



# Communicator

Information Technology Division

## MIDDLE TENNESSEE

STATE UNIVERSITY



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## Information Technology Update

### Lucinda Lea

*Vice President for Information Technology and Chief Information Officer*

One of the many exciting things happening at MTSU continues to be the growing and evolving role technology plays in so many facets of the campus environment.

As we begin the 2009-2010 academic year, the Information Technology Division (ITD) is collaborating with the academic and administrative areas of the University on several major projects to enhance teaching, learning, research, and administration at the University in pursuit of the goals of the Academic Master Plan.

### Major goals identified for the division in 2009-2010 are as follows:

- 1) A campus tour and interactive map content management system will be launched and administered.
- 2) Work will continue on provisions for disaster recovery capability.
- 3) We will complete the multi-year project that includes the implementation of Web content management across all MTSU departments.

- 4) A new MTSU homepage will be designed.
- 5) MTSU will begin to centrally consolidate servers located in campus departments through the use of virtualization techniques and other methodologies.
- 6) A pilot study of PC (desktop) virtualization will be conducted.
- 7) We will pursue the outsourcing of student e-mail.
- 8) Centralized document imaging for the campus will be launched.
- 9) We will provide IT expertise and support for new building design and construction.
- 10) Banner will be upgraded from 7.x to the 8.x version.
- 11) The campus portal, PipelineMT, will be upgraded to the Luminis 4 version.
- 12) A request for proposal will be released for a Distributed Antenna System (DAS).
- 13) ITD will restructure and reorganize to meet budget reduction target goal by July 2011.

***A list of ITD 2008-2009 accomplishments and 2009-10 goals begins on page 8.***

## Voice Alert Feature Added to Rave Alert Emergency Notification System

Voice Alert is the newest communication channel for emergency notifications in Rave Alert. Rave Alert from Rave Mobile Safety is the emergency alerting and campus communication platform that delivers alerts to students, staff, and faculty via text message and email. The new Voice Alert feature places calls to wireless and wired phone numbers and plays the emergency message. Voice Alerts can reach persons who do not have a wireless phone, do not use text messaging, do not have access to email, or have disabilities that make wireless phone use difficult. The service complements the other messages sent by text and/or email.

Voice Alert can call all the numbers recorded in the Rave Alert system, which is up to three mobile numbers and three landlines. This allows you to enter not only your wireless num-

ber, but wireless numbers of family or friends, and wired numbers such as your office or home. Once activated, Voice Alert can call thousands of numbers per minute. Voice Alert will play the recorded message, then repeat the message two times. If the Voice Alert call is not answered and you have voice mail, then your voice mail will record the emergency message.

While Voice Alerts may seem redundant to some, it helps ensure that others get the message. During an emergency there is no one best way to get the emergency message to everyone. The Rave Alert system is designed to be repetitive, as all emergency notifications should be, to increase the chances of reaching as many people as possible, as quickly as possible, using a variety of means. Voice Alert is just another way to receive the message.

A good example of the need for the

redundancy is the following: As many of you know, during the April 10 tornado warnings, one of our major mobile service providers was doing emergency maintenance and holding text messages. Some people received their texts right away, and some received them up to two hours later. If we had Voice Alert in place at that time, phone calls would have gone through since the provider was not queuing phone calls – only text messages.

Users currently have the option to choose whether they would like to be notified via text, email, or both. Beginning August 25, users will have the option to receive Voice Alerts. The Voice Alerts service has been very well received thus far, and we have appreciated everyone's patience while implementing this feature.

## Keeping Your PDA Secure

As wireless technology continues to evolve, the common cellular telephone is beginning to transform into a data warehouse. Users not only rely on their phone's ability to store address book information, but are also

now dependent on it to provide calendar, email, and document access. As such, PDA users should consider what sensitive data might be on the device and remain diligent about keeping the information secure.

First and foremost, PDA users must not store Personally Identifiable Information (PII) unencrypted on their devices. PII is any information which can potentially be used to uniquely identify, contact, or locate a person. Under Tennessee law, "personal information" means an individual's first name or first initial and last name, in combination with any one or more of the following data elements, when either the name or the data elements are not encrypted: Social Security number; driver's license number; or account number, credit or debit card number, in combination with any required security code, access code, or password that would permit access to an individual's financial account. For more information on MTSU's security policy, please

### Communicator

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## PDA Security

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refer to MTSU Policy I:03:06, which can be found at [http://mtsu32.mtsu.edu:11251/resources\\_policies.htm](http://mtsu32.mtsu.edu:11251/resources_policies.htm).

Additional security precautions include:

- PDA users should secure their device through the use of a strong password. Strong passwords contain a combination of uppercase *and* lower case characters, as well as numerals and special symbols.

- As you would on a PC, be extremely cautious about opening attachments from untrusted sources, or following links from within email to untrusted sources, to avoid being exposed to malware or viruses.

- Users should be mindful that wireless transmissions are not secure and should use discretion in relaying confidential information over wireless devices.

- If the Bluetooth functionality is not used, be sure to disable Bluetooth. Most devices are shipped to the end

user with that function already enabled. If you don't plan on using it, it is best to disable the feature to avoid eavesdropping.

