Virtualization Technology Makes Strides

Over the past few years, ITD made significant investments in Citrix virtualization technologies with the goal of providing virtual desktops and applications for students and employees. Citrix XenApp and XenDesktop provide ITD system administrators the ability to rapidly make computing resources accessible anywhere, anytime, on any device. ITD centrally hosts and manages Windows operating systems and applications, and students and employees launch these resources remotely while viewing screen changes.

This virtual desktop infrastructure (VDI), or Cloud at Middle (C@M), provides a device-agnostic experience, meaning ITD can deliver Windows applications regardless of location. This means students, for example, need not be tied to a specific classroom or computer lab to use software to complete assignments.

Until recently, we used C@M to deliver virtual desktops and applications to ITD for systems management, MT OneStop employees who access Banner on iPads during enrollment, Education Advisory Board consultants who access MTSU’s Banner system remotely, and students with Mac computers who need Microsoft Office for Windows to complete assignments. However, in light of the University’s student success initiative, ITD senior management directed the project focus to delivering applications to students.

As a result, over the past few semesters, we used C@M to deliver virtual desktops and applications for the following student-related purposes:

- CIM 4800 – Special Problems in Concrete Industry Management
- INFS 2200 – Introduction to Microcomputing
- INFS 4310 – Digital Forensics
- Library catalog workstations
- RODP SOAA 3350 – Social Statistics

In the past several weeks, we also received requests for new Computer Information Systems (INFS) courses in fall 2015, and we will begin testing virtual desktops for classrooms to assist with student printing.
Why Can’t ITD Standardize on One Version of Java for the Whole Campus?

If only it were as simple as it sounds! Many different kinds of applications use Java, including Banner. Unfortunately, each software has its own restrictions about which version of Java is supported. Sometimes, new versions of Java will break a software application.

Therefore, it is important that software vendors continually stay abreast of the latest Java releases and test their products to ensure they run properly and, in turn, communicate version dependencies to their customers.

But why can’t we just keep a Java version that works rather than having to constantly upgrade Java to its latest release? Usually, the answer is security.

More times than not, Java upgrades are to further refine security or close security holes. That means that if you don’t want to give hackers an opportunity to break into your software, you need to keep up with those Java upgrades.

Many people do not know what version(s) of Java they are using. Sometimes, multiple versions will be running on the same computer, especially when multiple Internet browsers are used. To check which versions of Java you are running, do the following.

Windows: Control Panel → Programs and Features and look for Java.
Apple users: Applications → Utilities → Terminal and type Java-version. Note: Apple no longer includes Java with its operating system, so Java may not be installed or may need to be installed on Apple computers.

For either platform (Windows or Apple) you can also go to www.java.com/en/download/uninstallapplet.jsp. The applet that runs here will show which version of Java is available for the browser you are running and what the current version is.

DO NOT UPGRADE UNLESS YOU ARE SURE ALL OF THE SOFTWARE RUNNING ON THAT COMPUTER CAN USE THE CURRENT VERSION.

Could you stay at the highest level of Java 6, upgrade to Java 7, or even continue to use Java 5?

Please don’t continue to use Java 5. If your software is not directly supported by ITD, contact your vendor right away to determine your options for upgrading.

Then contact the ITD Help Desk if you want someone in ITD to help you with your situation.

With regard to Java 6 and 7, you should go to the highest version of Java 7 that your software will allow. And if that is not the latest version that has been released, you should contact your software’s vendor to find out more information.

Of course, ITD tries to keep abreast of this information for the University’s supported enterprise systems. But even within that group of software and even within the software products from a single vendor, there are different Java versions supported.

So the bottom line is that the Java version you need is dependent on the programs you use, and there is no single standard version supported by software vendors.

ITD publishes the highest versions of Java that have been tested to work with the programs ITD supports, but that does not include all the programs used at the University.

If you have any questions about Java upgrades, contact the ITD Help Desk at (615) 898-5345. They will help you determine if an upgrade is recommended.

