



# Communicator

Information Technology Division

## MIDDLE TENNESSEE

STATE UNIVERSITY



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## The New Face of ITD



**New Vice President and Chief Information Officer Bruce Petryshak, who has more than 30 years of experience in the IT field, foresees exciting days ahead for MTSU.**

**W**hen constructing a new building, it's important to build upon a solid foundation. That's what newly named Middle Tennessee State University Vice President and Chief Information Officer Bruce Petryshak realized when he took

the helm of the Information Technology Division this summer.

"I plan on building upon the good things ITD has already accomplished," Petryshak said. "I am pleased to find a very strong IT team in place, which has worked hard to help move the University forward.

Petryshak, who assumed ITD's reigns from Lucinda Lea after she retired on April 30, 2010, is a 30-year veteran in the realm of information technology and recently served as the CIO for Ohio-based Bowling Green State University.

What began as a job as a computer operator during Petryshak's senior year at Kent State University in 1979 flourished into an illustrious career spanning six U.S. presidents.

Before joining the ranks at Bowling Green State, the Ohio native amassed decades of leadership experience in the field at his alma mater at Kent State University as an executive director for information systems and telecommunications from 1997-2001; director of university information systems from 1994-97; associate director of computer services from 1990-94; assistant director for systems support from 1986-1990; and manager for administrative systems support from 1984-1986.

Petryshak, who holds a bachelor's degree in business administration and computer sciences and an MBA from

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## The Learning, Teaching and Innovative Technologies Center Has a New Home

The Learning, Teaching and Innovative Technologies Center (LT&ITC) has relocated from Peck Hall to new space in the James E. Walker Library, room 348. This new area will enable the center to not only host traditional events, but will provide the opportunity to increase the number of offerings in which the center can provide as well. The new space provides room for center offices, consultation space,

a lending library, small collaborative areas for faculty groups to work, and a more formal meeting area for presentations and seminars. To assist with center activities, an instructional design specialist will be hired, and Dr. Tom Brinthaup (psychology) has accepted an assignment as director of Faculty Development. In this new role, Brinthaup will coordinate the professional development opportunities of the center and help to extend its

outreach. Partnering with the library and university college, the center will be providing a full slate of offerings for the fall semester. Please visit the center's Calendar of Events Web page (<http://www.mtsu.edu/ltanditc/events.shtml>) to review and register for events. For more information about the LT&ITC, please call 494-7676 or visit the Web site at <http://www.mtsu.edu/ltanditc/index.shtml>.

## Making It Click

What are clickers? Clickers (or student response systems) are hand-held electronic devices which allow real-time interactions between an instructor and the students. Generally, the instructor poses a question and each student responds individually.

The student responses are collected digitally and can be immediately displayed to the instructor and the students (usually through a projector in the classroom). Several MTSU departments have been experimenting with

clickers in their classrooms including faculty in nursing, chemistry, music and health & human performance.

Why use clickers? Compared to several technology products, clickers are easy to set up and learn. They resemble simple TV remotes, where students simply press A, B, C, or D to answer a multiple choice question asked by the instructor. These answers are then tabulated and can be displayed back to the class in the form of a chart (usually through Microsoft PowerPoint) and also saved as reports for

later use. This gives faculty the ability to fine-tune their instruction based on student responses. The immediate feedback allows them to gauge student understanding. It is no surprise that this is becoming popular in the large lecture halls found in so many universities.

Newer clicker models can also handle numeric entries such as answering a mathematical problem. The clicker software can also be loaded on a laptop or iPhone and works the same as purchasing the clicker itself.

Since there are a variety of clicker models (along with prices and functionality) that can be confusing for both the instructor or student when buying this equipment, the Information Technology Division has adopted Turning Technologies ([www.turningtechnologies.com](http://www.turningtechnologies.com)) and their ResponseCards as MTSU's standard model. Turning Technologies also provides the software alternative to the physical clicker that can be loaded on laptops, iPhones, Blackberry smartphones, and Windows mobile devices. If you are interested in a demonstration of clickers, please call the Faculty Instructional Technology Center at 615-904-8189.

### Communicator

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## Telecommunication Services Introduces Online Trouble Ticket System

The Telecommunication Services online trouble ticket system is available to all campus telephone users as a quick way to report a problem with their campus telephone. The system is available 24x7 and allows users to report problems with their telephone instruments, such

as static on their line or no dial tone.

To access the system, campus telephone users should access the Telecommunication Services Web site at [www.mtsu.edu/~itdtele](http://www.mtsu.edu/~itdtele) and click the link "How to Report a Problem" in the right margin of the Telecommunication Services homepage.

Users will receive an e-mail when the trouble ticket has been resolved, normally within 24 hours. For questions about how to use the online trouble ticket system, please contact Telecommunication Services at extension 2991.

