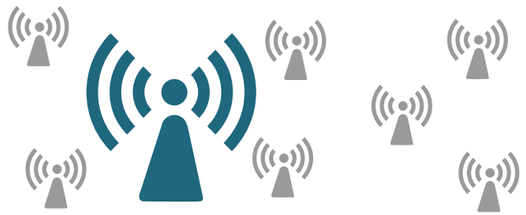
IT Support for Growing Online and Distance Education

The Information Technology Division provides a robust infrastructure for campus computing that must be maintained and bolstered to continue quality technology services for students. The IT Division provides a myriad of instructional technology services, such as: Lecture Capture training/recording; Lync training; SharePoint courses; Wiki custom development; Online technology/professional development; Web design consultation; and Accessibility technology training/support. The IT Division manages the Learning Management System Infrastructure and Banner integration (Blackboard and SumTotal) for all online course delivery. In addition, the IT Division manages software site license agreements for all learners, including select application "virtualization" where permissible. Lastly the IT Division provides technical support for distance learners through an in-depth self-help resource (*AskIT.ttu.edu)*, call center operations with extended hours, and email support.

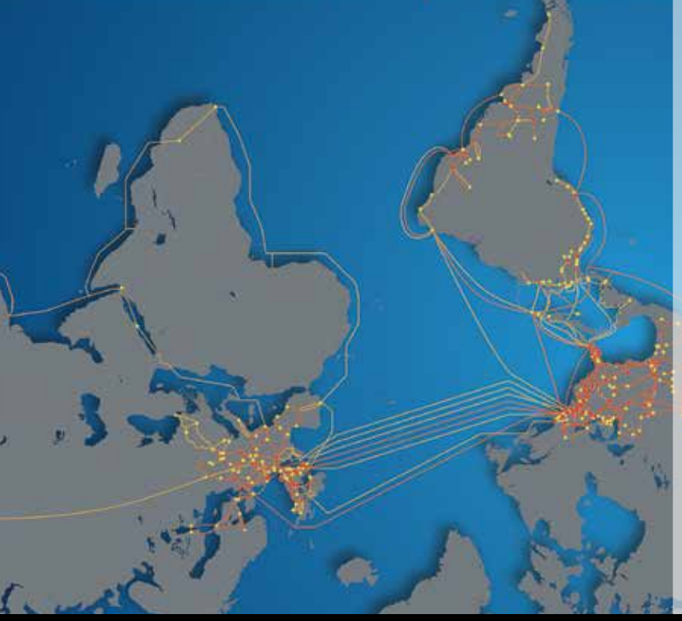
An overview of IT resources and services that support online and distance learning:

