

EMPOWERING CAMPUS THROUGH TECHNOLOGY

YEAR IN REVIEW: 2013-2014

26,782
UNIQUE DEVICES
PER MONTH
CONNECTED TO
EAGLESECURE

1,145
WIRELESS
ACCESS POINTS
IN AU BUILDINGS

67,206
SUPPORT
REQUESTS

AMERICAN UNIVERSITY · OFFICE OF INFORMATION TECHNOLOGY



OUR MISSION: EMPLOY TECHNOLOGY TO EMPOWER EXCELLENCE

We will build and strengthen a robust, reliable, and secure framework of information and communication technology to support our activities as a world-class university. By investing in state-of-the-art technology and planning for the future, the university will exploit technology to harmonize a diverse and widely distributed campus; leverage learning, research, and innovation; and empower users in physical and virtual space.

—AU Strategic Plan, Enabling Goal No. 2

OUR GUIDING PRINCIPLES

The Office of Information Technology (OIT) identified the following guiding principles to describe how our organization wants to operate in the long term and to govern our planning activities. These principles apply universally to all services and functions within our organization, providing direction and guidance as we transform our day-to-day operations:

- Align with AU's mission by supporting the academic enterprise in preparing our students to lead and serve
- Focus on providing timely, accurate, and secure solutions to campus
- Ensure compliance with internal and external standards and adopt best practices
- Utilize metrics and analytics to benchmark performance and make informed decisions
- Foster an environment to support staff and encourage professional development
- Emphasize transparency of our budget, campus commitments, performance metrics, and processes
- Anticipate future technology needs to maintain AU's competitive edge

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CIO'S MESSAGE



Information technology, including systems, applications, and data, is critical to the success of American University. President Kerwin recently said, “Information technology is increasingly important to our organization, as it touches almost every aspect of university operations.” IT threads itself through virtually every new strategic initiative of this university. To engage more fully with IT, President Kerwin now has IT report directly to him. This maximizes the organization’s strategic focus and direction as we contribute to important discussions with other university officers.

These discussions often focus on the explosion of consumer devices, the ever-changing technological needs on campus, and users’ expanding ability to connect with one another and with applications and critical data—when, where, and how they want. To stay abreast of these changing needs, our loyal, skilled, and committed staff has had to be flexible and agile in our approaches to improving AU’s infrastructure. We are proud of maintaining a high service availability rating, while continuing to deliver secure, available, and reliable systems.

As we look back over the past year, one of the most critical accomplishments was the development of *The Road Ahead: IT Solutions Empowering Campus*,

a technology roadmap charting our course for the next four years. The initiatives in this plan are aligned under four strategic objectives:

1. Strengthen the core with a resilient, agile, and secure infrastructure
2. Enable transformation through change leadership, organizational maturity, and professional development
3. Forge partnerships to deliver inclusive IT services
4. Advance institutional effectiveness and efficiency through responsible stewardship

Please take the opportunity to review both the roadmap and this annual report, which highlights our progress over the past year. Thank you for taking the time to review our activities.

I encourage you to share questions, concerns, or comments with members of our team and with me as we continue to build an outstanding IT environment for our university.

Regards,

A handwritten signature in black ink that reads "David Swartz". The signature is fluid and cursive.

DAVID SWARTZ
Chief Information Officer

ORGANIZATION OVERVIEW

Transparency and inclusion—in decision making, planning, budgeting, and day-to-day operations—run throughout the work in OIT. The organization comprises multiple teams that work collaboratively to provide services in four functional areas.

ENTERPRISE SYSTEMS AND SERVICES

Enterprise Systems and Services improves the way AU conducts business with technology solutions that meet the needs of diverse constituencies. In the application analysis and development area, functional professionals partner with technical experts to design and deploy scalable, sustainable solutions. Business intelligence and reporting services help mature the university's data and analytical reporting capabilities, while web and emerging technologies support innovative digital and mobile tools. This area manages multiple software platforms that support AU's integrated application portfolio and institutionalizes best practices through a reusable project framework.

INFORMATION SECURITY

Information Security supports AU's executive leadership and community by evaluating the university's digital information assets for sources of risk throughout the IT planning, implementation, management, and ongoing operational phases. The group translates discovered risks into business terms to help stakeholders determine whether to accept, defer, mitigate, or transfer those risks.

IT CUSTOMER SERVICE

IT Customer Service employs industry-standard best practices for service management, change management, and performance measurement. This front-facing group constantly seeks to provide the highest quality of customer service to the AU community. Customer Service is dedicated to managing end-user expectations, training the community on the latest technology, troubleshooting all IT-related issues, and equipping faculty and staff with secure, reliable workstations.

TECHNOLOGY OPERATIONS

Technology Operations administers the university's technology infrastructure, striving for reliability, availability, and stability of services on which the campus depends. The network engineering function provides management and support of primary and secondary data centers, network architecture and engineering, telecommunication services, and after-hours network monitoring. The systems engineering function provides directory architecture management and engineering, as well as systems engineering and operations.



Cathy Hubbs, chief information security officer; **Dave Swartz**, chief information officer; **Kamalika Sandell**, associate chief information officer; **Sharjil Hasan**, director, Project Management Office; **Laurie Ambach**, senior director, enterprise applications and analysis; **Terry Fernandez**, senior director, customer services and support

MENTORSHIP PROGRAM SPOTLIGHT

In 2013, OIT launched AU's first year-long, structured mentorship program to encourage personal and professional development of our staff. With AU and OIT's continued emphasis on professional development, the time was right to build on the success of Facilities Management's program, which offered shorter-term apprenticeships.