- If you do use Bluetooth, consider changing the default passcode used to connect a Bluetooth-enabled device.

- Before disposing of the device, be sure to wipe all data from it. There are some excellent resources available to users that give step-by-step instructions on how to erase sensitive information

from wireless telephone equipment.

One such resource can be found at [http://www.wirelessrecycling.com/home/data\\_eraser/default.asp](http://www.wirelessrecycling.com/home/data_eraser/default.asp).

- Should your PDA become lost or stolen, and you feel the PDA could contain sensitive information, please contact the ITD Help Desk to report the breach.

## Network Services Update

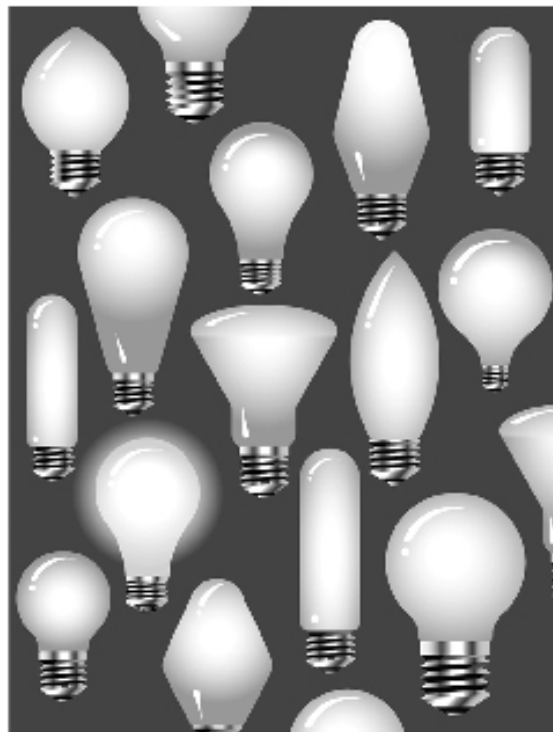
A new Network Access Control system (NAC) was installed which replaces the Clean Access NAC to provide greater network security (see related article).

Network connectivity was installed for data and voice needs for a new remote site in downtown Murfreesboro to support Continuing Studies and the Center for Counseling and Psychological Services.

All the network equipment in Cummings Hall was replaced with faster devices, and wireless access was added to common areas.

Network equipment servicing Athletics providing enhanced performance and security has been replaced.

**Everyone has ideas.**



**But the best ones are shared.**

## ShareFair

Oct. 28 • 10 a.m. – noon and 1- 3 p.m. • Peck Hall 106

The 2009 ShareFair will be held from 10 a.m. to 12 noon and from 1 p.m. to 3 p.m. Wednesday, Oct. 28, at the Learning, Teaching & Innovative Technologies Center (LT&ITC) in Peck Hall Room 106. The ShareFair showcases innovative teaching and technology practices by some of MTSU's most outstanding faculty members. Presenting faculty include ITDC grant and fellowship recipients, winners of the Outstanding Use of Instructional Technology Award, Outstanding Teacher recipients, Experiential Learning faculty, and finalists for the Teaching, Learning and Technology Roundtable's Award for Innovative Excellence in Teaching, Learning and Technology. The winner of the Teaching, Learning and Technology Roundtable's Award will be announced at 2 p.m.

# Teaching to a Different Beat

**B**y now Amy Macy is accustomed to change.

The professor has experienced the winds of change first hand when she became involved with the music industry 25 years ago.

Like the music business, technology and education are constantly evolving with the times.

The classroom is no longer just a collection of desks, books, and dusty chalk boards.

Thanks to the advent of online classes, educators are now thinking outside of the proverbial box when it comes to learning.

After 10 years with MTSU, Macy has taught or managed various courses within the University's popular Recording Industry Department. She also headed up the department's internship program for eight years, launched a lecture series, implemented a record retail course, and even found the time to lead an old-time string band ensemble which provided tunes for many events, including a visit from then U.S. Vice President Al Gore.

## Teaching, Learning & Technology

# PROFILE

Teaching her music industry content online has helped provide Macy more time to maintain her busy calendar.

"What is great about teaching Recording Industry content online is that it's a natural fit between the learning environment and the interface of our medium," she said. "Within D2L, my classes tend to be quite interactive with links to industry Web sites, using the abundant digital resources captured by the industry that are great examples of viral marketing, as well as the educational hook-up of students through online collaborative projects and forum



***Recording industry professor Amy Macy teaches her MTSU courses online using DimDim, Desire2Learn, and PBWorks. (Photo submitted.)***

conversations."

Macy said that all of these interfaces also help future industry leaders develop stronger communication skills within the digital workforce.

Macy, who moved to Nashville to pursue a music career and attend college, comes from a long line of teachers.

"I wanted to be a teacher for my entire life," she said. "My mother was a

teacher, my grandmother was a teacher, my sister teaches...it's in the DNA, I suppose."

