

Information Technology Services

Meeting Campus Needs with Technology 2007 -2008 Annual Report



ITS Mission

The Information Technology Services unit at the University of Michigan-Flint is a team of professional staff committed to enhancing individual and organizational effectiveness through the use of information and computing technologies.



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About ITS

The Information Technology Services (ITS) department supports the technological needs of the University of Michigan-Flint. With the exception of the management team, each ITS staff member falls into one primary service unit within the department: Data Information Management, Desktop Computer Services, Mediated Classroom Services, Network Systems Support, Security Services, User Services and Web and Instructional Technology.

ITS Staff

ITS employs over sixty-five regular and student employees dedicated to serving the university. Student employees account for positions in the reception area, HelpDesk, computer labs and in each of the ITS service teams.

The Management Team provides the overall decision making and supervision for the department.

Scott Arnst, *Director Information Technology Services*

Kenneth Heiser, *IT Manager*

Harvey Sherman, *Client Server Operations Manager*

Data Information Management (DIM) maintains UM-Flint's central administrative databases; regulates data security and integrity; develops custom applications to enhance central processes; and offers consulting services for design, development and implementation of non-centrally-operated databases.

Jennifer Daraiseh, *Business Systems Analyst Intermediate*

Steve Harrow, *Business Systems Analyst Intermediate*

Scott Hoover, *Business Systems Analyst Intermediate*

Donna Jacobson, *Business Systems Analyst Intermediate*

Mark Mercado, *Business Systems Analyst Intermediate*

Steven Nofs, *Database Administrator Lead*

Desktop Computer Services (DCS) performs the installation and maintenance of all desktop computers and printers on campus, including software and connections from the workstations to the communication closets; and provides consultation and assistance on all computer-related purchases for the campus.

Dan Getty, *Desktop Support Specialist Intermediate*

Jason Gooding, *Desktop Support Specialist Senior*

Milton Straham, *Desktop Support Specialist Intermediate*

Mediated Classroom Services (MCS) engineers campus computer labs and mediated classrooms; maintains classroom equipment; provides training on supported equipment and evaluates customer satisfaction with instructional applications; and oversees distribution of mobile computer classrooms. In addition they work with facilities management to keep the furniture count in general classrooms consistent and coordinate the purchase and installation of replacement furniture.

Abe Rashmawi, *Media Consultant*

Melissa Storch, *Information Systems Help Desk Associate Supervisor*

Network Systems Support (NSS) develops and maintains the network and server infrastructure; administers access to the LAN, UNIX and Windows servers for academic computing; administers campus-wide communication software; maintains network software and print queues; engineers campus computer labs and classrooms; provides support for Blackboard Portal and Merit's WAN; maintains a campus-wide backup system; and manages system security.

Charles Allen, *Systems Administrator Intermediate*
Harrison Bacon, *Systems Administrator Associate*
Sidney Horton, *Desktop Support Specialist Senior*
Lynne Ihrig, *Systems Administrator Associate*
Cuong Lai, *Systems Administrator Intermediate*
John Lauro, *Business Systems Analyst Staff Specialist*
Erik Taipalus, *LAN Administrator Intermediate*
Josh Weber, *Systems Administrator Associate*

Security Services provides and supports UM-Flint's information technology security; facilitates campus-wide incident response activities; and provides security assessments, consultations, and network scans.

Philip Erlenbeck, *Data Security Analyst Associate*

User Services offers helpdesk support and consultation via email, telephone and office hours; furnishes end user documentation for software and electronic processes supported by ITS; provides software training for faculty and staff; staffs three and maintains four public computer labs available to students, faculty and staff, including extended evening and weekend hours; maintains six computer classrooms of various sizes and platforms for academic instruction; maintains the ITS Technology Center for video production and multimedia assistance; provides CD/DVD duplication services; coordinates Security Awareness Campaigns for students; and administers software sales to students, faculty and staff.

Erica Burns, *Secretary Associate*

Tracy Smith, *Administrative Assistant Senior*

Mark Turnpugh, *Help Desk Coordinator Associate*

Web and Instructional Technology (WIT) provides design and HTML programming assistance and technical support for university web pages; provides instruction and support for creation and maintenance of departmental websites using the university content management system (CMS) and blogging system; supports online collaboration such as SharePoint; and assists faculty in the development of course pages and in the use of instructional technologies and multimedia applications for the classroom.

