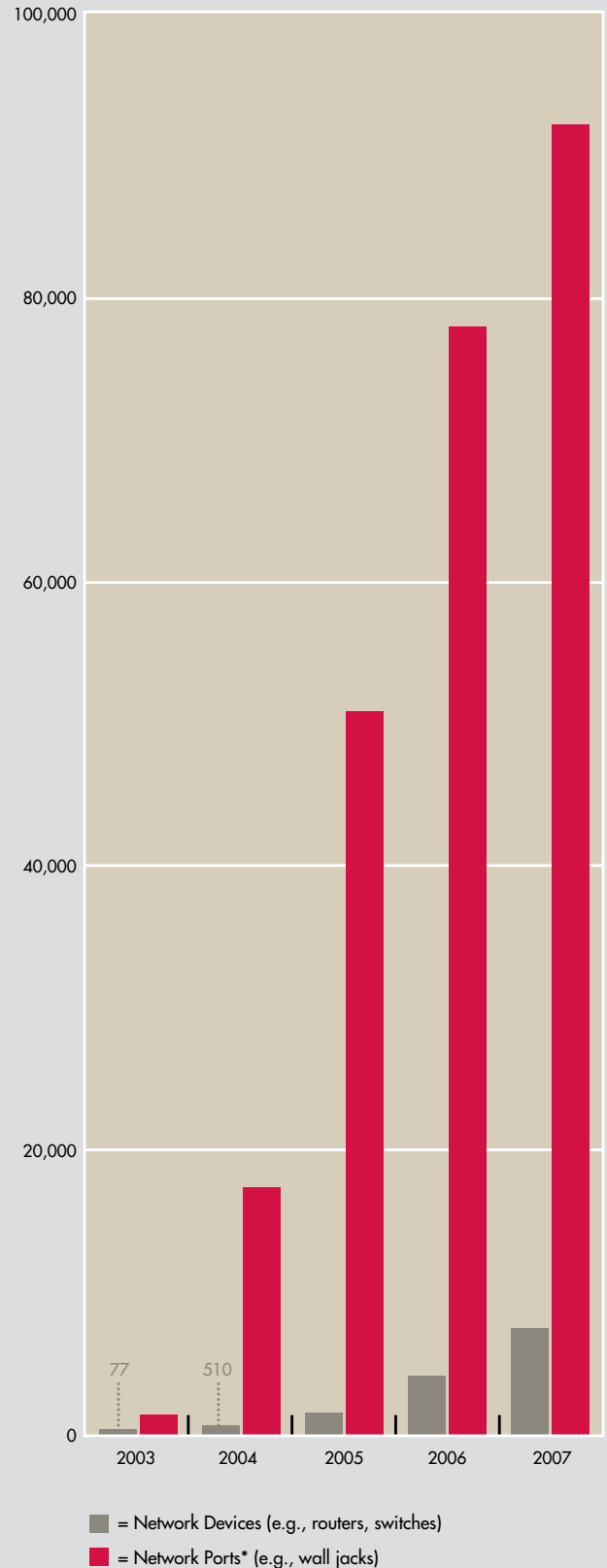
Soon, Facilities Planning and Management will be migrating the Building Automation Network Project (i.e., the system that controls campus heating and air conditioning, elevators, building security, etc.) to the 21st Century Network. This will also create major savings for campus for a system that would otherwise have been entirely replaced.

The upgrade of the Network was made possible, in part, by a generous gift in 2002 from UW-Madison alumnus John Morgridge, Chairman of Cisco Systems from 1995 to 2006. Through his TOSA Foundation, Mr. Morgridge donated Cisco equipment valued at about \$7 million. Cisco also contributed technical engineering and operational support.



100% of eligible campus buildings now have wireless access.

Growth in Deployment of 21st Century Network Access Devices



*Of these ports, 90% are co-managed with campus's 350 Authorized Agents.