Why Can’t ITD Standardize on One Version of Java for the Whole Campus?

Could you stay at the highest level of Java 6, upgrade to Java 7, or even continue to use Java 5?

Please don’t continue to use Java 5. If your software is not directly supported by ITD, contact your vendor right away to determine your options for upgrading.

Then contact the ITD Help Desk if you want someone in ITD to help you with your situation.

With regard to Java 6 and 7, you should go to the highest version of Java 7 that your software will allow. And if that is not the latest version that has been released, you should contact your software’s vendor to find out more information.

Of course, ITD tries to keep abreast of this information for the University’s supported enterprise systems. But even within that group of software and even within the software products from a single vendor, there are different Java versions supported.

So the bottom line is that the Java version you need is dependent on the programs you use, and there is no single standard version supported by software vendors.

ITD publishes the highest versions of Java that have been tested to work with the programs ITD supports, but that does not include all the programs used at the University.

If you have any questions about Java upgrades, contact the ITD Help Desk at (615) 898-5345. They will help you determine if an upgrade is recommended.

Why Can’t ITD Standardize on One Version of Java for the Whole Campus?
EAB Student Success Collaborative

MTSU is working with the Education Advisory Board (EAB), a best-practices research and consulting firm that has developed a software platform called Student Success Collaborative (SSC), which enables advisors and faculty to know which students are at risk based on 10 years of historical course performance data specific to MTSU.

Using predictive models, an individual students can be advised about their potential for success in key courses and specific programs of study. This, it is hoped, will help student retention and completion.

The goal of SSC is to use data analysis to identify courses in which students tend to get stuck or slowed down on their way to graduation and to find the best pathways and support services for them to be successful. If we can identify groups of students having challenges in certain programs of study, we can take specific steps to try to improve graduation rates.

SSC also provides information to enable advisors to help students choose their majors more quickly. By examining courses taken by successful students, advisors can suggest similar majors or courses.

Also, advisors will be able to see if students are having difficulty progressing in their majors and offer them help before they fall too far behind.

As a member of the EAB collaborative, MTSU has access to a collection of services—from peer benchmarking to live webinars to national student success summits—designed to facilitate cross-membership learning and best-practice sharing.

SSC will foster a change in advising to a proactive intervention-based approach predicated on current behavioral outcome measures (academic performance) and future course requirements (success rate within upcoming courses by a student’s ability and academic program cohort peers).

Attendance Tracking System

ITD has been working with Vincent Windrow of the University’s new tutoring center, the Tutoring Spot (on the first floor of James E. Walker Library), to build a system that tutors can use to record student attendance for tutoring sessions. These sessions can take place in the Tutoring Spot or in any academic department.

In the Tutoring Spot, tutors can swipe BlueIDs using readers attached to workstations to check students in and click a button to check them out when the tutoring session is over. Data for location, tutor, course, time of day, and duration of the session is captured.

The system can also be used outside the Tutoring Spot. All the tutor has to do is log into the Web application and type in the MTSU ID number of the student and the application works the same way.

The next phase of this project is to create a permanent repository for the data collected and build useful reports to help faculty and advisors assess the effect of tutoring on the student’s success.
Chemistry professor Amy Phelps and biology professor Frank Bailey have been trying to come up with ways to improve the quality of learning in their introductory classes for years. With the welcome addition of the new MTSU Science Building, their efforts to take their courses in a new direction are finally coming to fruition.

“The content is still what it was,” Bailey said. “But we’re going at it in a way that emphasizes more group interaction and a flipped classroom approach, where most of the lectures are online and class time itself is spent doing more hands-on activities.”

Bailey uses clickers to gauge his students’ comprehension of the material in his introductory biology class. Based on the feedback he receives, he conducts brief classroom lectures when needed. He records the majority of his lectures using Camtasia Studio and uploads them onto D2L to be available for his students anytime and on any device.