After graduating from Belmont University with a degree in music education, Macy worked for an independent record label as a receptionist. After working that job for six weeks, she was promoted to the president's assistant,

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## New NAC System Offers Security, Features

**E**nsuring that computers meet basic security requirements to connect to the network is a cornerstone in MTSU's overall layered information technology security strategy. Previously, this was handled by a Network Access Control (NAC) system called Clean Access on those networks where non MTSU computers connect the most, namely in the residence halls and Greek Row houses, by public access wired ports located in the Walker Library, and via the wireless network.

This past summer, Network Services implemented a new NAC system that provides increased security and features. Called Enterasys NAC, in some ways it functions much like Clean Access did. As with Clean Access, at this time there is a software agent only

for Windows machines. However, you are now required to log on to the wireless network first using your Pipeline username and password via a new Web authentication page regardless of operating system.

When you initially open a browser on the wireless network with a Windows machine, you are prompted to download the Enterasys NAC Agent. This small software package checks the computer for current and running antivirus software and performs other checks.

If the checks show no issues, access is granted. If there are items that need to be addressed, they will be displayed in a window. Those items must be resolved before clicking the "Yes, corrective action taken, connect to network" button.

One new feature is that Windows computers connecting via the new NAC system cannot have Peer-to-Peer (P2P) file sharing software installed.

This is part of the University's comprehensive effort to comply with legislation requiring measures in place to combat the illegal sharing of copyrighted materials. Additionally, Enterasys NAC provides better support for antivirus programs.

If you require guest access, or have any Enterasys NAC related questions, please call the **Help Desk** at **898-5345**.

### Amy Macy

*Continued from page 4*

where she said she began her "education" in the highly competitive world of the music business.

"This was the mid 1980s, and personal computers (the size of a semi-large suitcase) were emerging," she said. "I would stay after work and learn the various keyboard command programs as well assist with extra computer work."

The combination of learning the music industry from the inside and developing proficient skills on the computer would come to benefit Macy's future.

After collecting several years under her belt in the music industry, Macy landed a gig as the "utility player" for entertainer Marie Osmond, playing guitar, fiddle, and banjo, as well as providing backup vocals.

This experience marked a turning point in Macy's life.

"This job taught me a great deal about myself – mostly that I didn't want to go down the road as a traveling musician for the rest of life," she said.

"After nearly three years of seeing the world, I decided to get back to business and took a job with RCA Records."

While working behind the scenes in the music business, Macy picked up an MBA and began conducting guest lectures at MTSU.

"Within that seven-year time span, I grew to appreciate what MTSU's Recording Industry Department offered," Macy said. "Although various faculty and administrators encouraged me to apply at various junctures, it wasn't until 1999 that I made the jump and started teaching full-time."

Macy fuels her online courses with Desire2Learn, DimDim, and PBWorks.

DimDim is a secondary communication tool that enables a host to create an event which enriches interaction through online "meetings."

"For example," Macy explained, "I invite students to a study session prior to a test, where they can instant message questions, and I can answer them by using an active screen that can show PowerPoints, whiteboards,

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## ITD Workshops Available for Faculty and Staff

**G**et started with computer graphic programs such as Illustrator; edit and enhance pictures with Photoshop; get familiar with D2L and Photoshop; get trained in Word 2007, Excel 2007, and Access; learn to design Web pages; and more!

### Registration is required (except where noted)

- Register on the Web or call ITD at x5345
- Most workshops are offered at the ITD Training Center in the Telecommunication Building
- Classes are filled on a first-come, first-served basis
- Please give a 24-hour cancellation notice

Individual consultation for instructional technology needs can be requested by calling ext. 8189. Other workshops are available upon request.

See our Web site for more information at [www.mtsu.edu/itd/workshops](http://www.mtsu.edu/itd/workshops).

# Puzzle Solving 2.0

Ever since she could remember, Glenda Oshop has had a penchant for solving puzzles and putting things together. The senior systems analyst could spend hours on complex jigsaw puzzles before realizing the day had passed her by.

In 2005, Glenda took her love for problem solving to a whole new level when she joined the ranks of the Information Technology Division.

Glenda has experienced MTSU from the perspective of both student and employee. The Pittsburgh native graduated cum laude from MTSU in 1994 with a B.B.A. in Computer Information Systems.

Before joining ITD, Glenda worked as a programmer/analyst for the State of Tennessee Treasury Department. While working at the Treasury Department, Glenda developed an interest in software development.

“Treasury actually designs and programs its own systems, so I was part of the team developing those applications,” she recalled.

When she made her return to MTSU four years ago, Glenda saw the campus in a new whole perspective.

As a student, Glenda said she didn’t realize how much activity was going on “behind the scenes.” Not only is she now behind that proverbial curtain, she’s very much involved in all the activity.

Glenda’s primary responsibilities include Pro\*C, PL/SQL, SQL, providing programming and technical assistance as needed, the WebTailor component of Banner Self-service, Luminis, the D2L interface, and providing maintenance for the Bannerdoc Web site.

Working as a senior systems analyst has put Glenda’s puzzle solving skills to the test.

“I like the programming aspects of it because it’s challenging, yet it allows you to express your creativity at the same time,” she said. “You can figure



*Senior systems analyst Glenda Oshop has experienced MTSU both as an ITD staff member and as a student. She graduated from MTSU in 1994 with a degree in computer information systems.*

out various ways to do things. I also enjoy Web site maintenance as well because it too has a creative aspect about it.”

