Truman State University

Current State of Information Technology 2013-2014





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Summary of Activities for Academic Year 2013-2014

Major Highlights:

Five years of Classroom Improvements - the summer of 2013 marked the 5th year of Truman's classroom improvement efforts. In this timeframe, we've upgraded the technology in all of our classrooms to a common framework, and we continue to make improvements intended to benefit both faculty and students.

- Approximately **128** classroom devices were upgraded in some way.
- Installed 16 stylus-touch projectors in classrooms. These projectors have interactive capabilities similar to that of a SMARTBoard, but can be implemented at a lower cost.
- Installed the first Learning Lab on campus in Baldwin Hall 156. This room features five projectors, seating for 60 students, and support for small work groups.

Assisted with the Nursing project course redesign effort in support of the Accelerated Bachelor's Degree in Nursing, an external grantfunded course redesign project.

Implemented **new training** options for campus - a <u>http://training.truman.edu</u> website and 2 <u>http://www.lynda.com</u> kiosks

Redesigned Truman websites Completely redesigned the Truman

website - This included rewritten content for an external audience, a new content management system, new search tools, and more sophisticated use of Google Analytics.

Migration of Content to the Intranet - Any web-based content

that is not applicable to an external audience is being moved to an intranet, accessible through TruView. The content is searchable using the same search engine that indexes the public website.

Implemented process and system improvements for our wellness initiative program, Foundation scholarship awards, and two-year housing contracts.

Completed multiple projects enhancing the Banner environment, including migration to a new database server providing an estimated 60% increase in system performance, an upgrade of all system modules to the most current version, and java upgrades to user workstations.

Implemented a new registration agreement, with estimated savings of \$10,000-\$15,000 per year. Using the new Student Technology Fee, we upgraded the internet bandwidth from 500 Mbps to 2 Gbps, resulting in a 4-fold increase in capacity. The two 1 Gbps connections also provide failover and redundancy.

Missouri and Centennial Residence Halls have upgraded wireless networks that are 5X faster than the previous systems.

Transitioned to a new cable television provider, saving approximately \$12,000 per year, while adding high definition programming, new channels, and more programming services.

A robust, reliable, and secure IT infrastructure lends itself to information protection. This goal requires ongoing layers of controls:

- Completed the upgrade of all workstations to Windows 7, ensuring that all systems will continue to be protected.
- Ongoing vulnerability scanning and mitigation procedures ensured the world-wide Heartbleed virus had very little impact at Truman.
- Completed part one of the IT risk analysis project.

Infrastructure Improvements

Server upgrades and virtualization

• Replaced several servers as part of the regular replacement cycle, including Banner & DegreeWorks

Data Storage and Backups

• Performed a comprehensive review of our existing backup procedures

Network and Telephone Upgrades & Installations

- Completed the transition to a new cable television provider, which resulted in annual cost savings to the University
- Completed the Centennial Hall network backbone and wireless upgrades as part of the renovation
- Completed an upgrade of the wireless systems in Missouri and Centennial Halls
- Completed telephone, network, and computer moves for Testing & Assessment, International Student Affairs, Study Abroad, and McClain renovation projects
- Worked with Campus Planning on the Kirk Memorial upgrade plans
- Implement a new digital signage hardware platform
- Installed electrical meters in the SUB, Rec Center, MO, BNB, DB, RI, WCS and GR

Environmental Management

 Added more batteries to the uninterruptible power supply (UPS) system

Security Systems

- Implemented the Central Authentication System (CAS) service
- Working on data handling procedures that adhere to the NIST standards

Summary of Activities for Academic Year 2013-2014 (continued)

Maintain & Improve Physical Learning Spaces

Complete Classroom Builds - These rooms were either newly constructed spaces, or had complete overhauls to the academic technology in the room.

1- A-level room

1- B-level room

<u>2- C-level rooms</u> - Installed the first Learning Lab on campus. Baldwin Hall 156 is now a C-level room, featuring 5 projectors, seating for 60 students, and support for small work groups. Specialty Rooms:

- Upgraded the language program peer tutoring center
- Upgraded 2 conference rooms to serve as more functional seminar rooms
- Added permanent lecture capture hardware in 4 more rooms
- Worked with CMDS on the replacement of their recording & observation system
- Installed network connections and provided design support for new informal learning spaces in Health Sciences, the Library, and Baldwin Hall
- Worked with Campus Planning on the design for Baldwin Hall 176

Classroom Improvements - Many rooms had targeted improvements:

- Completed Audio-visual control upgrades in 16 rooms
- Completed data projector upgrades in 35 rooms - 16 of which provide for stylus-touch interactivity
- Replaced 42 consoles/lecterns
- Upgraded the application software on all of the classroom and lab machines
- Replaced 35 classroom computers
- Worked on upgrade plans for rooms in Barnett, Violette, and Magruder

Improvements and Support for Instruction

- Course Redesign Work Worked with: 1) HES units to redesign two online courses as part of the Accelerated Bachelor's Degree in Nursing; 2) Ag Science faculty to redesign several online courses as part of an USDA/NIFA-funded grant; and 3) the Truman Institute on summer course redesign grants.
- Completed the Blackboard upgrade (database and application patches)
- Preventative maintenance completed in all classrooms
- All of the classroom console software was upgraded, along with the public lab software
- Designed and delivered 20 Lunch-n-Learn workshops on a variety of teaching and learning technology topics throughout the year, with approximately 185 faculty attending these sessions
- Delivered 17 workshops for 363 students covering a variety of technology tools
- Decommissioning use of VHS tapes
- Upgraded the A/V software, and enhanced the projector and classroom equipment monitoring systems
- Worked with a University committee to complete the Online Strategic Plan
- Developed a 3-year plan focused on supporting new faculty members
- Upgraded the network connectivity at the Farm, and provided webcams to support instructional activities and remote observations, as well as additional classroom support
- Tuned our strategy and support for videoconferencing
- training.truman.edu and Lynda.com

Information Systems Improvements

- Banner and DegreeWorks upgrades were completed
- Upgraded the CampusCall system, and upgraded the dialers to support the system
- Implemented new planning dashboards for Admissions
- Implemented new process improvements for collections processing, benefits enrollment, student application processing, and tracking electrical usage in the residence halls
- Developed a digital signage solution to be used across campus
- Developed tracking system for the Education department
- Developed an energy usage dashboard
- Developed a new Admission Foundation scholarship awarding system
- Implemented 2 year Housing Contract options
- Implemented a centralized model for managing the Digital Measures system (this will be used to support the HLC review)
- Researched options for a new portal system
- Upgraded all TouchNet modules to the latest versions
- Developed a system to manage campus visits
- Working on updates to the relationship management system
- Implemented an event tracking system using wireless card swipes
- Working on the course substitution workflow system
- Developed co-curricular data reporting options for Student Affairs

Website Improvements

- Supported the STAMATS marketing project
- Implemented a content management system and migrated all public-facing department/office website information to this system. Work is still underway to move all other content to this system
- Reviewed and selected a new portal platform
- Implemented a new search engine that automatically searches internal and external content
- Revising our strategy for how we use Google Analytics to further refine our web pages

Workstation Replacements and Upgrades

- Completed the upgrade of 165 faculty and staff workstations on campus
- Migrated all remaining Windows XP workstations to Windows 7
- Reconfigured many Macintosh systems to use the central system for inventory management

Campus Venue Improvements

- Working on enhancements to the technology capabilities in the SUB meeting rooms
- Provided technical support for the Planetarium design and renovation

Compliance Activities

- Developed programs to address the Missouri Reverse Transfer program
- Working with the campus Copyright Committee and DMCA follow-up
- Modified JBA applications to adhere to COPPA rules
- Revised our campus HIPAA policy statement & modified our processes