OIT's mentorship program offers longer-term relationships to supplement existing formal and informal mentoring activities between staff and supervisors. Focus areas vary greatly and have included individual career counseling, learning a new technology, improving a soft skill, and obtaining advice on work/life balance. Each mentor and mentee team commits to devote at least one hour per month for a calendar year to foster the relationship.

The program was a tremendous success in its first year, with 14 mentor and mentee pairings. In 2014, the program continued to grow and mature with 20 pairs. A rich selection of programming events, developed with internal and external partners, encouraged the group to gather and share their experiences, including:

- OIT Mentors' Roundtable
- Mentee Meet-Up
- Informational table at OIT Technology Expo
- Myers-Briggs Type Indicator Workshop

35% THE PERCENTAGE OF OIT EMPLOYEES PARTICIPATING IN THE MENTORSHIP PROGRAM

- Group participation in a webinar on *Creating Your Master Mind: Personal and Professional Development*, courtesy of the Association for Computing Machinery's Special Interest Group on University and College Computing Services (SIGUCCS)
- *Top Ten Considerations You Should Be a CIO*, presented by CIO Dave Swartz
- Group participation in a webinar on *Minimizing Technology to Maximize Work/Life Balance*, courtesy of SIGUCCS
- Mid-Year Check-In
- Johari Window Workshop
- Mentorship Program Social
- *7 Ways to Achieve Work/Life Balance*, presented by Chief Information Security Officer Cathy Hubbs
- OIT Mentorship Celebration Luncheon



DID YOU KNOW?

IT'S MENTORSHIP PROGRAM WAS CITED AS ONE FACTOR IN AU'S INCLUSION IN COMPUTERWORLD'S "BEST PLACES TO WORK IN IT" FOR 2013.



JACQUELINE PALUMBO

Director of Training & Performance Improvement
OIT Mentorship Committee Member, Mentor, and
Mentee for 2013 and 2014

“ I am extremely fortunate to have the opportunity to serve as one of the cofounders of the OIT mentorship program and to participate as both a mentor and a mentee. We established a formal mentorship program in 2013, with the goal of providing a sustainable professional development opportunity for our staff. Our guiding principles were trust, collaboration, and growth. It has been an honor to see this program evolve over the past 17 months. I've seen my colleagues develop professionally, cultivate relationships, and become a community.

I've personally benefitted tremendously through my interaction with my mentees and mentor. These relationships have encouraged growth, served as a catalyst for change, and enriched my work experience. My mentor challenged me to enlarge my professional network and to clearly articulate my goals. My mentee inspired fresh ideas for the training program and collaborated with me to present several training sessions. Both individuals have become trusted colleagues, and I know that these relationships will continue long into the future. I'm looking forward to seeing more of my coworkers become involved in this remarkable program in the years to come! ”



SEARE HABTE

Network Engineer
Mentee for 2013 and 2014, Mentor for 2014

“ The OIT mentorship was one of the best decisions that I have made in my career. It gave me a competitive edge, and I believe it helped me to secure my current position as a network engineer. I am proud to have been a part of the mentorship program in its infancy, and I am grateful for all the guidance that I received.

The best part of the program was the hands-on experience that I received working with my mentor. The knowledge that I gained by shadowing an experienced engineer, being able to ask questions, and actually troubleshooting, while learning various software tools, far exceeded anything that I could have learned from a book.

Specifically, I was able to receive insight into the day-to-day workings of network engineers, as they deal with time-sensitive projects, work in teams, and communicate with various vendors. The mentorship was my final confirmation to pursue a career in network engineering. Overall, the experience exceeded my expectations and made a profound impact on me personally and professionally. I would highly recommend the process to anyone who is looking to move ahead in their career or transfer into another sector in IT. Finally, I am more than pleased to be able to give back as a mentor to someone. ”

STRATEGIC GOAL

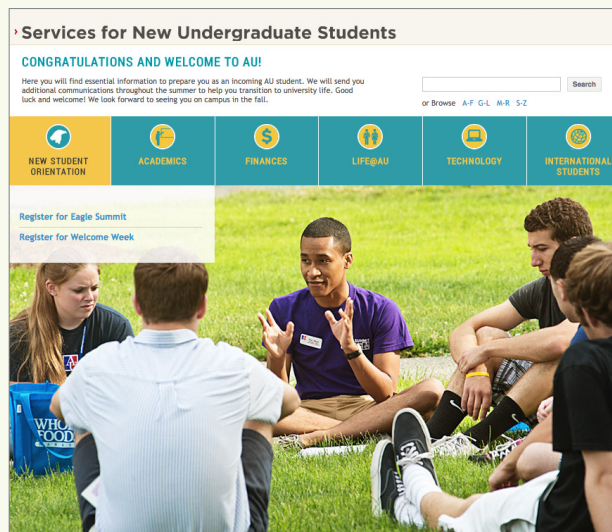
PROVIDE AN UNSURPASSED UNDERGRADUATE EDUCATION AND EXPERIENCE

ACCOMPLISHMENTS

LAUNCHED NEW STUDENT SERVICES DIRECTORY

With input from representatives across the university, OIT developed a new site (american.edu/newstudents) to serve as a “one-stop shop” of information to help new students complete the necessary steps to finalize their enrollment at AU. Launched on May 1, 2014, the New Student Services Directory highlights information on New Student Orientation, Academics, Finances, Life@AU, Technology, and International Students. This collaborative effort, an outgrowth of the Registration Task Force recommendations, involved input from staff in Academic Affairs, AU Central, Campus Life, Enrollment, Finance and Treasurer, Housing and Dining Programs, OIT, and University Communications and Marketing.