Even though there’s no sculpting or painting involved, Glenda considers each of her programs as artistic creations.

“Programming is an art,” she said. “It may not be what you think of when you think of art, but in my mind it is. It has to have a structure, it has to look good, it has to make sense, and it has to work. It’s not just a one-dimensional

really care about the students,” she said.

“They see them as the main priority, and I think that’s really great. There are some very smart, devoted, and talented people here, and they’re so committed to doing their jobs to ensure everything’s running smoothly so the students get what they need. That’s really what it’s all about.”

When she’s not on campus, Glenda enjoys spending time with her family, photography, digital scrapbooking, fishing, and cooking. She also served as her daughter’s Girl Scout Brownie troop leader this past year and has plans to do it again this year.

She lives in Murfreesboro with her husband, John, and two children, John-Michael, 5, and Christina, 8.



picture.”

Aside from her love of programming, Glenda attributes her co-workers as her driving force at MTSU.

“I think the people who work here



## ITD Staff News



**Toney Flack**

**Toney Flack** is ITD's new director of Data Center Services. His responsibilities include the managing of MTSU IT data centers and overseeing the technical system administrators, data center manager and operators, and the production-scanning environment.

Toney comes to MTSU from Detroit, where he worked as an IT director for the Lear Corporation, a worldwide automotive supplier. He was responsible for that company's data center operations, system administration, and worldwide telecommunications.

Toney holds a bachelor's degree in mechanical engineering from Detroit-based Lawrence Technological Univer-

sity, a master's degree in mechanical engineering from the University of Michigan, and has completed several hours of coursework for a Ph.D. in systems engineering from Oakland University in Rochester, Michigan.

He holds certifications in CISSP, PMP, ITIL, Six Sigma, PE (professional engineer), IBM AIX (Unix), and Juniper JNCIA – SSL.

Having recently relocated from Detroit, Toney lives in Murfreesboro with his wife, Kelly, and sons, Andrew and Christian. Andrew began his first semester at MTSU this fall and plans to become a high school English teacher.

Toney plans to help improve IT operations at MTSU by facilitating and enabling projects already under way to reduce floor space and utility requirements through the use of blade servers and virtualization, reduce costs through improved effectiveness and efficiencies

resulting from implementing streamlined and common administrative best practices. Toney also plans to enhance both responsiveness and professionalism in the areas of data center physical security and end user-support logistics.

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Desire 2 Learn's annual conference, Fusion 2009, was held in St. Paul, Minnesota this year. MTSU sent two representatives to the conference, **Amy Macy**, Associate Professor for the Department of Recording Industry and **Brenda Kerr**, Instructional Technology Specialist in MTSU's Faculty Instructional Technology Center, part of the Information Technology Division. In addition to attending the conference, Amy and Brenda were presenters.

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## Enterprise Resource Planning Update

### Banner Student

**F**or the Electronic Transcript pilot project with the Tennessee Board of Regents and other TBR schools, test transcripts have been successfully exchanged with the University of Memphis. The goal is to get all TBR schools to exchange electronic transcripts. MTSU has also tested automatically uploading transfer work and test scores.

An Access database is being developed by Records for departments to utilize when creating their schedule for future terms. This design will eventually lead to a new Workflow project for schedule development and adjustment so the process can be decentralized back to the academic departments.

The ongoing space utilization and enrollment management meetings have resulted in X25 being used to analyze credits hours against contact hours and

space utilization. Additional promotion of priority registration resulted in 63 percent of currently enrolled students priority-registering for Fall 2009. This was an increase from 55 percent for Spring 2009.

Admissions went live with the Banner Self-service freshmen application. This allows freshmen to apply online and then utilize processes in Banner to automatically upload the application without the manual entry required as is the case with paper and XAP applications. Banner's self-service application was successfully utilized to resurvey currently enrolled and newly admitted students for the new federally required Race and Ethnicity codes.

A CAPP Degree Evaluation training session was conducted for the Health and Human Performance department and a demonstration was conducted at the Council of Chairs retreat.

A process has been developed to utilize Banner to store Academic Appeal information to provide more automation for the process as well as better communication to students and advisors.

### Financial Aid

The Financial Aid office has completed work with TBR on IPEDS reporting. Work Continues with TBR on Common Data Set reporting.

### Finance

Departments that would be good candidates for accepting online payments through the TouchNet Marketplace product have been identified. The Business Office staff has set up new merchant IDs, interviewed departments regarding types of payments to be accepted, and assisted in setup of the Web site.

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# ITD Accomplishments: 08-09

## Academic and Instructional Technology Services

Accomplishments in 2008-2009 include continued implementation of the Luminus Content Management System (LCMS). Work continued within each division to work with departments and units to create and move content into the LCMS. Training of content contributors continued as more staff and faculty edited their pages within the LCMS. Additional Web accomplishments included installation of a new web server and upgrade of the LCMS applications; introductions of new technologies, including new traffic monitoring, blog and wiki software; RSS feed capability; and expanded use of iTunesU.