Technology	Description & Features	Cost to Area or Unit
Raiderlink Student Portal	• Central point for online access to registration, grades, billing, financial aid • Internal business portal	Free
Blackboard Learning Management System	• Online course delivery • Published and custom content • Quizzes and exams • Integrated with Banner Student Information System	Blackboard is available at no cost, but optional 3rd party products may have additional costs.
Department and Personal Websites	• University provided hardware and software for departmental, course, or faculty websites • Faculty can design and publish websites for their courses	Free
Wiki Sites	• Confluence Wiki product selected by a representative faculty group • Enterprise services available	Free
MediaSite Lecture Capture	• Hardware and software for recording lectures • Support for live streaming • Captures instructor and presentation simultaneously • Includes searchable repository and playback website	The TTU IT Division has negotiated a highly competitive hardware contract for the TTU Community that covers recorders (mounted and mobile), as well as peripheral equipment.
Point-to-Point Interactive Video Conferencing	• Interactive Video Conferencing (IVC) is available between specifically equipped classrooms at TTU and the TTU Regional sites • IVC rooms can be "bridged" to other locations, depending on availability of communications circuits/pathways and the capabilities of the equipment at the remote site	Each IVC-enabled classroom must be appropriately equipped, and all classrooms are a part of the general classroom initiative; Communications circuits are typically charged on a monthly basis.
Scheduled and Ad-hoc Online Meetings and Video Conferencing	• Using Microsoft Lync, online meetings can be pre-scheduled (via Techmail calendars and meeting requests) or conducted ad-hoc • Online meetings can be voice-only, voice and video, and can optionally include desktop/screen sharing, File Sharing, and whiteboarding • Integration with Skype • Online meetings can include external non-TTU members	Free. For synchronous meetings over 50 participants, external meeting services run approximately $350/hr for up to 500 participants. Other pricing options and/or volume discounts may be available.
High Speed Campus Network (TTUnet)	• Campus backbone connecting all TTU buildings is a redundant 10Gbps core • Building networks connect to the core at 1Gbps or higher • Individual Network ports available at 1Gbps or 100Mbps • Virtual Private Network (VPN) service available to faculty, staff, and students for remote access to TTU Intranet resources	$308.00 one-time fee for each new Network Drop (i.e. port); includes lifetime maintenance and support.
High Speed Internet Connectivity	• 5Gbps total Internet bandwidth through three separate providers	Free
High Speed Research and Internet2 Networks	• 13Gbps Internet2 bandwidth for research • Special purpose-built networks can be designed and implemented for high-speed and/or dedicated network links between TTU, TTUHSC, Reese Technology Center, or other TTU locations	• Internet2 use is free. • Special purpose-built networks are funded by the department and supported and maintained by the IT Division.
TTUnet WiFi	• Standard WiFi available in most indoor public areas on campus • The IT Division is working to upgrade infrastructure in high-density areas, pursuant to available funds	• TTUnet Standard WiFi is free. • Higher density/capacity WiFi for larger classrooms and high traffic areas are funded by the department, and maintained and supported by the IT Division.
Network-based Storage	• RaiderDrive (TechDrive) - 2GB of online storage available to each TTU student • TechShare - 100GB of online storage available to each department	• RaiderDrive is free to students. • Initial 100GB allocation of TechShare is free.
Online Collaboration - SharePoint Sites	• SharePoint sites are available to each TTU department • Useful for online collaboration, document storage, and simultaneous document editing • Suitable for FERPA documents with approval from the TTU CIO	Free
Site Licensed Computers, Software, and Tools	• The University has negotiated a number of contracts to provide hardware, software, and tools useful for Distance Education at significant discounts or in some cases no cost to faculty, staff, and students • Current contracts include (not a complete list) » Adobe » Apple » AutoCAD » Dell » ESRI » Maple » MATLAB » Microsoft » SAS » Symantec » SPSS	Some products can be downloaded for free, others require a modest media charge, and some packages are sold at highly discounted prices.
Training, Assistance, and Services for Distance Education and Online Teaching	• The Teaching, Learning, and Professional Development Center (TLPDC) and the TTU IT Division provide training, resources, and assistance to faculty in developing online courses • The IT Division also provides customized technology training sessions for groups of faculty, as well as for groups of students	Free
Computer-based Training - Technology	• The TTU IT Division licenses an inventory of over 5,000 online professional development, technology skill, management skill, software skill, and financial skill courses - many are used by faculty in their courses (*cbt.ttu.edu*)	Free
Virtual Desktops and Applications	• Various virtualized desktops and applications are available through the University Citrix Storefront • Individual colleges including the Rawls College of Business Administration and The TTU Library offer virtualized apps that are accessible via the Storefront • SumTotal Learning Management System for tracking professional development and required TTU training	Free
Services and Tools for Students with Disabilities	• TTU online resources are reviewed for accessibility compliance by the TTU Accessibility Coordinator • Student Disability Services provides a number of services, tools, and assistance for students with disabilities	Free

Call for Feedback: WiFi Network



We count on the campus community to assist with product assessments, provide input on strategic planning, and assist with service evaluations. As we continue our wireless infrastructure upgrades, we need your feedback as we strategically implement enhancements. We would appreciate your assistance with our planning and evaluation. Given our limited funding, we need campus input into our planning for best use of resources. Please take a few minutes (2-3), and **complete the brief survey** at *http://www.depts.ttu.edu/itts/assessments/wirelesssurvey/*. The survey closes December 15, 2013.