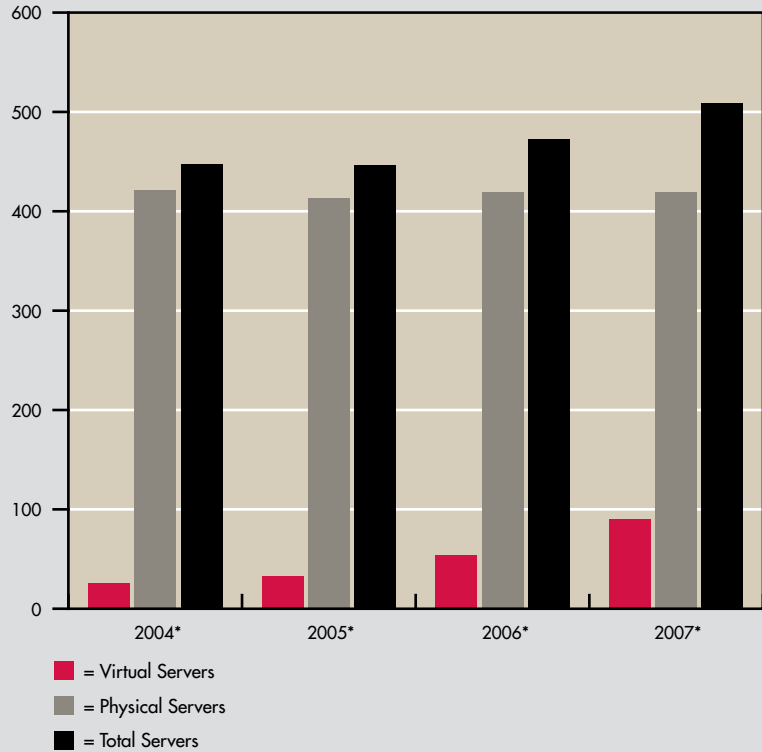
Data Hosting, Storage and Backup

More and more departments are relying on the **Campus Data Center** to host and maintain their servers and mainframes, rather than incurring the building, equipment and staff expenses associated with setting up their own data platforms. In addition to having DoIT technicians on hand 24/7 to handle any unanticipated problems, the Data Center also offers a climate-controlled, physically secure environment with emergency power backup. DoIT continues to work to lower the per unit cost of both storage and system administration, while maintaining a high level of security and reliability.

Payroll and student records, My WebSpace content, backup files and other campus services all place increased storage demands on servers. In fact, campus storage needs are growing steadily at five percent per month. When departments need extra disk space, have high-performance input/output needs, or wish to have synchronous copies of data offsite, they rely on the **Enterprise Storage Service**. This enterprise-class storage solution centrally manages disk space and provides three classes of storage to meet a variety of needs.

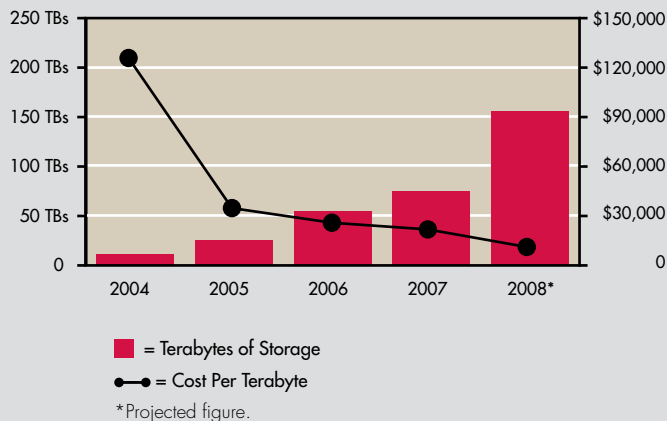
Bucky Backup offers a convenient way for individuals, departmental local area networks and campus applications to protect their data and recover it if needed. It provides high-quality, industrial-strength insurance against the loss of irreplaceable data. UW-Extension, the Business School and many other units rely on this service to safeguard their data. Bucky Backup provides point-in-time backup so that if an individual deletes or corrupts a file, for example, the data can be recovered.