Summary of Activities for Academic Year 2013-2014 (continued)

	TECHNOLOGY IN	IFRASTRUCTURE	DID YOU	KNOW?
Supported Public and General Use Workstations 930	100% Wireless Coverage	Physical Servers 34	Blackboard Pages Viewed on Most Active Day 277,352	Number of Hosted Websites 700+
Supported Faculty, Staff & Research Workstations 1,597	Network Data Ports 11,500+	Virtual Servers 110	Number of Faculty Workshop Attendees 185	Number of Student Workshop Attendees 363
Supported Printers 396	Number of Wireless Access Points 624	Internet Bandwidth Capacity & Speed 2 Gbps	\$15.2M	Accepted via Online Payments
7,083	840 Service It Up-Time and Qua	ems Monitored for Ility Every Second	Unique Visitors to Truman Home Page Every Month	281,044
INOLOGY SERVICES	Outgoing Phone Calls 306,133	Total Phone Lines	PROJECTS & ORG	GANIZATION
8 - A Level Rooms 5 - B Level Rooms 8 - C Level Rooms 6 - Specialty/Other Rooms	Number of Faculty & Staff Accounts 1,060	Number of Student Accounts 7,506	Major Projects 92 Completed 190 Active	Financials Total IT spending as a % of Truman budget 4.43%
Number of Active Blackboard Courses 1,368 - Fall	Number of Emails Delivered Daily (on Average) 100,000+	Total Number of Accounts Managed 101,596	25 Full-time Staff 81 Student Staff	Total IT spending by institutional FTE (students, faculty, and staff) \$645
	Supported Public and General Use Workstations 930 Supported Faculty, Staff & Research Workstations 1,597 Supported Printers 396 7,083 HOLOGY SERVICES 8 - A Level Rooms 5 - B Level Rooms 8 - C Level Rooms 8 - C Level Rooms 6 - Specialty/Other Rooms 6 - Specialty/Other Rooms 1,368 - Fall	Supported Public and General Use WorkstationsTECHNOLOGY IN930100% Wireless CoverageSupported Faculty, Staff & Research WorkstationsNetwork Data Ports1,59711,500+Supported Printers624396840 Service It Up-Time and QuadTNOLOGY SERVICES306,1333* A Level RoomsOutgoing Phone Calls 306,1333* A Level Rooms1,060* - C Level Rooms1,060* - Specialty/Other RoomsNumber of Emails Delivered Daily (on Average)Number of Active Blackboard CoursesNumber of Emails Delivered Daily (on Average)	TECHNOLOGY INFRASTRUCTURESupported Public and General Use Workstations100% Wireless CoveragePhysical Servers 34930Network Data Ports 1,5997Virtual Servers 11,500+1101,5997Number of Wireless Access PointsInternet Bandwidth Capacity & Speed 624Internet Bandwidth Capacity & Speed 2 Gbps9306840 Service Items Monitored for Up-Time and Quality Every SecondNUMber of SERVICES0utgoing Phone Calls 306,1333Total Phone Lines 1,2698 - A Level Rooms 5 - B Level Rooms 6 - Specialty/Other RoomsNumber of Faculty attaf AccountsNumber of Student AccountsNumber of Active Blackboard Courses 1,368 - FallNumber of Emails Delivered Daily (on Average) 100,000+Total Number of Accounts Managed Total Number of Accounts Managed 101,596	Supported Public and General Use Workstations 930TECHNOLOGY INFRASTRUCTUREDID YOU930100% Wireless CoveragePhysical Servers 34Blackboard Pages Viewed on Most Active Day 277,352Supported Faculty, Staff & Research WorkstationsNetwork Data Ports 11,5997Virtual Servers 11,500+Number of Faculty Workshop AttendeesSupported Printers 3966Number of Wireless 6244Internet Bandwidth Capacity & Speed 6244\$15.2MNumber of Yireless b Sapported PrintersNumber of Wireless Capacity & Speed 6244Internet Bandwidth Capacity & Speed for Up-Time and Quality Every SecondUnique Visitors to Truman Home Page Every MonthNUMber of Student S - B Level Rooms 5 - B Level Rooms 6 - Specialty/Other RoomsOutgoing Phone Calls Staff AccountsTotal Phone Lines Total Phone Lines Total Number of Student AccountsPROJECTS & ORG Major ProjectsNumber of Active Blackbaard Courses 1,368 - FallNumber of Emails Delivered Dialy (on Average)Total Number of Accounts Managed 101,596

ITS Organization - Who We Are

Information Technology Services Mission Statement

Information Technology Services (ITS) supports the Truman State University Mission of offering an exemplary liberal arts education to well-prepared students by providing leadership, expertise and resources to seamlessly integrate technology and information systems into the operations, instruction, research, and service endeavors of the University.

ITS will achieve this mission through:

- support of excellence in teaching, learning, and other scholarly work;
- a focus on technology services that enable students to thrive, both personally and academically;
- strategic lifecycle management of innovative, secure, reliable, cost-effective and green technologies;
- responsible management and digital curation of Truman's information assets, ensuring availability and access to quality data;
- acquisition, development and support of campus applications and tools that expand and improve University operations;
- the promotion of information and technology literacy;
- participation in strategic planning and policy/compliance activities; and
- exploration of emerging trends.

All of these activities are carried out by a customer-focused and professional information technology staff in collaboration with the ITS Governance committees and the overall University community.

Information Technology Services consists of four major functional units:

Learning Technology Services is led by Diane Richmond and helps faculty enrich the educational experience of students through wise use of technology by providing classrooms, labs, courseware, and specialized services. Through a training program, the Learning Technologies unit provides faculty and students with the skills they need to be academically successful.

Infrastructure Services is led by Jim McNabb and includes several teams: the Desktop/Classroom Support Team, the Service Management Team, and the Systems & Networking Team. These teams provide support for individuals in their offices, technology in the classrooms, the Help Desk, telephone services, the equipment checkout program and core infrastructure services such as managing the data center, maintaining the university servers, network connectivity, email and internet access.

- Systems & Networking is responsible for the deployment and maintenance of the technical infrastructure and for providing production monitoring and support for the University's core business systems. This includes oversight of the data center, and campus-wide server management (including planned vulnerability scans). The team also provides services and support for campus-wide voice and data network planning, procurement, management, security, and infrastructure. This includes wired and wireless access in all buildings, network monitoring, and jack activation and repair.
- Desktop/Classroom Support provides technical support for technology in the classrooms, and coordinates the design, installation, and maintenance of technology systems in these rooms. The team also provides technical desktop support for all faculty, staff and public workstations on campus.
- Service Management provides a high level of service to students, faculty and staff, and does this through individual consulting, help desk, and overall responsibility for the problem reporting and service request system.

Web Integration Services is led by Greg Marshall and is responsible for all of the services needed to create campus/departmental websites. The unit also offers web development and database services for the Truman campus, and is the primary support for the content management system, campus portal (TruView), mobile applications, and Google analytics.

Administrative Computing is led by Tammy Roberts and is responsible for the implementation, operation, maintenance and evolution of the University's administrative and academic systems. This unit works with the University to plan, acquire, develop, and maintain core operational and student support systems. It consults with University clients on the re-design of business processes, and the application of technology to facilitate and support operational change. The Administrative Computing unit works to appropriately permit access to University data, and provides leadership in the research and development of digital library initiatives. This unit also provides project management leadership for Information Technology Services efforts.

