TEXAS A&M UNIVERSITY

Making IT Possible

annual report 2010

Texas A&M **Information Technology**

*To view the full, interactive report please visit **it.tamu.edu/annualreport**.*

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MESSAGE FROM THE CIO

These challenging times call for new ways of thinking and working. With the tough economy seriously impacting the university's budget, we were called to make hard decisions to deal with diminished allocations. As leaders of information technology at Texas A&M University, our organization rose to meet this difficult challenge by providing ideas and insights to ensure reductions do not compromise the quality of our services. We engaged in novel approaches and sought new opportunities to solve problems through IT. This report shares some of our team's many accomplishments that demonstrate this positive attitude. I encourage you to ask questions or send comments to me and the dedicated professionals on our team as we continue to build an outstanding IT environment for our university.

Dr. Pierce Cantrell
Vice President and Associate Provost for Information Technology
and Chief Information Officer
Texas A&M University

Collaboration and teamwork achieve enterprise-wide projects.

- *Texas Pipes Project receives $6.6 million grant*
  The Texas Pipes project received a $6.6 million Broadband Technology Opportunities Program grant, which will bring broadband services to campuses and communities served by The Texas A&M University System.

- *New supercomputer provides five-fold increase in computational capacity*
  The new Eos supercomputer increased the Supercomputing Facility's computational capacity at least five-fold. Pooled resources from across the university funded the purchase.

Technology assists the university to work more effectively and efficiently.

- *eLearning used in over 50 percent of courses*
  Over 50 percent of course sections used the eLearning course management system.

- *Howdy web portal users exceed 163,000*
  The Howdy web portal assists over 163,000 students, applicants, former students, parents, guardians and employees. Howdy is the front door to the Compass student information system.

Investments in the future accommodate the needs of a growing university population.

- *College Station ranks high for fastest cyber speeds*
  College Station was ranked seventh highest in the U.S. and eleventh highest of all cities worldwide for average Internet connection speed in December 2009, largely due to the campus computer network, wireless network and TTVN, the A&M System's wide area data network.

- *Server virtualization saves money, reduces carbon footprint*
  Centralized server virtualization offers substantially lower costs for both departmental and university computing and provides a green solution through decreased energy consumption.

- *Shared email services provide campus-wide solution*
  Scalable Microsoft Exchange email service can be expanded to support campus-wide administrative messaging with redundant servers in the two campus data centers. Zimbra provides departments with a cost-effective hosted email service.

- *Laserfiche document management support lowers costs*
  Consolidating IT support for Laserfiche, the campus' preferred document management system, will reduce redundant hardware, software and personnel costs for the university.

Questions? Comments?
Email us at tamu-it@tamu.edu.

ADVANCING NETWORK AND INFRASTRUCTURE RESOURCES

- *Provide a quality, high-capacity network that meets the university's needs for continuous access to information.*
- *Furnish a robust and secure technology infrastructure that is the necessary foundation for an exceptional IT environment.*

$6.6 Million Grant Funds Broadband Improvements

Texas A&M University, on behalf of The Texas A&M University System's TTVN Network, was awarded a $6.6 million Broadband Technology Opportunities Program (BTOP) grant to provide high-speed broadband access to all 11 A&M System universities, the Texas A&M Health Science Center and communities served by the A&M System. Through a public-private partnership with five independent rural telephone and cable television companies in Texas, the City of Corpus Christi, the Texas Department of Public Safety (DPS) and the A&M System, the grant will fund construction of Texas Pipes, a fiber optic network with minimum data rates of one gigabit per second (Gbps) and capable of supporting up to 40 Gbps. Also, grant funds will enhance public safety by increasing broadband capabilities for campus police departments.

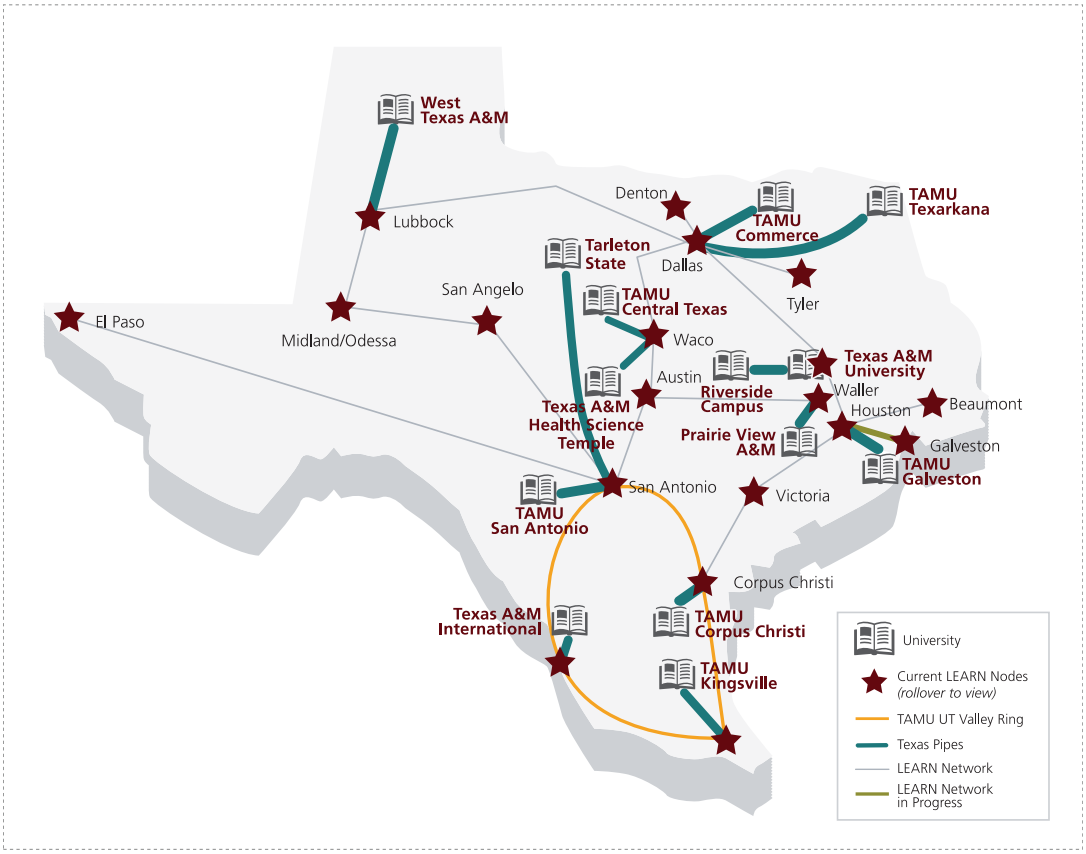
Texas Pipes will improve broadband access to currently underserved areas of Texas, increasing access to distance learning, research and other services. The project will build new connections between the A&M System's TTVN network and the Lonestar Education and Research Network (LEARN), the Texas regional optical network.

TTVN is the wide area data network (WAN) and interactive communications network serving all members of the A&M System.

BTOP funds projects to expand access to broadband services in the United States. See www2.ntia.doc.gov/.

LEARN provides Texas connectivity to national and international research and education networks and serves higher education institutions, community colleges and K-12 public schools. See www.tx-learn.org.

Texas Pipes Project



Advancing Network Capabilities

Only 67 Seconds of Internet Outage Time on Campus

The campus enjoyed nearly continuous Internet access during FY2010, with only 67 seconds of outage time. This high degree of Internet availability is due to the resilient, redundant regional network, created in partnership with The University of Texas.