26,002 VISITORS IN THE
FIRST FOUR MONTHS



A screen shot of
the New Student
Services Directory

“The process of transitioning to life as a college student can be confusing for new students and their families. Once the final enrollment decision is made, there is a seemingly endless stream of communications and tasks to be completed. The New Student Services Directory has done much to simplify this process for our new AU Eagles and their families by offering a central place to find all of the essential information and ‘to dos.’”



SHARON ALSTON
Vice Provost for
Undergraduate Enrollment

IMPLEMENTED HOUSING MANAGEMENT SYSTEM

OIT assisted Housing and Dining Programs with implementation of the StarRez system, which integrated housing occupancy management for the academic year and the summer term into a single system. This improvement offered streamlined bed management, reduced the need to manage three disparate software platforms, and improved the housing selection experience for students and guests. This successful implementation allows AU to offer a consistent, efficient, and twenty-first-century experience to our students, summer guests, and staff and opens the door for engagement via mobile devices.

In the spring of 2014, more than 2,400 returning students used the new online software to submit applications, connect with potential roommates, and select rooms. In previous years, the room selection process was manual and required students to choose spaces in person. This week-long process required direct support from more than 25 full-time employees, significant wait times for our students, and the reservation of large meeting spaces for the duration of the selection process. The new software has limited staff support to just four employees during peak selection, eliminated the need for students to wait in line, and no longer requires the use of large meeting spaces.

84%

**THE PERCENTAGE REDUCTION OF FULL-TIME
STAFF REQUIRED TO SUPPORT THE WEEK-LONG
ANNUAL ROOM SELECTION PROCESS**

TRANSITIONED TO NEW ONLINE CATALOG SOLUTION

In partnership with the Office of the University Registrar, OIT implemented a new academic catalog management solution, Acalog. This enabled the registrar's office to publish the American University Catalog 2014–2015 (catalog.american.edu) in an online and fully searchable format for the first time. Additionally, this moves AU one step closer to our sustainability goals and eliminates the time and costs associated with publishing paper catalogs.

“The resounding success of the StarRez implementation is directly attributed to the close, collaborative, and productive partnership between Housing and Dining Programs and OIT. The new housing management system exemplifies the university’s commitment to employ technology to empower excellence for the AU community—StarRez has exponentially enhanced operational efficiencies and provides our 4,000 resident students with engaging state-of-the-art technology.”



CHAD LADUE

Director, Operations and
Administration, Housing and
Dining Programs

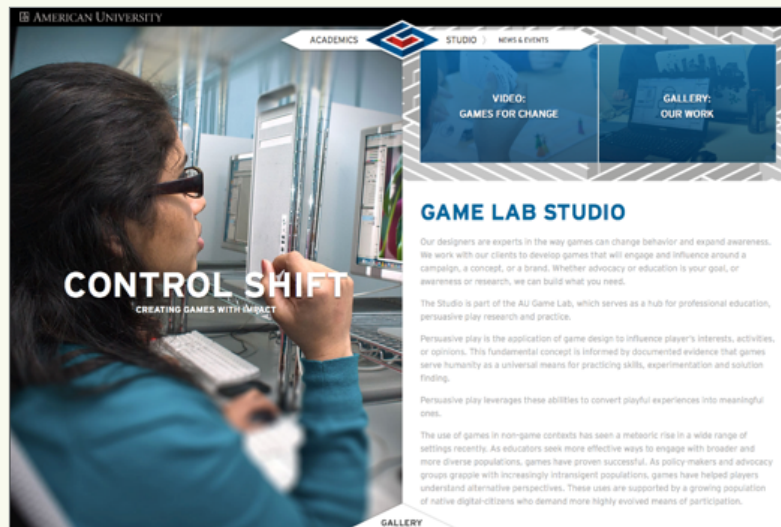
STRATEGIC GOAL

DEMONSTRATE DISTINCTION IN GRADUATE, PROFESSIONAL, AND LEGAL STUDIES

ACCOMPLISHMENTS

CREATED INNOVATIVE WEBSITE TO SUPPORT NEW MASTER OF ARTS IN GAME DESIGN

A new, innovative academic program on game design requires a new, innovative website. Accordingly, OIT helped the School of Communication and the College of Arts and Sciences create gamelab.american.edu to support their hybrid program, which combines a rich educational component with studio work for real-world clients. Befitting such a novel program, OIT worked with project owners to produce a wholly unique, dynamic, and beautiful website. Designed by a local firm, Friendly Design Co., the site is a single-page web application with all content loaded via Asynchronous JavaScript and XML. Pages slide in and out through elegant animations, while a fixed navigation menu expands and contracts depending on the subject area. The entire site is responsive and looks stunning on mobile devices, including an interactive gallery that displays work by faculty and students. Though it looks completely different from anything else at AU, the site is fully integrated into CommonSpot, our campus content management system.



A screen shot of the Game Lab website

“The design and implementation of our website have helped move our AU 2030 initiative forward. The distinct design helps emphasize the novelty of our program, a first for the university and an emerging hallmark in the growing community of higher education games. As our primary outward-facing tool for general information, recruiting, reporting our research, and celebrating accomplishments of faculty, staff, and students, we have been very happy with this first step in our web presence.”