## MTSU Launches Second Life Island

MTSU's Second Life Island is now open to MTSU faculty, staff, and students. Access will be granted by sending your name, your MTSU e-mail address, and your avatar name to [bkerr@mtsu.edu](mailto:bkerr@mtsu.edu) or [dmunson@mtsu.edu](mailto:dmunson@mtsu.edu). At this time the island will not be open to the general public. Numerous training opportunities are available to learn more about the use of MTSU's Second Life campus. Sign up to attend a workshop by going to [http://www.mtsu.edu/itd/facstaff\\_train\\_itd.shtml](http://www.mtsu.edu/itd/facstaff_train_itd.shtml) or by contacting Brenda Kerr to set up an appointment ([bkerr@mtsu.edu](mailto:bkerr@mtsu.edu) or 904-8191). If you wish to participate in MTSU's Second Life pilot program this fall by teaching part of your course on the island send your course proposal to [bkerr@mtsu.edu](mailto:bkerr@mtsu.edu). Include a descrip-

tion of the activities you plan to do with your students on the island, a schedule of when your class will need access to an island classroom, and the resources you will need.

Second Life is free and requires only that the user: 1) have a computer that meets specific requirements (typically most newer computers will work); 2) create an account and avatar; 3) download the current Second Life viewer to access Second Life; and 4) learn to use the avatar in Second life. Features and capabilities of Second Life include the ability to communicate in real time via text chat or voice using a microphone attached to your computer and access to simulations that students can use on their own or with a class. Text chat conversations are saved to a text file on each user's computer thus allowing stu-

dents to review topics discussed during a previous Second Life class session. Various types of media can be placed on the media board in Second Life, enabling instructors to access Web sites displaying text images, video, and even their D2L courses in order to display content to their students. Some types of media may be used for collaborative activities. For example, Google documents can be shared with members of a group to enable students to simultaneously work on a group project.

Some course activities that require only a place to hold class (MTSU Second Life Island) and possibly a microphone. These activities include: participating in a discussion/debate, a question and answer session, study groups, a session where students prac-

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## D2L Gets a Makeover

Desire 2 Learn will be upgraded to version 9 between the fall 2010 and spring 2011 semesters. Open forums to inform faculty about new enhancements are planned for November. Dates will be announced to faculty later in the semester.

A brief summary of version 9 enhancements includes:

- Pictures added by students and

instructors to their My Settings widget will show up in the classlist and in discussion posts.

- Instructors may now leave feedback for each student's discussion in the Topic Score Details window.
- The Classlist now displays the last time a student has accessed the specific course instead of the system.

- Files can now be edited in Manage Files.
- There is now a central place to manage dates. You can set the availability dates for items in Content, Discussion, Dropbox, Grades, and Quizzes.
- D2L now includes a course design wizard.

# Taking IT to the Next Level

Since Dr. Melinda Korzaan's IT Project Risk Assessment and Control class was all about the risks of information technology projects, she thought what better way to take a risk than to take her students into uncharted territory by diving into a new innovative technology?

That is exactly what the computer information systems professor did when she began conducting her graduate-level course in Second Life.

And the risks have seemed to pay off for Korzaan, who has been teaching at Middle Tennessee State University since 2004.

"I was surprised at all of the positive feedback and how well Second Life worked for the students," she said. "One student said it was even more fun than his rock climbing class."

Second Life is a three-dimensional computer-generated environment that in essence replicates aspects of the real world in a graphical setting. Users may interact with one another via graphical representations of themselves called avatars. MTSU recently purchased a Second Life "island," or server space, enabling Korzaan to create a secure learning environment. The island was developed by senior systems analyst Dave Munson with additional assistance from Computer Science Department Chairperson Dr. Chrisila C. Pettey.

Korzaan first learned about Second Life from a friend whose employer had been investigating the virtual world as a possible marketing tool two years ago. The employer never pursued the endeavor, but Korzaan *did*.

"I focus primarily on the educational aspects of Second Life, but people use it for different things such as social networking, gaming, and conducting business," she said.

Shortly after she was introduced to the innovative technology, Korzaan began seeing Second Life featured at various pedagogical conferences, inspir-



**Dr. Melinda Korzaan plans to conduct the latter part of her IT Project Risk Assessment and Control class exclusively in Second Life this fall.**

ing her to incorporate it into her own curriculum at MTSU.

Since Second Life transpires in a synthetic world, literally anything is possible. Users can fly, transform into circus animals and mythical creatures, or purchase virtual real estate vicariously through their avatars. Considering Second Life users can use their avatars to venture beyond our own galaxy, not even the *sky* is the limit.

"Some people will make their avatars look as close to their real selves as possible, while others use the technology as an opportunity to be somebody or even *something* completely different," Korzaan said. "There's a variety of avatar characters."

or delivering presentations. When speaking in class, some students may suffer from anxiety or stage fright, but their avatars don't.

"The most important piece of feedback that I received from students was that they felt more open to share their ideas and communicate through Second Life than they did in the real world," Korzaan said. "Some of them mentioned that, in a classroom, they knew there were people in there with much more experience than they had, and some of the students with less experience were a little intimidated. But once they got into Second Life, they felt like they were all on the same playing field."

"They felt more at ease, less intimidated, and more open to participate in classroom discussions," she added. "They felt more comfortable to share their ideas and were more open to communicate. Class discussion is really important, especially on the graduate level. You can learn so much from your fellow classmates and through discussions."