ITS Organization – What We Do

Support for the Tech	nology Infrastructure	Support for Info	rmation Systems
 We provide bandwidth support and management that many of our academic and administrative systems rely on, including: Management of on campus network services provided through support for DNS, DHCP, routers/switch maintenance, domain management, wired data ports, and wireless access Off-campus internet access provided through MOREnet and Bluebird We provide a secure environment for our academic and administrative systems through: Management of firewalls, anti-virus scans, a virtual private network, subnet management, and malware detection Identity and role management, including authentication and authorization services Ensuring systems adhere to FERPA, DMCA, Copyright, HIPAA, SOX, GLBA, PCI and other state and federal regulations We provide support for emergency services: 911 services Emergency notification system (electronic mail/text messaging) Code Blue telephone line support 	 We support the physical environment for our academic and administrative systems: Data Center Facility - Manage electrical power, physical security, and environmental controls Inside and outside cable plant maintenance (including building wiring closets) HVAC systems that are controlled over the network Security and fire alarm systems Electrical meters on the network Security and fire alarm systems Electrical meters on the network Large-scale storage device management Database management & tuning Data and backup services for supported servers Backup services for user workstations We provide support and administration of central servers for our academic and administrative systems, including: System administration and tuning Proactive server monitoring Operating system upgrades Security patch management Third-party system support for integration and management 	 We maintain and support university-wide support systems, and are responsible for: the payroll and position management system for faculty, staff and students the electronic registration functions for the University the systems used for recruiting and matriculation, including customer relationship management systems student academic records including academic history, transcripts, grades, and academic standing student academic advising including degree audit and transfer articulation the ID Card system (which provides access to meal services, library services, student recreational center, and perimeter access) University academic records including faculty load, course records, catalog, and curriculum financial records, including the University budget, accounts payable/ receivable, fixed assets, purchasing, and grants student housing records faculty teaching, research and service records campus commerce records including online bill payment for students and their authorized users and secure online payments for campus web applications the academic classroom and event schedule records 	 student conduct and judicial sanctions records the systems used for alumni relations, donor management, and fundraising the system used for foundation funds management student campus life records including housing, study abroad, internships, student organization memberships, and co-curricular (out of classroom) experiences financial aid records, including scholarships, institutional and work study student employment, and loans employee records in accordance with state and federal laws the campus portal and self-service applications general bio/demo, address, and general information for individuals and organizations/vendors management of university data, including report distribution and archival systems for departmental information and finances reports, as well as electronic document management dashboard systems for utilities, university performance indicators, admissions and student housing management of patient health and counseling records the development and deployment of mobile applications

Support for Acade	emic Achievement	Professional Staff with the Knowledge and Skills to Ensure An Efficient and Effective Technology Experience				
 We support systems our faculty rely on to deliver instruction, such as: the course management system (Blackboard) and collaborative module plug-ins test compilation services (i.e., optical test scanning service) We support systems and devices our students rely on for instruction, including: Printing Student computing labs Specialized laboratory software Tutor management the course management system (Blackboard) We hold workshops and seminars for faculty on strategies to teach with technology We support systems and seminars for faculty on strategies to teach with We hold workshops and seminars for Training We support systems and seminars for Training 		 Web application analysis and development Student mentoring in technology fields Academic course development and academic materials production Network and cable plant engineering services Help Desk services System Administration Security scanning System tuning, performance and monitoring Database administration 	 Computing and printing equipment asset management Technology asset management Application system analysis, design, and development Technology Purchasing Services: Investigation, research, request for proposals, vendor review Technology Vendor Management - consulting and interface Workstation installation and support General IT Consulting Sound and video engineering 			
Support for Pers	onal Productivity	Support for Websites & Web Delivery Systems	Support for Technology Planning and Performance			
 We provide a way for faculty, staff and students to communicate with each other: Electronic Mail - Exchange & Gmail Telephone Services - handsets, voicemail, and dial-tone Guidance on mobile communications support (various cell phone models and university-provided cell phones) Cable television services Targeted videoconference support We provide personal assistance for technology questions and equipment check-out through the IT Service Center 	 We provide user support for: Truman-owned workstations Personally-owned student workstations Personal digital device integration Targeted software application support We provide specialized services in support of university systems and instruction, including: Training Specialized equipment support - cashiering systems, scanners, special forms printing 	We develop, support and maintain university web sites (university, departmental and student organization sites) We provide design, development and implementation services for departmental and campus-wide web delivery and applications We support the development and deployment of mobile websites We maintain the campus search engine and provide analytical information on web traffic	We provide frameworks that guide the development of technology strategies and their tactical implementations (including budget management) We provide guidance for the IT governance structure with oversight of technology policies, resource management and prioritization We provide project management services to ensure appropriate resource utilization We support regulatory compliance, assessment, reporting, and survey data			

How We Function - ITS Assessment

Information Technology Risk Management and Assessment Activities

In virtually every aspect of education, research and administration there is an increased reliance on digital information and the technologies that support it; with this comes an increasing level of responsibility to protect these information assets from accidental or malicious exposure or damage.

Truman protects information assets by focusing security and information privacy efforts on those assets governed by state or federal regulation. These regulations primarily deal with:

- privacy and security of student records, personnel records, financial records, and personal health records
- records retention requirements
 security breach notifications

identity theft programs

- secure credit card transactions
- copyright infringement

Risk Management and Truman's Business Impact Analysis



A sound risk assessment strategy must identify, understand, and prioritize risks to information. Risk assessments should be performed based on the sensitivity or criticality of the information used in the system or process. Systems that process sensitive information must be assessed much more rigorously than those that do not. The resulting analysis should guide management decisions on which safeguards are needed to address (treat) identified risks. The goal is to minimize harm to the University and its community.

Truman is currently reviewing and updating its IT risk assessment profile, with the following results.

- 1. Completed a *Business Impact Analysis* survey that identified critical information technology operations, processes and assets, and how they should be prioritized. The areas addressed in the survey were:
 - The services and resources most critical to the University.
 - The length of time Truman can tolerate being without a particular service or resource.
 - The additional resources (equipment, software applications, records, and people) needed to perform each critical service.

This survey identified the following:

- 19 Highly critical applications with a recovery time of 8 hours or less
- 37 Critical applications with a recovery time of 9-24 hours (<24 hours)
- 19 Essential applications with a recovery time of 25-71 hours (<3 days)
- 18 Important applications with a recovery time of 72-119 hours (3-5 days) (see opposite page for more details on the service recovery requirements)
- 2. A review is currently underway regarding vulnerabilities, threats and exposures, along with identification of risk reduction alternatives.

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High-Level Business Function Recovery Requirements (as reported by campus users, tolerable service outage hours shown in parenthesis)