LINDSAY GRACE
Director of American University Game Lab and Studio and Associate Professor for the School of Communication

IMPLEMENTED RECRUITMENT AND ADMISSIONS PROCESSING SYSTEM FOR THREE COLLEGES

OIT successfully implemented Ellucian's Recruiter, an enterprise system for recruitment and admissions processing, for the graduate and professional admissions functions in the College of Arts and Sciences (CAS), School of Communication, and School of Professional and Extended Studies. The new system supports personalized relationship management with prospective students to facilitate timely completion of applications. Once applications are submitted, faculty and staff can now use sophisticated, standardized workflow processes that enable more efficient and timely admissions reviews. Initial metrics from CAS show a significant increase in processing speed and efficiency, which facilitates increased enrollment. As the rest of the campus continues to adopt this tool, the consistent business definitions, processes, and reporting defined during this initiative will help to inform the university leadership's decision making, planning, and forecasting.

63% REDUCTION IN PROCESSING TIME FOR CAS GRADUATE APPLICATIONS FROM FALL 2013 TO FALL 2014

DEVELOPED BUSINESS INTELLIGENCE PLATFORM FOR ADMISSIONS AND ENROLLMENT

A project that started as a graduate admissions reporting and analytics application has matured into a comprehensive admissions business intelligence (BI) platform. This platform now provides AU users with insight into admissions and enrollment dynamics for all academic degrees, levels, and units. The expanded set of enterprise metrics include both daily and year-by-year deposit and enrollment trends. The BI user community has expanded from the graduate admissions staff to undergraduate advisors and service directors within schools and colleges.

“The Graduate Services team at SOC worked closely with OIT to implement a new admissions customer relationship management (CRM) system over the past few months. Since its launch in June 2014, the Graduate Services team has seen a marked improvement in efficiency in admissions files processing. OIT has been incredibly responsive during the implementation of the new system and wherever possible customized the CRM to meet SOC's needs.”



SHARMEEN AHSAN-BRACCIALE

Director of Graduate Services,
School of Communication

ENCOURAGE INNOVATION AND HIGH PERFORMANCE

ACCOMPLISHMENTS

DEVELOPED OIT ROADMAP

At the beginning of the 2013–2014 academic year, Associate CIO Kamalika Sandell convened a cross-functional planning team to develop a new strategic roadmap for OIT, charting its course for the next four years. As a foundation for the roadmap, the team first focused on identifying the organization’s values and surveying the higher education landscape for emerging trends and key influencing factors. The planning team, with involvement from staff in each focus area, conducted S.W.O.T. exercises to identify strengths, weaknesses, opportunities, and threats. The team then crafted current and future narratives to describe where we are today and where we want to be in four years, with detailed plans charting out the hundreds of proposed initiatives.

The roadmap outlines four major strategic objectives, under which all initiatives align:

1. Strengthen the core with a resilient, agile, and secure infrastructure
2. Enable transformation through change leadership, organizational maturity, and professional development
3. Forge partnerships to deliver inclusive IT services
4. Advance institutional effectiveness and efficiency through responsible stewardship

OIT intends for the roadmap to provide vision and direction while serving as a bridge between short-term action plans and the AU Strategic Plan. Staying ahead of the changing academic landscape requires an agile, flexible approach; therefore, the plan will be a living document that OIT adapts to best meet the needs of AU.

12 MONTHS OF INTENSIVE EFFORT
BY THE 10-PERSON PLANNING TEAM



527 actions are arranged into 34 major initiatives, which align under 4 strategic objectives

CONDUCTED SELF-ASSESSMENT TO CHART THE COURSE FOR PROCESS IMPROVEMENTS

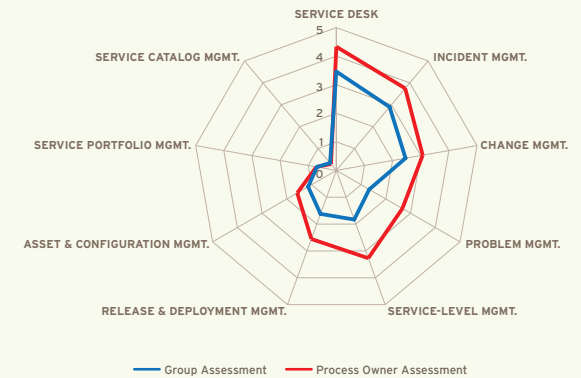
The best way to determine where OIT is today, with regard to process maturity, is to benchmark ourselves against globally recognized Information Technology Infrastructure Library (ITIL) best practices for IT service management, which provide a customizable framework to achieve quality service and overcome difficulties associated with the growth of IT systems. The OIT management team has completed two internal assessments: a Readiness and Awareness Assessment and a Process Maturity Assessment. The objectives of the assessments were to provide a baseline evaluation of current process maturity, identify key areas for improvement and develop action steps, and spark ideas for inclusion in our OIT roadmap regarding organizational maturity. We selected nine processes/functions to assess that either were already areas of focus or were planned to become focus areas in the next few years. We have outlined recommendations for process maturity for each area and will address these over the next year.

INTRODUCED PROBLEM MANAGEMENT MODULE

OIT continued to align our business processes more closely with the best practices of IT service management. We expanded use of the iSupport case management system to include its built-in problem management solution. This process ensures that OIT maintains the highest possible level of service when interruptions or degradations affect our customers. Our goal is to minimize the disruption by immediately notifying OIT staff who can remedy the problem and to make all OIT staff aware of ongoing service issues. An unplanned service interruption of a core service (impacting a large number of users) is declared a Critical IT Incident when it extends beyond 30 minutes with an expected duration of at least another 30 minutes. In such cases, we notify all OIT staff, ask them to participate in diagnosing the problem and restoring service, and use extra internal communication protocols to facilitate activities. Well-planned problem management supports effective identification of issues, tracking of support requests, root cause analysis and ticket closure, and notification to campus partners and affected community members.