## Teaching, Learning & Technology

# PROFILE

Korzaan found that Second Life also enables students to feel more comfortable while engaging in class discussions

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# Making the Most Out of Voice Mail with EVM

**D**id you know there is an alternate 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 e-mail messages at the same time, regardless of being on campus or off campus? What about using your voice mailbox as a way to receive fax messages? 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 e-mail system, EVM gives voice mail users access to their voice messages through the University's e-mail system, providing a single point of access for both voice mail and e-mail. There are two services provided by EVM: *evmNotify* and *evmDelivery*. *evmNotify* can send either a notification to a user's e-mail 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 e-mail inbox. Getting your voice mail message only requires clicking on the e-mail attachment and letting your PC play the message. With *evmDelivery*, users can reply or forward the voice message via e-mail, 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 login 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 enough to excite you, 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 e-mail, and allows you to choose whether the fax warrants printing.

To request EVM, e-mail the voice mail coordinator at [eharper@mtsu.edu](mailto:eharper@mtsu.edu) 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.



## Telephone Tidbits



**Wireless telephone users should use caution when setting up their contact list on their cell phones. In particular, users should think twice before labeling a contact as "home." Listing a contact as "home" on your wireless device could potentially put you at risk should your wireless telephone become lost or stolen. By listing a contact as "home," should your wireless telephone get into the wrong hands, a reverse lookup can be conducted on the "home" telephone number, which then provides the finder of your phone and address. Before you know it, you could potentially find yourself in a dangerous situation. So think twice when you start labeling your contact list!**

# A Change of Pace

**A**fter laboring for more than 14 years at a local dairy, Jeff McMahan longed to change his daily routine. His days were wrought with monotony and repetition.

“It was the same thing at the same time every single week,” McMahan recalled. “Every Tuesday it was yogurt day. Every Monday, Wednesday, Thursday, and Friday it was cheese days.”

He eventually found a way to break out of the daily grind by obtaining a master’s degree in computer information systems from Middle Tennessee State University and going to work for the University as a systems programmer.

Now much of McMahan’s time is devoted to an eclectic variety of tasks that keep the University’s e-mail system up and going, and he embraces his newly found spontaneity.

“You get to deal with a lot of different systems and issues,” McMahan said. “It’s not the same routine every day. I’ve already had a taste of that, and this is quite a bit different than a factory atmosphere.”

Generally speaking, McMahan’s morning routine consists of checking overnight messages from the various systems to see what their statuses are, checking the work order tickets for any immediate needs, checking the e-mail provisioning to ensure the system’s working correctly, and status checking.

“After that I will work on one or more of the several projects we have going on right now such as the upgrading of this or the replacement of that,” he said.

McMahan mapped quite a different career path for himself when he graduated from MTSU with a degree in animal science in 1981. Instead of the warm glow of an office computer, he was surrounded by brisk dairy coolers, milk, and yogurt products at the Heritage Farms Dairy in Murfreesboro.

When McMahan grew weary of the chilly, damp factory environment, he returned to MTSU and earned a master’s



**As a systems programmer, Jeff McMahan provides server administration and support. He also helps maintain the University’s e-mail system and user accounts to ensure efficient ITD customer service.**

degree in computer information systems in 1996.

His new degree paved the way for a career at the Aerospace Testing Alliance at the Arnold Engineering Development Center located at Arnold Air Force Base. While employed at Arnold Air Force Base, McMahan’s responsibilities included Web master and Web server administration and providing technical support to public affairs with public Web site issues. He also created and maintained the base’s internal Web sites and provided enterprise server support including Windows and UNIX Web, application, and data servers.

## Information Technology Division

# STAFF

After nearly a decade at Arnold’s Air Force Base, McMahan returned to his MTSU roots and joined the Information Technology Division in 2006 as a systems programmer to provide server

administration and support.

He is also a part of a team that maintains the University’s e-mail system and user accounts to ensure efficient ITD customer service.

“Of course we also receive calls from time to time from users needing an immediate resolution,” McMahan added. “I provide backup technical support in regards to any of the Web servers.”

One of the elements that made McMahan’s last four years in ITD so pleasurable was the relationship he forged with his fellow co-workers, he said.

“The people in ITD are hard-working and are dedicated to providing the best service possible to the MTSU campus,” he said. “They’re a great bunch to work with.”

When he’s not tucked into his office at the Telecommunications Building, McMahan enjoys spending time with his family. He lives in Murfreesboro with his wife, Marsha; his daughter, Betsy, who is a nursing student at MTSU; and his son, Andrew, is a junior at Middle Tennessee Christian School.

## ITD Staff News



**Jack Head**

**Jack Head** has joined ITD as a database specialist, where he serves as the database administrator for Oracle and the SQL server database. Jack previously worked for Bellsouth Telecommunications for 24 years as a DB2 database administrator. He holds a B.S. from Troy University and plans to use his knowledge and background to further enhance ITD. Jack currently resides in Readyville with his brother and his family. His wife, Mary, still lives in Lawrenceville, GA, with his two daughters and two granddaughters.



**Laura Spivey**

**Laura Spivey** is ITD's new optidoc specialist. In this position, Laura provides imaging services to the University departments to create and maintain computer-imaged records. She previously worked at Belmont Univer-

sity as an admissions visit coordinator, where she scheduled visits for prospective students. Laura graduated in 2007 from Martin Methodist College with a B.S. in management information systems. While working in financial aid at the University of the South, Laura helped implement that university's very first digital imaging system, the Banner Document Management System (BDMS). She plans to incorporate her knowledge and experience of digital imaging and BDMS into her service in ITD. Laura is a resident of Smyrna with her husband, Brad, and two dogs, Polly and Sis.