	Highly Criti	cal (8 hours or less)	Critical (<24 hours)	Essential (<3 days)	Important (3-5 days)	Non-Critic	al (>5 days)
Must recover in:	0 HOURS	1-8 HOURS	9-24 HOURS	25-71 HOURS	72-119 HOURS	120-239 HRS	>240 HRS
Personal Productivity & Collaboration		Email anti-virus (3) • Student email (7) • Videoconference (7)	Fac/Staff send/receive email (9) ● Outlook web access (13) ● Email SPAM tags (12) ● Calendar (16)				
Enterprise Application Systems and Support	Emergency notifications • Conduct system • Counseling system <u>DEPARTMENTAL:</u> SOC System	ID Card (8)	Banner [student/bio/demo (11), accounts receivable (12), alumni (13), HR data mgt (15)] Student health clinic (12) • TouchNet (16) • Room scheduling (23) • Financial aid loan mgt - CLM (24) • CampusCall (24) • Degree Audit (24) • Document mgt (24) • Evisions forms/reports (24) • Perimeter access (24)	Banner [student recruit (68), finance (32), financial aid (32)] Camps & Conferences System (48) ● Course catalog (52)	Clean address (96) ● Mailers+4 (96)	TutorTrac (168) ● ION Energy Management System (168)	ePrint (306) • FundDriver (360) • Digital Measures (2172) <u>DEPARTMENTAL</u> NSLDS reports, Intl student visa, Vendor reports
TruView Services			Self-service Banner [Requisitions (24) Alumni directory (24), Student other services (12)] <u>DEPARTMENTAL:</u> Accepted student portal, student orientation, financial aid, online award acknowledgement, scholarship award system	Self-service Banner [Faculty services (37), Travel expenses (62), Student services (51)]	Self-service Banner [Clearances & Tru- Positions (82)]	Self-Service Banner [Employee services(172)]	
Classroom, Library & Digital Initiative Services		Blackboard & plug-ins (3) ● Classroom emergency (3) ● Classroom equipment support (7)	Panopto course recording (24) • Optical test scanning (24) <u>DEPARTMENTAL:</u> MOBIUS, Content citation databases, SubjectsPlus, JournalFinder, TruSearch	Online course evals (12) • Online advisor evals (1) <u>DEPARTMENTAL:</u> OCLC services, Offline circulation Access DB, Interlibrary Ioan	University Portfolio (90) • Proxy Services (111) • Greenstone (updated) <u>DEPARTMENTAL:</u> ABLE bindery system, QuickMacros, RDA toolkit, Classification Web, TruDex, PastPerfect (museum)	Blackboard SafeAssign (129) ● TruTube(168)	
Internet Access		Network access on/off campus (1) ● Wireless (3)	Virtual Private Network-VPN (14) • Dynamic Connections-DHCP (12)	Web survey tool (108)			
Security	Desktop anti-virus	Authentication (3)				OS Update (204)	
Web Services			Home & departmental websites (11) ● Web search engine (14) <u>DEPARTMENTAL:</u> Faculty/staff search system, Campus visit system, AutoMagic		Student org websites (84) <u>DEPARTMENTAL:</u> CSI Rental System, SERVE System, Organizational DB		
General Computer Support		Desktop support (1) ● IT Service Center (1)		Cable TV (24) • File & print share (30) <u>DEPARTMENTAL:</u> Assistive Technology Lab	DEPARTMENTAL: Scanning, Command workstation, Plate Printer and Quick Copy		
Telephone Services	911 calls (landline & cell service)		Desktop telephone service (14)	Voicemail (48) ● Cell use (61)			

EDUCAUSE Core Data Survey

Master's Institutions

(Carnegie Basic Classification 2010) Number of 2013 CDS participants: 217 In the summer of 2013, more than 2,500 institutions were invited to contribute data to the EDUCAUSE Core Data Service (CDS). This information summarizes data from a subset of responding institutions. Some publicly available data from the Integrated Postsecondary Education Data System (IPEDS, www.nces.ed.gov/ipeds/) are used in calculating metrics. Reported statistics are either an estimated proportion of the population or an estimated median (rather than a mean).

> Masters 55%

> > **79**%

12%

9%

73%

Truman 4.43% \$5,322 \$645 5% 39%	<u>Masters</u> 5% \$5,311 \$842 5% 22%	IT FINANCING and STAFFING Total central IT spending as percentage of institutional expenses Total central IT spending per institutional employee Total central IT spending per institutional FTE (stu/fac/staff) Central IT staff as a percentage of institutional employees Student workers as a percentage of central IT staff (staff & stud)	Truman
Truman X X X 100% 100% 100% 99% 100% 100%	Masters 100% 99% 99% 100% 100% 97% 93% 95%	EDUCATIONAL TECHNOLOGY SERVICES Most common teaching and learning support services: • Faculty training in use of educational technology upon request • Faculty group training in use of educational technology • Course/learning management system operation • LMS training and support for faculty Most common capabilities in centrally scheduled classrooms: • Wireless Internet connectivity • Wired Internet connection to instructor station • Video projector(s) • Computer(s) for instructor • Instructor docking station/connectors for laptop computer • Document Camera	Truman 2.5 ⊠ ⊠ ⊠ 1649 6599 ⊠ ⊠ ⊠ ⊠ ⊥
Truman X X X	<u>Masters</u> 37% 72% 21%	DATA CENTERS Institutions participating in cross-institutional data center hosting Percentage of servers that are virtualized Tested data center disaster recovery plans in past year	<u>Truman</u> 500 Mbp: 23% 40 X

CII	DDA	DT	CEB/	/ICFS
30	ггч		JLN	

IT STRATEGY

Masters	
2.3	Central IT support services FTE per 1,000 institutional FTE
74%	Offering assistance with mobile apps for faculty and staff
68%	Offering assistance with mobile apps for students
35%	Offering full support for smartphones (any type)
45%	Offering full support for iPads or other tablets
8%	Offering full support for e-book readers
1805	Walk-in tickets (annually)
8762	Phone tickets (annually)
97 %	Institutions offering walk-in help desk services
100%	Institutions offering help desk services via telephone
95 %	Institutions offering help desk services via web form
74%	Institutions offering help desk services via email
	COMMUNICATIONS INFRASTRUCTURE
Masters 250 Mbps	
330 MDps 37%	Commonity internet capacity
40	Proportion of wireless access points that are 802.11h
40	Hours per week the network operations center (NUC) is staffed

Institutions with a designated student technology fee

Central IT spending on transforming the institution

Central IT spending on running the institution

Central IT spending on growing the institution

Student housing with landlines in some or all rooms

99% Student housing with wireless in some or all rooms

NOTE: Indicates Truman offers, or is in agreement with, this service/activity

EDUCAUSE Center for Analysis and Research (ECAR) Student and Faculty Technology Use Surveys

Truman participated in the ECAR study regarding student technology use for the third year in a row, and participated in the first-ever study on the faculty perspective.

Survey Results National Stats: • >75 306	ECAR Student Technology Use Surver KEY FINDINGS AS IDENTIFIED BY THE REPORT	<u>v</u>	
 undergraduate students participated in the survey 213 institutions surveyed 8-65% overall response rate Truman Stats: 14.0% participation 712 student 	 Student Technology Experiences and Expectations: Technology is embedded into students' lives, and students are generally inclined to use and to have favorable attitudes toward technology. However, technology has only a moderate influence on students' active involvement in particular courses or as a connector with other students and faculty. Students' academic use of technology is widespread but not deep. They are particularly interested in expanding the use of a few specific technologies. Most students look online or to family or friends for technology support. The minority who use institutional help desks report positive experiences. 	 Anytime, anywhere access to learning that is enabled by device proliferation: More students own mobile devices than ever. Although students rate network performance as generally good, projected increases in connected devices could soon challenge even the most robust campus networks. Many students use mobile devices for academic purposes. Their in-class use is more likely when instructors encourage such use; however, both faculty and students are concerned about their potential for distraction. 	 Learning environments: More students than ever have experienced a digital learning environment. The majority say they learn best with a blend of online and face-to-face work. Undergraduates value the learning management system (LMS) as critical to their student experience but rarely make full use of it. Today's undergraduates want a mobile-friendly, highly personalized, and engaging LMS experience. Most students support institutional use of their data to advise them on academic progress in courses and programs. Many of the analytic functions students seek already exist in contemporary LMS systems.

ECAR Faculty Technology Use Survey

KEY FINDINGS Regarding Improving Learning Outcomes AS IDENTIFIED BY THE REPORT

Faculty recognize that online learning opportunities can promote *access* to higher education but are more reserved in their expectations for online course to improve *outcomes*. Online teaching experience is moderate, and faculty with some online teaching experience have more positive attitudes toward learning that has webbased components, including the potential value of MOOCs to higher education. Faculty interest in early-alert systems and intervention notifications is strong. The highest level of interest in learning analytics is in correcting substandard student progress in current coursework.