49% OF ALL UNPLANNED PROBLEMS FOR AY14 WERE RESOLVED WITHIN 1 HOUR

OIT Self-Assessment Ratings for ITIL Process Maturity



The blue line indicates the average numeric value for the entire OIT management team. The red line indicates the rating from the process owner that is closest to the process.

IMPLEMENTED MOBILE FACILITIES MANAGEMENT

Facilities Management was able to reduce the average time needed for a technician to complete an assigned work order by a day, after deploying AiM Mobile. OIT worked closely with Facilities Management to roll out the Apple smartphone app, which integrates with 2FIX. The new solution allows technicians to receive, manage, and update work orders in real-time while in the field, eliminating trips back to the office to get their next work order. Using the app, technicians can also communicate with their managers via FaceTime and text messages, document fixes and repairs with photos, receive and send AU email, scan bar codes on equipment and parts, and accurately track time on work orders. These capabilities dramatically reduce technicians' travel time, improving efficiency while increasing data quality and accuracy.

1 DAY AVERAGE REDUCTION FOR TECHNICIAN
TO COMPLETE AN ASSIGNED
2FIX WORK ORDER

STREAMLINED INVOICE PROCESSING THROUGH IMAGING

In partnership with Accounts Payable, OIT successfully implemented ImageNow, AU's imaging and document management solution, for campus-wide invoice processing. OIT and Accounts Payable have rolled out the solution to all campus users involved with reviewing, approving, and processing invoices, resulting in automated, streamlined processing of more than 70,000 invoices annually. The old process was paper-centric, time-consuming, and manual, with multiple hand-offs and touch points. Automation provides full transparency into the status of invoices throughout the entire cycle from receipt to payment, reduces payment processing time, eliminates the risk of lost invoices, and enables easier document retrieval for audits. It has allowed AU to greatly reduce paper output, cut mail and storage fees, and target bottlenecks in existing processes.

118 BOXES OF PAPER INVOICES
ELIMINATED ANNUALLY

"OIT's partnership was critical to successfully implementing WebNow for Accounts Payable. They also continue their collaboration in both support and continuous improvement efforts. The results of our ongoing partnership are a dramatic improvement in visibility, increased efficiency, and reduced cycle time supporting the university."



ROBERT LANCASTER
Director of Accounts Payable

INTRODUCED INTEGRATED BENEFIT MANAGEMENT

In partnership with Human Resources, OIT rolled out a new benefits management solution for all full-time staff and faculty. The new enterprise solution, BenefitFocus, has automated the process of enrolling new hires, simplified open enrollment, allowed for the generation of total compensation statements, and enabled designation of insurance beneficiaries within the system. This implementation also enabled automated transmission of benefit enrollment data to all vendors and to the university's enterprise resource planning system, Colleague. The new system has allowed AU to eliminate multiple rounds of manual file transfers with all of its vendors, reduces manual data entry and validation across multiple systems, eliminates approximately 4,000 paper forms, and allows for the production of approximately 2,500 total compensation statements each year.

4,000 PAPER FORMS ELIMINATED
AND REPLACED WITH ONLINE,
INTEGRATED FORMS

“OIT's partnership in all stages of the BenefitFocus implementation was critical to its success. This effort has allowed us to automate what were previously manual, cumbersome processes by improving the efficiency of the benefits enrollment data transferred to our vendors (resulting in faster access to care and receipt of ID cards), streamlining the enrollment process for new hires, and providing easy access to benefits information on the myBenefits communications site.”



BETH MUHA

Assistant Vice President of
Human Resources

STRATEGIC GOAL

ENGAGE ALUMNI IN THE LIFE OF THE UNIVERSITY, ON AND OFF CAMPUS

ACCOMPLISHMENTS

DEVELOPED BI DASHBOARDS TO SUPPORT ALUMNI RELATIONS

Partnering with the Office of Development and Alumni Relations, OIT implemented a sophisticated prospect management tool in MicroStrategy, APEX 2.0, which allows staff in the division to access constituent relationship management information on demand. The application is individualized to give staff information on their personal, team, and divisional priorities. Staff can now track their own prospects, proposals, and contacts with ease, enabling them to prioritize work and see how they contribute to divisional goals. The application offers data visualization for easy comparative analysis, detailed data listings, drill-downs, and exports to other formats such as Excel, so end users can easily mine data with familiar tools. The shared platform gives great importance to teamwork and collaboration, allowing AU to steward our alumni and donors more effectively.



A screen shot of the
APEX 2.0 dashboard

“The creation of the APEX 2.0 application has significantly improved prospect management reporting for the Development and Alumni Relations’ Office of Technology and Information Services, which used to generate this information through multiple separate reports using various means of extracting and compiling data. The application has been well-received and feedback has been overwhelmingly positive, with end users often expressing that their expectations were exceeded by the project.

The additional benefit of this project, however, is the infrastructure that was built in developing this application and the recognition of MicroStrategy’s full reporting potential, which in the future will allow for new ways to explore data in more meaningful ways than ever before.”



GAIL FERRIS

Director of Technology and Information Services,
Office of Development and Alumni Relations

WIN RECOGNITION AND DISTINCTION

ACCOMPLISHMENTS

ENHANCED WEB CAPABILITIES

In partnership with University Communications and Marketing and content publishers across campus, OIT successfully completed the web re-skinning effort, implementing new design elements to high-level templates to change the look and feel of the AU website (american.edu). To support enhanced use of multimedia, OIT incorporated multimedia elements into the existing web architecture, including improved video-streaming capabilities.