Assistant Vice President **Barbara Draude** recently participated in the EDUCAUSE Institute Learning Technology Leadership Program. The five-day program, which was held in Portland, Oregon, is designed to broaden perspectives and develop leadership abilities, enabling participants to assume leadership roles in applying learning technology to improve teaching and learning within their institutions. The program is led by seasoned

national leaders in the field and offers participants an opportunity to network with peers to develop ways to facilitate the systemic transformation of teaching and learning in the realm of higher education.

Assistant Vice President for Network and Information Technology Security **Greg Schaffer** was awarded a Master of Science degree from MTSU in accounting and information systems with a concentration in project management. He is a member of Beta Gamma Sigma, the international honor society serving business programs accredited by The Association to Advance Collegiate Schools of Business. He holds a B.S. in mechanical engineering from the State University of New York at Buffalo.

Network support specialist **Bill Shadrake** recently attended a four-day router training course in Andover, MA. The course provided information about VLAN, S Interfaces, OSPF, creating interfaces, and routed interfaces. The training will aid Bill in configuring the University's campus routers.

### Second Life Island

*Continued from page 3*

tice speaking foreign languages, role playing exercises, learning about other cultures, working on relationships, role playing court cases.

Activities that require more setup time include: displaying class projects for peer review, creating case studies for students to work through on their own or in groups, game playing, and creating courses in which students learn to design clothing, buildings, and interiors. Simulations can be created for medical case studies with robot patients, crime scenes, museums, books,

and genetics experiments. Students can present in Second Life with the opportunity for peer review or questions from other students. Musical and theatrical performances may also transpire in Second Life. Students can use physics, math, and computer programming skills to create realistic environments, and Second Life can be used to train social workers and students in anti-terrorism or forensic techniques.

To find out more about Second Life, participate in educational seminars and workshops to learn more about the revolutionary program's unique capabilities. The Sled mailing list is a wonderful resource for higher educa-

tion faculty, <https://lists.secondlife.com/cgi-bin/mailman/listinfo/educators>, as is the Second Life wiki for educators, <http://wiki.secondlife.com/wiki/Category:Educators>.

**For more information about Second Life, see story on page 4.**

## Second Life

*Continued from page 4*

Using such innovative technology for her classroom yielded its share of challenges, such as getting students up to date with technological requirements like high-speed Internet connections and graphics cards, Korzaan said.

“There is a learning curve because Second Life is a different environment for most people,” she added. “It’s not the most intuitive to use, and the technology can be a little overwhelming at first. But (instructional technology specialist) Brenda Kerr has been doing such a great job of working with faculty members to help acclimate them to the environment and help them learn what they need to know to conduct their classes in Second Life.”

There can also be potential distractions when working in a virtual environment, Korzaan said.

“If you’re going to teach a class in Second Life it’s important that you make the experience engaging so that students don’t get distracted easily,” she said.

Korzaan, who recently received an ITD fellowship grant for her endeavors and will be submitting a contribution to the Multimedia Educational Resource for Learning and Online Teaching, foresees a long life expectancy for Second Life.

“I see this as an extremely helpful tool to foster a more enriching learning experience while not being physically present in a classroom,” she said. “There are a lot of opportunities in Second Life people are just starting to tap into. You can take virtual tours of art museums or historic places, or take your students on a virtual tour of NASA’s educational island. There is definitely a future for virtual worlds.”

Second Life is also provides a unique opportunity for distance education students to meet and engage in open class discussions.

“When students work a full-time job or in another city, a lot of times it’s difficult for them to get to class,” Korzaan said. “This is really a way of taking distance education and making it more

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**By creating an avatar, users can sprout wings and fly, transform into animals, and mythical creatures, or, in Dr. Korzaan’s case (above), just be themselves.**

like traditional education, where you have the collaboration and open communication with students and faculty. This experience simulates the face-to-face communication in a traditional classroom so graduate students don’t have to give up that important class discussion. Here you have that instant feedback which allows ideas to be more spontaneous and creative in a richer learning environment.”

Korzaan plans to conduct the latter part of her IT Project Risk Assessment and Control class exclusively in Second

Life this fall. In the past, her students have learned to adapt to the virtual realm relatively quickly.

“Interestingly enough, the thing they find most distressing is when their avatars lose their hair,” Korzaan said with a laugh. “For this semester I’m going to be sure that I go over with them how to find hair in their inventories.”

In 2009, there were more than 15 million registered accounts on Second Life and an average of 38,000 residents online on any particular moment.

## Wireless Just Got Better

Several changes were made to the wireless network infrastructure this summer, resulting in faster connectivity and easier access for all University wireless users.

All wireless transmitters (approximately 400) were replaced with units incorporating the latest technology. Previously the network supported lower speed WiFi standards 802.11b and 802.11g. The new technology allows for 802.11n connections, and support for the older technologies continues.

Internet access speed has been increased as well.