The majority of faculty are using basic features and functions of the LMS but recognize that these systems have much more potential to enhance teaching and learning. Although satisfied with their general LMS experience, many faculty express interest in being better skilled at integrating the LMS into their courses. Faculty think they could be more effective instructors if they were better skilled at integrating various kinds of technology into their courses. The primary motivation for doing so is improving student outcomes, rather than influencing direct compensation or tenure decisions.

Faculty recognize that mobile devices have the potential to enhance learning. They also think that balancing the academic use of mobile devices with the potential distractions these devices bring to the classroom is a key issue to address in higher education.

KEY FINDINGS Regarding Institutional Expectations AS IDENTIFIED BY THE REPORT

Faculty are more pleased with the technology resources used in personal work spaces than with technology resources used in (or to create) collaborative work spaces. When it comes to classroom-based technologies, the greatest levels of satisfaction are with basic classroom technologies such as projection systems and wireless access, the lowest levels of satisfaction are with how frequently the hardware and software are refreshed. The majority of faculty rely on the institution's help desk for technology support. Help desk service satisfaction ratings where high for most modalities of service and highest for phone, walk-in, and email.

Most faculty are confident about their ability and actions to keep student and scholarly data secure. Only about half of faculty have confidence in the institution to safeguard data and information. Research faculty reported positive experiences with bandwidth and data storage, but ratings are generally lower for other types of research support. Some of the concerns point to gaps in general university processes and procedures, whereas other concerns are directly related to faculty experience for specific IT support.

Survey Results

responses3.50% margin of

error

- National Stats: • >17,451 faculty participated in the
- participated in the survey151 institutions
- IST institutions surveyed
 18-76% overall
- response rate
- Truman Stats:
- 23.3% participation

error

- 92 faculty
- responses • 9.2% margin of



EXPERIENCES

Technology is embedded into students' lives, and students are generally inclined to use technology.



ANALYTICS



SUGGESTIONS for how to improve

.

performance in a course

LEARNING ENVIRONMENTS

More students than ever have experienced a digital learning environment. The majority say they learn best with a blend of online and face-to-face work (up 6% since 2013)."



DEVICES



...and use for academics also continues to grow





PERSONALIZED

On their resumes,

Better features for interaction and co 2 More user-friendly interfaces 3 More (or better) instructor participation Lesse of access to other resources 5 Better functionality

CERTIFICATIONS

The undergraduate degree is still the gold standard certification for contemporary college students.

21% would include a digital badge 18% would include an e-portfolio 3 in 4 students who use the help desk rate the overall IT SUPPORT FOR STUDENTS service as good or excellent.

53% would include a college certificate





% of students

.

90% would include their diploma

are at least moderately interested

their degree goals

in the LMS providing personalized support

and information about progress toward

@080

EDUCAUSE CENTER FOR ANALYSIS AND RESEARCH EDUCAUSE

The data in this infographic come from the ECAR report. ECAR Study of Undergraduate Students and Information Technology. 2014 To view the full report, go to: http://www.educause.edu/library/resources/2014-student-and-faculty-technology-research-studies



institutions

ONLINE LEARNING

Faculty recognize the value of online learning to improve access to higher education, and those with recent online teaching experience more readily see the potential of online education to improve student outcomes.



pedagogical breakthroughs



18% of faculty say they don't know the value proposition of MOOCs in higher education, but for those who do have an opinion on MOOCs...

2 are 1 are 2 are supportive 1 neutral 2 opposed

MOBILE DEVICES & BYOD

54% of faculty say the use of mobile devices in class *can* enhance learning



even though 86% of students own a smartphone and 90% own a laptop

EARLY-ALERT SYSTEMS

U.S. STATES

Faculty are very interested in early-alert systems and intervention notifications for students about course progress.



LMS & LEARNING TECHNOLOGIES

Regardless of vendor, LMS satisfaction among faculty

is relatively high 63% 5% satisfied with system availability

with system response time

56% with ease of use

COUNTRIES

57% of faculty agree or strongly agree that they would be more effective instructors if they were better skilled at integrating LMS technology into their courses.



Top 3 motivators for integrating technology in the classroom

- Clear indication/evidence that students would benefit
- Release time to design/redesign courses

· Confidence that the technology would work as planned

Many faculty think they could be more effective instructors if they were better skilled at integrating certain kinds of technologies into their courses.





TECHNOLOGY RESOURCES



technology resources in work spaces and labs

Though most faculty were satisfied with their lab and work-space experiences, teaching faculty see room for improvement of classroom-based technologies.

The classroom technologies/technology issues that received the lowest satisfaction ratings from faculty were:





have confidence in their institution to safeguard their personal info.

RESEARCH & SCHOLARLY SUPPORT

Faculty opinions of IT support for research



Gaps in process and procedure could explain why less than half of faculty who conduct research are satisfied with the support they get. On the bright side, bandwidth and data storage services are adequate for most faculty, and wait time for IT support services are not "too long."







have adequate bandwidth

have adequate data storage consultation is too long



EDUCAUSE

The data in this infographic come from the ECAR report Study of Faculty and Information Technology, 2014. To view the full report, go to: http://www.educause.edu/library/resources/educause-technology-research-academic-community-2014

How We Function - Technology Funding and Expenditures

Operational Budget

The IT budget is allocated across a variety of services that support the mission of Truman State University. The chart to the right shows how the operational funds are expended by service area, and the information below outlines the representative software and hardware maintenance expenditures across all service areas.

Software & Hardware Maintenance Costs as a Percentage of the Total Operational Budget



Staffing

The operational costs shown include the costs for student salaries, but not the costs for full-time staff salaries. The total staffing for information technology services included:

- 25 full-time staff
- 81 students



Notes:

Approximately \$265,657 in telephone back-charges are not represented on this chart as an IT operational cost.

How We Function - IT Governance Structure

IT governance is concerned with who makes which decisions, who provides inputs and analyzes the issues, who sets priorities, and who settles disputes when there is no clear consensus. IT governance is concerned with the whole IT enterprise, not just the central IT organization.

IT governance is ultimately concerned with the ability to conduct institution-wide IT activities:

- 1. Can we develop important IT policies that apply throughout the institution?
- 2. Can we implement important IT decisions that apply throughout the institution?
- 3. Can we coordinate the activities of IT personnel effectively throughout the institution?

The IT Governance Model is defined as follows.



