OIT

Office of Information Technology

Accomplishments

Fiscal Year 2007

Office of
Information Technology

A Message from the Vice President and Chief Information Officer

On behalf of the university's central information technology service organization, it is my pleasure to share with you the Office of Information Technology's publication, "OIT Accomplishments Fiscal Year 2007," which features OIT major milestones. During that time, more than 260 OIT professionals worked diligently to improve campus-wide information technology in areas such as academic computing, administrative computing, enterprise systems, networking, policy and planning, security, telecommunications, and user support.

Rather than offering a lengthy annual report, this publication highlights the significant achievements made in IT strategic planning and management. OIT's goal is to take a quantum leap forward in the information technology environment available to students, faculty, and staff at the University of Maryland.

The following are just a sampling of the achievements you'll find when reading through the rest of this publication:

- A newly-created Information Technology Ten Year Plan details initiatives and budgets that will build on the information technology infrastructure improvements already made to continue the university's momentum toward being a top ten public university.

- A new long distance telephone rate plan decreases the costs of long distance service, saving campus units more than $600,000 a year.

- OIT's Academic Computers for Terps (ACT) Program saved students, faculty, and staff more than $1.8 million on computers for personal use. This new program was particularly well received by parents of freshmen.

- An award for a new Voice over Internet Protocol system advances the university toward the goal of convergence of campus electronic services.

These gains, and the other accomplishments described in this publication, were achieved through collaboration with other campus units and university constituencies. In addition, OIT assisted in promoting the university through news coverage during the past fiscal year, with the university's initiatives appearing in a variety of media outlets including *ABC News* and *FOX News* television affiliates and print publications such as *Baltimore Business Journal*, *Campus Technology*, *The Chronicle of Higher Education*, *Computerworld*, *The Washington Post*, and *Washington Technology*.

I hope this publication gives you a better understanding of the recent milestones achieved in economies of scale, mobile computing solutions, enhancement of computing security, and the expansion of the academic/research information technology environment.

GO TERPS!

Dr. Jeffrey C. Huskamp
Vice President and CIO, University of Maryland

OIT Help Desk student employees

The OIT Help Desk enhanced customer care by creating a dedicated Student Help Desk, adding evening service hours during the academic year, and introducing a hardware repair center to its suite of services. Over the course of the year, the OIT Help Desk fielded more than 40,000 phone calls (approximately 15,600 of which were handled by the Student Help Desk) and responded to approximately 3,400 Web requests. The hardware repair center, intended to provide warranty repair service for equipment purchased through the university's computer purchasing program (ACT Program) and to give general hardware advice, has serviced 260 ACT computers since its opening.
www.helpdesk.umd.edu

A campus-wide collaboration between university colleges, schools, and departments created a campus grid computing infrastructure. By May 31, 2007, the University of Maryland's Campus Grid provided more than 95 CPU years of computer processing to campus researchers. OIT directly supplied more than 70 percent of this resource by harvesting idle cycles from WAM lab workstations and the OIT High-Performance Computing Cluster. With assistance from OIT, other campus units contributed the remaining 30 percent to this resource. Furthermore, the university is working with the University System of Maryland schools to establish system-wide grid computing and is engaged in the Southeastern Universities Research Association's grid project, SURAgrid. These activities could result in an exponential increase in computing power available to University of Maryland scientists and researchers.

A new Affiliates module in the Payroll and Human Resources (PHR) system was implemented to manage information on affiliates (such as guests, volunteers, and university retirees) and the services provided to

them. This module manages close to 1,100 new records per year across all campus divisions.
www.oit.umd.edu/units/dataadmin/Affiliates

Astronomy researchers who helped enlarge the HPCC through the new Independent Contributions Program

In the high-performance computing arena, OIT made its High-Performance Computing Cluster (HPCC) available to research groups at the university. A faculty peer-review committee awarded more than 15 separate allocations of compute time on the OIT cluster supporting more than 50 researchers from the A. James Clark School of Engineering, the College of Behavioral and Social Sciences, the College of Chemical and Life Sciences, the College of Computer, Mathematical and Physical Sciences, the Institute for Research in Electronics and Applied Physics, and the Robert H. Smith School of Business. Established in July 2006, a new Independent Contributions Program, encouraging research groups to expand the size of the HPCC, more than tripled the number of cluster compute nodes in its first six months. Some areas of research for the allocations include fire simulations, molecular modeling, genetics of lymphoma, plasma physics, and pandemic simulations.
www.oit.umd.edu/hpcc