Deborah Rowden, *Instructional Learning Intermediate*

Tim Todd, *Webmaster*

Year in Review

The Information Technology Services (ITS) department strives to provide UM-Flint with the most advanced technology and offer that technology using secure measures. During the 2007-2008 academic year, many opportunities became available for us to do just that! Along with countless purchases and upgrades made throughout the year, ITS created and filled several new positions to help meet the growing needs of the university. Security raced to the top of our priorities this year triggering the creation of a new service unit within ITS, Security Services. Technology played a large role in the campus construction projects including French Hall and Student Housing, which required the expertise of many ITS staff.

ITS worked diligently to complete our 2006-2007 goals, from updating aging software and procedures to acquiring new innovative technologies and systems. Two of our major accomplishments this year included the extensive construction projects on campus – French Hall renovation and the development of the university’s first student residence hall. ITS developed and installed new technology such as Crestron control systems, Media Manager carts, and the latest wireless network throughout French Hall, as well as assisted the university with preparations for student housing by researching and testing technology that will be used by students and working with project managers and vendors on purchasing and installing mediated equipment, vending services and the network infrastructure.

Investigating and implementing new technology that has the potential to eliminate manual procedures continues to be an ongoing goal for ITS. Our units facilitated numerous departments with automating and recreating new procedures and systems this year; for example, assisted with the creation of many online campus elections, switched the Graduate Programs International application to use UPay and automating registration and test score uploading into Blackboard for placement testing through Academic Advising. Upgrades to various hardware and software across campus also took place throughout this past year to improve current procedures or systems.

We will continue to research and implement technology that will aid in the success of UM-Flint students, faculty, and staff today, tomorrow and into the future. We pride ourselves in providing new opportunities and enhancing current university activities through technology.

Data Information Management

DIM works closely with university departments to assist in alleviating the amount of time spent on university procedures while also exploring technology that enhances the management and presentation of university data for students, faculty and staff. Procedures and systems throughout Student Services and Enrollment Management (SSEM) are continually growing and changing; this year ITS aided them with the automation and recreation of several projects related to online orientation registration,

2007-2008 Highlights

- Banner Oracle 10gR2 upgrade
- CAPP and housing modules for Banner
- Computer upgrades including several computer labs and two mobile laptop carts
- Emergency Alert System implementation
- FormAssembly implementation
- Four new ITS positions, Data Security Analyst, HelpDesk Coordinator, Mcard Administrator, and Secretary
- French Hall renovation
- Media Manager and Crestron Control System installation
- Mobile plasma cart development
- New customer satisfaction survey
- New network-based Internet Protocol (IP) security cameras across campus
- Pre-Owned Computer Grant program
- Security 101 campaign
- Student Housing development
- University web site migration completion
- Web4U availability to students

placement testing, Financial Aid application and reporting and many other student services. These projects require days or even months of consulting with the departments and custom programming to maximize efficiency. For example, placement testing for Academic Advising had several facets and involved multiple systems working together. Staff worked diligently to complete a new automated registration process for the placement tests, automated users' test scores to transfer directly from Blackboard to Banner, and created a new area within the Student Information System (SIS) for users to view their test scores.

Several changes made to Banner, the university's administrative database that houses all student-related data, and SIS caused an increase in campus training and support this year. A smooth upgrade to Banner Oracle 10gR2 took place in April, which prepares us for future enhancements and upgrades. Staff researched and assisted SSEM with the implementation of a Curriculum, Advising and Program Planning solution (CAPP) and the Housing module within Banner. CAPP supports degree audit and academic advising which will provide student auditors and advisors a valuable tool when assisting students with their program requirements. The Housing module aids in the creation of student housing at UM-Flint by tracking housing applications, contracts, room information, Living Learning Communities and meal plan selections. Web4U became available to students via SIS in the fall semester. In preparation for the roll out of the UM-Flint Emergency Alert system, features were added to SIS that allows students to register their electronic devices to receive notification of campus emergencies. Many other minor additions and modifications took place within Banner and SIS over the past year as well.

DIM members spend a great deal of their time researching and testing new features and tools while also maintaining smaller databases across campus. The team must work closely with the NSS and WIT teams since key databases and programs must be managed in conjunction with network systems and web solutions.