College Station Ranks 7th in the U.S., 11th of Cities Worldwide for Fastest Average Cyber Speeds

Akamai, a noted Internet solutions company, ranked College Station the **seventh highest in the U.S.** and **eleventh highest of all cities worldwide** for average Internet connection speed in its December 2009 "State of the Internet" report. All U.S. cities on the top 100 list worldwide were "college towns," and College Station's high ranking is largely due to Texas A&M's extensive local network and high performance optical connectivity to the rest of the world. Read the report at www.akamai.com/stateoftheinternet.

2,662 Wireless Access Points Across Campus

TAMULink campus wireless coverage expanded, assisting delivery of educational applications via mobile devices, enriching student learning and living experiences. Over 95 percent of buildings with Registrar-

controlled classrooms have complete wireless coverage. Fifty-six percent of all buildings have complete or partial wireless coverage. Visit the Aggie Map at aggiemap.tamu.edu/?icons=TAMULink to see TAMULink wireless availability on campus.

The Aggie Map is created and maintained by the Office of Facilities Coordination.

Campus Network Covers 11 Million Square Feet, 358 Buildings

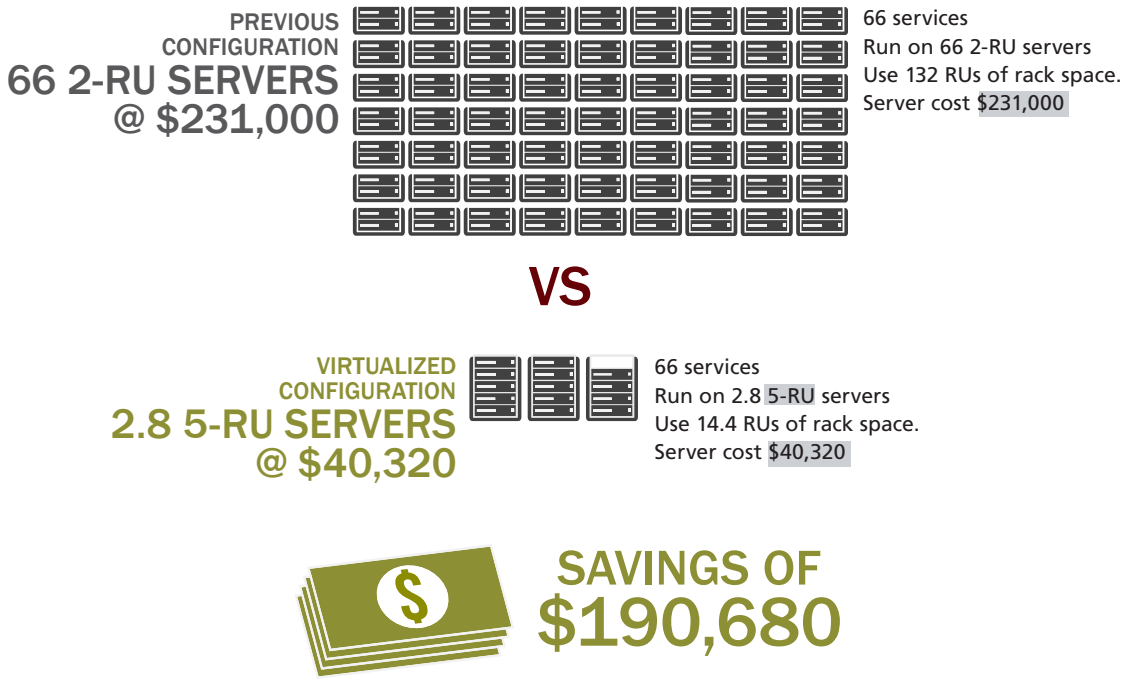
New buildings added to the campus network during FY2010 include the University Gardens Apartments, Nuclear Magnetic Resonance Facility and Mitchell Physics Building.

Server Virtualization Saves $$, Reduces Carbon Footprint

Server virtualization replaces the "one server per application" model by running multiple applications on a single physical computer.

Centralized server virtualization and storage infrastructure were expanded in the data centers, saving space, reducing power consumption and lowering cooling requirements. Approximately 10 percent of services were moved this year from single-use, dedicated servers to the virtualization infrastructure.

By moving to centralized virtual servers, departments can save equipment and server administration costs and the university can save energy costs with more buildings under energy management control systems.

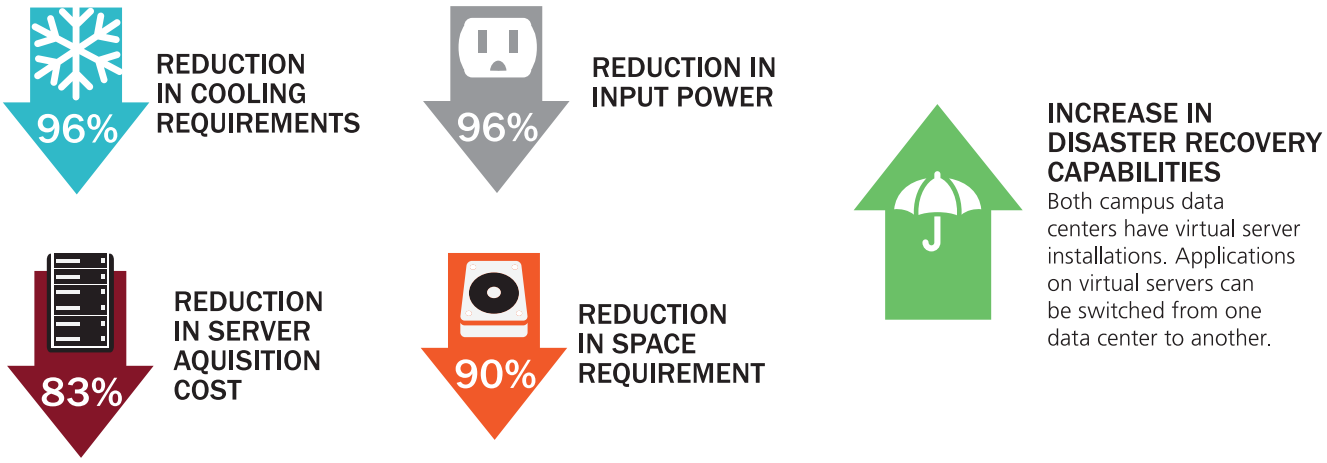


RU, or rack unit, is the height measurement for equipment mounted on a server rack.

$3,500 per server on a three-year replacement cycle.

Eight 5-RU servers were purchased at $14,000 per server on a 5-year replacement cycle. Since each physical server can host 150 virtual machines, the 66 services use only 36 percent of total server resources.

Virtualization Benefits



$150,000 Saved with Mainframe Right Sizing

Mainframe resizing reduced operating costs by $150,000 from the previous year, with more savings anticipated in FY2011. Lower mainframe workloads have resulted from implementation of Compass, the student information system. SIMS, the legacy system, previously accounted for 40 percent of mainframe usage. A smaller machine was purchased and components from the old mainframe were recycled for the new system. Using the smaller mainframe also resulted in reduced software licensing fees. The mainframe currently hosts A&M System business applications – Budgets/Payroll/Personnel (BPP) and Financial Accounting Management Information System (FAMIS).

Data Center Upgrades Improve IT Infrastructure Resilience

Business continuity and disaster recovery preparation enable quick resumption of essential functions after a catastrophic event. Space was leased in a commercial Dallas data facility and efforts have begun to populate it with backup infrastructure and replicas of critical campus systems.