Growth in Servers Hosted in the Campus Data Center



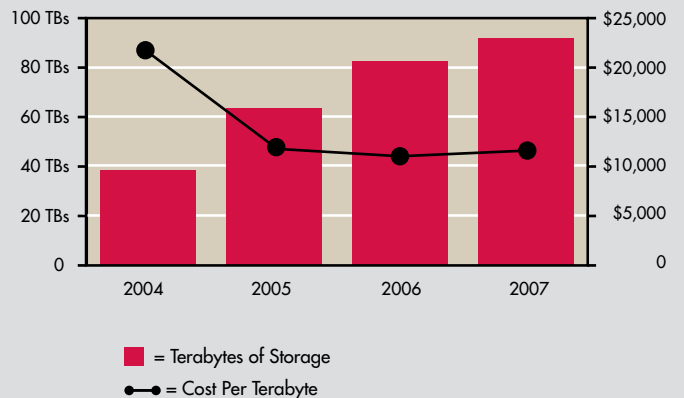
*As of September of each year.

Growth in Centrally Hosted Campus Storage



*Projected figure.

Growth in Bucky Backup

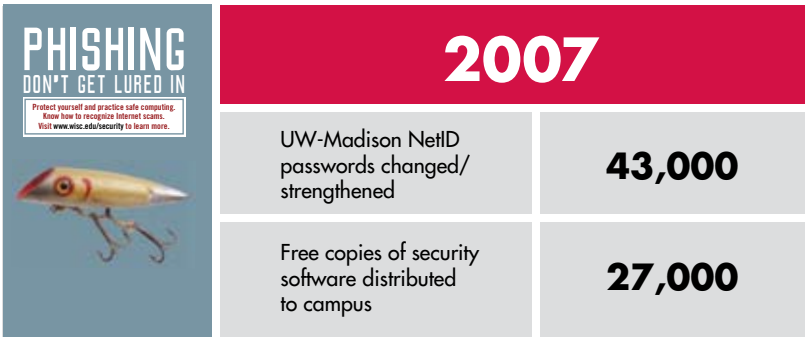


Safeguarding Users and Data

The Office of Campus Information Security (OCIS) works with campus data custodians and end users to evaluate security risks and put programs in place to properly protect their data. Factors such as data confidentiality, integrity, availability and auditability all need to be assessed to determine the potential liability that departments, and the University as a whole, face when handling restricted data. OCIS also responds to reported security breaches and provides a variety of software tools, training, support and best practices to help the hundreds of different computing environments on campus (i.e., departments, schools, business units, end user desktops) and their users stay secure.

What Is Restricted Data?

- Social Security Numbers
- Driver's License or State ID Numbers
- Financial Account Numbers (debit/credit cards)
- Protected Health Information
- DNA Profiles
- Unique Biometric Data



UW-Madison's 2005/2006 security awareness campaign was replicated, with permission, by several of our peer universities.

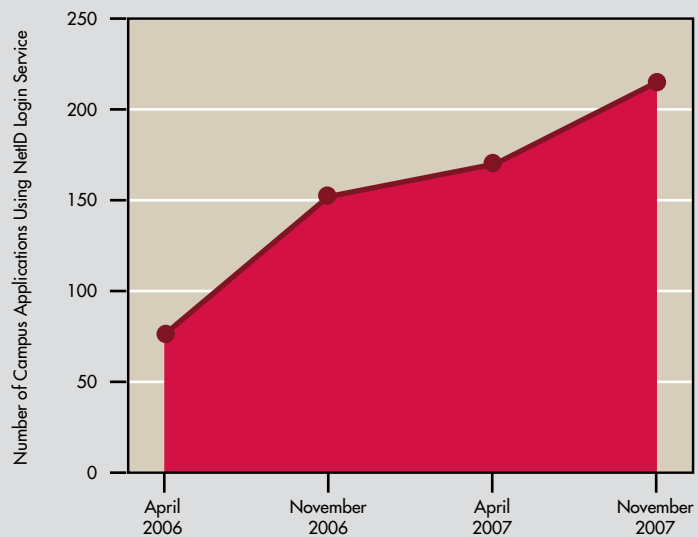
Identity Management

The NetID Login Service was created to standardize how users authenticate (i.e., prove to a system they are who they say they are) to various campus applications. Instead of having identity information such as user names, passwords and other personal identifiers stored within hundreds of independent web applications across campus, the NetID service consolidates this information into a single, highly secure system.

Another major identity management effort is underway to improve the process by which users are authorized to access campus systems (e.g., student data, human resources). A campus-wide team is currently evaluating identity management systems through a solicitation process. Among the goals are to assure that the right people have access to the appropriate systems and to give departments the ability to grant access to non-University affiliated persons as needed.