The controllers, or “brains” of the wireless network, were replaced along with the wireless transmitters. The transmitters can work collectively to enhance the end user’s connectivity experience and can even detect and disable unauthorized wireless transmitters. Wireless routers attached to MTSU’s data network and are not authorized

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## New Student E-Mail System Offers Unique Features

The new MTmail system offers great features exclusively for MTSU students, while also offering some key opportunities for faculty members.

The basic e-mail component, MTmail Outlook, now includes 10 GB (yes, gigabytes) of storage for each student account. This means that faculty can send e-mails with attachments (e.g., an advance copy of the syllabus or even an audio file of a missed lecture) without worrying whether or not the e-mail exceeds the file size quota on the student's e-mail account.

Students also receive their own 25 gigabytes worth of personal storage space, aka "SkyDrive," over and above their 10 GB e-mail storage space. Faculty may now challenge students with more creative, large-scale assignments, such as multimedia projects, without major concern for storage restrictions or Desire2Learn (D2L) upload limitations. Students may store their assignment files on their SkyDrive and can post a direct link to the SkyDrive assignment file via the D2L dropbox or e-mail.

"Live Office" is another major component of MTmail which provides every MTSU student with free online versions of Microsoft Word, Excel, and PowerPoint. While these online ver-

sions are not as robust as the full Office suite programs, the menu and tool bars of each Live Office program generally mirror their Office suite counterpart and allow content to be saved as standard MS Office file types. As such, faculty can still expect students to complete writing, accounting, and presentation assignments in a complete, professional manner...and certainly without the "I don't have MS Office" excuse!

Perhaps the most notable feature of MTmail is the ability to create student collaboration groups with the Contacts tool. A student may add classmates into their Contacts list, create distinct groups with selective Contacts membership, and "share" Word, Excel, and PowerPoint files which can be collaboratively reviewed and edited online.

The MTmail/Live Office package also offers additional features to students, such as an online "Flickr-like" photo album, an online note-taking application called OneNote, an online version of Windows Movie Maker, and a few Live Office messaging applications which can be downloaded to their mobile devices. As students reap the benefits of this new functionality, faculty members are certainly encouraged to exploit and capitalize on the new MTmail system to optimize learning experiences for their students.

## Five-Year Journey Comes to an End

June 30, 2010 marked the official end of the TBR-wide five-year Banner ERP implementation project contract. With that, we give this final nod to our ERP updates in the *Communicator*. MTSU was fortunate enough to be in the first implementation group (or was it a bad thing to have to pave the way?). Our project kicked off in January 2005, lasting into the fall of 2007. Additional services were implemented along the way or after that time frame. TBR schools in the second and third implementation groups finished their implementations later but all finished well before the end of the five-year contract period.

It was a long and sometimes difficult road to travel, but in many ways it has also been a rewarding experience. Some of us on the various teams have gotten to know one another better than we ever could during our regular day-to-day duties, and for those friendships we are grateful. We now easily laugh at our various "war" stories when we find ourselves in meetings together.

We are very proud of how well all MTSU teams worked together. Thanks goes out to the many staff members across all divisions who helped make the MTSU project a success and who helped other TBR schools as they faced similar implementation issues.

### Wireless

*Continued from page 8*

by ITD represent a significant security and performance hazard and are prohibited.

The Network Access Control or NAC system has also been updated. NAC protects the wireless network resource and its users by not permitting a machine that may have viruses onto the network. This ensures a safer, more robust computing environment for all MTSU users. A user

who is initially denied connectivity is provided with instructions on how to easily resolve the problem themselves, and the ITD Help Desk is available to assist if needed.

Another NAC enhancement is the introduction of the Guest access button. This allows for wireless users who are not MTSU employees or students to access the Internet without exposing MTSU's network to potential hazards. Also, the requirement to log into the wireless network every time a connection was established has been removed.

The Information Technology Division is constantly implementing new technologies to better serve the University community's connectivity needs. Comments and suggestions are welcomed and encouraged. For more information, or to provide feedback, please contact Greg Schaffer at 898-5753 or e-mail him at [schaffer@mtsu.edu](mailto:schaffer@mtsu.edu).

## New CIO

*Continued from page 1*

Kent State University, was drawn to the IT field because he wanted to make a positive impact on the lives of students and educators alike.

“You can have such a positive and long lasting impact,” he said. “Information Technology is an ever-evolving field, and that keeps it interesting and fresh as well. You have an opportunity to work with many people – from students to faculty to staff – and touch just about every aspect of the University.”

When he first learned about the opportunity at MTSU, Petryshak visited Murfreesboro and immediately fell in love with the area.

“I liked the University and the people I met were great,” he said. “It’s

a nice area of the country, and the University has a lot going for it. The growth over the past several years in both enrollment and facilities generates a lot of excitement and possibilities. It’s nice to be a part of that.”

Petryshak plans to increase the services to the students, faculty, and staff by introducing more innovation and partnering with other areas throughout the University.

While the student enrollment increases and the state budget decreases, the future is paved with its fair share of challenges, but Petryshak is confident ITD will step up to the plate as it has so many times in the past.

“In these tight budget times the University will rely on ITD even more than it has in the past,” he said. “As budgets shrink and everyone is asked to do

more with less, departments will look to IT for new innovative approaches to help increase efficiency and improve service. ITD gets a lot accomplished with a limited amount of resources already, so the challenge is how to meet this growing demand.”