Programming support was given on academic programming needs, including launching a new online reporting tool for the Student Evaluation of Faculty Effectiveness; scanning and statistical analysis; administering and analyzing data collection surveys and reports; and the development of database applications and Web-based interfaces for the data warehouse.

Providing and supporting learning technologies that enhance curricula and course development, delivery and management remained a priority. System administration and support of Desire2Learn continued along with the implementation of Real-Time integration with Banner Student. Workshops, individual consultations, and enhanced Web-based resources have been provided to the university community. Research into new instructional technology and teaching/learning strategies including new software, hardware and teaching pedagogies to support e-learning is continuous so as to provide the most up-to-date support. Faculty grants and fellowships were provided to encourage and

support technology integration into teaching and learning. The Learning, Teaching and Innovative Technologies Center (LT&ITC) provided mentoring, resources and professional development opportunities to faculty in pedagogy and instructional technology.

Additional accomplishments included assisting with institutional effectiveness matrix documentation; analysis of student, faculty, and staff surveys; presenting at new employee and new faculty orientation and at various conferences; and participating in various university committees.

## Administrative Information Systems Services

Banner was successfully upgraded to Student 7.4 and General 7.5 versions in January 2009. As part of that effort, MTSU hosted and participated in two multi-institution regression testing sessions to beta test the upgrade along with TBR Mods during fall 2008. Work to enhance CAPP Degree Evaluation for release to students was completed January 2009. The project to work with vendors to develop real-time integration between Banner, D2L, and Luminis was completed with a successful go live during late summer 2008. TouchNet Payment Gateway, eBill, and eRefund applications were successfully migrated from a MTSU server environment to a vendor hosted environment. A new loans repayment system, Campus Loan Manager, was implemented, replacing the legacy LMS Plus system. The international student system, fsaAtlas, was upgraded to version 7.4. An enterprise imaging solution, Banner Document Management Suite, was purchased and will be implemented over the next fiscal year. More development effort was performed on the new Workflow system prior to release to general campus in the very near future. Microsoft Access workshops continue to be offered each year.

Several projects are underway to assist specific campus offices in their transition from using SSN as the primary identifier on their third-party systems. Work began with Housing to build an interface from Banner to their RMS system and with Alumni Relations to build an interface to their iModules system. Walker Library and Continuing Education went live with Resource25. We worked with the IE&C office to implement a method of tracking employee participation in their diversity and sexual harassment training modules. Several BlueInfo interfaces that had previously come from Plus were replaced with Banner interfaces. The Access Reporting environment on BlueInfo was expanded by adding new views and new groups. The implementation of a new reporting tool called Argos was initiated. Multiple programs to assist ITD with account assignment, account cleanup, and identity management were developed. AISS completed 702 work orders during the 2008 calendar year.

## Communication Support Services

The BlueID Office experienced heavy traffic due to recarding the campus and implementing the geometric collection for access to the Campus Recreation Center. WebCard Center was installed and implemented giving students access to their Flex Dollar and Raider Fund balances plus number of meals left on their plans. WebCard center also now allows students to look at availability of laundry units in the dorms.

The student laptop service program continued to increase in volume. An online training / quiz program was developed for the student Help Desk technicians to enable them to be more independent during after-hours shifts.

*Continued on Page 9*

# Summary of Accomplishments Continued

*Continued from Page 8*

Our partnership between Columbia State Community College and MTSU's Help Desk continues to be successful.

## Database Administration Services

The Database Administration Services group met all challenges provided by 2008-2009. Daily activities of system maintenance and support were the main focus. Additionally, major milestones were met, such as the transitioning of Touchnet to a hosted service, the installation of Oracle CPU's, and the implementation of several BlueInfo required changes. Planning for Banner disaster recovery, archiving large tables, and supporting a major upgrade for Banner were also performed during this time. Unplanned for events, such as supporting a Parking Services application upgrade, renewing security certificates, and completely changing the duplicate clean-up procedure were also handled by the DAS group. Significant steps have been made to improve redundancy, security, and recoverability to all systems supported by DAS.

## Network Services

A new layer of security for the residents halls and wireless networks called Network Access Control (NAC) was piloted. NAC, built into the network components themselves, provides a method to ensure that the person and/or machine attempting to access the network is authorized to do so, and is given access rights based on that authorization. This NAC deployment serves as the prototype for future NAC endeavors.

The three main core routers and the secondary core router that serves the south side of campus were replaced, completely refreshing the core network. Other network improvements included replacement of switches in some classroom buildings and replacing the remaining "older technology"

wireless 802.11b transmitters with 802.11b/g "thin" access points for greater manageability and performance.

A major milestone was reached when the Residence Hall and Greek Row Internet access was separated from the campus Internet access. The residence halls and Greek Row have much different usage demands for the Internet than the rest of campus, and separating the two provides not only for better performance but the ability to tailor security and management policies specific to the disparate usages of the end users. This move also increased available campus Internet bandwidth to 300 Mbps (200 Mbps for the campus, 100 Mbps for the residences).

A system for providing whole-disk encryption for laptops and selected desktops was evaluated and implemented. All new laptop computers will have the encryption software installed. Specific encrypted jump drives were also evaluated and recommended to the Information Security Task Force for implementation. Encrypting data protects it in the event of a lost laptop or jump drive.