Desktop Computer Services

DCS primarily spends their time completing technical support work tickets rather than completing detailed projects. However, they do lead two especially important projects each year – the computer lab upgrades and the annual Pre-Owned Computer Grant program. The computer lab upgrades involve the purchase of the latest, most resourceful Dell computers to replace several ITS open or instructional computer lab computers. The computers removed from these locations are either redistributed to departmental labs or wiped for distribution during the student Pre-Owned Computer Grant program. This year, ITS purchased over one hundred Dell OptiPlex desktops for 206 and 501 Murchie Science building (MSB) and Dell Inspiron laptops for two new mobile laptop carts. The Pre-Owned Computer Grant program provides financially deserving students fairly used computers at no cost to them. The equipment costs required to be obtained by the university are covered by a generous grant through our Financial Aid office. Over 135 students received a Dell GX270 or GX240 desktop, or a Latitude 100L laptop.

During this past year, three full time and two student technicians closed approximately 1,600 work tickets. Completion of one ticket ranges from twenty or thirty minutes up to hours or even days. On

ITS External Accreditation
ITS worked with the Office of Graduate Admissions to seek accreditation of the Doctor of Nursing Practice and Transitional-Doctor of Physical Therapy programs.

ITS continues to work with various committees to provide information and tools for the Higher Learning Commission Self-Study.

average, technicians complete work tickets for faculty and staff within three business days. Work tickets include installation and maintenance of hardware and software as well as consultation on university-related computing purchases. Much of our Dell computer repair is done in-house by one of our two Dell certified technicians. By performing the repairs ourselves, we not only save time, but receive an additional monetary incentive from Dell. We received \$1,775 from Dell for warranty work done by our technicians this year.

Mediated Classroom Services

MCS devotes great portions of their time to major university projects across campus along with providing day-to-day assistance to instructors and departments. Operated by only two full-time staff, their days are packed full of managing mediated rooms in all campus buildings. 2007-2008 brought with it several construction projects that demanded the skill of this team to integrate the latest technology into the projects. A majority of French Hall renovation was completed while preparation for Student Housing began. French Hall classrooms received innovative replacement mediated equipment including Media Manager carts, ceiling mounted projector and speaker systems and Crestron control systems. Media Manager carts replace SmartCarts and house presentation equipment in a nicely designed wooden case. The Crestron control system is a centralized source for controlling, managing and presenting classroom information on a single, integrated network; an MCS technician can manage and troubleshoot devices remotely from any networked computer. Along with handling the technology in French Hall, this team worked diligently to remove old furniture and refurnish three classrooms and storage areas.



Similar to other ITS teams, MCS performs a majority of the design, repair and implementation of their equipment. Staff developed two all-new mobile plasma carts that include a fifty-inch plasma, DVD/VCR, computer and wireless keyboard. These mobile plasma carts are available for use on-campus by students, faculty or staff. After a recall on our over fifty Epson document cameras, our staff repaired all of the cameras themselves rather than returning the equipment to the vendor for repair. The vendor provided us the funding to make the repairs ourselves. Several rooms within MSB acquired new mediated equipment as well. Rooms 317 and 319 obtained the new Media Manager carts, ceiling mounted projectors and document cameras; while rooms 316 and 322 were mainly reorganized and cleaned up with the removal of old Black boxes and some replaced equipment organized within a Media Manager cart. The Mcard/Parking Permit stations were redesigned with dual monitors and card swipes.

Now into our second year maintaining general classroom furniture and design, our team inventoried and maintained classroom furniture twice each semester and purchased new carpet and base for four general classrooms. Along comparable lines, MCS inventoried and tested all of their equipment including testing of alarms throughout campus on all ITS equipment.

Network Systems Support

NSS was significantly impacted this year by many critical events that took place including French Hall renovation, Student Housing, the university security breach and the general growth of the university. They do the “behind the scenes” work for ITS. Due to the rising demands of the Mcard, a Mcard Administrator was hired this year to test and implement upcoming features of the Mcard as well as manage the Mcard door swipe access system being installed across campus.

The new wireless network system continued deployment with the completion of French Hall and MSB and the beginning of Student Housing. Staff worked closely with contractors and also completed work themselves on the university wired infrastructure during French Hall renovation and preparations for Student Housing. ITS focuses on providing the campus with the most innovative technology; therefore, our involvement in campus construction projects is imperative in order for us to do so. For example, in order to implement the new wireless network within French Hall, NSS required knowledge and assistance from several other facets of the entire project.

To improve the video surveillance system used by Public Safety, NSS installed new network-based Internet Protocol (IP) security cameras across campus. Over thirty new cameras were installed this year to improve campus security. The new cameras provide clearer images, more storage and special features such as motion detection. Door swipe access was also added to three building entrances, which requires an activated Mcard to unlock the doors during non-business hours.