In his spare time, Petryshak enjoys playing golf to unwind from the daily grind and hopes to someday get back to playing the piano. His wife, Charlotte, will soon be relocating from Ohio with their two cats, Ricky and Lucy.

In the meantime, Petryshak is looking forward to leading ITD into the next decade.

“There are going to be a lot of exciting things happening in the days ahead,” he said, “and ITD is going to do everything it can to help.”

## ITD Workshops Available For Faculty And Staff

Get 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)**

## ShareFair 2010

The 2010 ShareFair will be held from 10 a.m. till noon and from 1 p.m. till 3 p.m. Wednesday, Oct. 27, at the Learning, Teaching & Innovative Technologies Center (LT&ITC) in room 348 of the James E. Walker Library.

The ShareFair showcases innovative teaching and technology practices by some of MTSU’s most outstanding faculty members. Don’t miss out!

For more information, visit

**[www.mtsu.edu/ltanditc/index.shtml](http://www.mtsu.edu/ltanditc/index.shtml)**

# Information Technology Update

## Bruce Petryshak

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 2010-2011 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 2010-2011 are as follows:

1. Expand implementation of TTU disaster recovery capability to allow access and services from non-MTSU networks.
2. Complete the implementation of outsourced student email.
3. Install a Distributed Antenna System (DAS).
4. Bid and implement a new voice mail system.
5. Move into the new LT&ITC facility located in Walker Library and develop new collaborative offerings and services with academic affairs, library, and continuing studies staff.
6. Upgrade Resource25 as appropriate.
7. Rollout Argos reporting environment for the campus.
8. Complete several upgrades and add new services to the BlueID system.
9. Upgrade Banner Oracle to version 11g.
10. Replace campus wireless network with an 802.11n capable network.
11. Continue the deployment of server and desktop virtualization projects.

*A list of ITD 2009-2010 accomplishments and 2010-11 goals begins below.*

## ITD Accomplishments: 09-10

### Academic and Instructional Technology Services

Accomplishments included the continued management of Web page content via the Luminis Content Management system, continuing to convert priority sites. We completed a heuristic review of the MTSU domain content and navigation structure and developed, implemented, and completed a project to publish a new design, global navigation and portal page structure, converting over 300 sites / 5,000 pages. We implemented a plan for maintaining content on the home, root, and portal pages in collaboration with Departments of Marketing Communications, News and Public Affairs, Photographic Services, Admissions, Students Affairs, and the Provost's office. Additional Web accomplishments included research and introduction of new technologies, including a new search engine.

Programming support was given on academic programming needs, including additional capabilities 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.

Providing and supporting learning technologies that enhance curricula and course development, delivery and management remains a priority. System administration and support of Desire2Learn continued as did workshops, individual consultations, and providing enhanced Web-based resources 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 orientations; and participating in various university committees.

### Administrative Information Systems

The work on a major version upgrade of Banner, from 7.5 to 8.2, has been underway much of this fiscal year and is scheduled for completion April 2010.

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## Summary of Accomplishments Continued

Much research has been required to determine third-party product version dependencies with this upgrade as well as consequences of the vendor's new PIN encryption techniques. SunGard's removal of the Java Payment Client has also required much research and planning as that will impact our self-service systems. The Workflow system was implemented in a production environment at the end of the previous fiscal year and several workflows have been created and put to use this fiscal year. An enterprise imaging solution, Banner Document Management Suite, was implemented in a production environment in fall 2009 with two main administrative offices now using the system and other offices in progress. We worked on content and integration tasks needed during the upgrade of PipelineMT to the Luminis IV platform. We also worked with Parking Services to help them remove SSN from their Cardinal System and assisted Health Services to remove SSN as the primary key from their Point'nClick System.

An interface from Banner to the Alumni Office's iModules System was completed. The interface from Banner to Housing's RMS system is approximately 50 percent complete and is targeted for completion soon.

The College of Mass Communication went live with Resource25. We worked with other offices in ITD to implement Web Services on the Resource25 test environment as well as change its database platform and transition to a new virtual environment for its test system. This is in preparation for the same tasks in the production Resource25 system.

We developed with other ITD directors the new ITD Project Planning Guide and created data blocks on the new Argos reporting tool in preparation for the future implementation of that

product for the campus. We performed quality assurance testing of Banner and its partner systems as ITD moved to newer, better performing hardware for the Banner environment. We performed quality assurance testing of Plus as ITD moved it from the old large scale VMS cluster to a smaller, more cost-effective single VMS machine. Several new programs were created to assist ITD with e-mail box cleanup on Mirapoint.

New features were added to several of the Banner Self-service systems benefiting advisors, faculty, students, and employees, and programs were created to work with VoteNet as the new software for SGA elections. We re-organized locally developed software into a new database schema for easier management during upgrades and created new student campus directory publisher files to mark each student who opted out of credit card solicitations, honoring new credit card solicitation laws in Tennessee. We created new programming to enable PipelineMT, e-mail, and/or RaiderNet access for special populations such as Visiting Scholars, Ed Leadership Cohort participants, and Dual Admission students. Microsoft Access workshops continue to be offered each year. A total of 925 work orders were submitted with 802 being completed.

