Truman State University

Current State *of* Information Technology ***2011-2012***

Truman State University –
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.

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Summary of Activities for Academic Year 2011-2012

Major Highlights:

Over 80 classrooms were upgraded on campus. Classroom technology is a core component of modern academic instruction. Well-designed, up-to-date classrooms and teaching technology help to set the stage for good learning environments.

Completed network upgrades in 5 residence halls.

Reduced the cost of workstations through the implementation of virtual workstations and virtual applications in the public labs and classrooms.

Completed the activation of the new fiber optic infrastructure.

Implemented the net price calculator for Financial Aid.

Improved advising – upgraded DegreeWorks and implemented a self-service and online advising systems.

Upgraded Banner to the most current version of the system.

Trained 47 faculty members to teach fully online courses.

Implemented a new emergency notification system.

Upgraded the OP Performance Hall to allow for live streaming of events.

Assisted with the NCAT project course redesign (part of the HES Next General Learning Challenges grant).

New web-based touch-screen classroom audio/visual control system developed.

Migrated all personal websites to Google Sites (for students) and WordPress (for faculty/staff).

Digital Assets – Implemented both an institutional repository and digital collections system.

Truman goes mobile! The entire Truman website is mobile device-enabled, and we released the first Truman mobile application for multi-platform devices.

Installed 80 wireless access points in Ryle, Health Sciences, and Pershing.

Infrastructure Improvements

Server upgrades and virtualization

- Replaced/upgraded 11 servers (to either a virtual system or a physical system)
- Upgraded the virtual desktop software on servers and clients, and expanded our server virtualization capabilities

Data Storage and Backups

- A new storage device was installed for use with Banner, and we upgraded the storage system software
- Implemented a new backup strategy to ensure appropriate backups for all systems, which includes a secondary campus backup server which is now functional

Network and Telephone Upgrades & Installations

- Network electronic upgrades to Ryle, Campbell, Fair, Randolph and Grim
- Completed network installations for Ryle, General Services, McKinney, Pershing and Health Sciences (as part of their construction projects), with wireless access points added to all of these locations.
- Upgraded the entire telephone infrastructure in Pershing north
- Completed the activation of new fiber south of Patterson
- Completed telephone, network, and computer moves for Pershing, McKinney, McClain, General Services and Health Sciences
- Completed the telephone panel upgrade in McKinney
- Implemented remote telecommunications closet monitoring for 75 UPS systems, temperature and humidity controls

Security Systems

- Completed implementation of the new firewall/intrusion detection system

General Infrastructure Systems

- Upgraded the IT monitoring system
- Upgraded the BlackBerry server software
- Created a pay-per-use guest wireless access system

Workstation Replacements and Upgrades

- Completed the upgrade of faculty and staff workstations on campus
- Completed the development of a new hardware inventory management system
- Implemented new anti-virus software for all workstations
- Upgraded computers for select research labs and student use machines

Campus Venue Improvements

- Completed the sound system upgrade at Stokes Stadium
- Permanent recording capabilities were added to Violette Hall 1000
- Completed the upgrades to the OP Performance Hall, with live streaming capabilities enabled
- Upgraded several conference rooms with additional technology features
- Performed a wireless survey of the SUB, and added wireless antennas to enhance connectivity

Compliance Activities

- Implemented new security scanning software for credit card processing

Summary of Activities for Academic Year 2011-2012 (continued)

Information Systems Improvements

- Banner and DegreeWorks upgrades were completed
- Transitioned the textbook ordering process from Barnes&Noble to Follett Bookstore
- Purchased and implemented software (Digital Measures) to support program reviews, departmental support, and accreditation
- Implemented self-service advising tracking system
- Completed travel and expense process improvements
- Completed the event management system upgrade
- Migrated student websites to the new Google Sites accounts
- Developed a web-based software application to monitor classroom projectors
- Enhanced the systems needed to support and accurately report class size
- Developed and implemented a new judicial conduct solution
- Implemented a waitlisting feature for registration
- Developed a new process for handling JINS enrollment
- Created a system to automate the institutional review board process
- Implemented an online undergraduate graduation application process
- Implemented mobile web templates, enabling the entire Truman website to work on mobile devices
- Rolled out the new version of TruView to campus (only the Faculty tab changes remain to be completed)
- Completed two digital initiatives projects - an institutional repository system and a digital collections system
- Completed the migration and implementation of RAVE, the new emergency notification system
- Selected the Kuali Rice system for workflow management
- Developed and implemented an online application and approval process for handling non-degree seeking students
- Migrated personal faculty/staff websites to WordPress

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.

9 - A-level: *(teaching console, data projector, console computer, digital document camera, dedicated laptop connection)*

7 - B-level: *(teaching console, data projector, console computer, digital document camera, dedicated laptop connection + amp and room speakers)*

4 - C-level: *(teaching console, data projector, console computer, digital document camera, dedicated laptop connection + amp and room speakers + DVD/VCR/TV Tuner, SMART Board or Sympodium, Panopto Course Capture System and A/V/T push button control panel at console)*

6 - Specialty Rooms: VH1000 (permanent recording installed), 4 OP Rehearsal Rooms/Labs, Piper Lab in Health Sciences

2 - Large-Scale Projects in Cooperation with Winkler Communication – Lab/Clinic Rooms for Nursing and Communications Disorders

Classroom Improvements - Many rooms had targeted improvements on a smaller scale

- New data projectors and improved cabling – 26 classrooms
- Kensington remote clicker/laser pointers – 16 classrooms
- New teaching consoles – 9 classrooms
- Monitor arms to improve existing consoles – 10 classrooms
- Installed dedicated laptop connections – 30 classrooms
- New screens – 2 classrooms
- New teaching station computers - 4 classrooms
- Upgraded the audio/visual features in Baldwin Hall 176
- Removed all remaining outdated overhead projectors (24 classrooms), and we now have digital document cameras in all classrooms

Improvements and Support for Instruction

- Completed the Blackboard upgrade (database, application patches and hardware)
- Preventative maintenance completed on all classrooms
- Implemented a pilot project to remotely monitor classroom data projectors
- All of the classroom console software was upgraded, along with the public lab software
- Worked with the HES units to redesign their courses as part of the NCAT project
- Automated course archiving for Blackboard
- Designed and delivered workshops on a variety of teaching and learning technology topics throughout the year
- Developed a web-based audio/visual control system to be installed in all classrooms.
- Delivered the Ready, Set, Click! course to those faculty teaching fully online
- Integrated the McGraw-Hill Connect system with Blackboard using a building block

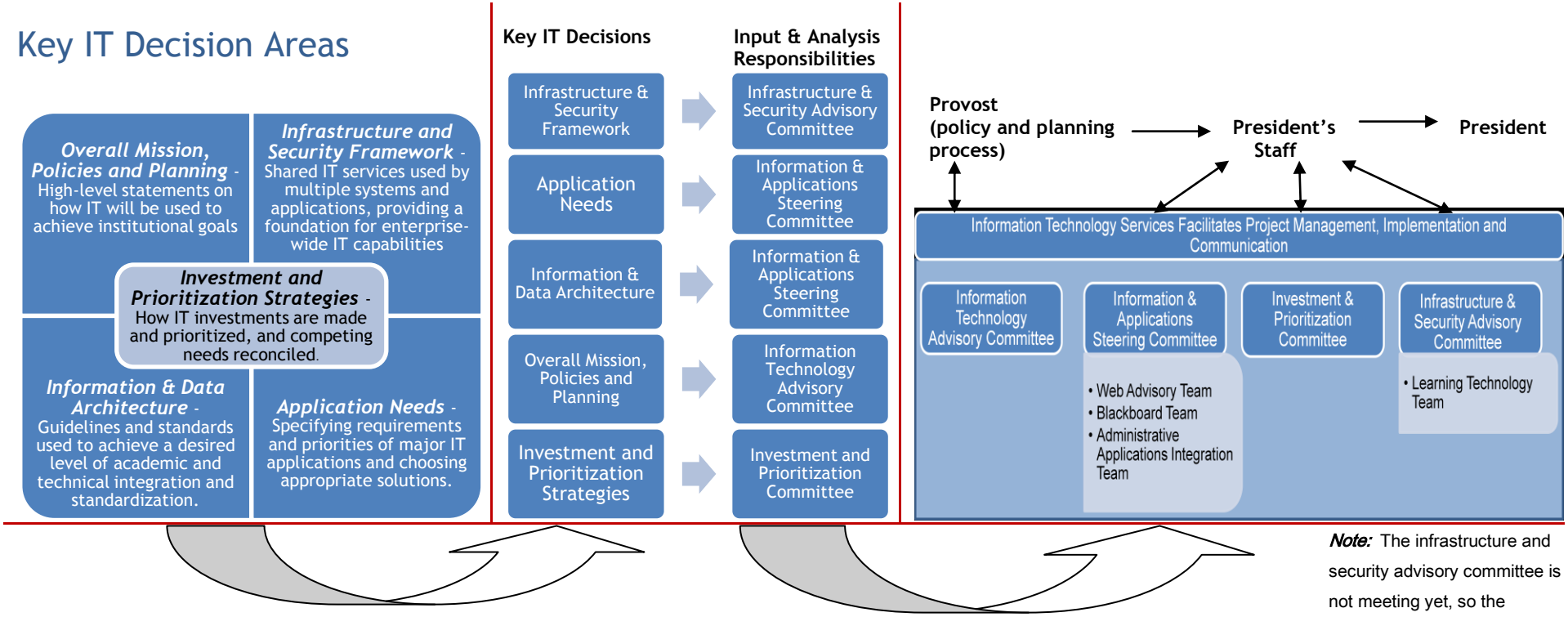
How We Function - IT Governance Structure

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.