Power for the Cope data center and supporting network equipment was completely replaced. This includes the building transformer and feed as well as the UPS serving these areas.

## Server, Classroom and Desktop Services

The principal goal for ITD's Server, Classroom, and Desktop Services units centers around improving the delivery and the reliability of the services provided by each area. The corresponding accomplishments for the 2008-2009 Fiscal Year accentuate commitment to that goal. In addition to updating and testing disaster recovery plans, the Server unit also completed several projects designed to geographically diversify the distribution of IT resources allowing

for better protection against a catastrophic failure at any one location. These projects involved not only application, hardware and software resources but electrical and network resources as well. Both the Classroom and Desktop Services Units also pursued this goal through projects involving the replacement of older systems, establishment of new master classrooms, and better organizing equipment inventory data. In preparation for 2009-2010 initiatives, all three areas collaborated to initiate the establishment of virtual server and virtual desktop infrastructures.

## Telecommunication Services

We successfully upgraded our Avaya Communication Manager Software to version 5.0, which made several new features available such as increased ability to restore connections with remote sites, use of a new line of telephone sets, better fixed/mobile convergence, and expanded conferencing capabilities.

An RFP was written for a distributed antenna system (DAS) to add wireless communication coverage and capacity to meet the increasing demand for wireless services on campus. The project involves wireless service providers in the design and installation of the system.

The Telecommunication Services Web site has been improved to include trouble tickets, work orders, and other features that serve users well and help internal efficiency.



# ITD Goals: 2009-2010

## Academic and Instructional Technology Services

In addition to continuing the major areas of operation and services, major new or evolving initiatives for 2009-2010 include the continued implementation and training for the Luminus Content Management system (LCMS) with the completion of movement of all the primary sites into the system. We will be continuing to maintain the home and root pages and work with university departments to move their pages into the system. A new MTSU homepage will be designed and launched in the spring semester. Collaboration with Department of Marketing, Publications and Graphics and News & Public Affairs will be ongoing. The support of the new campus tour and interactive map will also be a priority along with investigating ways to expand the use of tour components.

Other major projects include: continued system administration and support of Desire2Learn along with investigating new opportunities that D2L can provide for collaboration, research and integration of additional tools; administration of the Faculty Evaluation Feedback reporting system, making appropriate improvements to the reporting capabilities; and continuing research on new information and instructional technologies. Continued growth of the Learning, Teaching and Innovative Technologies Center (LT&ITC) will occur as the center evolves in providing services for mentoring faculty and providing development opportunities and in encouraging and supporting research in the scholarship of teaching and learning.

## Administrative Information Systems Services

We will begin the project to upgrade Banner from 7.x to 8.x version, which requires a major database migration due to international character set usage and will assist with upgrade of PipelineMT to Luminis IV platform.

Other major projects include: implementing Banner Document Management Suite; expanding use of Workflow across campus; implementing Resource25 Web Services to provide additional report delivery methods and options about campus events; continuing to bring more offices online with Resource25; implementing new Argos reporting tool for campus-wide use while continuing to provide Microsoft Access workshops during transition to Argos; and continuing to expand use of BlueInfo data warehouse.

We will begin identifying legacy Plus data to retain on data warehouse. We will also complete the interface development from Banner to Housing Office's RMS system and Alumni Relation's iModules system and complete the interface redesign from Banner to Health Service's Point 'n Click system. We will work with other departments in ITD to revise and improve the current file transfer processes for Banner interface files.

## Communication Support Services

We plan to continue efforts to better equip Help Desk personnel to serve the MTSU community by initiating a shadowing program with other ITD departments and attending as many other ITD departmental meetings as possible. The "planned" sharing of information will be beneficial to the Help Desk as well as other ITD groups. The Help Desk knowledge base will be revamped and we plan to experiment with simulation software to enhance the entries. We also plan to increase communication with the RESNet Help Desk to better serve the students living on campus.

We will continue to build the Help Desk relationship with Columbia State. We also plan to participate in weekly meetings via conference calls to discuss problem areas and set protocol and ways to improve.

The BlueID Office is planning version upgrades to CSGold and WebCard Center. We will investigate features of live Banner link for CSGold and the advantages of a Web-based

GUI replacement. We will rewrite all meal plans to handle Flex Dollars automatically and redo the meal plan handling process. We will also investigate the redesign of the BlueID system data operations in order to make better use of available tools.

## Database Administration

The Database Administration Services group will continue to focus on core responsibilities of database management, backup and recovery, performance tuning, database security, customer and systems support. Cross-training of team members and documentation improvements will continue to be important. Additionally, we will continue to support efforts such as: a production implementation of Argos, installation of Banner upgrades/patches/mods, Resource25 (R25) migration to new equipment and platform, Data Warehouse migration to new equipment and the Relational Database Management System (RDBMS) version, and the Luminus migration to new equipment, RDBMS, and the new version.

## Network Services

Expansion of Network Access Control (NAC), wireless connectivity, and converged networking (Voice over IP) will continue in 2009-2010. All new networks will have these features natively designed into the overall network solution.