33,329,143 PAGE VIEWS ON THE AMERICAN.EDU WEBSITE IN AY14

HOSTED FIRST OIT TECHNOLOGY EXPO

On March 28, 2014, OIT hosted its first Technology Expo to showcase OIT services to the AU community. Participants received answers to their technology questions, met some of the behind-the-scenes experts on our tremendous team, learned about OIT services, and shared feedback and suggestions, while enjoying food, fun, and prizes. After a successful inaugural event, OIT plans to make this an annual tradition.

\$1,000 WORTH OF PRIZES AWARDED TO ATTENDEES, THANKS TO VENDOR DONATIONS

“The new video-enabled feature slider gives University Communications so many more options for telling AU’s story on the university’s home page. The benefit of playing video in the feature slider means our users don’t have to navigate away from the site to watch a particular YouTube video about AU, whether it’s one of President Kerwin’s video messages, a news ‘package’ highlighting a professor’s expertise/research, or a video of highlights from an exciting campus event such as President Barack Obama’s visit for an episode of NBC’s *Hardball*.”



MAGGIE BARRETT
Managing Editor of
Online Content, University
Communications and Marketing

EMPLOY TECHNOLOGY TO EMPOWER EXCELLENCE

ACCOMPLISHMENTS

ACCOMPLISHED SECURITY ADVANCEMENTS

OIT has made good progress on security, with emphasis on implementing detective controls to alert to unexpected activities occurring on the network, scanning campus systems for vulnerabilities, enforcing AU policy, and protecting sensitive data. OIT has addressed all open Credit Card Usage audit issues; however, compliance with all of the Payment Card Industry (PCI) requirements will continue. OIT continues to partner with Treasury Operations, providing technology support and consultation, to advance AU's PCI compliance efforts.

In support of the university's decision to require security awareness training for all staff, OIT has delivered the *Reducing Your Digital Risk* curriculum through the AsuccessfulU system. In addition, AU now requires a PIN and activated screen lock on all Blackberry, Android, and Apple iOS devices using enterprise services to connect to AU's email systems. This enhancement enforces requirements stated in AU Policy, ensuring consistency and providing a layer of protection for data stored on mobile devices. Finally, OIT made significant progress in the effort to protect sensitive data on university-owned laptops: staff members dedicated to this effort made office visits to encrypt 500 laptops, bringing the total number of encrypted laptops up to 898.

133% THE INCREASE IN ENCRYPTED AU-OWNED LAPTOPS DURING AY2013-2014

“The partnership with OIT has been critical and effective with respects to successfully advancing PCI compliance efforts on campus. They worked hand-in-hand with our office to address continuing technical compliance issues that are significant in scope and complexity. As a result, we have collectively been able to develop a strategy to deal with the ever-changing PCI environment and move the university closer to full compliance.”



LAURA MCANDREW
Assistant Vice President
of Treasury, Office of Finance
and Treasurer

INSTALLED APPLIANCES TO MANAGE DOMAIN NAME SERVICES

OIT implemented state-of-the-art appliances from InfoBlox to manage domain name systems (DNS) and dynamic host configuration protocol (DHCP) network services. Internet usage requires DNS to look up URL names, translate them into machine language, and direct users to the appropriate website. The use of denial-of-service attacks on DNS is becoming a popular attack method of cyber criminals seeking to disrupt service. These new appliances give OIT a highly resilient and flexible way to manage names services, leverage our virtual infrastructure, and protect against malicious attacks.

216% THE PERCENTAGE INCREASE IN AVERAGE SIZE OF DENIAL-OF-SERVICE ATTACKS SINCE LAST YEAR, ACCORDING TO INDUSTRY LEADERS

IMPROVED WIRELESS NETWORK CAPACITY, COVERAGE, AVAILABILITY, AND ACCESS

To meet the ever-increasing demands for capacity, coverage, availability, and ease of use of AU's wireless network, OIT has continued to make improvements to the campus infrastructure. We installed wireless controllers and additional access points where necessary to add capacity. In addition, we upgraded the wireless network in the Ward building with the latest 802.11ac standard, providing gigabit wireless speed. We also implemented a new process to enhance wireless access for guests on campus. In a few simple steps, a guest may request access by completing a web form; once an AU faculty/staff member or student sponsor approves the request, the access request is fulfilled and the connection becomes active.

26,782 UNIQUE DEVICES PER MONTH CONNECTED TO THE EAGLESECURE WIRELESS NETWORK

“The guest wireless Internet service has enabled WAMU 88.5’s studio guests to quickly and safely connect to the public Internet with a simple self-service portal. The web-based login to the guest wireless service has reduced the overall complexity, resulting in a better user experience.”



VIRENDRA SILVA
Director of Information
Technology, WAMU 88.5
American University Radio

MANAGED INFRASTRUCTURE IMPROVEMENTS

OIT has worked diligently to proactively plan for and accommodate capacity increases and upgrades to strengthen and secure AU's technology infrastructure. OIT upgraded both primary and redundant Internet connections from 1 gigabit per second (G) to 2.5 G, resulting in 5 G total throughput.