Expanding energy and cooling capabilities in the campus data centers included adding uninterruptable power supplies and power distribution units in both data centers; replacing the West Campus data center transformer to increase the amount of power that can be provided; and installing new heat exchangers to chilled water doors on the Eos supercomputer and the College of Science's supercomputer.

New Service Provides Data Storage and Protection

Storage as a Service became available as an add-on to the virtualization service or as a stand-alone product. With storage as a service, the provider rents data storage space, saving the customer in hardware, personnel and physical space costs. The new service provides departments a cost-effective alternative to maintaining their own back-up storage infrastructure. This service can be vital for departmental business continuity efforts, in addition to meeting daily operational needs.

ACCELERATING RESEARCH AND DISCOVERY

- *Provide technology and information availability that support research and scholarship.*
- *Maintain and develop the Supercomputing Facility as a premier research resource.*

The Supercomputing Facility supports the university with expertise and leading-edge hardware for large-scale scientific computation. The facility has progressively become an integral part of outstanding research and discovery in many fields and disciplines.

New Eos Supercomputer Powers Innovative Research

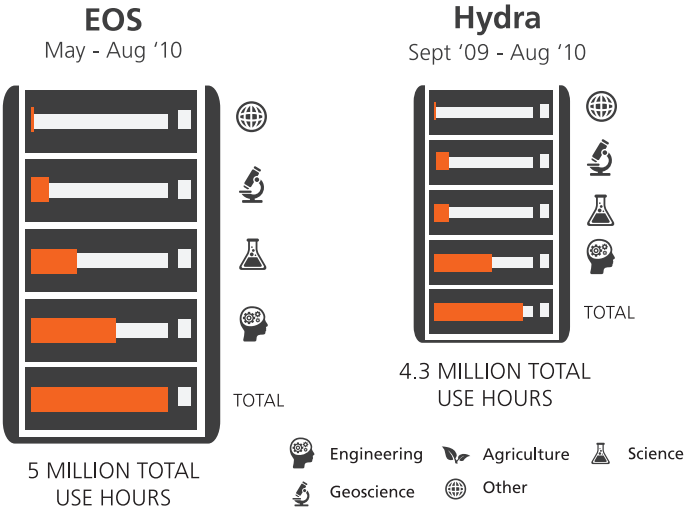
The new Eos supercomputer, a 2,595-core iDataPlex cluster, increased the Supercomputing Facility's computational capacity at least five-fold, taking a significant step in satisfying the university's needs for large computation. In the four months since April 2010, when Eos became operational, Texas A&M researchers carried out four to five times the computations on Eos than on all of the facility's platforms for the entire previous fiscal year.

Eos placed 420th on the June 2010 Top500 list, an international forum for ranking the world's 500 most powerful computers. This marked the end of a 15-year absence of Texas A&M from the TOP500 list.

The Top500 list of fastest supercomputers is updated twice a year. See www.top500.org/list/2010/06/500.

Supercomputers Support Vital Research

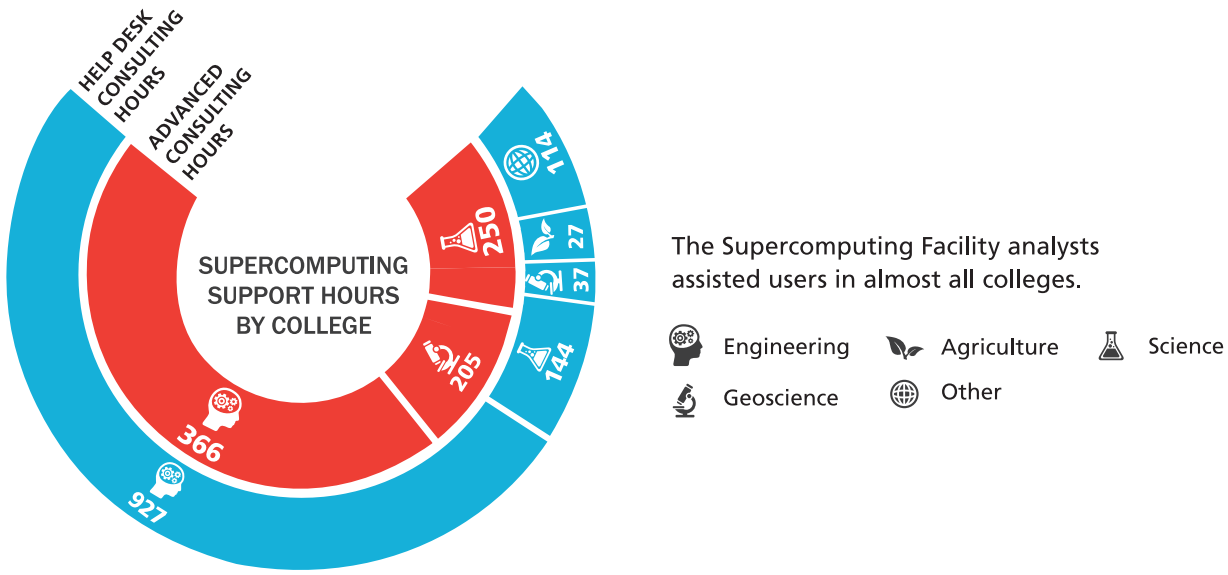
Users of Eos and Hydra, the facility's second supercomputer, ran computationally intensive codes to support a diverse spectrum of research, including applied computational fluid dynamics, computational chemistry and physics, materials science and nanotechnology, weather prediction and forecasting, as well as bioinformatics.



Usage numbers of Eos include the four-month period from May through August 2010, whereas Hydra's numbers include the entire year. An "hour" refers to engaging or reserving one cpu per core for one hour's worth of wall-clock time.

Team of Experts Provides Advanced Supercomputing Support

The Supercomputing Facility's team provides help on a wide range of issues from highly technical problems to basic account questions. Facility analysts offer intensive help to faculty researchers and graduate students to eliminate computational bottlenecks in the most specialized and technically challenging user projects. They provide expert assistance in a sustained way to help users optimize strategies in projects that involve a sizeable computational component. This service typically requires a very high level of technical expertise and a significant investment in personnel hours. The resulting benefits include obtaining computer results per run in a few hours instead of days.



Supercomputing Facility Boosts Campus Research Resources

Advanced supercomputing support augmented Texas A&M research by installing and configuring key software packages on Eos. The large-scale genome analysis software, *Galaxy*, is now available for use by the entire Texas A&M bioinformatics research community. Fluid dynamics software packages, *Saturne* and *OpenFoam*, are used in designing modern nuclear reactors by researchers in the Department of Nuclear Engineering.

Supercomputing In the News

The work of Supercomputing Facility computational scientist Raffaele Montuoro received favorable notice from IBM and media outlets, including The New York Times and the Austin American-Statesman. The project produced the parallel Genome Analysis Pipeline (pGAP) software package, which greatly accelerates genomic analysis of mutated strains of tuberculosis. Read the IBM and Texas A&M press release at www-03.ibm.com/press/us/en/pressrelease/31795.wss.

Supercomputing Workshops, Conferences, Short Courses

The Supercomputing Facility engaged in projects that educated users and fostered relationships within and outside the university.

- Hosted seminars and workshops by Intel and Mathworks, MATLAB's vendor.
- Participated in the SC10 Supercomputing Conference, the field's premier annual event and SP-XXL, IBM's international high-performance computing user organization.
- Presented the facility's annual user conference featuring talks by faculty and students.
- Organized short courses on technical material relevant to scientific computing practitioners.