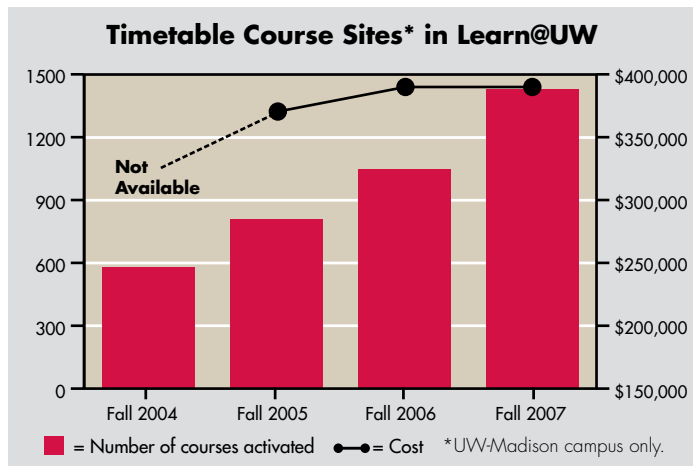
UW-Madison is also a member of InCommon, an identity management federation that enables "trusted" collaborations among its community of higher education, commercial and federal government participants.

Growth in Use of NetID Login Service



The number of logins to applications using the NetID Login Service averages 200,000 per day during the semester.

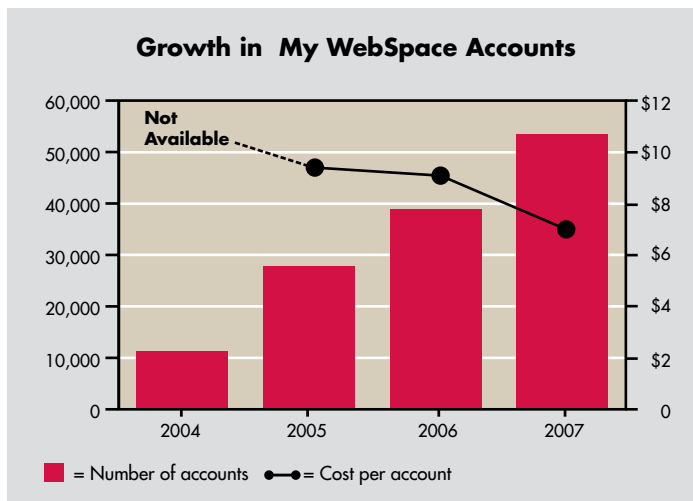
RESEARCH AND INSTRUCTION



The System-wide course management system, Learn@UW, continues to grow in use by both instructors and students.

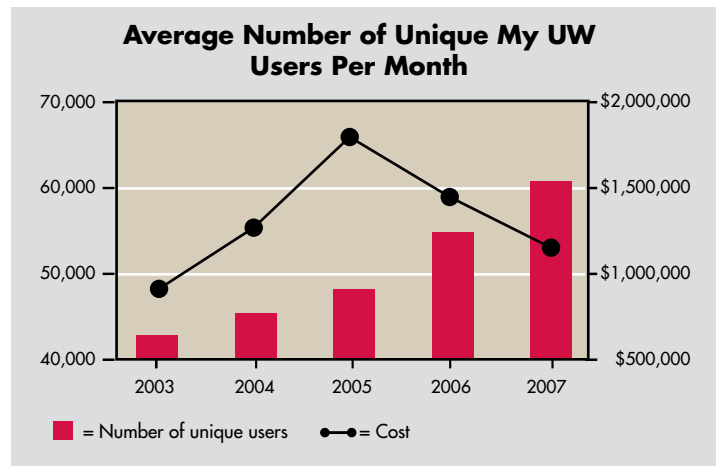
Instructional Technologies and Support

UW-Madison is brimming with technology resources that enable faculty to maximize their effectiveness. DoIT's Academic Technology department has a staff of professionals available to meet with faculty one-on-one, provide technical expertise and conduct training on instructional technologies. Academic Technology also fosters innovative uses of technology by providing funding and instructional tools through the Engage program. Campus support staff, including the 200 members of the Community of Educational Technology Support (ComETS), also provide hands-on support and training for a wide range of teaching tools to faculty and staff within their departments.