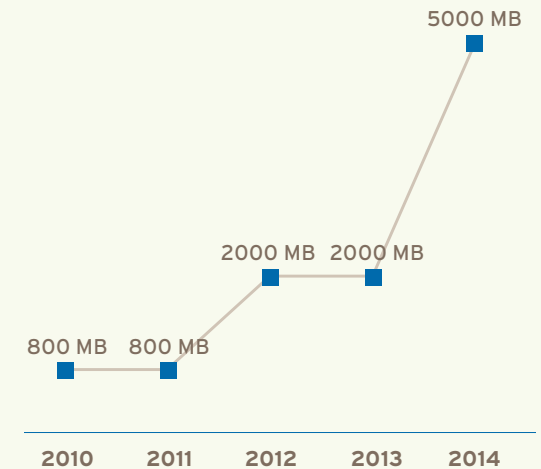
Upgrading the cabling infrastructure in the remaining campus buildings, from category 3 to category 5 or 6, will facilitate future network upgrades and gigabit desktop network connectivity.

OIT also upgraded AU's storage infrastructure to improve processing. In addition, OIT augmented storage capacity at both primary and secondary data centers.

Finally, OIT upgraded and expanded the virtual server management infrastructure, supporting 95 percent of all AU servers, to stay ahead of growing demands. We replaced 13 servers and added 9 new servers. The new server architecture provides the ability to quickly add new servers, as campus computing requirements increase.

150% THE PERCENTAGE INCREASE IN
INTERNET THROUGHPUT FOR THE
USER COMMUNITY FROM AY13 TO AY14

Keeping Up with Growing Demand: AU Internet Bandwidth Capacity



This graph depicts the university's Internet bandwidth per year in megabits per second.

PROVIDED IT INFRASTRUCTURE AND ENABLED IT SERVICES IN MCKINLEY

In support of the McKinley Building renovation, OIT worked with Projects and Planning Management, Facilities Management, and multiple vendors and contractors to design and construct a state-of-the-art network infrastructure to meet the immense demand for technology inside the new student-centered, cutting-edge home of the School of Communication. Wireless access points supporting the 802.11ac standard, designed to optimize video-streaming experiences and offer gigabit Wi-Fi speeds, have been installed. The building was wired to provide gigabit Ethernet connections to the desktop throughout the building to facilitate the transfer and manipulation of large video and audio files.

50 STATE-OF-THE-ART ACCESS POINTS, SUPPORTING THE 802.11AC STANDARD, INSTALLED IN THE MCKINLEY BUILDING

RETIRED WINDOWS XP

OIT worked diligently, along with our technology support partners in the schools and colleges, to replace, reimage, or recycle the 700 AU-owned computers that were running the Windows XP operating system. As soon as Microsoft announced the end of support for the aged operating system, OIT made plans to recycle and replace older computer models that were eligible, based on the Next Generation Workstation Lifecycle policy, and incapable of running Windows 7. Newer computers running Windows XP were upgraded to Windows 7. It was extremely important to phase out Windows XP at AU, as continuing to use unpatched and unsupported software puts personal and AU data at risk of exposure by cyber criminals. In addition, there was a risk that updates to many of the software applications widely used at AU would result in them no longer working on Windows XP.

3,440 HOURS SPENT REPLACING OR UPGRADING AU-OWNED COMPUTERS TO WINDOWS 7

“I wanted to thank you again for all of the help from your OIT team. From our point of view, the IT installations have been perfect and the whole project has run very smoothly. OIT’s support has made a tremendous contribution to a very complicated project.”



FRANK FITZMAURICE
Director of Technology Services,
School of Communication

PERFORMANCE METRICS

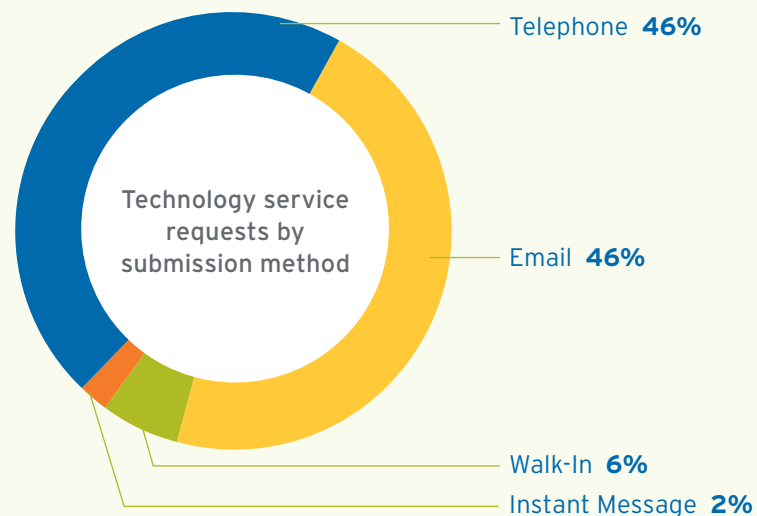
OIT strives to meet and exceed the service delivery and support needs of our customers, namely, AU faculty, staff, students, parents, alumni, and administrators. To that end, OIT's Customer Service and Technology Operations teams work around the clock to assist them.

SERVICE DELIVERY AND SUPPORT

We are constantly analyzing our performance metrics and benchmarking our services against peer institutions in an effort to identify new ways to improve our service offerings and delivery. The following metrics showcase the enormous volume and complexity of IT training and service requests.

1,137 THE NUMBER OF AU EMPLOYEES ATTENDING OIT TRAINING CLASSES

This chart indicates the percentage of service requests submitted to the Help Desk via telephone, email, instant messaging, or walk-in at the Technology Support Desk in the library during AY2013–2014.