Note: The Student Senate had a standing committee to deal with technology issues, called the Student Technology Improvement Committee, but this committee was abolished in 2011-2012 to be replaced by special topic groups as needed. ITS will be adding a student issues committee to the IT Governance Model.

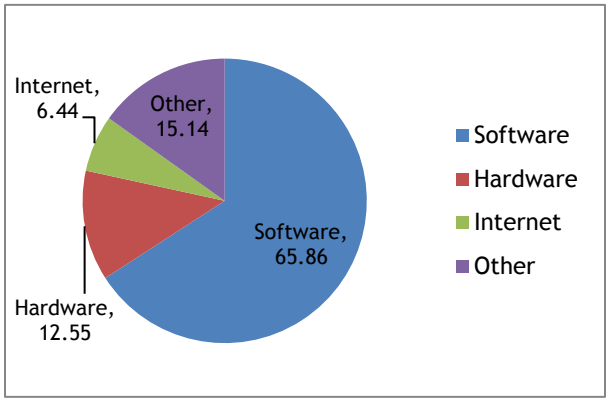
Note: The infrastructure and security advisory committee is not meeting yet, so the Director of Learning Technologies is attending Faculty Senate meetings in the interim.

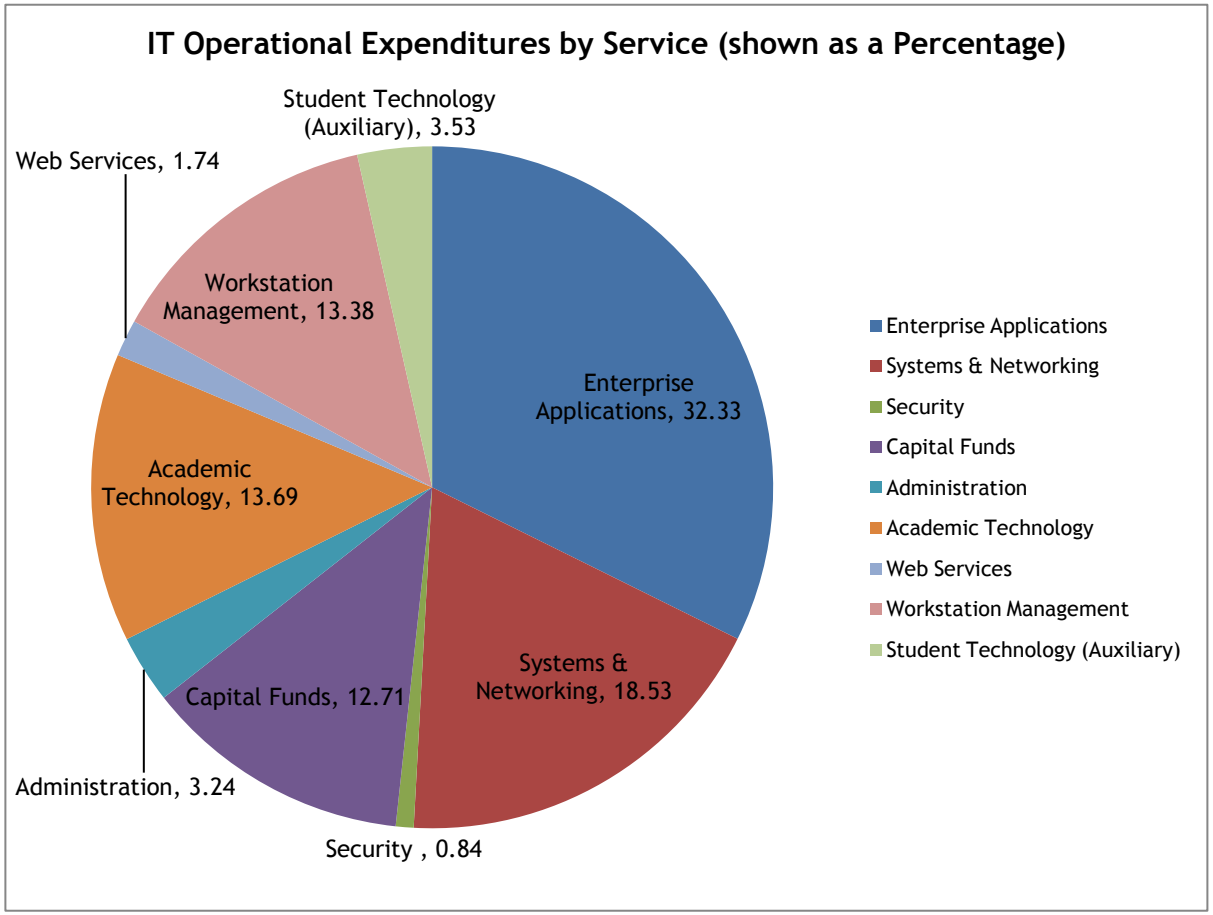
How We Function - Technology Funding and Expenditures

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 includes:

- 26 full-time staff
- 77 students

Note: The majority of the student technology auxiliary funds were carried over to fiscal year 2013 to cover the costs associated with additional bandwidth for the residence halls.

How We Function - ITS Assessment

ITS Faculty/Staff Satisfaction Survey

Survey Response Rate: 119 responses received out of 759 sent -- 41.18% faculty -- 58.82% staff

Satisfaction Ratings

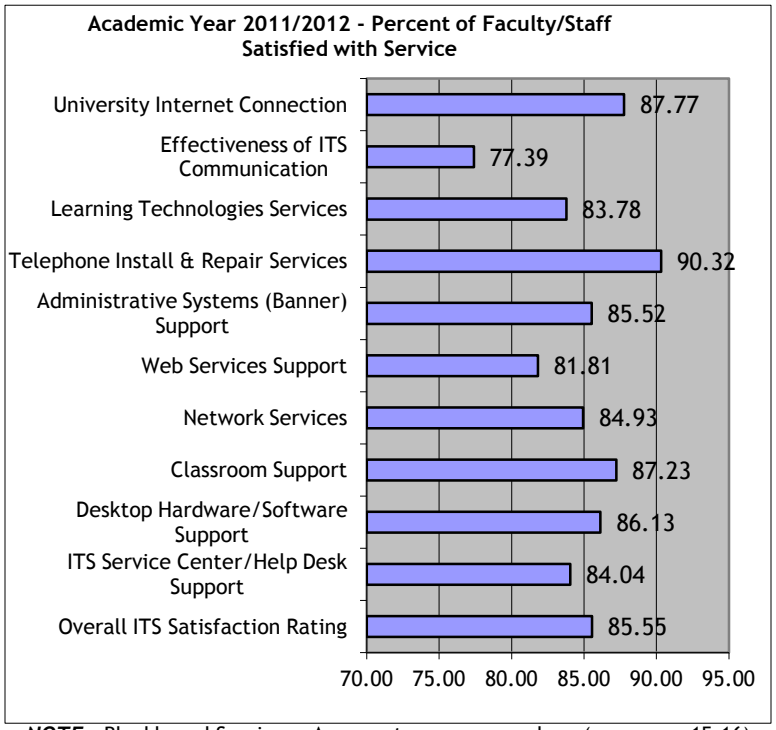
- Asked respondents to rank services on friendliness of staff, timeliness of resolutions, and overall satisfaction.
- *It is important to note that this year the rating scale was changed to this five-point scale, which should provide more balanced feedback.*
  Scale: Very Satisfied, Satisfied, Neutral, Dissatisfied, Very Dissatisfied, N/A