TEXAS TECH UNIVERSITY
Office of the Chief Information Officer

Information Technology Division | Bulletin

From Here, It's Possible

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Message from the CIO

The Information Technology Division strives to continuously augment and enhance campus IT resources in support of TTU strategic goals and initiatives. In this issue, we highlight many of our infrastructure services that support enrollment growth, research, and community outreach. Our **Unified Communications** system is in final stages of implementation, and we provide information about technology options for **Communicating in an Emergency**, a topic important on any campus. In addition, we also provide updates on our **Campus Wireless Initiatives**, as well as the IT services that support **Online and Distance Education** at Texas Tech University. We highly value all our campus collaborations, as well as the input and feedback we receive on a daily basis. We welcome your feedback on our **Wireless Capabilities** via a brief **survey** – thank you in advance. As Dr. Nellis says, "It's always a great time to be at Texas Tech!"

—Sam Segran
Associate Vice President for IT and Chief Information Officer

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Information Technology Division

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Scan the barcode to view IT Bulletins online
www.it.ttu.edu/itbulletin

TIPS SAFE COMPUTING

IT Web Site: *www.it.ttu.edu*

Texas Tech University Web Site: *www.ttu.edu*

Computer-Based Training(CBT): *cbt.ttu.edu*

Safe Computing Practices: *safecomputing.ttu.edu*

Contributions by: Katherine Austin Beltz, Ph.D., Jeff Barrington, Darrel Bateman, Britta Tye , Allen Young, and Binari Witanapatirana.
Safe Computing Practices Committee: Sam Segran, Katherine Austin Beltz, Ph.D., Jeff Barrington, Darrell Bateman, Shannon Cepica, Scott Hall, Danny Mar, Ron Nail, Yung Ng, Randall Osborne, Mike Simmons, Phil Smith, Ph.D., J Stalcup, Britta Tye, John Vandygriff, Allen Young, and assistance from IT Division staff.

Emergency Communications

As the University continues to transition from the old legacy phone system to the new Unified Communications technology, each college and department should use this transition as an opportunity to reassess their areas communication needs in times of emergencies, power failures, or hazardous incidents. In particular, those areas with laboratories or studios that incorporate potentially hazardous materials or processes should strengthen or redevelop their existing procedures and capabilities for emergency communications in anticipation of such emergencies.

In an emergency, power outage, or hazardous incident, ALL telephones, whether they are the old legacy telephones or the newer phones based on Unified Communications, may be limited or non-functional. Each department must consider their communication needs during these unusual events and ensure that appropriate procedures and backup modes of communication are in place.

Under the new Unified Communications environment, a variety of phones, telephone lines, and cellular options are available that allow both in-bound and out-bound calls during times of emergency, power outages, or hazardous incidents, including:

1. Phones directly connected to the network that function without a dedicated, attached computer.
2. Ability to transfer or dual-ring departmental and/or work phone numbers to one or more cellular phones – e.g. during a power outage, office calls can be received at a cellular or other number, if previously configured.
3. Courtesy/convenience phones placed at locations designated by the local department – e.g. not attached to a particular person or computer.
4. Dedicated fax lines that can be used (with an attached analog phone, as part of the fax machine or with an attached splitter) for out-bound calling during a localized or campus-wide power outage – Departments are encouraged to have at least one such line in place.
5. Emergency "Blue Light" phones with backup battery power that provide a direct line to 911 service – useful for hazardous labs.

Additional information about the new Unified Communications technology can be found at *http://unifiedcommunications.ttu.edu.*

The costs for the various options vary depending on the department's environment and requirements. Cost quotations for initial and recurring costs can be provided before any commitment of funds is made by the department.