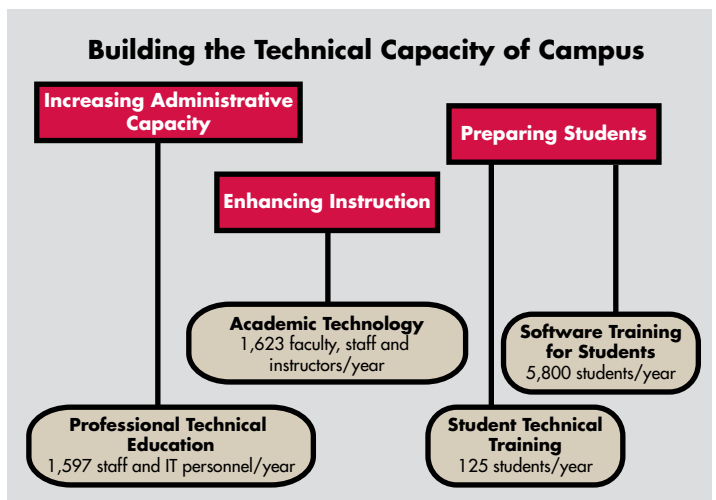
My WebSpace

The mobile lifestyle of our campus community demands that students, faculty and staff have quick access to information, when and where they need it. My WebSpace makes that kind of access possible by providing 1 GB of free web-accessible storage space, allowing users to store files (e.g., presentations, notes, papers, dissertations, graphics) and share them with others if they choose. The files can be retrieved from any computer with Internet access. My WebSpace gives researchers the ability to do virtual collaboration by providing global access to shared files. Since it was introduced in 2004, My WebSpace has also become a popular way for users to back up important files.



My UW-Madison Portal

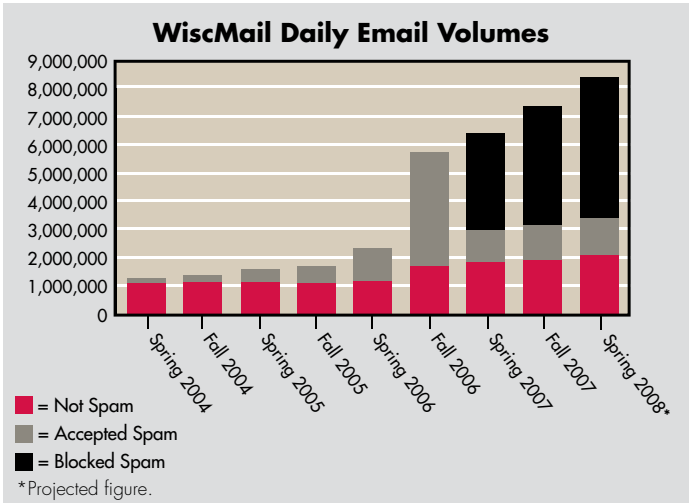
Today's students want and expect instant access to information and data; UW employees are no different. My UW-Madison, the gateway to campus resources, immediately connects students, potential students, instructors, advisors and staff to personalized course information, grades, payroll statements, library reserves, financial aid, and a host of other academic resources. The portal has an average annual "up time" performance of 99.99 percent, and campus users log in to it nearly 1.5 million times each month.