Trends:

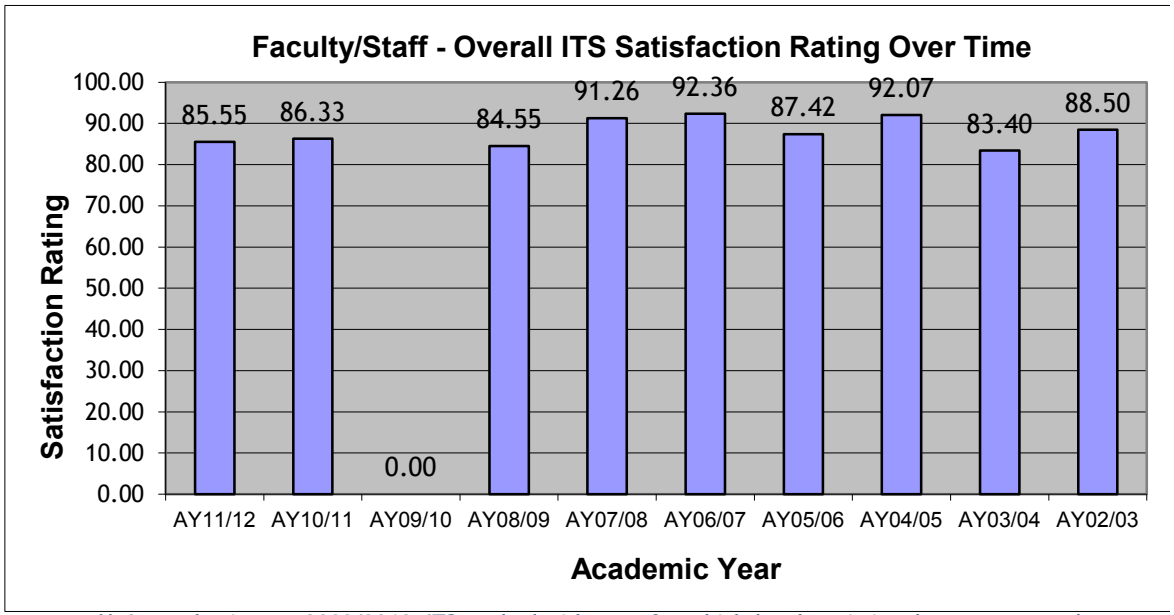
- Over the past several years, the overall satisfaction with ITS services has fluctuated up and down slightly (which is to be expected) but our ITS goal is to keep the overall satisfaction rate above 90% as much as possible.
- Faculty and staff agreed that most of the IT staff around campus were very helpful.

Needs and Concerns:

- Students and faculty felt that the internet speed was slow during the afternoon and night time.
- Students and faculty had trouble loading videos on YouTube; many instructors complained that it takes too long to load making it hard to show videos during class.
- Faculty and staff think that finding forms on the IT website is difficult and unclear.



NOTE: Blackboard Service – A separate survey was done (see pages 15-16)



** In academic year 2009/2010, ITS worked with one of our high-level statistics classes on several specialized technology surveys. Because of this, a general campus survey request was not distributed.
** In academic year 2011/2012 the rating scale was changed to a five-point scale, allowing more choice.

ITS Student Satisfaction Survey

Survey Response Rate: 594 responses received out >6000 sent -- 67.58% live on campus -- 32.15% live off-campus

Satisfaction Ratings

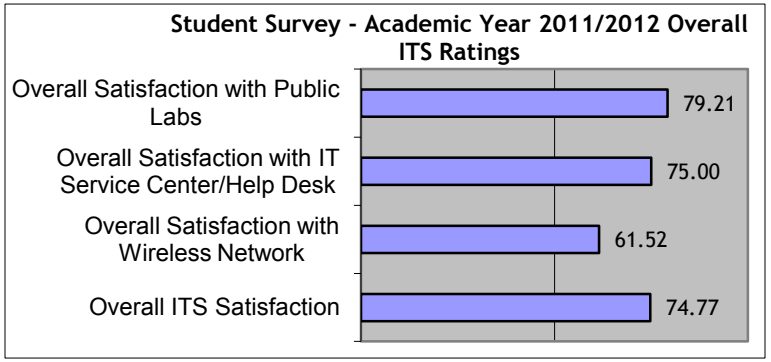
- Asked respondents to rank services on friendliness of staff, timeliness of resolutions, and overall satisfaction.
- *It is important to note that this year the rating scale was changed to this five-point scale, which should provide more balanced feedback.*
  Scale: Very Satisfied, Satisfied, Neutral, Dissatisfied, Very Dissatisfied, N/A

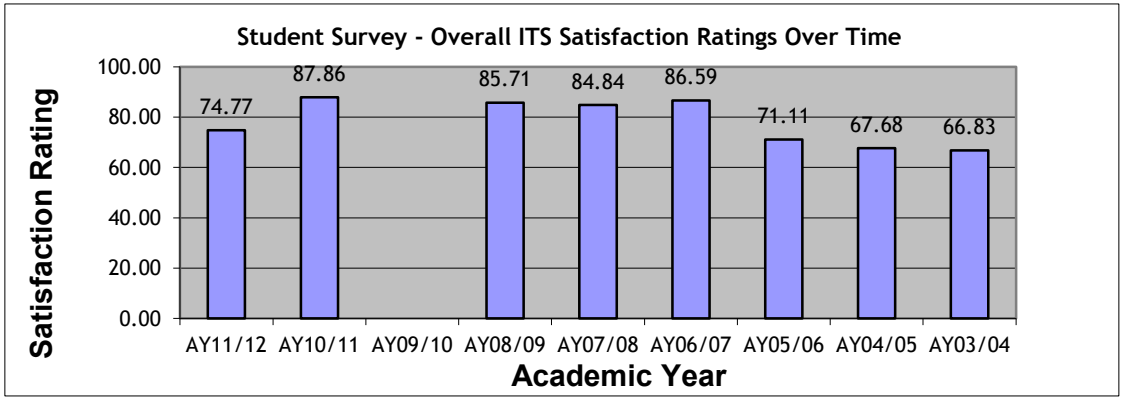
Trends:

- Over the past several years, the overall satisfaction with ITS services has fluctuated up and down slightly (which is to be expected) but our ITS goal is to keep the overall satisfaction rate above 90% as much as possible.

Needs and Concerns:

- Students and faculty felt that the internet speed was slow during the afternoon and night time.
- Students and faculty had trouble loading videos on YouTube; many instructors complained that it takes too long to load making it hard to show videos during class.
- Students said the registration process can be slow.
- Printers in residence halls are not reliable due to lack of paper or ink.





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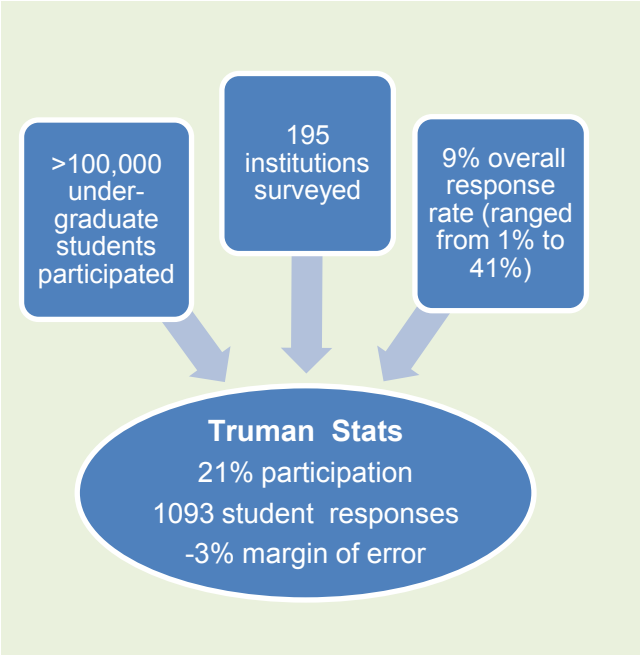
Educause Center for Applied Research (ECAR) Student Technology Use Survey

Student behaviors are leading indicators of mainstream technology use and drive the adoption of technology used by faculty and staff. To get a better understanding of these student behaviors, Truman students participated in a nation-wide survey regarding their preferences toward technology and its use in higher education.