“There is a huge diversity of learners with different backgrounds and different levels of preparation, especially in an intro-level class,” he said.

Phelps is implementing a more cooperative approach to her redesigned introductory chemistry class, which involves having students interact with one another in groups as opposed to listening to lectures. In addition to posting her lectures online, she also uses D2L to reduce paper consumption.

“I have a tremendous number of handouts, so keeping up with all of that paper can be challenging,” Phelps said. “I use D2L as a place to park all those documents so students can go back and look at them again. In class, I want students working together and talking to one another.”

The Science Building couldn’t have opened at a better time for Phelps and Bailey. The $147 million structure offers innovative labs for student collaboration and interaction.

“It’s very exciting to actually teach in a lab, not just go in there and see how fast you can get done,” Phelps said. “When we have a problem during a lab session, we can stop in the middle of class to discuss the lesson. I can pull material up and show the whole class a diagram. In the older labs, I was lucky if students could even hear what I was saying.”

Although Bailey hasn’t had an opportunity to teach in the new Science Building yet, the 257,000-square-foot building gives him a sense of optimism about where the biology classes are heading.

Because their courses have only been redesigned for one year, the jury is still out on how well students will respond. However, both Phelps and Bailey are pleased that the revamped courses will not compromise the quality of the material.

“We made a decision early on to just not pass more students,” Bailey said. “We’re trying to change the way the students handle the material. Since the redesign, I have had the best time in the class that I’ve had in 20 years. It was enjoyable to finally be able to do things that I liked to do with the students as opposed to just standing there and talking to them. Personally, I love the class.”
IT Workshop Opportunities for Faculty and Staff

Watch for the fall 2014 Learning, Teaching, and Innovative Technologies Center faculty workshops! Tentatively scheduled sessions include accessibility and ADA compliance issues, teaching without a textbook, experiential learning, global studies, alternative course delivery methods (e.g., flipped classes, problem-based learning), and faculty wellness (e.g., work-life balance, workplace civility).

We have something for everyone. Announcements of dates and times for each workshop will be sent out separately to the faculty email list. We will also be recording most of these sessions. If you cannot attend, the workshops will be available on the center’s workshop video archive (www.mtsu.edu/ltanditc/workshop_videos.php).

Also, mark your calendars and make plans to attend the LT&ITC Faculty Fair on Wednesday, October 29, from 10 a.m. to noon and from 1 to 3 p.m. Held at the LT&ITC in Walker Library, Room 348, the Faculty Fair is a one-stop-shop event for faculty to learn more about resources and services available to them at MTSU.

This event gives faculty an opportunity to meet peers who have distinguished themselves by developing innovative teaching practices and integrating technology in their courses.

Faculty Fair exhibitors typically include MTSU grant recipients, outstanding teachers, experiential and service learning faculty, and others who share their pedagogies and outcomes with colleagues through creative exhibits.

Resources and presenters will include the following:

**MTSU Faculty Grant Committee Members**
- Instructional Technology
- Instructional Development
- Faculty Development
- Public Service
- (Award winners share/demonstrate their projects.)

**Faculty Development Opportunities**
- Faculty/University Learning Community facilitators and participants
- Teaching and Professional Development Program sponsored by LT&ITC
- EXL and Service Learning programs
- Education Abroad programs
- Online Course Development
- TBR E-Mobilization Initiative

**Faculty Resources and Services**
- Faculty Instructional Technology Center
- American Association of University Professors (AAUP)
- Student Support Services
- Career Development Services
- University Fellowship Office
- Walker Library

---

### Telephone Tidbits

Have you recently moved to a new office? Has your campus phone number recently changed? Don’t forget to update your personal directory information by logging into PipelineMT. Click on the RaiderNet tab, then “Update Addresses and Phones.” It is important to keep your campus information current, including location and phone number, because this information is available via the electronic directory on the MTSU website and through campus operators and the automated directory system.
A Conversation with ITD’s Administrative Secretary

As ITD’s administrative secretary, Sabrina Wright maintains a variety of inventories including software licenses and equipment.