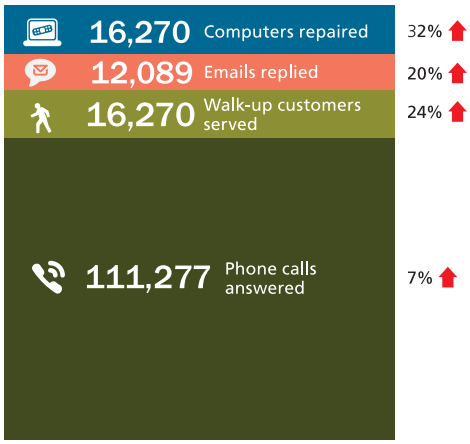
STRENGTHENING ESSENTIAL SERVICES

- *Improve the IT service environment to be more conducive to scholarly work and learning.*
- *Provide effective support services that meet customer needs and build strong working relationships.*

Help Desk Central Answers the Call

Help Desk Central is the main point of contact for IT support to the faculty, students and staff of Texas A&M. Technicians are available to answer questions 24 hours a day, 365 days a year. They provide help for everyday problems, ranging from resetting a forgotten password to specialized assistance for campus IT professionals. Help Desk Repair provides assistance with personally owned computers, including virus and spyware removal, operating system installation, data recovery and connectivity services.

155,906
CUSTOMERS SERVED



Improving Efficiency to Resolve More Help Requests

- *Touchscreen Check-in Kiosk*
  A new touchscreen check-in kiosk allows walk-in customers to check in and enter their help request. The new process improved response time by sorting and prioritizing requests.

- *Faster Virus Removal Process*
  Turn-around time for cleaning infected computers improved by training student technicians to directly remove viruses, instead of running multiple time-consuming scans.

- *TeamViewer Remote Support*
  The TeamViewer Quick Support Tool reduced time spent diagnosing and resolving complex troubleshooting calls. TeamViewer allows technicians to remotely view a customer's desktop and control their computer to assist with solving problems.

Technical Experts Provide Custom IT Services

The IT Solutions and Support (ITSS), a group in Computing & Information Services, provides services to meet current and future technology needs of Texas A&M University and A&M System members. The ITSS.tamu.edu website debuted this year to showcase the group's application development, software maintenance, project management, and LAN and workstation support services.

Beneficial Service Improvements

- *Project Management Office*
  The Project Management Office (PMO) began operating as a resource for A&M System members implementing IT projects. With costs continuing to rise and allocations declining, shared IT solutions can realize savings through economies of scale. The PMO helps organizations achieve their goals by providing project tools and templates, and making training available. The PMO raised project management awareness, developed and recommended project strategies to decrease project risks and increase project success.

- *Meal Plan Tracker System*
  Dining Services' Meal Plan Tracker system now allows students to pay for meals by credit card through TouchNet, a third-party online bill payment solution used by the university. ITSS also augmented the system to enable Galveston students to purchase meals online, resulting in operational savings for the university.

- *TAMU Qatar Training Center System*
  The system supports registration for training courses on the Qatar campus. Enhancements allowed departments other than Information Technology Services to include their training courses. An RSS news feed was created for use with the campus web portal, marhaba.qatar.tamu.edu.

- *Cleopatra Scheduling System*
  The application tracks student appointments at the University Writing Center. Upgrades for version 2.0 included asynchronous online consultations (can occur without all parties being present at the same time), knowledge base articles delivered via RSS feed, configurable surveys and online leave request handling.

- *Campus Committee Websites*
  Committee members securely shared documents at these new websites: Texas A&M Corps of Cadets Commandant Search Advisory Committee, Vice President for Administration Search Committee and Deferred Maintenance Task Force.

- *Code Maroon Emergency Notification System*
  The system, which provides the ability to quickly sends alerts to the campus using multiple methods, received a new registration site.

- *Print Acquisition Website*
  The site was upgraded to use AggieBuy, Texas A&M Division of Finance's online catalog and ordering system.

- *Laserfiche Document Management Support*
  Laserfiche document management provides secure storage of critical documents and controlled access to sensitive information. ITSS delivers centralized support for Laserfiche, reducing redundant hardware, software and personnel costs.

Essential Ongoing Support

- *Personalized Instructor/Course Appraisal (PICA) System*
  Students can submit course appraisals online, streamlining the evaluation process. From fall 2009 to spring 2010, mid-term use of PICA increased 32 percent and end-of-term use increased 28 percent.

- *Software.tamu.edu*
  Eligible A&M System students and employees can purchase discounted software for personal use.

- *Office of the Vice President & Associate Provost for Diversity Website*
  The site's interactive elements highlight information about campus diversity initiatives.

- *Form AD-419 Federal Report System*
  The web-based tool helps the Texas AgriLife Research fiscal office prepare annual expenditure reports for the U.S. Department of Agriculture.

- *Embedded IT Consultants Provide Dedicated Support.*
  ITSS provides onsite technical experts, who are assigned to customer departments. Database and administrative consulting are provided onsite to the Association of Former Students and Strategic Sourcing. Several ITSS developers are embedded with Enterprise Information Systems to deploy and maintain the Howdy web portal.

- *ITSS' Office Computing Support Services*
  This team of highly qualified IT professionals ensures efficient departmental computing through server and workstation support.

  - Supports 11 departments on a contract basis, while several other departments opted for as-needed, ad-hoc support.
  - Provides 150 years of combined IT staff experience and 110 years of combined service at Texas A&M.
  - Assists 361 users with 517 workstations and 113 servers.

Texas A&M Software Center Reduces Costs

The Texas A&M Software Center (formerly called the Software Evaluation and Licensing Library or SELL) administers licensing agreements that allow faculty, staff, students and departments to purchase software at greatly reduced prices. Federated services through Shibboleth enabled more A&M System members to take advantage of discounted software licenses, improving volume-buying capabilities and reducing overall costs. In FY2010, income from A&M System members increased 13 percent to $1,107,859.

Shibboleth is an identity management software that simplifies sharing of online resources between affiliated institutions, while ensuring security and privacy of account information. Read more at infrastructure.tamu.edu/auth/Shibboleth/.

What You Could Buy with the Money Saved

$1,172,902

SAVED BY A&M SYSTEM STUDENTS, FACULTY AND STAFF ON SOFTWARE FOR PERSONAL USE.

WHAT YOU COULD BUY:

293,225 Lattes

18,326 Textbooks

4,691 Aggie football season tickets

2,172 Apple iPads

1,254 Aggie rings

56 Attendance at Texas A&M for one year

$6,139,748

SAVED BY TEXAS A&M DEPARTMENTS ON SOFTWARE LICENSES.

WHAT DEPARTMENTS COULD BUY:

3,069,874 Pens

161,572 Cartons of copy paper

40,931 Toner cartridges

8,771 Ergonomic office chairs

7,189 Desktop computers

255 Graduate assistants

Shibboleth Allows A&M System Access to Essential Services

Texas A&M IT finished installing Shibboleth at all but one A&M System school, providing secure online access to shared resources across institutional boundaries. Shibboleth provides secure online access to shared resources across institutional boundaries. Users access services with their own institution's login credentials for greater convenience and enhanced account security. Services using Shibboleth include the online software store, the Texas Digital Library and Texas A&M departmental course management systems. Read more on Shibboleth at Texas A&M University at infrastructure.tamu.edu/auth/Shibboleth/.

Shibboleth is an identity management software that simplifies sharing of online resources between affiliated institutions, while ensuring security and privacy of account information.