As more applications to deliver learning and services such as virtual desktop and centralized file services depend on greater network capacity, availability, and reliability, focus will be on strategies to make the network more robust while maintaining security. This must be balanced with an increasing need to keep expenditures as low as possible.

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## Summary of Goals Continued

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Proactively determining potential security threats has proven to be the correct strategy for countering such threats, as proven by the reduction in exploits. Security reviews and workshops will continue to educate the end user and assist in identifying possible security issues before they become a problem.

Enhancing data and system availability in the event of a disaster will demand more resources in the next fiscal year. While progress has been made toward that goal, there is room for improvement.

### **Server, Classroom, and Desktop Services**

The principal 2009-2010 goal for ITD's Server, Classroom and Desktop Services units is a continued focus upon improving the efficiency, delivery and the reliability of the services provided by each area. The projects proposed for the 2009-2010 fiscal

year accentuate commitment to that goal.

In addition to routine maintenance of disaster recovery plans, the Server unit proposes to complete several projects involving the consolidation and virtualization of servers and server-related storage for the university. The results will be improved security, less need for management involvement, and lower utility costs. Working with the Server group and Network Services, the Classroom and Desktop Services units will be implementing a virtual desktop infrastructure that promises to deliver similar improvements in security, manageability and reduced desktop computing costs. The server unit will also be working with Network Services to complete the establishment and testing of a disaster recovery hot site located in Cookeville at Tennessee Technological University. Finally, all units will be looking to reduce operational expenses related to delivering e-mail services by evaluating and preparing to implement a solution for outsourcing student e-mail.

### **Telecommunication Services**

A RFP for a distributed antenna system (DAS) to add wireless communication coverage and capacity has been written. Assuming successful completion of the bid process, the DAS will be installed and hopefully agreements with several wireless carriers will be executed. Wireless communication capabilities will be greatly enhanced by the DAS.

We will evaluate options to increase fixed-mobile convergence so that employees have more communication options when they are not in their office. This could include consideration of a Blackberry Enterprise Server (BES) to serve the wireless communication needs of Blackberry wireless device users.

We will issue a RFP for maintenance, technical support and equipment purchases related to the Avaya communication system. The new contract will help assure the ongoing reliability of the system.

### **ERP Update**

*Continued from page 7*

Alumni Relations has expressed an interest in accepting payments for various alumni events held throughout the year and their operations are currently being evaluated for the next implementation.

A contract was signed for the purchase of TouchNet's U.Commerce Central and an upgrade to Commerce Management System 5.0. The U.Commerce Central will allow a single sign-on to all of our TouchNet products (Payment Gateway, Bill Payment Suite, Marketplace, etc.). The Commerce Management System 5.0 upgrade will provide enhancements required under the Payment Application Data Security Standard (PA-DSS) that govern processes for accepting credit card payments.

### **Human Resources**

The HR Team worked on testing Web Time Entry to roll out for student workers in Campus Recreation.

### **Advancement**

The Alumni Relations new online community went live on April 22, 2009. This online community, which utilizes social networking and connects directly with Facebook, also allows alumni the opportunity to update their information. These updates are entered in Banner Advancement and have been helpful in keeping alumni records current.

### **Workflow**

A Workflow Team meeting was held on April 30 and the team approved the export of the Name Change Flow from TEST and import into production. Once in production, various role issues were addressed. These issues included

differences between TEST and PROD. Configuration files were changed to match PROD settings. The Workflow product went live June 2009 in production with the Name Change flow.

### **Banner Document Management Suite (BDMS)**

BDMS, a new product that will allow campus offices to image documents, was installed in a test environment in June 2009. BDMS can be used to image documents and tie them to certain records in Banner as well as image documents that may not have a relationship to records stored in Banner. Vendor training for pilot offices took place in August 2009. Once most of the pilot offices are live, ITD will offer workshops on the new product for other offices.

## Improving Productivity through EVM

**D**id you know there is an easier way to get your voice mail messages? Want to manage voice mail messages more effectively and, as a result, become more productive? Would you like to access your voice mail and email messages at the same time, regardless of being on campus or off campus? If you answered yes to any of the above, then Enabled Voice Mail, or EVM, is for you!

Working in conjunction with the University's voice mail and email system, EVM gives voice mail users access to their voice messages through the University's email system, providing a single point of access for both voice mail and email. There are two services provided by EVM: *evmNotify* and *evmDelivery*. The *evmNotify* system can send either a notification to a user's email address or a text message to a user's wireless telephone when a message is waiting. Included in this notification are the caller ID information, as well as the date and time of the message.

In addition to sending the caller ID, date, and time information, *evmDelivery* sends the actual voice message as an audio attachment to a user's email inbox. Getting your voice mail message only requires clicking on the email

attachment and letting your PC play the message. With *evmDelivery*, users can reply or forward the voice message via email, and can save the message in personalized folders for future reference on their computer's hard drive.

EVM enhances productivity and is an ideal solution for voice mail users who share an extension. Those voice mail users who share an extension do not have the convenience of the message waiting indicator lamp on their telephone prompting them to check their voice mailbox for new messages. As a result, they must continually log in to the voice mail system to check for new messages. With EVM, they can be notified instantly when a message is waiting.