Immediately following the security breach in early December, thousands of dollars and hundreds of hours were spent securing our network and analyzing the incident. The clear purpose of the breach was to illegally share copyrighted movies and music; therefore, it was determined that only a minimal amount of sensitive data was exposed and those potentially affected were notified. We later in the year learned that Dutch authorities working in conjunction with the FBI were able to apprehend one of the four people believed to be responsible for the incident. However, efforts continue to maintain our network as to prevent an incident such as this from happening again including the purchase of new software to assist us with the repercussions of the incident.

Security Services

Security Services was created in order to aid in the overall data security of the university. The team currently operates with a single member, a Data Security Analyst; however, another position is open and hoped to soon be filled. The one staffed team successfully implemented new security measures and procedures as well as prepared for future tools to maintain the security at UM-Flint. Using special software, personal information on the entire university's network was located and secured. Users were notified if certain types of information were found in locations not acceptable for housing that type of data and consulted on how to store that data securely. Several tools are being researched for purchase in the upcoming year to enhance email security.

ITS Publications

Rowden, Deborah. "Clickers in the Classroom." *The Scholarship of Teaching*, December 2007.
Rowden, Deborah. "ITS Buzz: Mashup, Twitter, Tag and Poke?" *The Scholarship of Teaching*, June 2008.

User Services

User Services filled two new full time positions this year that aid in the customer service provided to our campus. A Helpdesk Coordinator and Secretary were hired; both positions were primarily performed by student employees previously. Each new staff member jumped right into the job with many bright ideas that will increase the efficiency of the Helpdesk and main office. The HelpDesk enforced a one hundred percent ticketing policy, meaning every call or walk-in must be ticketed. It allows for better reporting and documenting of the HelpDesk activity. Also, new categories and required information were added to

the ticketing procedure. The ITS customer satisfaction survey was revamped in order for us to receive more useful feedback from our customers; the new survey is much easier for users to complete as well!

Our annual Security campaign continued this year with a Valentine's Day theme and exciting new prizes including two laptops, a Nintendo Wii and an iPod Touch. Over 1,200 students participated and received a perfect score on the Security 101 exam. The exam, available to all UM-Flint students, consists of eleven questions pertaining to computer security. Blog messages, emails and posters are available throughout the year to remind all users the importance of computer and data security.

User Services introduced various new products and services during 2007-2008. Usage and support of an infrared camera allows faculty and staff the opportunity to check-out the camera for reasonable purposes. Soon after Microsoft released Office 2008 for MAC, it became available to students, faculty and staff for only fifty dollars-eighty five percent off the retail value! ITS informational materials were updated and redesigned for handing out at new student orientations.

Web and Instructional Technology

WIT completed implementation of several web solutions and continued its support of instructional technology through training and availability of many resources. The entire university web site was finally migrated into the Content Management system (CMS) and old sites were shut down. Over sixty CMS development sessions were conducted as well as fifty general CMS training sessions. The CMS provides departments more control over their web site. Two CMS upgrades included Teamsite from 6.7 to 6.7.1 and Mediabin from 4.5 to 4.6. To further enhance the university's web capabilities and to assist departments in collecting information and generating web forms specific to their needs, FormAssembly was implemented. FormAssembly is a web form creation and processing service that allows users to obtain online information such as feedback on a new program or RSVPs for a university event. Staff also facilitated several online elections for staff and student government councils.

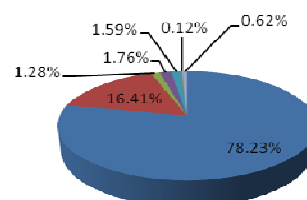
Other web solutions or systems implemented this year included blogging and a system for online submittal of Graduate Letters of Recommendation. Blogging software was installed and will be maintained by WIT for campus use. Several workshops were held introducing the blogging system. A system was designed for Graduate student applicants to allow submissions of letters of recommendation via the web. Applicants must provide specific information about the recommender in order for him or her to obtain a user name and password to login to the newly created system to submit their recommendation.

The Qwizdom pilot progressed into Phase II and included the purchase of more clickers. The clickers were also used for the first time during a university event rather than a course. ITS supplied over 100 clickers for the Open Student Forum hosted by UM-Flint administration in March. The clickers were used to survey attending students about the new bus transportation on campus. While it took students a little while to get used to the clickers, by the end of the survey well over eighty percent of the clickers that were turned on were submitting answers!