New Software Products Added

New software for personal use: Windows 7 Upgrade, Office 2010, Visual Studio 2010.

New software for departmental use: Windows 7 Upgrade, Office 2010, Visual Studio 2010, ChemBioDraw Ultra, EndNote 14 for Mac[1], Matlab 2010a, LabView 8.7[2] for departments.

[1]*College Station and Galveston only.*

[2]*College Station only.*

IMPROVING STUDENT ACADEMIC EXPERIENCES

- *Expand access to services that support the university's educational mission.*
- *Provide resources to meet student learning and information needs and enable students to live and compete in a global society.*

Computing Labs Provide Universal Technology Access

Open Access Labs (OAL) provide computers, software, scanners and printers in six fully staffed sites and nine supported locations, including in the University Libraries – available up to 24 hours per day. Through the labs, students receive secure network and web space (Home drive), which can be accessed from any OAL computer, from on-campus residence halls and apartments, and from off campus through the Virtual Open Access Lab (VOAL).

1,878

OAL desktops (includes PCs, Macs, virtual workstations, podium machines, and graphics workstations).

145

Software applications on OAL computers. Students use programs without having to purchase them, lessening their financial burden.

2,524,811

Logins on OAL computers.

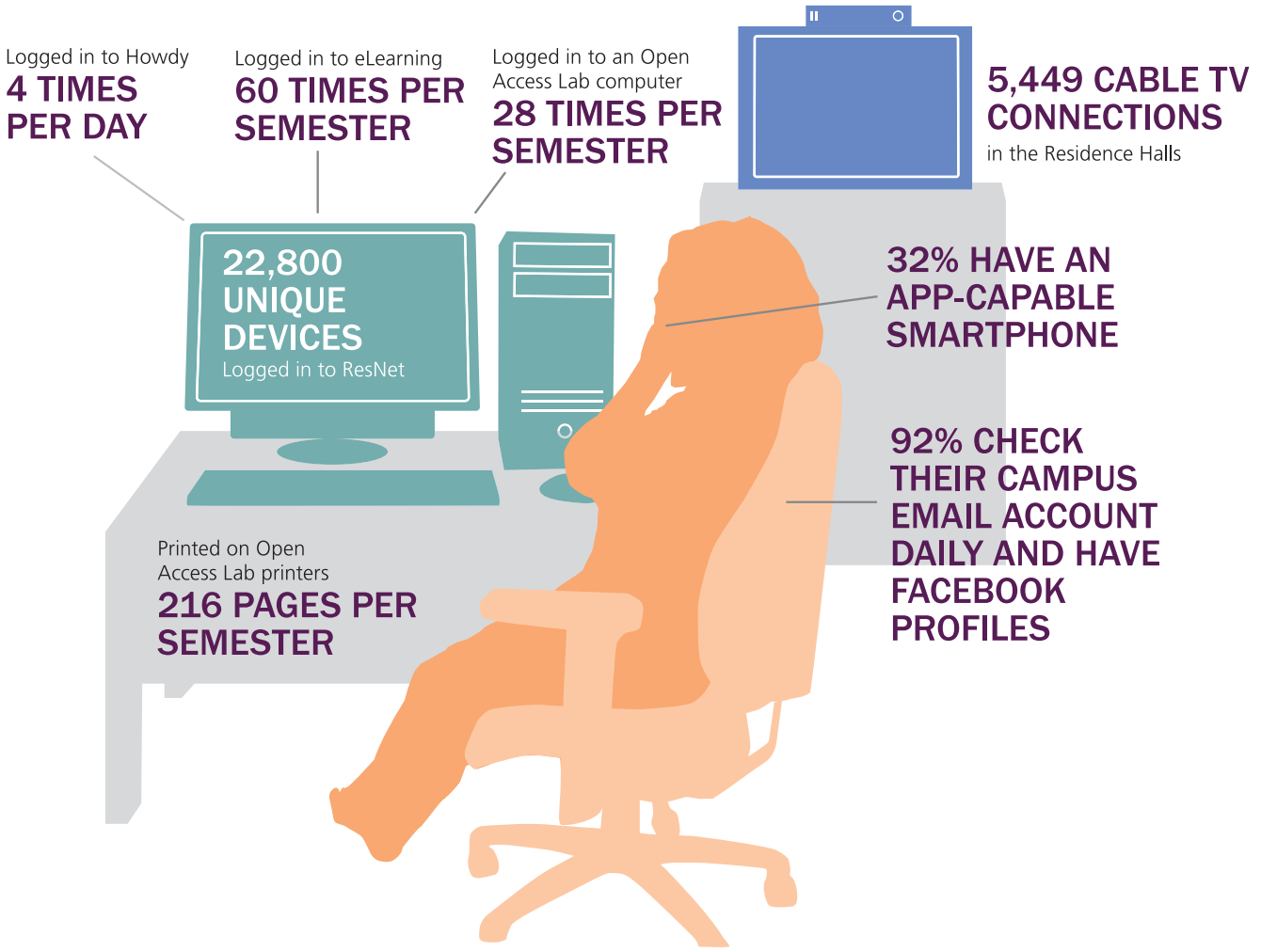
1 GB

Home drive space, increased from 500 Mb for more data storage.

While classes are in session, most labs operate extended business hours to better serve the needs of students and faculty. Computer lab hours are viewable anywhere, anytime at Texas A&M's mobile website, m.tamu.edu, a service provided by the Texas A&M Division of Marketing & Communications.

Students can log in to the VOAL from anywhere to connect remotely to their personalized desktop, all lab software, and files on their Home drive. Students' screens appear as though they were sitting at a campus lab computer. Read more at oal.tamu.edu/Lab_Information/Virtual_Open_Access_Lab.php.

How Students Use Information Technology



http://studentlifestudies.tamu.edu. Marketing Survey, November 2009

Texas A&M Dorm Wireless Expansion Accelerates

Eleven residence halls were outfitted with wireless capabilities, adding to existing wired Ethernet resources in these buildings. Students living in these dorms will have the option of using the wired connection or TAMULink wireless. All residence halls are scheduled to have full wireless in the next two years. Funding is provided by the Department of Residence Life.

Short Courses Boost Technical Knowledge

Help Desk Central's Short Courses provide basic to intermediate software classes that help students develop new technology skills. Students arrive at Texas A&M with a wide range of technology competence. No-charge short courses fill the gaps, delivering fundamental knowledge that students are assumed to have. The Short Courses site at shortcourses.tamu.edu was redesigned to provide an improved web presence for this important student resource.

Texas A&M Hosts Southwest Regional Collegiate Cyber Defense Competition

Student teams from seven universities tested their abilities to defend computer networks against external threats at the three-day regional cyber defense competition hosted by Texas A&M. Pitted against a team of network security professionals acting as attackers, 52 student cyber defense warriors sharpened skills that are increasingly crucial to protecting national interests. Texas A&M University won first place, earning a seat at the National Collegiate Cyber Defense Competition. The University of Tulsa took second and Texas A&M Commerce placed third. Read more at www.nationalccdc.org.