Services and Support – By the Numbers

Support for Teaching and Other Scholarly Activities	Technology Infrastructure	Information Systems and Institutional Data	General Campus Computing
 Technology in the Classrooms All classrooms have Internet access and a strong wireless signal. There are currently 187 rooms used for instruction, with 148 equipped with one of our technology profiles: 48 A-level rooms 65 B-level rooms 15 B-level computer classrooms 18 C-level rooms 56 specialty rooms - Includes 46 studios, rehearsal rooms, tutoring rooms, laboratories, etc.; and 10 Academic Seminar rooms 131 classrooms with console computers Student Computing Labs -930 workstations available across the campuses in public and academic labs 	 Data Center and Internet Bandwidth 1,218 sq ft of space in 2 Data Centers 125kw of total power usage 34 physical servers 110 virtual servers 2 Gbps connection to the Internet File Storage and Backup Services 64.3 terabytes central file storage available 152.62 terabytes backup storage available Service Monitoring Services are being monitored in real-time to ensure system and service availability - 1,772 monitored systems; and 86,435 monitored data points; and 27,112 monitoring rules; results in 	 Administrative Systems 220 Banner users on campus >100 applications and databases supported across 26 servers 304,580 online registration transactions 249,721 web withdrawals 22,147 administrative registrations 131,623 Banner reports run through job submission eCommerce: >\$15.2M was accepted via online payments, of which \$14.1M was for tuition, housing, and fees 92.9% of eCommerce traffic is bill payment, with 6.6% paid with credit card and 93.4% with electronic checks 	Student Technology Profile Truman students are connected: 97.5 own laptops 29.1% own tablets 25.7% own dedicated e-readers 82.6% own smartphones IT Service Center Staffed 102 hours per week 10,169 Requests for assistance which included: 6,297 phone calls (451 classroom 4911 calls) 2,202 walk-in requests for assistance 1,890 Requests to loan equipment, including: 323 items checked out by Faculty/Staff 1,566 items checked out by Students Telephone Operator Requests for Information
Course Management System Courses Active in Blackboard for the year: • 141 - summer average • 1368 - Fall average • 1578 - Spring average	 840 items monitored every second Telephone System 1,269 Phone lines in use A total of 306,133 outgoing calls from Truman, consisting of: 	Email 1,496 faculty/staff mailboxes (Exchange) 58,812 student mailboxes (Google Apps) Processing >100,000 central email messages delivered 	 35,053 inbound requests for assistance 13,026 outbound requests for assistance 3,183 calls serviced after hours using the automated attendant
Blackboard Usage: • 45.1% of faculty used Blackboard for Summer • 64.2% of faculty used Blackboard for Fall • 62.2% of faculty used Blackboard for Spring Average Monthly Usage: • 1,329 courses active in Blackboard • 27,873 number of average course views • 67.190 number of average page views	 106,531 Local outgoing calls 199,602 Long Distance Auth Code Calls Network Connections & Access >11,500 data ports for network access 624 wireless access points currently installed and maintained to support -8,600 users 100% of campus covered by wireless >75 IT equipment closets in campus buildings 	 daily (on average) >350,000 messages blocked daily as SPAM Web Development Services 125 applications and databases supported across 9 servers Web Content Services -700 Web sites hosted 	 Nanage ~102 software contracts (that are reviewed on an annual basis) 74 software applications installed and supported on public workstations, with another 10 apps for specialized classrooms 21 software applications installed and supported on faculty/staff workstations Desktop/Personal Workstations
Blackboard Mobile - monthly averages: • 385 unique Blackboard mobile users • 17,320 total mobile logins	Network and Telephone Installation and Maintenance • 316 Phone, data and cable TV installations, moves or repairs	 126 Average concurrent logins to TruView (reaching a maximum of 652 concurrent logins) 281,044 unique visitors to the Truman home page every month (monthly average) 	 1,597 Workstations used in faculty, staff, research labs and offices. Printing
 Teaching with Technology 20 local workshops conducted for faculty on a variety of technology tools 4 Ready, Set, Click! Courses offered 17 local workshops for students 	 Information Security 137 enterprise systems or switches are regularly scanned for vulnerabilities on a weekly or monthly basis 	Mobile Applications Mobile application for iOS & Android • 1,908 iOS Mobile Apps downloaded • 1,287 Android Mobile Apps downloaded	Provide support for network printers • 336 printers for faculty and staff • 60 printers for students Project Management & Governance
Research Computing • File Storage: Highly robust and redundant	Identity Management: • 101,596 managed accounts in active directory		 190 <u>major</u> projects, of which 92 were completed during this timeframe 6 active IT governance groups

• File Storage: Highly robust and redundant storage, archive and backup services

Services and Support – Classroom Equipment Standards

	The technologies identified in the chart to the right are the <i>minimum</i> baseline technologies for each type of room classification.	C-Level Rooms	B-Leve	Rooms	A-Level Rooms
		С	B+	В	А
		High Tech - SMART	Mid Tech - Computers	Mid Tech	Tech Ready
Video/Data Projector	Projector (wide screen) and remote - or - LCD panel	х	х	х	х
Projection Screen		some	Х	Х	Х
AV Control Program	Extron/Chumby touch panel -or- software control panel	Х	Х	Х	Х
Teaching Console	Space for electronic devices	Х	Х	Х	Х
Classroom Capture	Classroom capture software	Х	*	*	*
	Classroom capture video camera & confidence monitor	Х			
	Voice tracking microphones	Х			
	Webcam and Microphone		*	*	*
Laptop Connection		Х	Х	Х	Х
Console Computer		Х	Х	Х	Х
Cable Television	Cable TV tuner in special DVD/VHS player	Х			
DVD/VHS Playback	DVD player in computer (must convert VHS to DVD)	see cable TV	Х	Х	Х
	DVD/VHS player (use only existing inventory)	Twilight - Removing 12/2014	Twilight - Removing 12/2014	Twilight - Removing 12/2014	Twilight - Removing 12/2014
Document Display	Document camera	Х	Х	Х	Х
Interactive Whiteboard	SMART Board, eBeam, or Sympodium	х			
Writing Boards	Dry erase white boards and/or chalk boards	Х	Х	Х	Х
Sound Amplification	Amplifier	Х	Х	Х	
	External speakers	Х	Х	Х	
Student Workstations	Group work - Thin client PCs in BT, VH and BH	Х			
	Individual workstations		Х		
Network Access	Wireless access in room	Х	Х	Х	Х
Telephone	Phone hotline for support (x4911)	phone in room	use cell phone	use cell phone	use cell phone

* Items Available on Request - Microphones, Webcams, Television Sets, SMARTBoard Airliner Slate, Classroom laptops for students

NOTE: Features marked as 'twilight' will be phased out in the coming years, with other alternatives employed to provide these same functions.

Services and Support – Blackboard Usage and Metrics

		Academic Year 2011-2012		Academic Year 2012-2013			Academic Year 2013-2014			
School	Department	Blackboard Active Instructor with Banner Course	Banner Active Instructors	% Using Blackboard	Blackboard Active Instructor with Banner Course	Banner Active Instructors	% Using Blackboard	Blackboard Active Instructor with Banner Course	Banner Active Instructors	% Using Blackboard
	Art	7	13	53.85	8	15	53.33	8	13	61.54
School of	Classical & Modern Languages	23	40	57.50	23	37	62.16	22	36	61.11
Arts &	English & Linguistics	32	40	80.00	36	43	83.72	33	45	73.33
Lellers	Music	14	28	50.00	15	29	51.72	12	31	38.71
	Theatre	3	5	60.00	4	6	66.67	2	5	40.00
	Total for Arts & Letters	79	126	62.70	86	130	66.15	77	130	59.23





School of Science & Mathematics

School of Business	Accounting	9	9	100.00	9	9	100.00	10	10	100.00
	Business Administration	17	20	85.00	17	20	85.00	18	20	90.00
Total for Business		26	29	89.66	26	29	89.66	28	30	93.33

School of Science & Mathematics	Agricultural Science	4	6	66.67	4	7	57.14	3	6	50.00
	Biology	23	25	92.00	21	27	77.78	22	27	81.48
	Chemistry	17	19	89.47	16	19	84.21	16	21	76.19
	Computer Science	na	na	na	na	na	na	5	7	71.43
	Mathematics	16	34	47.06	18	35	51.43	6	17	35.29
	Physics	4	8	50.00	5	8	62.50	3	8	37.50
	Statistics	na	na	na	na	na	na	7	9	77.78
Total for Science & Mathematics		64	92	69.57	64	96	66.67	62	95	65.26