In collaboration with campus constituents, OIT launched a new Enterprise Learning Management System (powered by Blackboard Academic Suite) in July 2006, saving the university time and money by providing a single, campus-wide teaching and learning system. Deployed during the fall 2006 semester, ELMS had 609 instructors (faculty or graduate students) use the system during that time to teach 2,118 university course sections using 1,120 ELMS course spaces. ELMS had a significant increase in use for the spring 2007 semester with 1,127 instructors teaching 3,014 university course sections using 1,879 ELMS course spaces. This usage in the spring 2007 semester reached 24,416 students who were enrolled in one or more classes that were supported by ELMS.
www.elms.umd.edu

OIT, at the direction of the Teaching Facilities Committee, equipped 11 classrooms with technology in fiscal year 2007 to bring the total inventory of Technology Classrooms to 149.
www.oit.umd.edu/tc

OIT forged contracts with Cingular (now AT&T Mobility) and Sprint/Nextel to offer wireless service and cellular products at below-retail prices to university students, faculty, and staff, saving them 15 to 25 percent on service plan rates and the retail prices of various accessories.
www.cellular.umd.edu

All academic buildings and many campus common areas were equipped with full wireless Internet coverage in fiscal year 2007, utilizing more than 2,300 access points across campus and making our network one of the largest wireless networks among public research universities of our size. Approximately 90 percent of the wireless users are students, and the network greatly enables mobility as a way of college life today.
www.oit.umd.edu/wireless

ACT Academic Computers for Terps

The Academic Computers for Terps (ACT) program was launched in July 2006, allowing university students, faculty, and staff to purchase Dell and Apple computer equipment at prices below standard discounts and providing them with added benefits in technical support and warranty protection. By the end of fiscal year 2007, more than 2,400 computers had been purchased, saving the university community more than $1.8 million. This program also provides a limited number of computers for students with financial need.
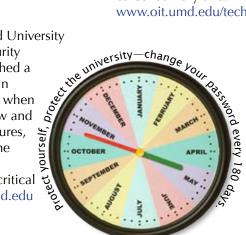www.act.umd.edu

The new Terrapin Technology Store, a one-stop technology shop for the university community, opened its doors in November 2006 in the Stamp Student Union. The store features Apple and Dell products at discounted prices for faculty, staff, and students, and is a resource for parents and students during orientation and the remainder of a student's academic career at Maryland.
www.oit.umd.edu/techstore

To comply with state and University System of Maryland security requirements, OIT launched a new password initiative in September 2006, which, when combined with other new and existing IT security measures, serves to better protect the university community's sensitive, personal, and critical data. www.password.umd.edu

protect yourself, protect the university—change your password every 180 days

As part of a paper-saving initiative, the Payroll and Human Resources (PHR) system was updated to ensure that university employees' online earning statements reflect the same information as their printed ones, and to allow employees the ability to suppress the printing of their earnings statements. While cost savings in human effort and paper product could not be determined, more than 96,000 pieces of paper were not printed in fiscal year 2007 as a result of this IT change.

More than 30,000 pounds of unwanted personal computer and electronic equipment was collected for recycling and proper disposal at the university's first Electronics Recycling Event, cosponsored by OIT, Apple Inc., and the City of College Park in September 2006. Since universities play an important role in protecting the environment, we counted it a particular success when we collected 40,000 pounds of material from 345 donors at the second computer and electronics recycling event held in June 2007.
www.oit.umd.edu/computerrecycling

Innovations in Teaching and Learning

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During fiscal year 2007, the OIT Software Licensing Office enhanced its available Microsoft offerings to students. Overall, Software Licensing has saved students, faculty, and staff more than $500,000 in fiscal year 2007 over the normal educational discount that is available to them, providing authorized and legal software products and licenses from such popular manufacturers as Microsoft, Adobe, McAfee, and AutoCAD.
www.oit.umd.edu/slic

The Innovations in Teaching and Learning Speaker Series and Conference held on February 23, 2007 drew more than 200 participants to learn about various forms of teaching innovation.
www.oit.umd.edu/as/speaker_series/speakers.htm

OIT's Research Data Center opened, giving the university research community the ability to co-locate research computing equipment to a facility designed specifically for that purpose, including appropriate electrical and environmental infrastructure. Although the Research Data Center has only been operational since October 2006, it is already home to the Department of Physics' cluster used in South Pole research. Also, the Institute of Physical Science and Technology is housing servers and racks in the Research Data Center, and more university groups are planning to relocate computing equipment there in the near future.
www.oit.umd.edu/ops/rdc