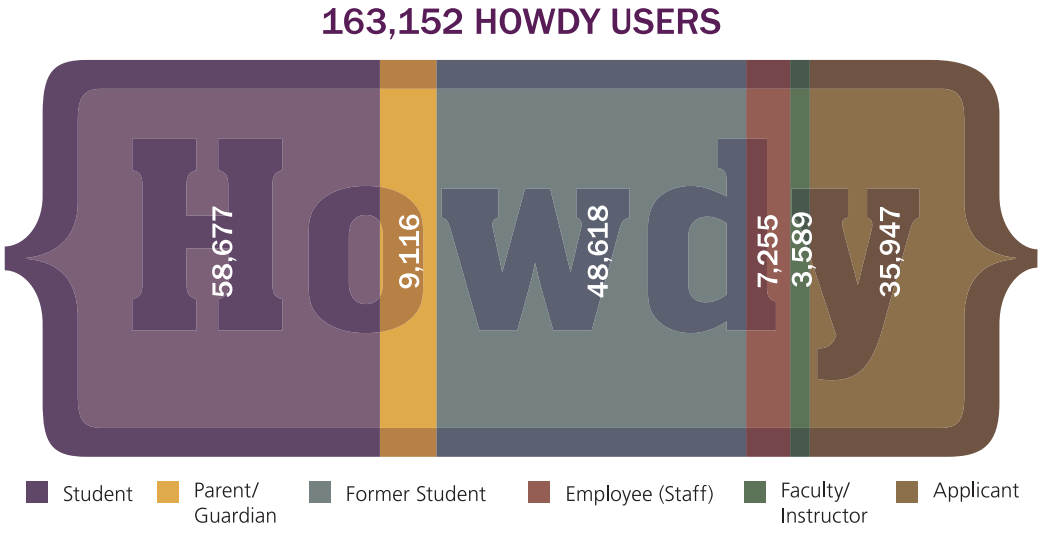
Incoming Aggies Learn About IT at New Student Conferences

New Student Conference presentations to students and parents, online and printed material, and in-person assistance at service booths helped about 14,000 new Aggies become acquainted with IT services. Read the conference brochure, “It's Your Life, Live IT Up!” at it.tamu.edu/files/nscbrochure.pdf.

Effective Enterprise Systems Meet Campus Needs

Howdy Web Portal Connects to Multiple Services

The Howdy web portal provides the front door to the Compass student information system, connecting 163,152 students, applicants, faculty, staff, parents/guardians and former students to their web-based services at Texas A&M. With a single login, users can access their university records or connect to important services such as eLearning and Texas A&M Email. Authorized parents/guardians can view their student's academic, financial aid and billing information, while former students can access their records, order transcripts and make payments on their account.



(Users at College Station, Galveston and Qatar campuses)

Online Syllabus and Curriculum Vitae State Requirement Accomplished

Starting in fall 2010, TEC 51.974 (formerly Texas House Bill 2504) requires the university to post certain information online including undergraduate course instructor curriculum vitae and syllabus. An application within Howdy was developed that allows instructors to easily upload PDF documents or associate a web link to the information. Read more on the EIS website at eis.tamu.edu/news/Online_Syllabus_and_Curriculum_Vitae_required_for_fall_undergraduate_courses.php.

Howdy Upgrades Improve User Experience

Surveys and focus groups helped Howdy administrators better understand how people use the portal, including what students wanted from the class registration process. Customized code changes solved several issues observed by students, faculty and advisors.

- Improved the class search function, saving time for thousands of students registering for classes.
- Added a new graphic schedule and redesigned the unofficial transcript, making information easier to view and print.

Compass System Points the Way to Student Information

Compass is the university's web-based student information system used by the campuses in College Station, Galveston and Qatar. The university purchased the web-based system, which uses an Oracle database, from SunGard Higher Education.

Since the project started in 2007, work requests add more capabilities to the baseline Sun Gard product.

48,702 students registered for fall 2009.

45,860 students registered for spring 2010.

17,777 students registered for summer 2010.

Compass Enrollment Management Assists Student Recruitment Efforts

Enterprise Information Systems (EIS) teamed with key partners in the Office of Admissions and Records, Scholarships & Financial Aid and Texas A&M University at Galveston to successfully launch the Compass Enrollment Management (CEM) system. This new addition to Compass generates and tracks communications with prospective students and applicants. Prior to going live with CEM, staff from EIS and its key partners attended numerous training sessions, moved data from two legacy systems into Compass and trained over 100 end-users on the College Station and Galveston campuses to use this beneficial new tool.

Texas Schools Save with Shared Compass Code Enhancements

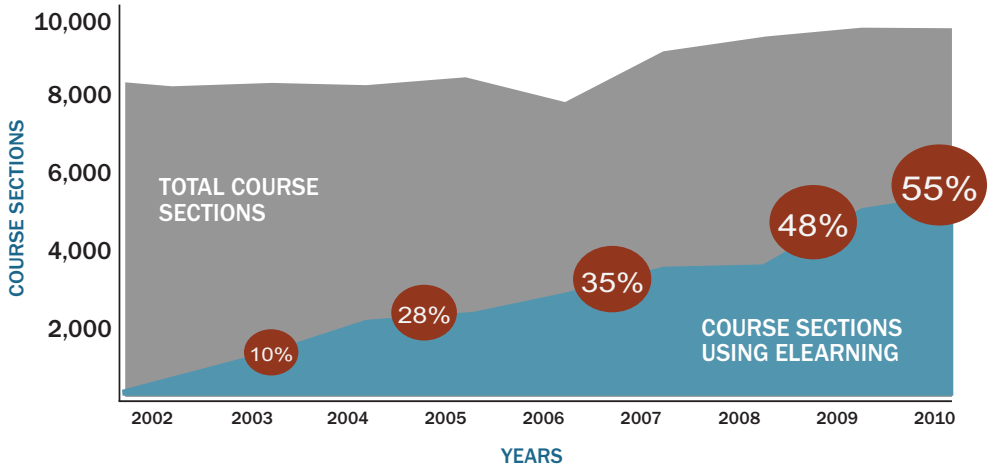
During implementation of Compass, Enterprise Information Systems developers made some code modifications to meet specific university needs. Texas A&M has entered into agreements to share some of this source code with the following universities, saving development costs: Prairie View A&M University, Tarleton State University, Texas A&M University-Kingsville and Texas Tech University.

ELEVATING TEACHING EXCELLENCE

- *Promote technology resources that support developing the highest quality learning environments.*

eLearning Use Tops 50 Percent of Course Sections

For the first time since its introduction at Texas A&M, eLearning was used in more than 50 percent of course sections. Through the eLearning system powered by Blackboard Vista, students and instructors can engage in innovative learning experiences. eLearning provides tools for managing grades and assignments and offers multiple ways to communicate, collaborate and connect interactively. Full-featured, yet flexible, applications let instructors choose what options they want to use and incorporate into their courses.



eLearning achieved a milestone with more than 50 percent of all course sections using the learning management system.

eLearning Resources Improved

- *Classroom enrollment changes in real time* - Class enrollment changes become live on eLearning in real time through full integration with the Compass student information system.
- *Grade submission to Compass from within eLearning Tools* - Instructors can submit grades to Compass from within eLearning Tools, a set of web-based section management utilities.
- *Authentication upgrade for increased security* - Upgrading eLearning to the new version of the Central Authentication Service (CAS) provides integrated, robust security. CAS allows a user to log in to many password-protected web systems using a single NetID and password.

- *Upgraded help and support resources* - ITS Docs consolidates help documents in a frequently updated wiki system, delivering a comprehensive resource library to the university. Specialized support for instructional systems and tools continues to expand with the Numara FootPrints customer service system. Branded as ITS Help, the system will be implemented to improve response times to faculty support requests.

- *Instructional technology learning opportunities to meet faculty needs* - Workshops, customized training sessions requested by departments, user groups, conferences and newsletters provide instructional technology learning opportunities to meet faculty needs.