Survey results were shared with Truman, along with information regarding the national data, and CASE (the Center for Applied Statistical Evaluation at Truman) reviewed our Truman data to see if and where it might have deviated from the national norms. The CASE review found that Truman student responses did not deviate significantly and are consistent with the national norms. After reviewing the data from two open-ended questions, CASE identified the following issues:

- ***students want improved internet speed***
- ***students expect their instructors to use technology in the teaching process – more specifically, they want instructors to take more advantage of Blackboard features and SMARTboards***

In addition to this local review, the national survey suggested that the student responses pointed to a broad thematic message:

> *Institutions and educators need to balance strategic innovation with solid delivery of basic institutional services and pedagogical practices, and to know their own students well enough to understand which innovations they value the most.*

FOUR KEY FINDINGS IDENTIFIED BY THE SURVEY

Blending modalities and engaging learners is a winning combination.

- *Students say they learn best in blended learning environments, and they expect instructors to use effective technologies to engage them in the learning process*

Students believe that technology is critical to their academic success and that it plays an important part in their future accomplishments.

- *Students believe basic technology benefits them, especially in regard to their academic success. Technology training and skill development is more important than new/better technology.*

The time has come to move beyond thinking about individual platforms and devices.

- *Students want to use portable devices (and diverse platforms), and they want to access academic progress information and course material on these devices.*

Students want multiple communication options, and they prefer different modes for different purposes and audiences.

- *Students use social networks for interacting with friends more than for academic communication. Academic success is underpinned by email, face-to-face interaction, and using the course/learning management system.*

ITS Organization - Who We Are

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 Technology Infrastructure

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

We provide a secure environment for our academic and administrative systems through:

- Management of firewalls, anti-virus scans, 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 provide printing services for users.

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

We provide data management services for our academic and administrative systems, including:

- 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
- Hardware and software upgrades, maintenance and system planning

Support for Information Systems

We maintain and support university-wide support systems, and are responsible for:

- the payroll 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, purchasing, and grants
- student housing records
- electronic documents
- 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
- 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
- the development and deployment of mobile applications

We provide specialized services in support of university systems, including:

- Training

Specialized equipment support – cashiering systems, scanners, special forms printing

Support for Academic Achievement

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., the optical test scanning service)

We support systems our students rely on for instruction, including:

- Printing
- Student computing labs
- Specialized laboratory software

We provide key services in support of academic pursuits

- Personal and Shared Storage
- Training

We provide targeted support for video delivery, storage, support, retention and editing for systems delivered using video streaming services and TruTube

We support and maintain the technology used in our classrooms, including classroom capture, presentation, and sound support for A, B and C level classrooms

We support and maintain access to university web sites (for structured and unstructured course materials)

We hold workshops and seminars for faculty on strategies to teach with technology

Professional Staff with the Knowledge and Skills to Ensure An Efficient and Effective Technology Experience

- 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 Personal Productivity

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 (cell phone models and support the enterprise BlackBerry service)
- Cable television services
- Targeted videoconference support

We provide user support for:

- Truman-owned workstations
- Personally-owned student workstations
- Personal digital device integration
- Targeted software application support

Support for Websites & Web Delivery Systems

We develop, support and maintain university web 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

Support for Technology Planning and Performance

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

Services and Support – By the Numbers

Support for Teaching and Other Scholarly Activities

Technology in the Classroom
• All classrooms have Internet access and a strong wireless signal
• There are currently 218 rooms used for instruction, with 158 equipped with one of our technology profiles ***(as of Jan, 2012):***
• 87 A-level rooms
• 56 B-level rooms
• 15 C-level rooms
• 60 special rooms – Includes studios, rehearsal rooms, tutoring rooms, laboratories, etc.

Student Computing Labs
• ~738 workstations available across the campuses in public and academic labs
• VMWare software virtualization used in all public labs

Course Management System
Courses Active in Blackboard for the year:
• Average number of active courses: 1,335 -- with a high of 1,567 and a low of 1,083

94% of students use Blackboard
72.87% of faculty use Blackboard, of this faculty total:
• 7.5% use it for a few courses
• 10.1% use it for most courses
• 82% use it for all courses

Active Blackboard Users:
• 6,008 average users for fall semester
• 5,646 average users for spring semester

• 1,253 Unique Blackboard Mobile Users
iPhone/iOS: 91.6% - Android: 8% - Other: >1%

Teaching with Technology
• ~30 local workshops conducted for faculty on a variety of technology tools
• 2 13-week Ready, Set, Click! courses taught
• ~30 faculty trained to use C-level rooms

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

Technology Infrastructure

Data Center and Internet Bandwidth
~813 sq ft of space in 2 Data Centers
• 125kw of total power usage
• 33 physical servers
• 80 virtual servers
• 250Mbs connection to the Internet

File Storage and Backup Services
• 55 terabytes of central file storage available
• 145 terabytes of backup storage available

Telephone System
• ~1,593 Phone lines in use
A total of 172,465 outgoing calls from Truman, consisting of:
• 91,532 Local outgoing calls
• 80,933 Long Distance Auth Code Calls

Network Connections, Access and Quality
• Over 17,000 system services on over 120 servers are being monitored in real-time to ensure system and service availability
• **9,800** data ports for network access
• 415 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

Network and Telephone Installation and Maintenance
• 288 Phone, data and cable installations or repairs
• An additional 236 Phone lines moved due to construction
• 12 Cable TV change requests

Information Security
• 121 enterprise systems are regularly scanned for vulnerabilities on a weekly or monthly basis
• PCI Compliance training completed by employees with access to credit card information
Identity Management:
• 655 active faculty/staff user accounts
• 7,501 active student user accounts

Information Systems and Institutional Data

Administrative Systems
• 223 Banner users on campus
• >100 applications and databases supported across 26 servers
• 315,479+ online registration transactions
• 221,255 web withdrawals
• 18,498 administrative registrations
• 136,482 Banner reports run through job submission

eCommerce: >$13M was accepted via online payments, of which $11,304,161 was for tuition, housing, and fees
• 86% of eCommerce traffic is bill payment, with 6.3% paid with credit card and 96.6% with electronic checks

Email
53,305 user/departmental email accounts:
• 1,594 mailboxes on Exchange
• 51,711 mailboxes on Google Apps

Processing ~91,000+ central email messages daily (on average), which includes:
• >76,000 external messages
• >15,000 internal messages
• >160,000 messages blocked as SPAM

Web Development Services
~ 125 applications and databases supported across 9 servers

Web Content Services
Website monthly averages:
322,663 unique visitors to the Truman home page

~700 Web sites hosted
130 Average concurrent logins to TruView (reaching a maximum of 737 concurrent logins)

Mobile Applications
7 mobile application modules for iPhone, iPad and Android systems

General Campus Computing

Student Technology Profile
Truman students are connected:
• 96% own laptops; 98% have computers
• 8% own tablets
• 14% own dedicated e-readers
• 48% own smartphones

Help Desk
9,511 Requests for assistance which include:
• 6,811 completed phone calls
• 2,700 on-site requests for assistance

Telephone Operator Requests for Information
• 37,453 inbound requests for assistance
• 14,383 outbound requests for assistance
• 3,733 calls serviced after hours using the automated attendant

Software
• 105 software applications installed and supported on public workstations
• 37 software applications installed and supported on faculty/staff workstations
• Manage ~104 software contracts (that are reviewed on an annual basis)

Desktop/Personal Workstations
• ~2,020 Workstations used for faculty, staff, research labs and offices

Printing
Provide support for centrally attached network printers
• 326 printers for faculty and staff
• 56 printers for students

Governance, Communication
6 active IT governance groups

Project Management
• 208 major projects, of which 85 were completed during this timeframe

Services and Support – Classroom Equipment Standards

The technologies identified in the chart to the right are the ***minimum*** baseline technologies for each type of room classification.