In all scenarios, the new Unified Communications service provides Interactive Voice Response (IVR) prompts, Voicemail, Call Forwarding, and other features at any time the phone device is disconnected from the system or the user does not answer an incoming call. These features may be useful for setting up automated responses to provide important information to the campus or the public, or for redirecting incoming calls to alternate numbers during emergency situations.

The University's Emergency Management group is currently reviewing the procedures for communications during campus-wide emergencies. Those departments who operate laboratories or studios that incorporate potential hazards – including but not limited to biological, chemical, electrical, or mechanical hazards – should work with their departmental and college safety committees to identify the communications technology needed in the room and/or building. Environmental Health & Safety can provide consultation about hazard reduction, and the Office of the CIO can provide expert advice about the capabilities of each level of communications technology.

Emergency Communications Continued

TTU Department of
Environmental Health & Safety
(806) 742-3876

TTU Emergency
Management Coordinator
(806) 742-2121

TTU Office of the CIO
(806) 742-5151

TechAlert
www.emergency.ttu.edu

New Campus Wireless Initiatives

The TTU IT Division has been actively engaged in several campus wireless projects to keep pace with the increasing number of wireless devices, including laptops, smartphones, and tablet devices, that are now used extensively by our students, faculty, staff, and visitors. The TTU Office of the CIO would like to provide a quick overview of the current upgrade projects:

TTUnet WiFi - Most of the current TTUnet WiFi service is based on older technology that was funded by a state grant program and student IT fees, and covers most indoor public areas of the campus frequented by students. From Fall 2013 through Spring 2014, we are deploying newer technology in this area that should improve reliability and capacity. Full completion of this project is contingent on available funding.

WiFi for other areas have been funded by departments or construction projects. Enhanced WiFi for "dense" computing environments such as large classrooms with many students have been funded by the department or by construction projects. These include the Law School, Rawls College of Business Administration, and a current project in the Library (see below).

TTUnet WiFi Expansion at the TTU Library - As a result of increasing use of WiFi at the TTU Library and problems reported during Spring 2013 Finals, the Library has funded a special project with the IT Division to design and install a high capacity WiFi service capable of providing fast and reliable WiFi during peak usage periods, such as during finals week. Installation is scheduled for completion by November 1, 2013.

TTUnet WiFi for Residence Halls - A project is currently underway to provide TTUnet WiFi service throughout all TTU Residence Halls, including individual rooms. Completed Residence Halls currently include Talkington Hall, Hulen, and Clement. Full completion of this project is contingent on available funding.

Wireless Provider (Cellular) Coverage Expansion at TTU and TTUHSC (DAS Project)- Officials (including the CFOs, CIOs and Contracting Office) from the TTU System, TTU, and TTUHSC have worked with AT&T over the past two years to expand cellular wireless coverage across the TTU and TTUHSC Lubbock campuses. This Digital Antenna System (DAS) project involves the implementation of newer technology (4G/LTE) and better campus coverage for AT&T subscribers, as well as other subscribers of carriers who partner with AT&T (Verizon is currently working with AT&T to utilize this infrastructure). The work was started in the spring of this year and this new wireless technology was rolled out by AT&T on November 4, 2013. As part of this project, AT&T has already enhanced the Cellular Wireless capabilities at the Stadium and will be continuing work in the United Spirit Arena and at the Soccer fields. Additional follow-up work will include enhancements of cellular signal reception inside campus buildings, including the basements.

The increased data traffic from the growing number of mobile devices was anticipated, and over the last six years a tremendous amount of work was done to increase our external bandwidth, the campus network backbone, and the related network devices in campus buildings and network cores. Careful planning by staff in the Telecommunications department helped prevent any major disruption to normal operations for the campus community.

We will be surveying the campus about wireless services in the next few weeks. Please share this information with your areas.