Committee to Select New Learning Management System

A selection committee will be formed to help choose the university's next learning management system. The current Blackboard Vista system is scheduled to reach end-of-life in 2013. The committee will include representatives from each college, as well as an undergraduate and a graduate student member. Facilitated by Instructional Technology Services, the committee will review both commercial and open-source systems. The initial meeting is slated for November 2010.

Conferences Showcase Instructional Technology Knowledge

Conferences provided instructors with opportunities to learn from colleagues and share best practices on teaching with technology.

- *Instructional Technology Showcase (fall 2009)* – University educators presented sessions about innovative technology and methods for enhancing student learning. View session podcasts at itsinfo.tamu.edu/News___Events/Podcasts.php - 2009-showcase.

- *Teaching with Technology Conference (spring 2010)* – This learning event was attended by educators from throughout the A&M System. View keynote presentations from the conference at itsinfo.tamu.edu/News___Events/Podcasts.php - 2010-twtc.

Classroom IT Support Puts the Focus on Teaching

Ten years ago, only large lecture halls had classroom equipment permanently installed, and equipment for most classes was delivered daily by student workers. Instructional Media Services provides multimedia presentation equipment for 158 of the 255 rooms controlled by the Registrar's Office and additional specialized classrooms controlled by the colleges. Multimedia presentation equipment is permanently installed in 135 classrooms (116 are fully automated) that require extensive use of the equipment. Individual departments have equipment in another 94 of the rooms controlled by the Registrar. View the Aggie Map's 360 degree interactive panoramas of Registrar-controlled classrooms at aggiemap.tamu.edu/?icons=Pano_Room.

The Aggie Map is created and maintained by the Office of Facilities Coordination.

What's Installed in an Automated Classroom?

Automated classrooms have an ADA-approved EuroDesign podium, computer, data projector, AMX controller, document camera, Smart Sympodium and network cabling.

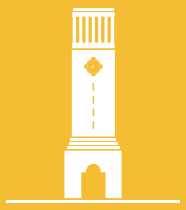
- *An instructor uses the Sympodium's interactive pen to write on presentations with digital ink, access websites and show multimedia files.*
- *Selecting options on the computer screen can turn on the projector, lower the projection screen, control speaker volume or perform other tasks.*
- *An instructor can raise or lower the ADA-compliant podium through its built-in motor.*
- *AMX controllers enable instructors to easily operate the audio-visual equipment through one computer interface.*
- *Automated classrooms are connected to the campus network, allowing instructors to log in and access their files.*
- *The document camera can display almost anything on the screen by placing an object under the camera.*
- *The data projector displays instructor presentations and other images from a computer onto the classroom screen.*
- *Classroom loudspeakers broadcast alerts from the Code Maroon emergency notification system.*
- *The projection screen can be lowered or raised by selecting options on the computer.*

Grant Programs Improve Instructional, Faculty Computing

Grant programs administered by Texas A&M IT are used to fund proposals that positively impact the instructional computing environment.

- $200,000 was distributed through the Computer Access/Instructional Technology Fees (CA/ITF) Competitive Grant program. Read more at vpapit.tamu.edu/Services/Grant_Programs/Competitive_Grant_Proposals_Memo.php.
- $193,000 was distributed through the Classroom Instructional Technology Grant program. Read more at vpapit.tamu.edu/Services/Grant_Programs/Classroom_Instructional_Technology_Grant_Memo.php.
- $933,000 ($700,000 central and $233,000 matching) Faculty Workstation Program for the College Station and Galveston campuses. Read more at vpapit.tamu.edu/Services/Grant_Programs.php.

ENHANCING COMMUNICATION



- *Provide effective communication and collaboration tools essential to the success of Texas A&M's mission.*
- *Deliver economical, shared communication solutions to address community issues.*

A&M System to Save $250,000 With New Long-Distance Carriers

Texas A&M and the A&M System awarded contracts for legacy long distance services to Verizon and Voice-over-Internet Protocol (VoIP) trunking service to Level 3 Communications. This combination will result in a 30 percent reduction in long-distance rates, which will save the A&M System approximately $250,000 per year. During FY2010, the College Station and Galveston campuses converted to the new long-distance service. Four additional campuses are slated to make the change by February 2011.

Supporting Critical Emergency Communications

Important steps took place to enhance campus emergency communications and ensure systems remain operational if disaster strikes.

- *Hensel Communications Building*
  The Hensel communications building, which officially opened on April 23, 2010, is designed to ensure communications work reliably in the event of an emergency. The building has state-of-the-art security monitoring capabilities, a 350-KVA backup generator, three redundant air conditioning units, a large uninterruptible power supply, as well as direct current power plants. It houses KAMU television and radio transmitters and equipment for the 800-MHz radio system, P25 interoperable emergency communications radio system and Distributed Antenna System.

- *P25 Emergency Radio System*
  The P25 emergency radio system installation advanced with Texas A&M adding about 400 radios. New communication consoles will be installed in the University Police and EMS dispatch centers. A $2.8 million federal grant awarded in 2008 to Texas A&M, Brazos and Washington counties and the cities of Bryan, College Station and Brenham provides funding for the digital, two-way radio system for emergency communications. This group worked with 27 counties in the Houston area to create a wide area, interoperable communications system for use by police, fire, ambulance, and other public safety officials. A radio operator can now communicate with other first responders to provide mutual aid in an area extending from Bryan to Galveston, Texas.

- *Emergency Alert Classroom Loudspeakers*
  Installation of loudspeakers began in Registrar-controlled classrooms to enable broadcasting alerts from the Code Maroon emergency notification system. The loudspeakers connect to the existing data network, providing a cost-effective solution to installing separate wiring. The Office of the President provided funding for installation in 280 classrooms. The project is slated for completion in spring 2011.

Aggieland's Public Broadcasting Station Serves Multiple Communities

KAMU partnered with Tarleton State to provide programming to KTRL, the newly acquired FM station in Stephenville, Texas. KAMU uses the TTVN network to deliver programming including National Public Radio news, music and locally produced programs, including local arts events, homeland security topics, health issues, computing tips and engineering facts.

KAMU is both a TV station and an FM radio station, providing public broadcasting and supporting Texas A&M through formal instruction in the broadcast arts and on-the-job training for student announcers, operators, and production assistants. Visit kamu.tamu.edu.

A Day's Worth of Email

IronPort email security service automatically filters and stops spam and virus-laden mail from reaching campus mailboxes, saving time and money.

SPAM AND INFECTED MESSAGES REJECTED	VS.	CLEAN MESSAGES DELIVERED
4,010,161	PER DAY	361,164
167,090	PER HOUR	15,049
2,785	PER MINUTE	251
46	PER SECOND	4

New Shared Email Services Introduced

Using centralized email options frees time for departmental IT to provide more value-added services to their faculty and staff. Two new email services were launched to the campus:

- *Zimbra Hosted Email*
  Zimbra email is a cost-effective hosted service for departments without specific needs for running their own email/collaboration system. This service provides named domains and larger mail quotas than TAMU Email, the Zimbra service currently provided to all students and faculty and some staff. Six departments subscribed to the new service in FY2010.

- *Microsoft Exchange Service*
  Microsoft Exchange allows users to access critical business communications with a high degree of security and reliability. The service consists of redundant servers in the two campus data centers and can be scaled to support campus-wide administrative messaging. Most Texas A&M IT departments migrated from GroupWise to the Exchange service during FY2010. Three campus departments also joined the service.