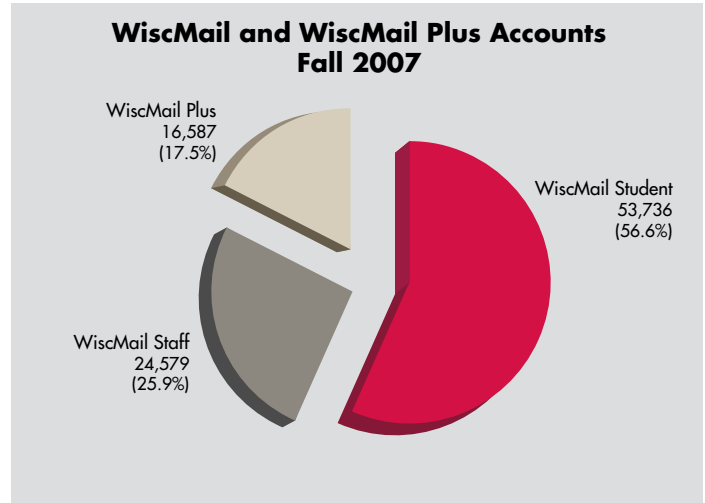
Training

Without giving people the skills and ability to use campus technologies, we would not be able to conduct the business of the University. Technical training is, therefore, an important aspect of IT service at UW-Madison. In an average year, 15–20 percent of the campus population participates in technical training. Through free skills workshops and one-on-one consultations, faculty and instructors learn to use classroom technologies such as Learn@UW and PowerPoint. Administrative staff gain skills in campus and business applications such as My WebSpace, WiscCal and Excel. And more than 539 free software training classes are offered to students, as well as more intensive IT training for those students who want it.

ADMINISTRATIVE TOOLS & SUPPORT



A campus Anti Spam Work Group recently developed a spam detection and avoidance tool set that greatly reduced the amount of spam entering campus in-boxes.

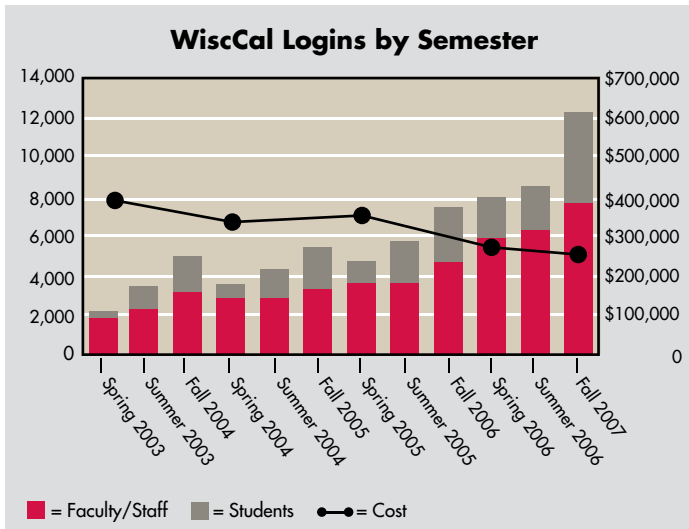


Introduced in 2004, WiscMail Plus currently provides email service to more than 150 campus domains, giving them a cost-effective alternative to running their own email systems.

Email

There are more than 90,000 WiscMail/WiscMail Plus accounts associated with UW-Madison students and personnel, generating an average of three million accepted emails per day. The average WiscMail account uses 70 megabytes of space, and there are currently 6,800 gigabytes of mail in storage. Since early 2006, spam volumes have skyrocketed, prompting the implementation of new spam blocking strategies. WiscMail has recently doubled its processing capability, doubled the amount of storage provided to customers, added individualized spam retention controls, and provided several major enhancements to the web mail interface. WiscMail Plus gives departments a reliable, cost-effective alternative to running their own email systems. Most importantly, WiscMail/WiscMail Plus provides the means for conducting the important business of the University—allowing research to be shared and furthering the Wisconsin Idea.