Services and Support – Blackboard Usage and Metrics

		Academic Year 2011-2012			Academic Year 2012-2013			Academic Year 2013-2014			
	School	Department	Blackboard Active Instructor with Banner Course	Banner Active Instructors	% Using Blackboard	Blackboard Active Instructor with Banner Course	Banner Active Instructors	% Using Blackboard	Blackboard Active Instructor with Banner Course	Banner Active Instructors	% Using Blackboard
		Society & Environment	6	7	85.71	6	6	100.00	5	6	83.33
		Communication	15	16	93.75	14	15	93.33	15	15	100.00
		Economics	7	7	100.00	7	8	87.50	9	9	100.00
	School of	History	11	14	78.57	10	14	71.43	8	13	61.54
	Social & Cultural	Justice Systems	6	8	75.00	8	9	88.89	7	10	70.00
	Studies	Military Science	2	5	40.00	4	5	80.00	1	6	16.67
		Philosophy & Religion	9	11	81.82	8	11	72.73	7	11	63.64
		Political Science	7	7	100.00	6	7	85.71	7	7	100.00
		Psychology	9	12	75.00	12	15	80.00	13	15	86.67
	Total for Social & Cultural Studies		72	87	82.76	75	90	83.33	72	92	78.26
		Communication Disorders	10	12	83.33	11	11	100.00	9	9	100.00
	School of	Education	13	15	86.67	14	21	66.67	13	17	76.47
	Health Sciences & Education	Health & Exercise Science	30	47	63.83	23	49	46.94	23	51	45.10
		Nursing	11	13	84.62	12	13	92.31	12	13	92.31
		Professional Development	1	2	50.00	0	3	0.00	0	3	0.00
	Total for Health Sciences & Education		65	89	73.03	60	97	61.86	57	90	63.33
,									-		
	Grad	uate Office (LDRS)	0	0	0.00	1	1	100.00	1	3	33.33
Library & Museums			4	4	100.00	3	4	75.00	0	0	0.00

New Student Program

Truman Institute (JBA)

Inter-Divisional (IDSM)

Overall Totals:

Other

83.33

0.00

0.00

100.00

72.87

80.00

0.00

0.00

100.00

70.59

70.00

0.00

100.00

100.00

67.03





Services and Support – Applications Supported

Enterprise Applications

Banner

- Internet Native Banner (INB)
- Self-Service Banner (SSB)
- Banner Relationship Management (BRM)
- BRM Mail
- CLEAN Address
- FM/Calc
- Blackboard
- Blackboard database/application
- Evisions
- MAPS
- Intellicheck
- FormFusion
- Archiver
- Argos

Banner Document Management System (BDMS)

- Desktop viewing
- Web Access
- Image Capture
- **Operational Data Store (ODS)**
- Enterprise Data Warehouse
- Recruiting and Admissions Performance (RAP)
- COGNOS
- TouchNet
- Payment Gateway
- Bill+Payment
- Marketplace
- Cashiering
- PavPath
- **DegreeWorks**
- DegreeWorks application/database
- DegreeWorks web / Planner
- SureCode/Scribe/Transit
- Event Management System (EMS)
- EMS Campus & Virtual EMS Other Systems
- Luminis (TruView)
- CampusCall

- Campus Loan Manager
 - ePrint • Digital Measures
 - (Faculty Mgt System)
 - RAVE (Emergency texts)
 - TutorTrac
 - Acalog (Course Catalog)
 - Mailers+4
 - Titanium Scheduler
 - (Counseling Services)
 - ION Enterprise (Energy) Metering System)
 - Perimeter Access System
 - ID Card System
 - Student Conduct System
 - DSpace (Institutional Repository)
 - Greenstone (Digital Library Collections)
 - Vivature (Health Center
 - Conference Programmer
 - Project.net (Project Mgt)
 - Education Field **Development Project**
 - FundDriver
 - Kuali eDoc Lite
 - workflow management Network Installation
 - Management (NIM) • Tivoli Key Lifecycle
 - Manager
 - Console

Other Applications Many applications are tightly integrated with Banner (i.e., data is

- Web Applications
- Relationship Management & Applicant Support
- Admissions Department web App
- Visitor's Guide
- Online Deposit Payment for Graduate Studies
- Study Abroad Online App
- Study Abroad Scholarship App
- ISO Online App
- Speed-E Letter

Newsletter System

Alumni Contribution

Academic Academies

• Truman Institute

McNair Summer

Personnel Support

Search Committee

• Student Timecards

• Counseling Service

Online Payment Support

• Online Loan Payments

Mailroom backcharge

Misc Support Programs

• Staff Council Voting

• Risk Management Self-

• Truman Institute App

McNair Program Apps

Research Institute

• eCards

Form

Alumni Info

Payments

Process

iClearances

TruPositions

Online Stores

Payment

Art Payments

Auction Invoice

Assessment

- Management)
- (Residence Halls)

- Hardware Management

Banner Integration with

shared in real-time or through data files).

- - Advising & Placement Placement Tests
 - French Placement • Incoming Student
 - Worksheet • Incoming Transfer

Student Worksheet Advanced Placement App Student Portfolios

Internships/Service/Career

Career Center Resource

Career Center Visitors

Student Organizations

Student Organizations

Homecoming Elections

• Student Senate Voting

• Rec Center Activities

• Hall Desk Software

Evaluation Survey

Behavioral Concern

Student Health Center

• Athletics Hall of Fame

Football Recruiting App

Mobile Athletic Training

Soccer Men's Recruiting

Softball Recruiting App

Volleyball Boosters App

• Emergency Operations

• Athletic Insurance

• DPS Ticket Appeal

• Campus Crime Log

• DPS Threat Level

• DPS Crime Watch

Ouestionnaire

Public Safety

• Volleyball Recruiting App

Competency App

• Soccer Women's

Recruiting App

Immunization Records

• Conduct Hearing

Serve Center Volunteer

Management (TruService)

Homecoming Parade Entry

• Internships Online

Library

Student Life

Scheduler

Athletics

ADD

Information

Technology

Checkout

• OTRS Reporting

Phone Bill Processing

• ITS Purchase Request

Copyright Violations

• PML Guest Accounts

Mobile Applications

for iOS and Android

• Pav-per-use Wireless

Contract Mgt System

Menu Editor, Page Editor,

Announcements, FAO,

Photo Gallery, Alumni,

Profile Slideshow.

Student Profiles.

Form Builder, Slideshow,

QuickFacts, File Browser,

Hompage Management,

Faculty/Staff Directory

General Programs

• Truman Directory

Management -

installations for

• All official University

• Faculty and Student

• Calendarix

Content

WordPress

web sites

Blogs

Organizations

• Event Manager

• ITS Equipment

Classroom A/V

• Wireless guest

Management

Guest

Website

Tools

Control System

- Senior Portfolio System
- HES Portfolio App

Evaluations

Review

Schedule

Music Library

• TruTube

Support

Board

Press

• Department Chair

• School of Social &

• Theatre Production

Evaluation System

General Academic Support

Cultural Studies Mode

Course Evaluation System

SB389 Course Evaluation

Checkbox Survey System

Research Programs

• Student Research

• Office of Student

Research app

Faculty Forum

Physics Colloguia

• Utility Dashboard

Physical Plant

Conference System

Institutional Review

• Truman State University

• Education MAE Portfolio **Evaluation Support** Academic Advisor

Services and Support – IT Service Center Call Statistics

(Report from July 1st, 2013 to June 30th, 2014)