		C-Level Rooms	B-Level Rooms		A-Level Rooms
		C	B+	B	A
		High Tech - SMART	**Mid Tech - Computers**	**Mid Tech**	**Tech Ready**
Video/Data Projector	Projector (wide screen) and remote - or - LCD panel	X	X	X	X
Projection Screen		na	X	X	X
AV Control Program	Extron touch panel -or- software control panel	X	X	X	use remotes
Media Cabinet	Space for electronic devices	X	X	X	X
Classroom Capture	Classroom capture software	X	X	X	X
	Classroom capture video camera & confidence monitor	X			
	Voice tracking microphones	X			
	Webcam and Microphone		on request	on request	on request
Laptop Connection		X	X	X	X
Console Computer		X	X	X	X
Cable Television	Cable TV tuner in special DVD/VHS player	X			
DVD/VHS Playback	DVD player in computer (must convert VHS to DVD)	see cable TV	X	X	X
	DVD/VHS player (use only existing inventory)	twilight	twilight	twilight	Twilight
Document Display	Document camera	X	X	X	X
Interactive Whiteboard	SMART Board or Sympodium	X			
	SMARTBoard Airliner slate	on request			
Writing Boards	Dry erase white boards and/or chalk boards	X	X	X	X
Sound Amplification	Amplifier	X	X	X	
	External speakers	X	X	X	
Student Workstations	Group work - Thin client PCs in BT, VH and BH -- Netbooks on request	X			
	Individual workstations		X		
Network Access	Wireless access in room	X	X	X	X
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 Netbooks for students*

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

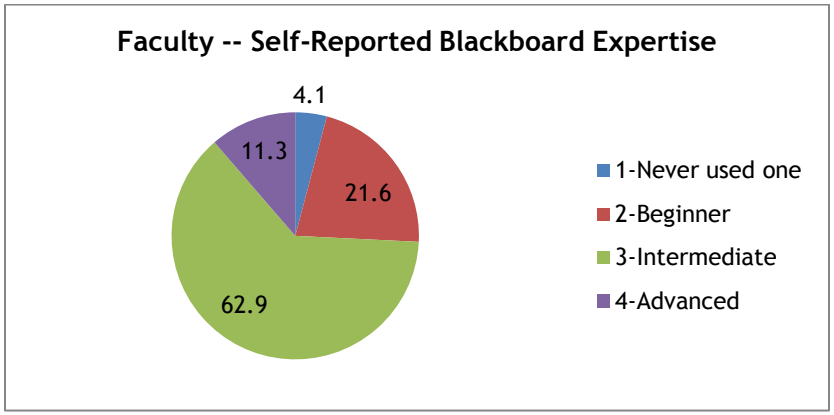
Services and Support – Blackboard Usage and Metrics

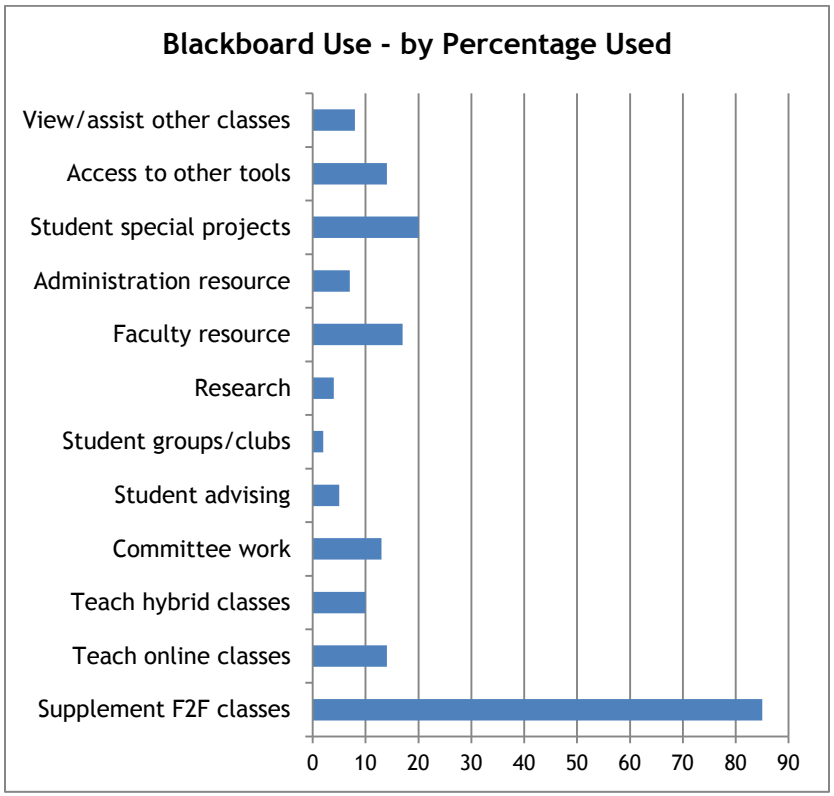
College	Department	Blackboard Active Instructor with a Banner Course	Banner Active Instructors	% Using Blackboard
School of Arts & Letters	Art	7	13	53.85
	Classical & Modern Languages	23	40	57.50
	English & Linguistics	32	40	80.00
	Music	14	28	50.00
	Theatre	3	5	60.00
Totals for Arts & Letters		79	126	62.70
School of Business	Accounting	9	9	100.00
	Business Administration	17	20	85.00
Totals for Business		26	29	89.66
School of Health Sciences & Education	Communication Disorders	10	12	83.33
	Education	13	15	86.67
	Health & Exercise Science	30	47	63.83
	Nursing	11	13	84.62
	Professional Development	1	2	50.00
Totals for Health Sciences & Education		65	89	73.03
Library & Museums		4	4	100.00
New Student Program		5	6	83.33
Inter-Divisional	Interdisciplinary Study	1	1	100.00
	Inter-divisional Studies	1	1	100.00
Overall Totals for all Schools, Library/Museums and New Student Programs:		317	435	72.87

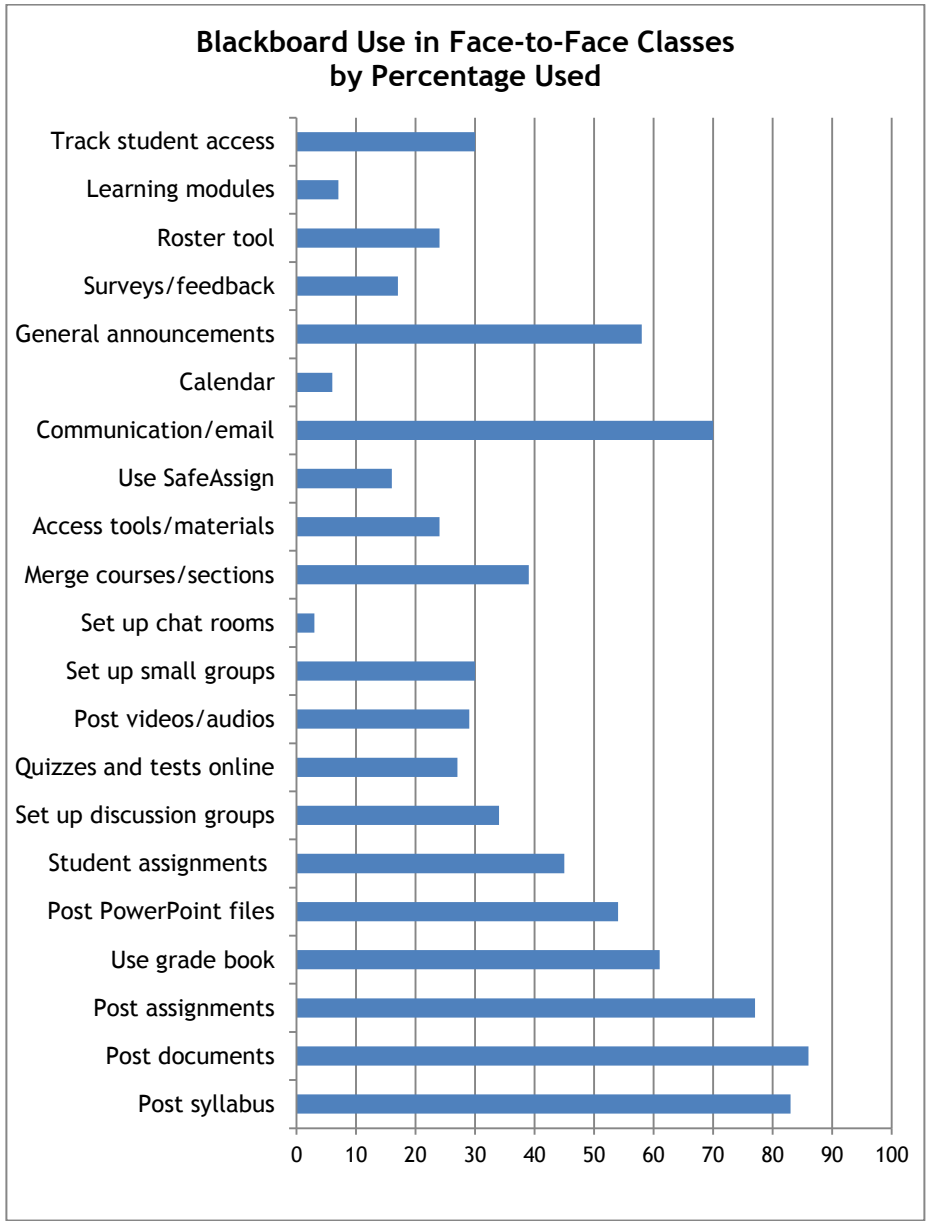
College	Department	Blackboard Active Instructor with a Banner Course	Banner Active Instructors	% Using Blackboard
School of Science & Mathematics	Agricultural Science	4	6	66.67
	Biology	23	25	92.00
	Chemistry	17	19	89.47
	Mathematics/ Comp Science	16	34	47.06
	Physics	4	8	50.00
Totals for Science & Mathematics		64	92	69.57
School of Social & Cultural Studies	Society & Environment	6	7	85.71
	Communication	15	16	93.75
	Economics	7	7	100.00
	History	11	14	78.57
	Justice Systems	6	8	75.00
	Military Science	2	5	40.00
	Philosophy & Religion	9	11	81.82
	Political Science	7	7	100.00
	Psychology	9	12	75.00
Totals for Social & Cultural Studies		72	87	82.76