UNIVERSITY OF MARYLAND
secure wireless

Wireless network security was improved with the deployment of encrypted wireless services in fiscal year 2007. Laptops using the secured wireless service can connect to the university's network infrastructure without fear of eavesdroppers.
www.oit.umd.edu/wireless

MyUM

The University of Maryland Portal was released for friendly user testing in spring 2007 at www.my.umd.edu. The portal serves as a secure, central location for taking care of administrative needs; for access to a personal and group calendar; and for access to campus e-mail, important campus messages, and configurable news feeds. This first release was done with little fanfare in order to garner feedback for the portal's anticipated, official launch scheduled for fall 2007.

The Mid-Atlantic region's federal agency, educational, and research laboratories leverage their networking needs under MAX, the Mid-Atlantic Crossroads, to obtain cost-effective, high-performance networking to support their missions and respond to the needs of their faculty, staff, students, and research scientists. A significant new offering introduced in spring 2007 is the introduction of Layer 2 vLAN and tunnel services to complement Layer 1 waves and routed IP Layer 3 services. MAX – founded by Georgetown University, George Washington University, the University of Maryland, and Virginia Tech – designs, implements, and operates a regional optical network infrastructure. www.maxgigapop.net

OIT evaluated Voice over Internet Protocol (VoIP) proposals and awarded a contract to Avaya to provide the hardware and software systems. This procurement enables production deployment of VoIP services across campus starting in fiscal year 2008.

As one method of addressing illegal peer-to-peer file sharing, OIT led the way in securing Cdigix's legal music service, Ctrax, which was available at no cost to eligible students between spring 2005 and spring 2007. According to Cdigix, the University of Maryland, College Park was consistently among "the Top 5" universities using the Ctrax service before the music service ended for our undergraduate and graduate students in April 2007 when Cdigix withdrew from the market. OIT has secured the services of Ruckus to continue to provide legal access to music. Ruckus provides students with access to more than 3 million songs at no cost to undergraduate and graduate students. In addition, OIT facilitated the arrival of iTunes U on campus, giving faculty and students easy access to educational content such as podcasts and providing iPod users and members of the Macintosh community with additional sources of legal audio and video content. www.oit.umd.edu/musicservice

In April 2007, OIT started a pilot with Dell to combine institutional purchases into a bulk order with the goal of achieving greater savings for all groups on campus. The original quotes using the institutional purchase discounts from Dell totaled more than $94,000. By combining the purchases into one order that coincided with Dell's quarter end, the total cost was reduced by an additional 20 percent. As a result of this success, OIT plans to expand the pilot to twice per year.

On Tap for the Future

We hope you enjoyed reading this publication. OIT has some big plans for the future technical growth of this university. Some of the major initiatives on the horizon include, but are not limited to, the following:

- With the assistance and consensus of several university leaders, OIT developed a viable network refresh funding plan, the first essential step in updating campus building wiring, refreshing closet electronics, and replacing wireless access points. These network upgrades will allow OIT to bring innovative technologies such as Voice over Internet Protocol and next generation wireless networking to the campus.

- In November 2006, the University of Maryland joined Kuali Student, a community source project that will replace the existing student information system and deliver the next generation student services system using high-level, service-oriented architecture principles. Other founders of the Kuali Student consortium are University of British Columbia, University of California, Berkeley, Florida State University, and San Joaquin Delta Community College. Carnegie Mellon University and the Massachusetts Institute of Technology are participating at the partner level.

- With wireless access available in every academic building and many public areas on campus, the university's wireless network is already one of the largest among public research universities of our size. Wireless network expansion will continue with full wireless Internet coverage in university residence halls to be achieved by fall 2008.

In short, the major enhancements and future plans featured in this publication highlight the improvements made in the functionality, robustness, and reliability of campus-wide information technology and OIT's ability to respond to campus requirements. Many of these enhancements have generated significant savings for other campus units, and we look forward to contributing further to this great university.

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On the Front Cover: OIT Outreach
During the year, OIT representatives shared their knowledge via presentations and technical submissions at several national education and information technology conferences. In addition, we hosted or sponsored events for university community members, including a session about cybercrime given by the FBI and a seminar on innovation in IT in higher education presented by Sun Microsystems. Finally, OIT representatives attended more than 40 university outreach events, such as new student and employee orientation sessions, the All-Nighter, the First Look Fair, and Maryland Day.