Abandoned vs. Completed :: Summary								
Abandoned Call Count:	208 calls	Completed Call Count:	6297 calls					
Abandoned Call Rate:	3.2%	Completed Call Rate:	96.8%					
Abandonment Total Hold Time:	3.8 hours	Completion Total Hold Time:	15 hours					
Abandonment Avg. Hold Time:	1.1 minutes	Completion Avg. Hold Time:	8 seconds					
Abandonment Longest Hold:	29.9 minutes	Completed Longest Hold:	43.3 minutes					

Date	Completed	Abandoned	Total Calls	Complete / Abandon / Volume
Sun	130 calls	17 calls	147 calls	88% 12% 12%
Mon	1369 calls	33 calls	1402 calls	98% 2%
Tue	1258 calls	28 calls	1286 calls	98% 2% 20%
Wed	1306 calls	41 calls	1347 calls	97% 3% 21%
Thu	1142 calls	53 calls	1195 calls	96% 4% 18%
Fri	985 calls	28 calls	1013 calls	97% 3%
Sat	120 calls	8 calls	128 calls	94% 6%

Services and Support – Measuring Systems Availability & Reliability

(Report from July 1st, 2013 to June 30th, 2014)

			Iruman's II Maintenance Window
How good does it ne	ed to be?		Daily Maintenance: 3:00am-5:00am daily, for production maintenance/backup processes
Availability <u>Total</u>	Hrs (Planned a	<u>nd Unplanned Outages in Hrs.)</u> x 100 Total Hrs.	 Weekly Maintenance: Thursday, 8:00pm through Friday, 6:00am for on-campus services Saturday, 12:00am until Sunday, 12:00pm (MOREnet, off-campus internet)
Availability - "9's"	Percent 99.0 99.9 99.99 99.999 99.999	Downtime (per year) 87.7 hours 8.77 hours 52.62 minutes 5.26 minutes	 Sunday, 8:00am until Sunday, 8:00pm, for enterprise systems upgrades (used only when needed) This does not mean that every Thursday or every holiday that all servers and network access will be down for 10 hours. Most server maintenance can be done within a couple of hours, and servers will only be taken down in a manner that will minimize downtime of all network.
	99.9999	ST.0 Seconds	services within this maintenance window.
Reliability vs. Availabil	lity		
Reliability deals only wi	ith "unplanned" c	butages.	System Maintenance is considered a "Planned Outage" and is factored into the "Availability" calculations noted below.

-

This year had unusual downtimes reported due to a catastrophic failure to one of the power feeds to campus.

Service	Reliability	Availability	Service	Reliability	Availability	Service	Reliability	Availability
Internet	99.91%	99.91%	Application & Web Services			File Services		
			Departmental Web Sites	99.94%	99.93%	W: Drives	99.86%	99.86%
Local Area Network			Student Org Web Sites	99.94%	99.94%	Y:Drives	99.86%	99.86%
Wired Network	99.86%	99.86%	Web Application Database	99.94%	99.94%			
Wireless Network	99.86%	99.86%	WordPress	99.9 1%	99.91%	Print Services		
						Faculty/Staff Printing	99.94%	99.94%
Remote Network			TruView Portal	99.91%	99.91%	Student Printing	99.93%	99.93%
VPN	99.94%	99.94%	Banner Self-Service Apps	99.79 %	98.65%			
Proxy Server	99.94%	99.94%	Banner Database	99.79 %	98.65%	Computer Labs	99.94%	99.9 4%
			Banner Forms	99.69%	98.53%			
Network Security			Blackboard	99.34%	99.04%	Telephone Services	100.00%	100.00%
Firewall	99.94%	99.94%	Lecture Capture System	99.94%	99.94%			
Bandwidth Mgt.	99.94%	99.94%	DegreeWorks	99.39%	99.39%	Email Services		
						Anti-Spam System	99.94%	99.94%
Cable Television	99.94%	99.94%				Faculty / Staff Email	99.93%	99.93%
						Student Email	100.00%	100.00%

NOTE: This is not a complete list of services, but includes those which could significantly impact a large number of users.

Services and Support –Internet Traffic Patterns





Services and Support - Compliance and Regulatory Issues

General Legislative and Regulatory Issues with IT requirements that Information Technology Services must monitor and respond to:

Federal

Privacy

- **FERPA** (Family Education Rights and Privacy Act)
- Children's Online Privacy Protection Act (COPPA)
- HIPAA (Health Insurance Portability and Accountability Act of 1996)
- HI TECH (The Health Information Technology for Economic and Clinical Health Act)
- Electronic Communications Privacy Act (ECPA)
- □ FISMA (Federal Information Security Management Act) □
- □ Freedom of Information Act
- Gramm-Leach-Bliley Act

Copyright and Fair Use

- TEACH Act (Technology Education and Copyright Harmonization)
- Copyright Act (while there are no direct IT requirements, how information is used electronically must adhere to copyright law)
- Digital Millennium Copyright Act
- No Electronic Theft Act

- Information Technology and Telecommunications
- Communications Assistance for Law Enforcement Act (CALEA)
 Controlling Assault of Non-Solicited Pornography and
- Controlling Assault of Non-Solicited Pornography and Marketing Act (CAN-SPAM)
 Telephone Concurrence Protection Act
- Telephone Consumer Protection Act
 FTC Identity That Program _ Ded Flag Public
- FTC Identity Theft Program Red Flag Rules
- eDiscovery
- USA Patriot Act
- Export Controls
- Uniform Electronic Transactions Act
- Student Exchange Visitor Information (SEVIS)
- Junk Fax Prevention Act
- □ Federal Children's Internet Protection Act (CIPA)

Disabilities and Accommodations

requirements, how information is used electronically 🛛 Americans with Disabilities Act (Sections 508, 504)

Higher Education Opportunity Act

- Distance Education Approval of Out-of-State Providers
- □ Various compliance obligations as part of HEOA

Fiscal Responsibilities

- Sarbanes Oxley Act
- E-Verify Executive Order

State

- Data Breach Notification
- Sunshine Law (Open Records)
- Records Management/Records Retention Policies
- Computer Crime Statutes
- Uniform Wireless Communication Infrastructure Deployment Act
- Reverse Transfer
- Cyberstalking

Other

- PCI DSS (Payment Card Industry Data Security Standard)
- FTC & FCC Telecommunications Legislative and Regulatory Issues that Information Technology Services must monitor and respond to:

Open Active Issues

- 700 MHz Licensing
- Broadband Reporting and Mapping
- Communications and Video Accessibility
- Customer Proprietary Network Information (CPNI)
- Digital Television Transition
- Disaster Planning and Response: Backup Power
- Disaster Planning and Response: WEA (former CMAS)
- FCC Telemarketing Rules
- FTC Telemarketing Rules
- Local Number Portability
- □ Mobile Phone Fringe Benefit Tax
- National Broadband Plan
- Network Neutrality/Network Management
- P2P File Sharing and Copyright Issues

- Mergers
- Radio Webcasting
- Signal Boosters and DAS
- Spectrum Reallocation
- Telephone Relay Service (TRS) and Video Relay Service (VRS)
- Unauthorized Charges: Cramming
- Unbundled Network Element-Platform (UNE-P)
- Universal Service Contributions
- Universal Service Fund
- □ VoIP and IP-Enabled Services
- White Spaces

Open Inactive Issues

- Biennial Review
- BRS/EBS
- Hearing Aid Compatibility (Wireless)
- Law Enforcement Access/CALEA
- Long Distance Competition
- Spam
- Unauthorized Charges: Slamming
- Wireless Open Access

Archived Inactive Issues

- Over The Air Reception Devices (OTARD) Rules
- PIC Change Charges
- Telecommunications Excise Tax
- Video Franchising
- Disaster Planning and Response: CSRIC
- Exclusive Contracts For Video Services In Multiple Dwelling Units

location