After working for over a decade in the great outdoors among alligators, snakes, and ducks, it took Sabrina Wright a while to adjust to working behind a desk at MTSU, but learning new skills and adapting to change is one of the administrative secretary’s greatest virtues.

Working in a campus setting also softened the transition.

“I love working in an academic environment,” Wright said. “Even after I finish my degree, I’ll keep taking classes because I just enjoy learning.”

It was only two years ago that Wright worked as an administrative assistant for the South Carolina Department of Natural Resources, where she supported various research projects along the South Carolina coast such as facilitating the alligator control program in the Charleston area.

There were few dull moments.

“I handled all of the area’s nuisance calls, and some of these nuisance calls involved alligators, raccoons, and buzzards,” Wright recalled. “People who had pools near swampy areas tended to attract alligators from time to time. It was very common for me to receive hundreds of calls a month regarding alligators.”

In addition, Wright collected data for various banding operations for migratory waterfowl.

After 13 years, Wright relocated to the Volunteer State when her husband, Jerry, moved his company here and joined ITD in April 2012.

As ITD’s administrative secretary, Wright maintains a variety of inventories including software licenses and equipment. She performs monthly billings, processes purchase requests, schedules meetings, and fills a variety of other support functions for the department such as keeping equipment and software maintenance up to date.

“In terms of software, you want to provide everything a faculty member or classroom needs, but it has to be through the licensing agreements that we have,” Wright said. “Sometimes managing that system can be challenging.”

Wright holds an associate’s degree with an emphasis in psychology and has had advanced training in a number of software applications. She is also working on a bachelor’s degree in Psychology from MTSU with a minor in Behavioral Research.

continued on page 8
ITD Staff News

Yen Qualls recently joined ITD as a systems analyst. She develops applications for faculty, staff, and administrators. Yen previously worked as an eighth-grade math teacher at Smyrna High School, and from 1994 to 2003 she was a senior systems specialist at Weyerhaeuser Pulp and Paper Complex in Columbus, Miss. She holds a Bachelor of Science in computer science from the University of Tennessee at Martin, and she has also completed various math and educational courses at Utah State University and Salt Lake Community College. Yen is a Microsoft Certified Professional (MCP) for Internet Information Services (IIS4.0) and a Secondary Certified teacher with an endorsement in mathematics. She lives in Murfreesboro with her husband, Eric, her 13-year-old son, Grant, 12-year-old daughter, Rachel, and 3-year-old miniature pinscher, Charlie. She plans to use her extensive IT experience and skills to provide fast and accurate Argos dashboards and reports to enable staff, faculty, and administrators to track student performance and identify those who need extra assistance or tutoring. The dashboards also allow the University to better evaluate the impact and effectiveness of its plans to improve curriculum and professional development programs.

Jimmy Williams is ITD’s new instructional technology specialist. Jimmy comes to MTSU from the University of Mississippi, where he worked as an adaptive technology specialist and was responsible for all format changes for books and classroom materials for students with disabilities. He was also tasked with facilitating all IT in the office such as maintaining the server, website, work stations, lab, and various adaptive technologies. He will be in charge of Desire2Learn administration including fielding calls from faculty and students about issues with D2L. Jimmy holds an associate’s degree in Unix/Linux system administration and a bachelor’s degree in information technology management from Christian Brothers University. He holds certifications in A+ and N+. Jimmy lives in Murfreesboro with his wife, Kelly, his 5-year-old son, Bryce, and two Jack Russell terriers and a rescue German Shepard/Rottweiler mix. He plans to use his expertise in accessibility to assist with online offerings and will aim to uphold the University’s high level of support.

ROCC Summer Institute

Instructional Technology Specialist Brenda Kerr attended the ROCC (Regents Online Campus Collaborative) Summer Institute June 17–20, 2014. The following summary contains potential items of interest for MTSU faculty.