A Total of
72.87% of Truman Faculty
are Using Blackboard

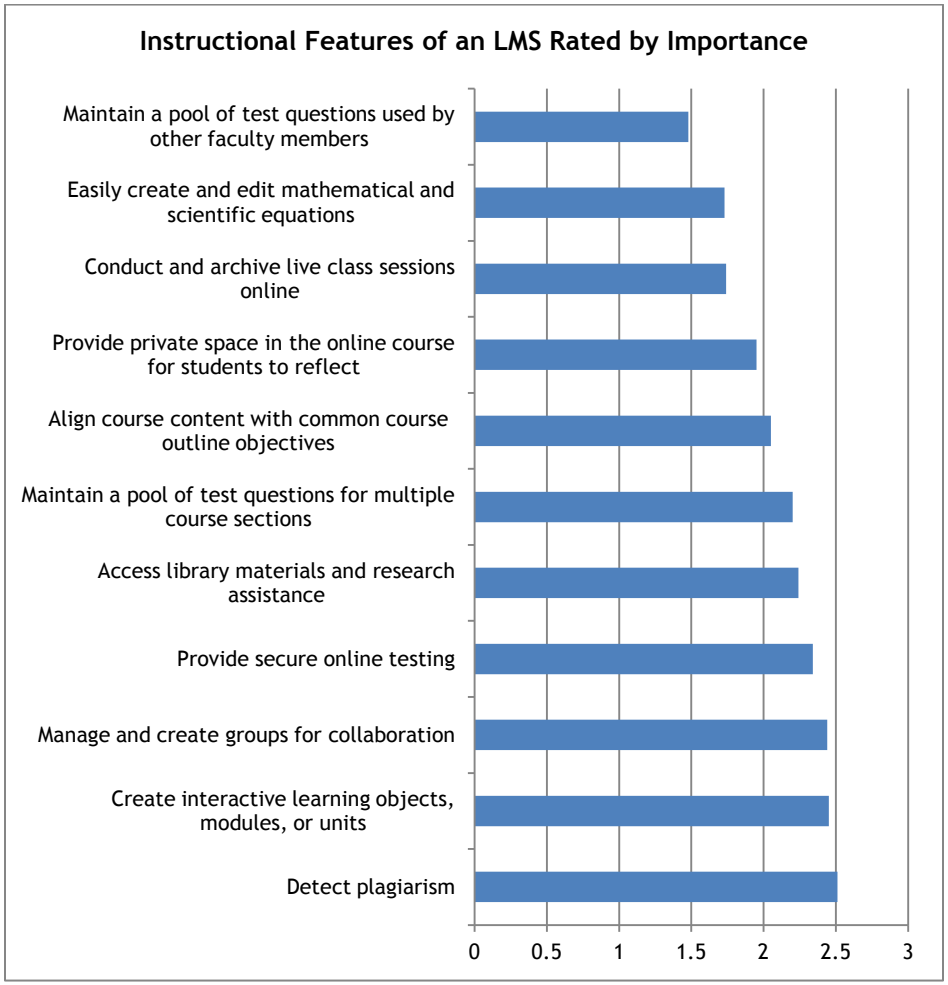
Services and Support – Blackboard Faculty Usage

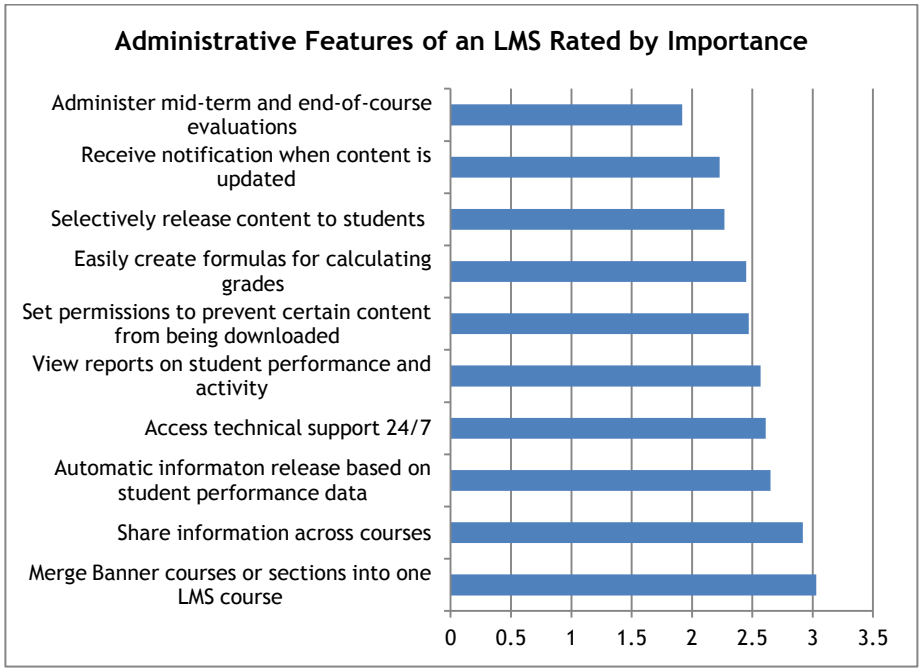


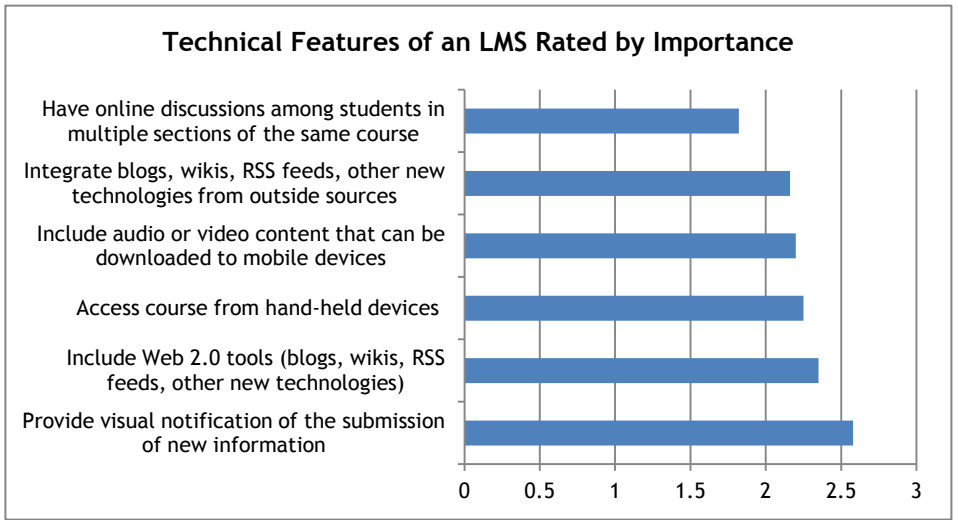




Services and Support – Importance of Learning Management System Features







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
- Bboogle & Gint

Evisions
- MAPS
- Intellicheck
- FormFusion
- Archiver
- Argos

Banner Document Management System (BDMS)
- Desktop
- Web Access
- Image Capture

Operational Data Store (ODS)
- Enterprise Data Warehouse
- Recruiting and Admissions Performance (RAP)
- COGNOS

TouchNet
- Payment Gateway
- Bill+Payment
- Marketplace
- Cashiering
- PayPath

DegreeWorks
- DegreeWorks application/database
- DegreeWorks web
- SureCode
- Scribe
- Transit

Event Management System (EMS)
- EMS Campus & VirtualEMS
- CampusCall
- Luminis (TruView)
- Campus Loan Manager
- ePrint
- Digital Measures (Faculty Mgt System)
- RAVE (Emergency texts)
- TutorTrac
- Acalog (Course Catalog)
- Mailers+4
- Titanium Schedule
- ION Enterprise (Energy Metering System)
- Perimeter Access System
- ID Card System
- DSpace (Institutional Repository)
- Greenstone (Digital Library Collections
- Vivature (Health Center Management)
- Conference Programmer
- Project.net (Project Mgt)
- Education Development Project
- Network Installation Management (NIM)
- Tivoli Key Lifecycle Manager
- Hardware Management Console

Banner Integration with Other Applications

Many of the applications mentioned in this section are tightly integrated with Banner (i.e., data is shared in real-time or through data files).