WHO WE ARE

Texas A&M **Information Technology**

The Office of the Vice President and Associate Provost for Information Technology and the departments of Texas A&M IT provide services and resources that help the faculty, students and staff of Texas A&M University use technologies to achieve excellence in teaching, research, learning and administrative pursuits.

Computing & Information Services

Computing & Information Services (CIS) provides core IT infrastructure resources and facilities that support the campus and the departments within Texas A&M IT. CIS operates central campus servers that house mission-critical data and services, including email, Internet and network access, campus wireless, websites, data center operations and administrative and academic systems. CIS provides campus computer labs, 24-hour assistance through Help Desk Central, hardware and software support, custom application development, discounted software for departments and individuals, as well as the university's Supercomputing Facility.

Educational Broadcast Services

Educational Broadcast Services (EBS) is comprised of KAMU-TV/DT, KAMU-FM and TTVN. They offer a unique synergy of technology and expertise for wide area networking, interactive communications, public broadcasting and audio/video production that broadens the range of services available to the university community. KAMU provides public radio and television broadcasting services to the Bryan/College Station and surrounding areas.

TTVN is the wide area data and interactive communications network for The Texas A&M University System, which provides enterprise-level high-speed data networking services to each of the 10 A&M System university campuses, the Health Science Center and the seven research and service agencies. TTVN also provides interactive videoconferences with any site worldwide, Centra webconferences and live and archived Windows Media streaming audio and video webcasts.

Enterprise Information Systems

The Enterprise Information Systems (EIS) is responsible for the implementation and maintenance of mission-critical, enterprise-wide information systems at Texas A&M. Compass, the web-based student information system, has been implemented at the College Station, Galveston and Qatar campuses. EIS also is responsible for Howdy, a comprehensive web portal, which serves as the "front door" to Compass and connects students, applicants, faculty, staff, former students and parents/guardians to web-based services at Texas A&M.

Instructional Media Services

Instructional Media Services (IMS) provides and supports multimedia equipment and technology tools that enhance and improve the quality of classroom instruction. IMS maintains multimedia/computing equipment in technology-enhanced Smart classrooms across campus. These automated systems allow instructors to use one interface to easily control classroom equipment including the data projector, screen, computer, VCR/DVD player and optional equipment such as a Smart Sympodium or document camera. IMS personnel also deliver and set up equipment for classes or other functions in rooms without permanent equipment.

Instructional Technology Services

Instructional Technology Services (ITS) fosters effective use of technology in teaching and learning. ITS maintains, administers and develops university-wide systems and services to strengthen eLearning, including supporting Blackboard Vista, the university's enterprise-level learning management system. ITS provides professional development opportunities and empowers instructors to use best practices in higher education to enhance student learning through technology. They offer workshops, individual training, course design consultation, online resources and equipment for instructors to complement various learning styles and foster effective course design.

Networking & Information Security

Networking and Information Security (NIS) maintains and supports the campus and community network backbone and provides network connections. They are responsible for Internet connectivity, campus wireless service and remote office services. NIS is in charge of the information security program that maintains and enhances the overall security posture of the university. Their responsibilities include campus firewall maintenance, incident response and investigation, firewall and sensor configuration and providing information and notification on viruses, attacks and vulnerabilities. NIS initiates and applies IT policies and procedures, as well as develops and administers information security awareness training for all faculty, students and staff.

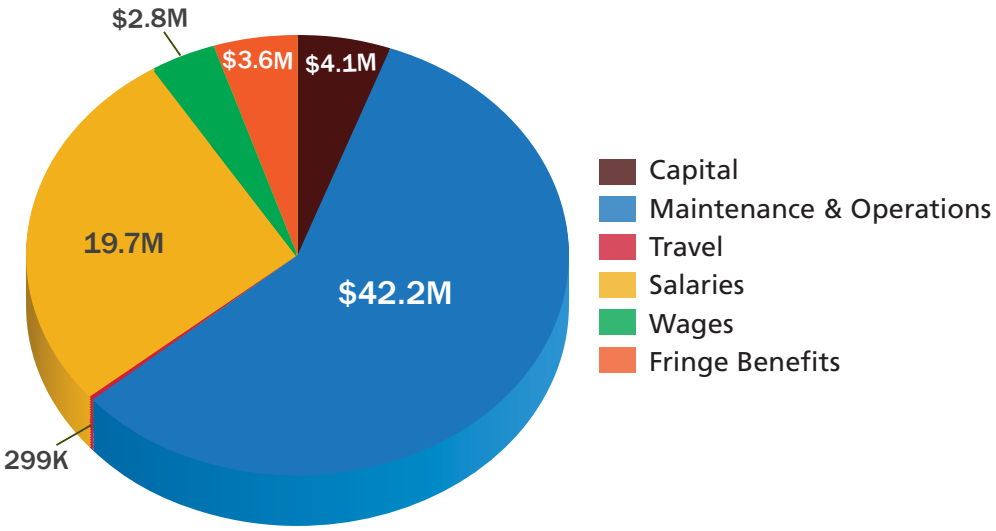
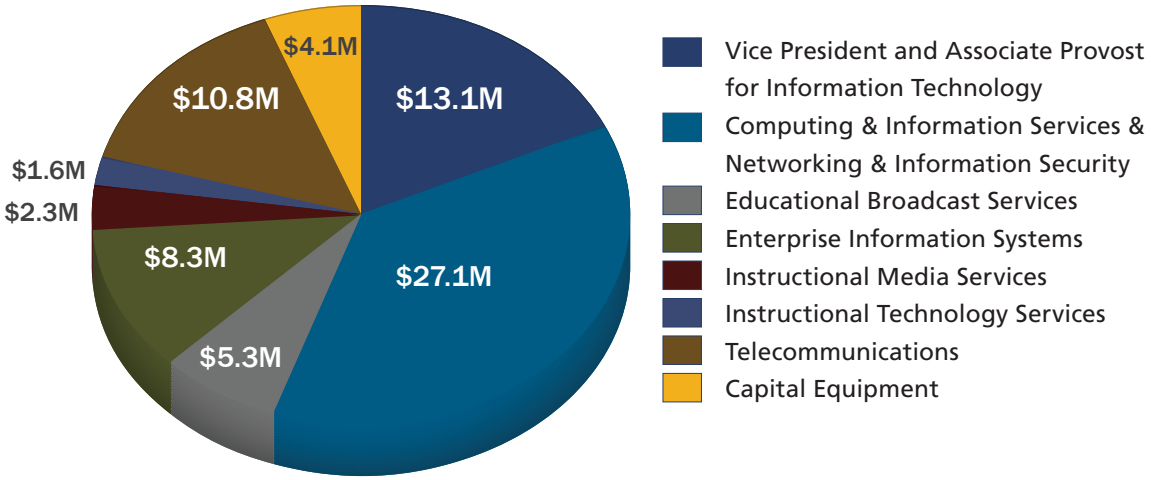
Telecommunications

Telecommunications provides fast, reliable and cost-effective telecommunications services. They offer voice services to all A&M System offices in College Station and other offices in Texas and international locations, as well as all network service contracts for all A&M System office locations. They support security and surveillance systems on campus, as well as manage the university's two-way radio system. Telecommunications also manages the Emergency Alert System, a component of the university's Code Maroon system, which provides the ability to rapidly distribute emergency information to the campus.

TEXAS A&M INFORMATION TECHNOLOGY EXPENDITURE SUMMARY

For Fiscal Year 2010 – Total $72.6 million

Expenditures by Category



Expenditures by Department