### Communication Support Services

The BlueID Office took on many projects this year ranging from the installation of major upgrades and programs to redesigning meal plans and reports to purging old balances. The office also continued to focus on the branding of printed material and the remaking of ID cards.

The Help Desk continues to improve upon customer service. The student laptop program more than doubled

in size in the fall mainly due to the installation of a new network access control program. We also introduced a decision tree for student assistants to use while working on laptops that has proven to be beneficial. The Help Desk continues to handle large volumes of calls, e-mails, and walk-ins.

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

### Database Administration

The Database Administration Services group met all challenges provided by 2009-2010. Daily activities of system maintenance and support were the main focus. Additionally, major milestones were met, such as the Oracle RDBMS upgrade to 10.2.0.4, the Banner 8 upgrade, the installation of Oracle CPU's, the implementation of an Oracle Enterprise Manager Repository (GRID), and Disaster Recovery preparation efforts. Unplanned for events, such as supporting the Intellicheck upgrade and performing a PROD point in time recovery, were also handled by the DAS group during this time. Significant steps have been made to improve redundancy, security, and recoverability to all systems supported by DAS while taking on the immense task of installing all Banner upgrades, patches, and mods.

### Network Services

Network Services continued to upgrade and expand network connectivity where needed. This included not only data network upgrades such as in KUC and DSB, implementation of the 802.11n wireless pilot project, and new data network installations such as for Maple Leaf and 745 South Church, but

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## Summary of Accomplishments Continued

connectivity for fire alarms, building monitoring, video, and other communications. Network connectivity was also directly established with Rutherford County. In addition, campus network capacity was expanded with the upgrade of the campus backbone interconnections from 1 Gbps to 10 Gbps.

In the summer of 2009 the Clean Access NAC system was replaced with a more feature rich and accurate version from Enterasys. This has reduced the chances of a machine being infected with a virus or a worm from spreading the infection by mandating the malware is removed before network access is permitted. Another feature of Enterasys NAC denies network access if one of many popular Peer to Peer (P2P) programs is running.

The remote site at Tennessee Technological University came online with servers, a switch, and a firewall installed at Cookeville to complete the first phase of providing off-site support and storage for disaster recovery. Work is continuing on the steps necessary to make this a truly hot secondary site for critical applications. To aid in disaster recovery as well as efficiency, work was begun on a fiber optic cable “ring” that will provide for redundant pathways across campus. This complements and enhances the existing extensive underground fiber optic cable plant, increasing the robustness and efficiency of data communications.

The packet shaping device for the campus Internet connection was replaced with newer technology with enhanced features and capabilities. Packet shaping is a technology to manage how bandwidth is used, eliminating the chance that one single machine “hogs” this shared resource. Shaping also provides other features, including monitoring, security, and serves as another layer in the P2P management strategy.

Further enhancing security and performance was the replacement of the firewall at the edge of the campus network. This firewall replaces a unit that had been in service for several years and was nearing the ceiling of its performance and end of its expected life. The new firewall is robust enough to allow for substantial growth in throughput demand over the next few years. Replacing the internal central services firewall with a distributed system for robustness and reliability as part of an overall trend towards building redundancy into all critical systems and paths is underway. In addition, a project is in process to replace the current central systems Virtual Private Network (VPN) system, currently requiring a client installed on machines using it, with redundant “VPN Concentrators” that will allow for greater security utilizing security built into Web browsers (thereby negating the need for a separate client).

### 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 2009-2010 Fiscal Year accentuate a commitment to that goal. Two significant accomplishments achieved by the server unit working with ITD’s Database Services, Network Services, and AISS units were the successful replacement of the core database servers for the Banner ERP system and the establishment of a Banner/PipelineMT hot site on the campus of Tennessee Technological University. In addition, major upgrades to the PipelineMT portal, the active directory domain infrastructure and the campus e-mail systems were completed. Both the Classroom and Desktop Services Units also pursued this goal through

projects involving the replacement of older systems, the establishment of new master classrooms, and better organizing equipment inventory data. In preparation for 2011-2010 initiatives, all three areas collaborated to initiate the establishment of virtual server and virtual desktop infrastructures.

### Telecommunication Services

An RFP for a distributed antenna system (DAS) to add wireless communication coverage and capacity was written. The DAS must be installed and hopefully agreements with several wireless carriers will be executed. Wireless communication capabilities will be greatly enhanced by the DAS. RFP responses were received in February 2010. A contract is expected before the end of the semester with installation to take place in summer 2010.

We evaluated 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. A better process for syncing campus e-mail with wireless mobile devices is now in place. Evaluation of wireless convergence possibilities is ongoing.

We issued an 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. A contract is in place to provide maintenance, technical support, and equipment purchases for the Avaya communication system.

# ITD Goals: 2010-2011

## **Global**

Provide and manage the major areas of operation and services delivered through the Information Technology Division to meet the academic, administrative, communication, network, server, classroom, desktop, and telecommunication needs of the University in the most effective and efficient way possible.

## **Academic and Instructional Technology Services**

In addition to continuing the major areas of operation and services, major new or evolving initiatives for 2010-2011 include continued consultation and training for the Luminis Content Management system (LCMS); supporting conversion of additional sites, and monitoring of the maintenance plan to assure the currency of content on the home, root and portal pages. Support of the campus tour and interactive map will also be a priority along with investigating ways to expand the use of tour components. Research into new web technologies will continue.