Web Applications

- Meet A Counselor
- Admissions Department web App
- Spd-E Letter
- Placement Tests
- Alumni Contribution Form
- Foundation Scholarships Application System
- Athletics Hall of Fame
- Football Recruiting App
- Athletics Homepage News
- Soccer Women's Recruiting App
- Soccer Men's Recruiting App
- Softball Recruiting App
- Volleyball Boosters App
- Volleyball Recruiting App
- Benefits Enrollment System
- Online Loan Payments App
- Auction Invoice
- iClearances
- TruPositions
- Student Timecards
- Internships Online
- Career Center Resource Library
- Career Center Visitors
- Student Organizations
- Bike Co-Op
- DPS Ticket Appeal
- Campus Crime Log
- DPS Threat Level
- DPS Crime Watch
- Education MAE Portfolio
- Art Payments
- Online Deposit Payment for Graduate Studies
- Institutional Research Board
- Theatre Production Schedule
- Serve Center Volunteer Management
- Student Research Conference System
- Staff Council Voting
- Molecular Ecology App
- National Conference of Undergraduate Research
- STEP Program App
- Study Abroad Online App
- Study Abroad Scholarship App
- Info Desk Software
- Success Center Tutor App
- Service Learning System
- TruTube
- Visitor's Guide
- Truman Institute App
- Truman Institute Payments
- Truman State University Press
- Counseling Service Payment
- eCards
- Athletic Insurance Questionnaire
- OTRS Reporting
- Calendarix
- SB389 Course Evaluation
- Online Stores
- Checkbox Survey System
- Senior Portfolio System
- Online Hiring Process
- Music Library
- Student Health Center Immunization Records
- Mobile Athletic Training Competency App
- HES Portfolio App
- Homecoming Elections
- ISO Online App
- Copyright Violations
- Event Manager
- ITS Purchase Request Form
- PML Guest Accounts
- TruDex
- French Placement
- Writing Center Library
- McNair Program Apps
- McNair Summer Research Institute
- Mailroom backcharge
- ITS Equipment Checkout
- Office of Student Research app
- Phone Bill Processing
- Physics Colloquea
- RCP Advisor Survey
- RCP Incoming Worksheet
- RCP Transfer Worksheet
- Rec Center Activities Scheduler
- Hall Desk Software
- Conduct Hearing Evaluation Survey
- Behavioral Concern
- Risk Management Self-Assessment
- Homecoming Parade Entry
- Student Senate Voting
- Faculty Forum
- Advanced Placement App
- Course Evaluation System
- Truman Directory
- Academic Advisor Evaluations
- Alumni Info
- Newsletter System
- Department Chair Evaluation System
- School of Social & Cultural Studies Mode Review
- Emergency Ops

Website Management Tools

Menu Editor
Page Editor
Announcements
Photo Gallery
Form Builder
Profile Slideshow
QuickFacts
Hompage Management
FAQ
Slideshow
Student Profiles
Faculty/Staff Directory
Alumni
File Browser

Content Management - WordPress installations for

- Faculty/Staff and Student Organizations
- Blogs
- Truman Media Network

Services and Support – IT Service Desk Call Statistics

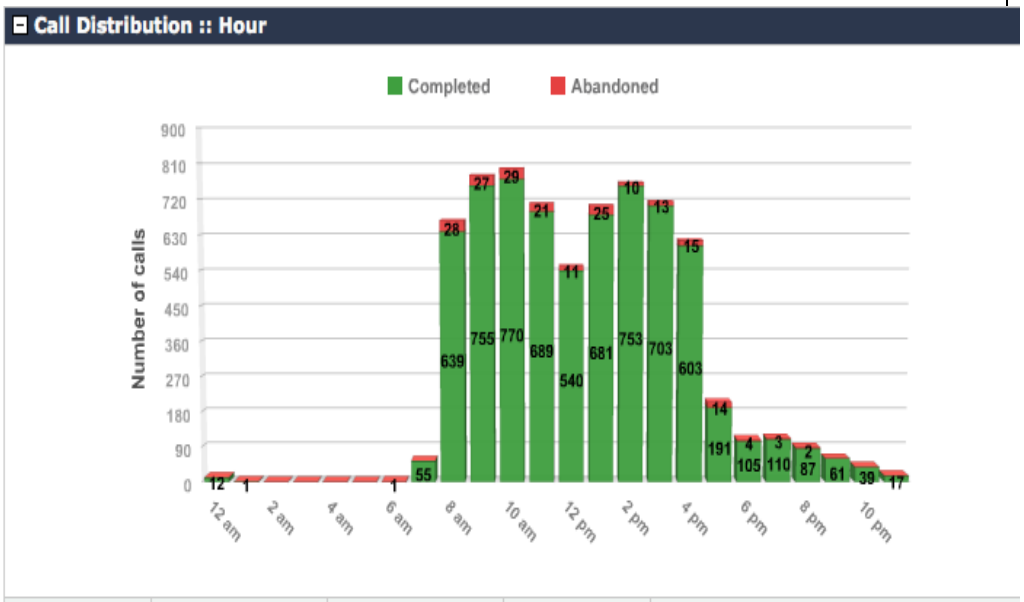
(Report from July 1st, 2011 to June 30th, 2012)

Abandoned vs. Completed :: Summary			
Abandoned Call Count:	218 calls	Completed Call Count:	6811 calls
Abandoned Call Rate:	3.1%	Completed Call Rate:	96.9%
Abandonment Total Hold Time:	3.0 hours	Completion Total Hold Time:	15.6 hours
Abandonment Avg. Hold Time:	49 seconds	Completion Avg. Hold Time:	8 seconds
Abandonment Longest Hold:	17.1 minutes	Completed Longest Hold:	2.7 minutes

Weekday Call Distribution

Date	Completed	Abandoned	Total Calls	Complete / Abandon / Volume
Sun	126 calls	7 calls	133 calls	95% 5% / 2%
Mon	1350 calls	38 calls	1388 calls	97% 3% / 20%
Tue	1450 calls	38 calls	1488 calls	97% 3% / 21%
Wed	1440 calls	73 calls	1513 calls	95% 5% / 22%
Thu	1235 calls	33 calls	1268 calls	97% 3% / 18%
Fri	1100 calls	25 calls	1125 calls	98% 2% / 16%
Sat	110 calls	4 calls	114 calls	96% 4% / 2%

Call Distribution by Hour



Services and Support – Measuring Systems Reliability

(Report from July 1st, 2011 to June 30th, 2012)

How good does it need to be?

Availability $\frac{\text{Total Hrs. - (Planned and Unplanned Outages in Hrs.)}}{\text{Total Hrs.}} \times 100$

Availability – "9's"	Percent	Downtime (per year)
	99.0	87.7 hours
	99.9	8.77 hours
	99.99	52.62 minutes
	99.999	5.26 minutes
	99.9999	31.6 seconds

Reliability vs. Availability
Reliability deals only with "unplanned" outages.

Truman's IT Maintenance Window

Daily Maintenance 3:00am-5:00am daily, for production maintenance/backup processes
Weekly Maintenance Thursday, 8:00pm through Friday, 6:00am for on-campus services
Saturday, 12:00am until Sunday, 12:00pm (MOREnet, off-campus internet)
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 services within this maintenance window.

System Maintenance is considered a "Planned Outage" and is not factored into the reliability calculations noted below.