Development Activities Increase

As it has for many years, ITS continues to provide products and services at discounted prices to UM-Flint alumni, faculty, staff and students. Revenues from these products and services allow us to

■ Software Sales \$79,093.15 ■ Printing Services \$16,589.95
■ Alumni Computing Accounts \$1,295 ■ Dell Warranty Work \$1,775
■ Dell Computing Sales \$1,606.44 ■ CD/DVD duplication \$116.50
■ BES licenses \$62.7



provide additional technology that may not be possible with general funding alone and also supplies funding to offer our staff incentives for their hard work and dedication.

Enrollment Efforts Increase

In order to keep our alumni up-to-date on new or redesigned academic programs, ITS provides the continuation of their Local Area Network (LAN) accounts for two years past graduation at no cost to them. The creation of this new policy is an effort we made in conjunction with the Office of Graduate Programs to keep alumni informed and encourage them to return to UM-Flint to continue their education. The extension of the LAN account includes access to university email, campus computer labs and the campus wireless network.

Supporting the Community

Many of our staff members engage in community activities to share or gain knowledge and promote and support the university.

- Scott Arnst and Gabriel Ebbert spoke to the Flint Journal regarding security issues.
- Dan Getty, Jason Gooding, Ken Heiser, Debi Rowden and Tracy Smith volunteered during UM-Flint's first annual MFUSE festivities.
- Dan Getty and Ken Heiser spoke to perspective students on university academic programs including Computer Science, Business and Psychology. Dan also participated in several clean-up initiatives for Flint.
- Jason Gooding participated in several Career Days with Carmen Ainsworth schools by speaking about technology and its job opportunities.
- Ken Heiser became involved with ConnecTech, an organization for technology professionals to gain benefits, resources and tools vital to their success.
- Abe Rashmawi and Charles Sharp offered their services during Homecoming 2007.
- Debi Rowden presented "Computer CSI: Cyber Investigator" during Super Science Friday, a program aimed at increasing fifth through eighth grade students' knowledge and interest in science.
- Mark Turnpaugh assisted with the 17th Annual High School Programming Contest and Math Field Day.

Blue Ribbon Commission Support

Recommendation 10: Academic Program Review

- Our Instructional Technologist works closely with the Thompson Center for Learning & Teaching (TCLT) to employ new technologies in the classroom to meet the ever-changing needs of our students and faculty. This year we expanded the use of the Classroom Response system ("clickers").
- The Mediated Classroom Services (MCS) unit focuses on providing the latest mediated technology in our classrooms. This year we implemented a new mediated control system, Crestron, which allows faculty and students to present their digital content in the classroom easily.

Promoting a Culture of Student Success

Sponsor an annual Pre-Owned Computer Grant program.

Computers are vital to the success of our students; therefore we offer those who may be financially unable to purchase a computer the opportunity to do so at no cost to them.

Supply technology to our campus.

Technology provides possibilities beyond the norm of academics. Mediated classrooms and computing accessibility across the entire campus enhances the educational experience for UM-Flint students.

Offer technical support to the campus community.

With seven different service units, we are able to assist with almost any technical issue and continue to provide students the tools they need to be successful.

Provide employment opportunities to students.

Along with education, students benefit from on-the-job experience. We employ nearly forty students every semester in areas such as clerical support, desktop support, networking and web development. This opportunity ensures that our graduates have real world experience and are more likely to be successful at securing full-time employment once they leave UM-Flint.

Recommend solutions to student service departments.

We work closely with departments to provide services to our students effectively and efficiently. By streamlining processes for other departments, they have more time to aid in the success of our students.

Technology in the Future

ITS expects to complete several goals during 2008-2009 including:

- *Continuing to install the latest technology on campus including computer lab upgrades to all three White building labs and 205 French Hall, completion of the new wireless networking system, and installation of more Media Manager carts and Crestron control systems.*
- *Continuing to work with various departments to implement an Enrollment Management/Retention system.*
- *Finalizing preparations for Student Housing move-in day and provide technical support to students living on-campus.*
- *Implementing several new solutions that will affect the entire campus including an academic campus calendar system, Banner 8, an automated ID creation process, Mcard door swipe and campus database solution and Microsoft Exchange 2007.*
- *Presenting the campus data security plan to executive officers for approval and implement several new security systems and procedures including a security incident management system, email and network folder encryption systems and working closely with users to assist them with properly securing their data.*

Regents of the University of Michigan

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