WiscCal Logins by Semester



Calendaring

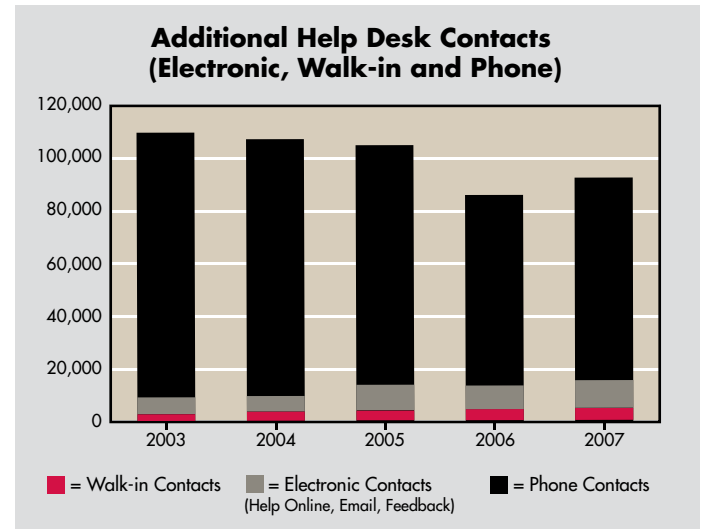
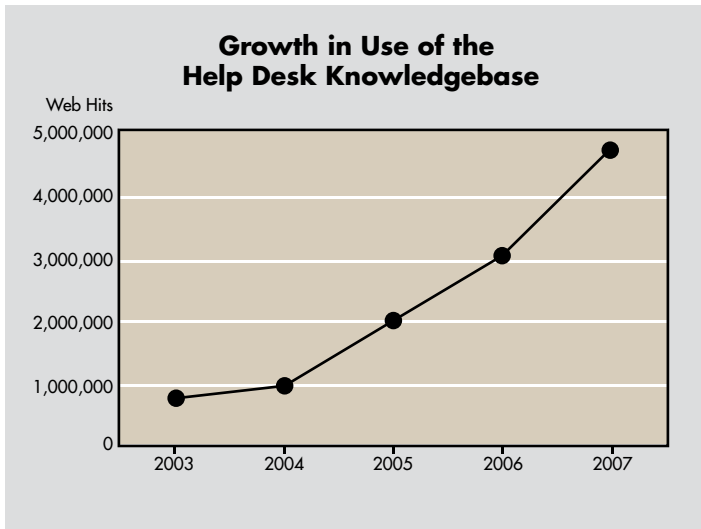
Every student, faculty and staff member affiliated with UW-Madison is automatically assigned an account in WiscCal, the free campus online calendaring system created in 2002. WiscCal enables users to schedule meetings directly with virtually any of the other nearly 70,000 campus constituents. The more than 160 departments that use WiscCal save thousands of dollars in licensing fees and service contracts, and they have immediate access to technical support and training. Seventy-nine percent of these departments report being “satisfied” or “very satisfied” with WiscCal.

Name of Project	Purpose	Estimated Date of Completion*
Automated Travel System	UW System-wide program to manage travel expenses	2008
Supply Chain	Integration of the Madison purchasing and financial systems to produce purchase orders for PeopleSoft	2008
Grants	PeopleSoft modules to manage sponsored gifts and grants for three campuses	2008
LAST	Transition of the Madison campus Legacy Accounting business processes into the Shared Financial System	2008
Shared Financial System	Expansion to additional campuses and integration with Grants, Travel, LAST and other applications	2008
Effort	Multi-campus program to certify effort (time) spent on grants	Completed Nov. 2007

Strategic Administrative Projects

UW-Madison is currently engaged in building or purchasing several administrative systems that involve the Madison campus and many of our UW System partners. In some cases these are new enterprise systems; in others, they are replacing legacy systems or providing greater integration between systems. These projects are significant in scope, campus impact and strategic relevance. Much of the technical expertise to develop and implement them comes from DoIT and the sponsoring departments. They are guided through campus-wide advisory and oversight groups composed of functional and technical experts. They will strengthen our ability to account for staff time on federal grants, put more responsibility for administering travel reimbursements in the hands of the traveler, and generally improve the administrative capacities and overall efficiency of the University.

*These initiatives do not represent all major administrative projects in progress, and some of the details (e.g., timeline, budget) are subject to change.



As campus has become more computer-savvy, more people are using the Help Desk knowledgebase to solve their own technical problems, decreasing the need for more costly phone-based support.

Technical Support

The campus Help Desk is a thriving campus resource that helps students, faculty and staff get their technical problems resolved quickly and at no cost. Partly due to an increase in popularity of laptop computers, customer contacts to the walk-in service desk have increased significantly over the last five years, while contact via phone has decreased. Use of the online self-service knowledgebase has also seen explosive growth, increasing 550 percent over the last five years. Computer-Aided Engineering is among the departments that have help documents hosted in the knowledgebase. The knowledgebase contains over 3,800 active documents, up from 1,250 in 2003. They range in topic from how to install anti-virus software to configuring an email account. Eighty-eight percent of those who use the Help Desk report being “satisfied” or “very satisfied” with the service they received.



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January 2008