Service	Reliability Percentage
Internet	99.92%
Local Area Network	
Wired Network	99.9%
Wireless Network	100.0%
Remote Network Services	
VPN	100.0%
Proxy Server	100.0%
Network Security Services	
Firewall	100.0%
Bandwidth Management	100.0%

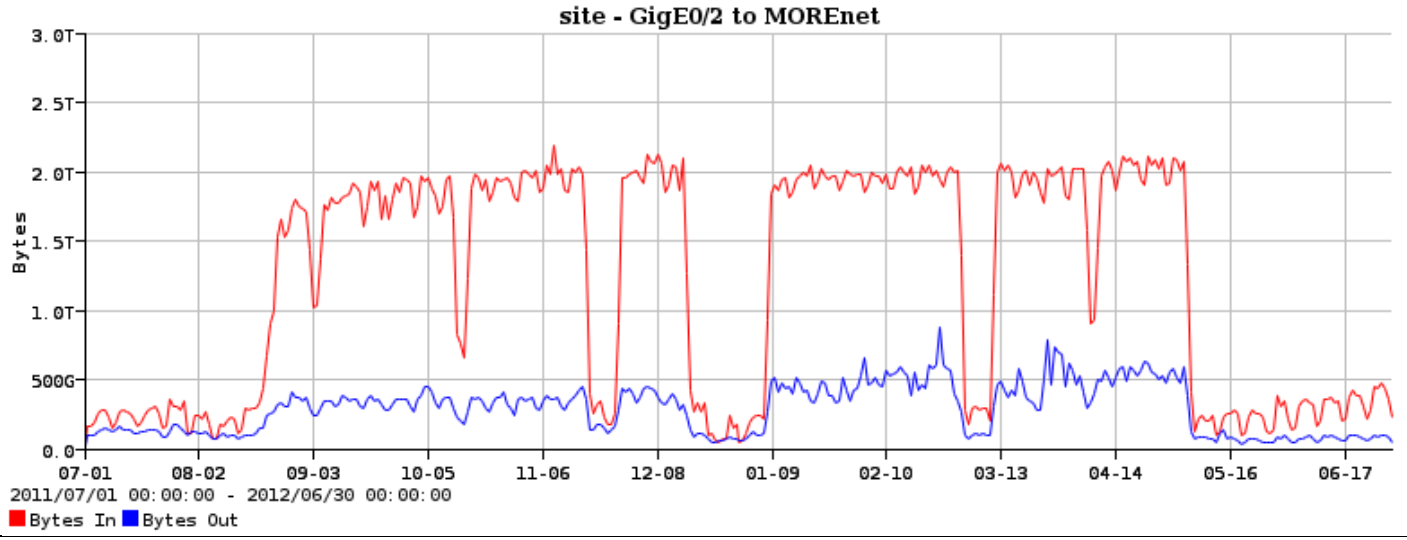
Service	Reliability Percentage
Application and Web Services	
Department Web Sites	99.99%
Student Org. Web Sites	100.0%
TruView Portal	99.9%
Banner	99.97%
Blackboard	99.86%
Personal Web Sites	100.0%
Streaming Web Services	100.0%
Lecture Capture System	100.0%
Email Services	
AntiSpam System	100.0%
Faculty / Staff Email	99.95%
Student Email	100.0%

Service	Reliability Percentage
File Services	
Department W: Drives	99.99%
Faculty/Staff Y:Drives	100.0%
Student Y: Drives	100.0%
Mac file services	100.0%
Print Services	
Faculty/Staff Printing	99.95%
Student Printing	99.97%
Computer Labs	99.95%
Telephone Services	
Not all telephone services were unavailable, but two large buildings were affected in this timeframe	99.97%

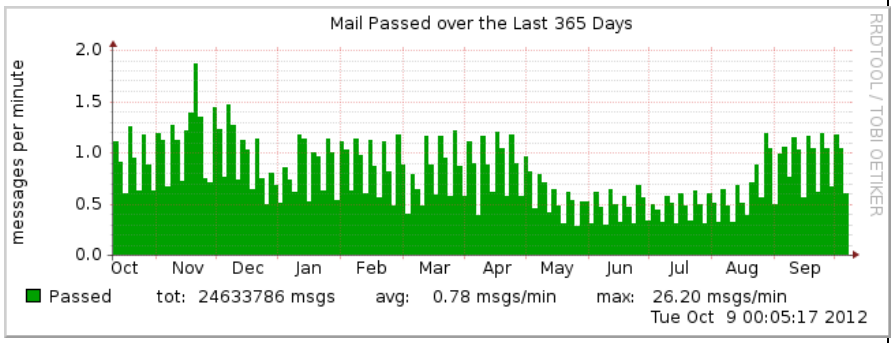
NOTE: This is not a complete list of services, but includes those most users are affected by.

Services and Support –Internet Traffic Patterns

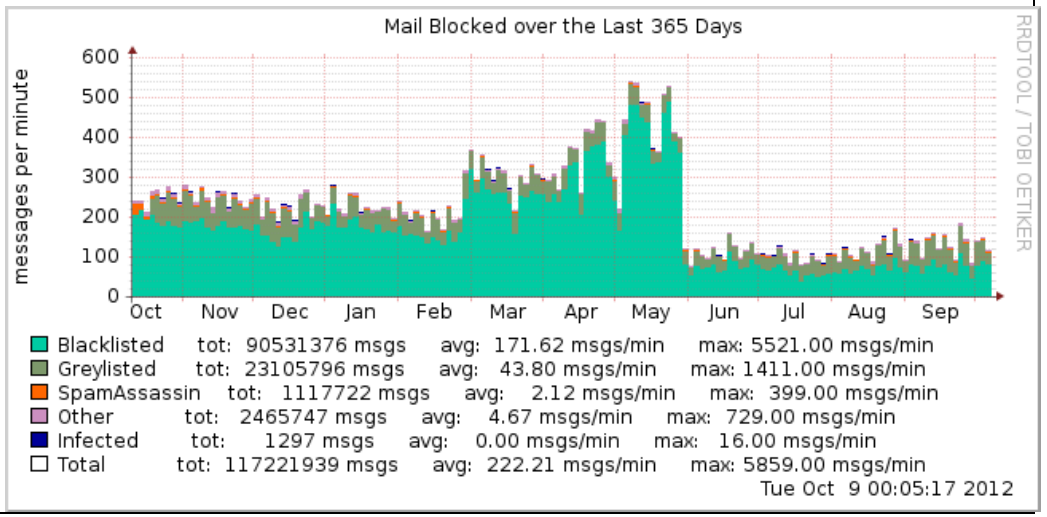
This chart shows internet use for the past year. The red line indicates inbound traffic. When students are on campus the inbound internet is 100% full (which can result in slower traffic).



This chart shows the volume of email messages per minute sent and received to and from campus (October 2011 through September 2012).



This chart shows the volume of SPAM email messages per minute blocked from being delivered to campus (from October 2011 through September 2012).



Services and Support – Legislative and Regulatory Issues

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

Federal

- ☐ Gramm-Leach-Bliley Act
- ☐ Digital Millennium Copyright Act
- ☐ FERPA (Family Education Rights and Privacy Act of 1974)
- ☐ HIPAA (Health Insurance Portability and Accountability Act of 1996)
- ☐ FISMA (Federal Information Security Management Act)
- ☐ TEACH Act (Technology Education and Copyright Harmonization)
- ☐ HI TECH (The Health Information Technology for Economic and Clinical Health Act)
- ☐ PCI DSS (Payment Card Industry Data Security Standard)
- ☐ USA Patriot Act
- ☐ Higher Education Opportunity Act
- ☐ Red Flag Rules
- ☐ ECPA (Electronic Communications Privacy Act)
- ☐ eDiscovery
- ☐ Distance Education Approval of Out-of-State Providers (effective July 2011, but challenged)
- ☐ Copyright Act (while there are no direct IT requirements, how information is used electronically must adhere to copyright law)

State

- ☐ Data Breach Notification
- ☐ Sunshine Law (Open Records)
- ☐ Records Management/Records Retention

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: CMAS
- ☐ Disaster Planning and Response: CSRIC
- ☐ Exclusive Contracts For Video Services In Multiple Dwelling Units
- ☐ 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
- ☐ Radio Webcasting
- ☐ Spectrum Reallocation
- ☐ Telephone Relay Service (TRS) and Video Relay Service (VRS)
- ☐ Unbundled Network Element-Platform (UNE-P)
- ☐ Universal Service Contributions
- ☐ Universal Service Fund
- ☐ VoIP and IP-Enabled Services

Open Inactive Issues

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

Archived Inactive Issues

- ☐ Over The Air Reception Devices (OTARD) Rules
- ☐ PIC Change Charges
- ☐ Telecommunications Excise Tax
- ☐ Video Franchising
- ☐ White Space