Other major projects include: the 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 Evaluation Feedback reporting and Footprints work order tracking systems; support for interactive forms and web-based surveys; 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 establishes a new location and evolves in providing services and professional development opportunities for faculty and in encouraging and supporting research in the scholarship of teaching and learning.

## **Administrative Information Systems**

We plan to expand the use of the Banner Document Management Suite and Workflow across campus. In addition, we will implement Resource25 Web Services in a production environment to provide additional report delivery methods. Other major projects include: assisting with the transition of database and migration to better hardware of Resource25 production environment; creating a transition plan for the current Physical Facilities Inventory reporting process to TBR so it can be removed from the legacy VMS system; implementing the new Argos reporting tool for campus-wide use while continuing to provide Microsoft Access workshops during transition to Argos; identify legacy Plus data to retain on data warehouse; complete the development of an interface from Banner to Housing Office's RMS system; complete the interface redesign from Banner to Health Service's Point 'n Click system; working with other departments in ITD to revise and improve the current file transfer processes for Banner interface files; and continue to assist Database Administration Services with remaining phases of data warehouse (1).

## **Communication Support Services**

We plan to continue efforts to better equip the Help Desk personnel by using innovative instructional technology training tools. The Help Desk knowledge base will be a major focus of the

area, which is a never-ending task of additions, deletions, and revisions.

We will continue to build the relationship with Columbia State Community College. We plan to continue the weekly conference call which has proven to be invaluable.

The major foci of the BlueID Office will be to research the feasibility and compatibility of using virtualization methods and to investigate ways of reducing licensing and support costs without jeopardizing the integrity of the system. We will also investigate more imports/exports to and from systems in order to give more real-time functionality to students.

## **Database Administration Services**

The primary focus for DAS in 2010-2011 will be to support Banner, MT-SU's ERP system, in all aspects. We will continue our refocusing effort on the core responsibilities of database management, backup and recovery, performance tuning, database security, and customer support. Cross-training of current and new team members will be of major importance in order to successfully meet the challenges of supporting the Oracle RDBMS, the Oracle application servers, the third party products, the data warehouse, as well as the Banner ERP application. New versions of RDBMS's, application servers, Banner upgrades, patches and mods will need to be addressed quickly as new versions that impact core business functions are released continually. Third-party products and the data warehouse issues must be addressed quickly and carefully as changes to versions of the ERP system will require third-party

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# Summary of Goals Continued

product upgrades or changes to the data warehouse as well.

## Network Services

Disaster Recovery and redundancy will continue to be major important activities next year. Once completed, the fiber redundant ring will be populated with data circuits to provide a live redundant path for core communications for robustness. In addition, the TTU DR system will be enhanced to ideally allow for the seamless transition for critical services in the event of an infrastructure failure at MTSU.

If resources allow, a second campus egress will be installed to a different (non AT&T) service provider to provide a path to the Internet if the primary path through the state network is affected. Primary bandwidth usage may also be upgraded, particularly if NefTN infrastructure and support will allow for Internet2 destined multicast, thereby making possible the transitioning of the Internet2 connectivity from Vanderbilt to NefTN.

The wireless network will undergo a “forklift upgrade.” All transmitters will be replaced with 802.11n capable ones, and all of the switches and controllers will be replaced to accommodate the switch to the new system. This will constitute the third generation wireless network since its inception nearly ten years ago.

Enhancing security and protecting of networked resources will continue to be a major goal for the upcoming year. Security is no longer a buzzword, as more and more faculty, staff, and students understand the need for up to date security software and “safe computing” habits. Security education will continue, through workshops, self remediation when quar-

antined, the online tutorial, the Help Desk, and wherever else possible.

Network connectivity and services will be expanded when needed such as for the new College of Education building. Planning for future networks for the Student Union and Science buildings will continue as well.

## Server, Classroom and Desktop Services

The principal 2010-2011 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 2010-2011 fiscal year accentuate commitment to that goal. The Server unit proposes to continue several projects involving the consolidation and virtualization of servers and server-related storage for the university. The results will be improved security, both lower management and 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 expand the functionality of the disaster recovery hot site located at Tennessee Technological University to allow emergency access to the site from non-MTSU networks. Finally, all units will be looking to reduce operational expenses related to delivering e-mail services by evaluating and implementing a solution for outsourcing student e-mail.

## Telecommunication Services

Students, faculty, and staff are increasingly relying on wireless communication. Some wireless coverage and capacity exists on campus, but there are many areas needing additional service. To meet this need, the installation of a distributed antenna system (DAS) to add coverage and capacity for wireless communication will proceed. The RFP process for the service is complete and should result in installation of a system with procedures and policies for ongoing maintenance and support.

It is critical that the voice communication system be available to serve campus communication needs. One way to help assure continuous reliable service is to have a maintenance agreement with a service provider. Our current agreement for phone switch maintenance and support is ending. Therefore, we will issue an RFP for maintenance, technical support, and equipment purchases for the Avaya communication system.

The Intuity voice mail system has served the campus well since 1999. However, Intuity reaches end of support from Avaya in June 2011 and needs to be replaced with a supported product. An RFP for a replacement voice mail and/or unified communication system will be written.