WIGGIO

WIGGIO, a group collaboration tool, was activated by D2L for the TBR system. Instructors can use Wiggio with their courses by adding it to their Nav bar. The RODP WIGGIO Handout is at www.dropbox.com/s/yzvdnv6k6es08mv/Wiggio.pdf.

Wiggio features:

- Informal collaboration
- Host virtual meetings
- Create to-do lists
- Send email, text, and voice messages
- Manage events with a shared calendar
- Poll a group
- Upload and manage files in a shared folder

Course Redesign for use with Analytics Programs

In order to prepare for the use of analytic programs for creating reports about student progress, courses will need to be redesigned. Competencies and learning objectives need to be determined and set up in each course. The analytic tool will create reports from data collected through the Competencies tool. By connecting D2L competencies, learning objectives, and rubrics to course activities, instructors and administrators will be able to identify by individual, class, department, and institution how students are mastering course content.

D2L Videos by Tool

Instructors can learn how to use each D2L tool by watching videos at https://community.brightspace.com/resources/videos.

Accessible D2L Page Templates

Instructors can use accessible page templates as they create course content. Using templates standardizes the look of each page and encourages accessibility. (Faculty will still need to add headings and lists and set accessibility settings on tables, images, etc.) Accessible D2L page templates can be downloaded continued on page 8
ROCC Summer Institute (continued from page 7)

from [http://ntweb.mtsu.edu/fitc/d2l/accessible_templates.html](http://ntweb.mtsu.edu/fitc/d2l/accessible_templates.html). Templates can be imported into a course using the Import/Export Copy Components tool and then chosen when the instructor makes new Web pages in the content area. Templates may be added to MTSU’s D2L server as a whole in the future. When this happens, instructors will no longer need to add them to individual courses.

**D2L Tweaks: Dropdown Menus on Nav Bar**
D2L tools can be combined into dropdown menus. A dropdown menu that displays all D2L assessment tools has been created. Other menus will be created in the future. Instructors can add the assessments dropdown menu to their course navigation bar by editing the bar and choosing Custom Groups when adding new links.

**Replacement Strings**
Instructors can send personalized communications using replacement strings. RODP instructors have been encouraged to use such tools. Go to [www.colorado.edu/oit/services/teaching-learning-tools/desire2learn-d2l/help/instructor-support/other-topics/replacements](http://www.colorado.edu/oit/services/teaching-learning-tools/desire2learn-d2l/help/instructor-support/other-topics/replacements) to learn more about replacement strings.

**Subscribe to Discussion Boards**
Instructors and students can subscribe to discussion boards by clicking a link in the discussion board area. Those who subscribe will be notified of new posts via email and/or text message. Users would need to add their non-D2L email or cellphone number in the Notifications area in order to make this feature work.

**Dropbox: Due Date**
Now three dates can be set for each dropbox. The Beginning Date indicates when the dropbox will open, the Due Date notifies students when an assignment is due, and the End Date indicates when the dropbox will be closed and students will no longer be able to upload assignments. If a student submits an assignment after the Due Date but before the dropbox End Date, the submission will be marked as late.

**Sabrina Wright (continued from page 6)**

She enjoys research and data analysis, and keeps busy with hobbies including crafting, photography, bicycling, hunting, and kayaking. Her outdoor activities have helped Wright adjust to working behind a desk during the week.

She and her husband live in Murfreesboro. Their daughter, Kim, lives in Virginia with her husband, and their son, Chris, lives in Tullahoma.

**IT Tips and Tricks**

**Calculate More**

At first glance, the Windows 7 calculator looks just like all other Windows versions, but explore the View menu and you’ll see powerful new Statistics and Programmer views.

It offers many different unit conversions (length, weight, volume, and more), date calculations (how many days between two dates?), and spreadsheet-type templates to calculate mileage, mortgage rates, and more.