And if those benefits aren't exciting enough, imagine using EVM to manage your faxes! Simply distribute your campus telephone number as your fax number, and with EVM, it becomes a fax machine, capable of receiving incoming faxes. EVM captures those faxes, allows you to view them on your computer through email, and allows you to choose whether the fax warrants printing.

To request EVM, email the voice mail coordinator at [charper@mtsu.edu](mailto:charper@mtsu.edu)

chose their presentation topic because they wanted to demonstrate working examples of collaborative groups and discuss how group collaboration improved learning in Amy's online courses.

Techniques for enhancing collaboration between students and faculty and *Desire2Learn* tools and *DimDim* Web conferencing software were demonstrated. Examples were taken from actual collaborative activities used in MTSU courses.

Collaborative models were described and demonstrated including pretest help sessions, peer reviewing activities, guest teachers/lecturers, advising, online office time, group presentations, and other topics.

with the following information:

- Name
- Campus extension
- Mailbox number, if extension is shared

Telecommunication Services offers a 30-day free trial for the EVM service. After the trial period, there is a one-time setup charge of \$10, and a \$2 monthly service fee to keep the service active. For questions concerning voice mail or EVM, please contact the voice mail coordinator at extension 2206.

### Amy Macy

*Continued from page 5*

and even interface with the Internet – all in real time. I have also used *DimDim* as an 'open office' interface, where students know that I'm available to talk and hop on via a simple link to have advising time or consult about course work."

*PBWorks* is a wiki that allows users to collaborate on various projects.

"Students can use this platform to conceive, compose, create, and collaborate on projects online in (almost) real-time from various locations," Macy explained. "This tool allows for the online learner to work with partners while not having to travel to a central location."

In an era where finding time is becoming a challenge, teaching online has been an invaluable resource for Macy's students.

"Not all learners have the opportunity to be on campus to take advantage of this kind of interface," the professor said. "The online learning environment can be just as effective at conveying concepts but forces students to become self-starters as well as engage information digitally, which is fast becoming a life skill."

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### Staff News

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Amy and Brenda's presentation, "Using *Desire2Learn* and *DimDim* to Enhance Collaboration with Student and Faculty," was built on experiences gleaned from Macy's Marketing of Recordings - RIM-4620 course, Nashville Music Business - RIM-4800-D01 course, and Marketing of Recordings - RIM 4620 courses.

Research has found that we learn more when we are active participants in the learning process. When this active learning occurs in a collaborative group atmosphere we tend to learn more and retain more knowledge of the subject matter than we would if we were working on a project on our own. Amy and Brenda

# New Guide Makes Project Planning Easier

A new online form to help departments and/or individuals develop a project design plan involving ITD services has recently been introduced.

These services include administrative systems, faculty grant projects, and the installation of new equipment.

The form is designed to help in identifying the various implementation requirements for a project. The Project Manager/Primary Investigator (PM/PI) initiating the form will lead the effort to define the project and serve as the point of contact.

This person, in consultation with all necessary areas of ITD, will prepare the information needed on the project planning guide.

Once completed, the form provides the basis for defining the project's scope, budget and timeline. It can also be used by the PM/PI to help manage the project.

A typical request process will start with the requesting person filling out the basic project information, designating the project manager (primary

investigator), their contact information and a brief project description.

The next section of the form contains a number of questions to help identify and focus on the project details that involve ITD.

The requestor will then contact one or more appropriate ITD groups (Academic & Instructional Technology Services, Administrative Information Systems Services, Communication Support Services, Database Administration Services, Network Services, Server, Classroom and Desktop Services and Telecommunications Services) to refine the answers to the questions and resolve any concerns.

Once the form is completed, the requestor will then submit it electronically and send an original signed copy to ITD, Cope 003.

An internal ITD committee will routinely review all submitted project planning guides and corresponding submitted work orders to determine the progress of approved projects.

The form can be viewed at [www.mtsu.edu/itd/itdprojectguide.pdf](http://www.mtsu.edu/itd/itdprojectguide.pdf).

For more information on the form or a current or potential project, please contact the ITD Help Desk at 5345.

## TELEPHONE TIDBITS



**Did you know that you can press the # key for your extension when logging in to voice mail from your extension?**

**Give it a try and simplify your login to voice mail when calling from your office!**



### Amy Macy

*Continued from page 12*

Online courses attract a variety of students, which allows for some interesting forum conversations and influence within the class, Macy said.

"A large percentage of students are working, which brings forth a very serious student who wants to engage the content and immerse in the subject matter," she said. "These students can drive a class to new heights and cause the learning to rise to a higher level, which is immensely satisfying as a teacher."

The professor's business background has enabled her to serve the depart-

ment and University in other capacities. Last year she administered a grant that focused on diversity recruitment.

"This grant allowed me to visit high schools that had outstanding fine arts programs and talk with students about the various entertainment careers that they may not be aware of," she said. "It's always rewarding to see a light bulb go off in a young person's head where they begin to realize their potential career path."

When she's not engaging students online, Macy enjoys spending time with her children, and she continues to play old-time music.