This table indicates the percentage of customers who reported being satisfied or very satisfied on an OIT training point-of-service survey.

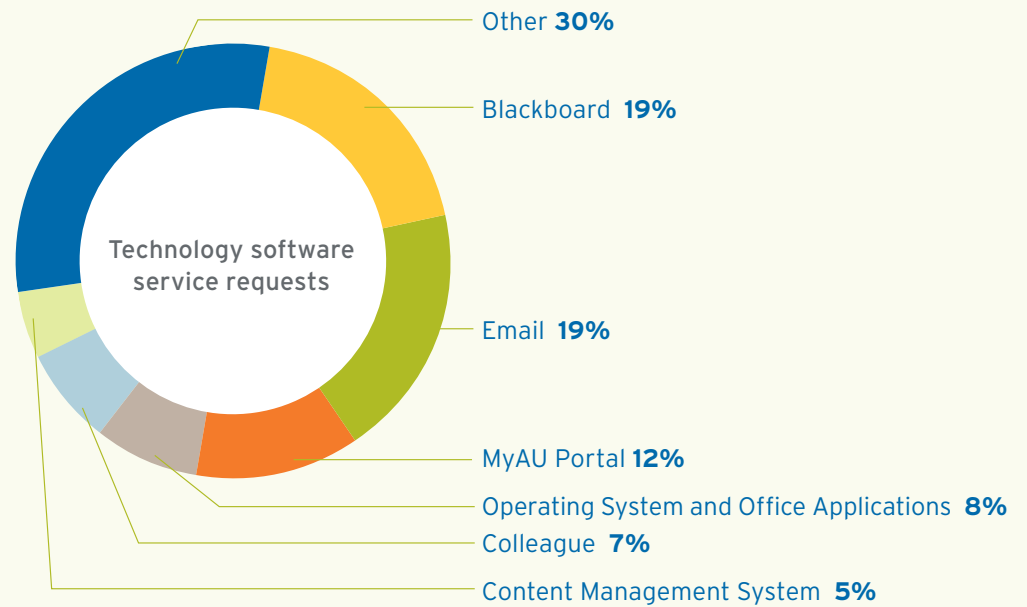
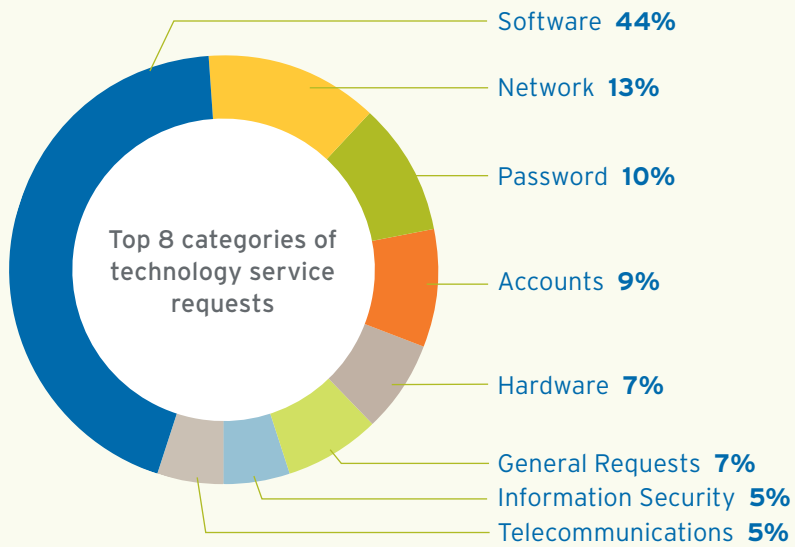
OIT TRAINING SURVEY RESULTS

Instructor presentation	88%
Professional attitude and courtesy	98%
Knowledge of subject matter	94%
Adequately answered questions	86%
Overall satisfaction with amount learned	85%
Course met expectations	82%

TECHNOLOGY SERVICE REQUESTS BY CATEGORY & TECHNOLOGY SOFTWARE SERVICE REQUESTS

The chart on the left indicates the percentage of the 67,206 total service requests in each major category during AY2013–2014.

The chart on the right indicates the percentage of service requests pertaining to highlighted AU software applications.



TECHNOLOGY SERVICE REQUESTS RESOLVED

67,206 SUPPORT REQUESTS WITH AN AVERAGE RESOLUTION TIME OF 20 BUSINESS HOURS FOR OIT, 6 BUSINESS HOURS FOR THE HELP DESK

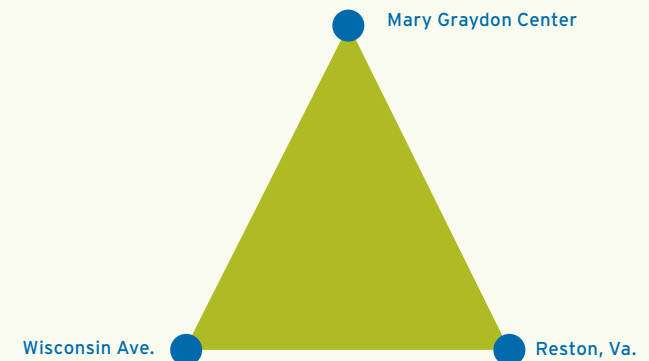
This table indicates the percentage of customers who expressed satisfaction with the overall support provided by OIT staff and our partners on point-of-service surveys sent randomly to every fifth customer at the time of the service request closure.

OIT POINT-OF-SERVICE SURVEY RESULTS

Time to resolve	93%
Accuracy	95%
Professional attitude and courtesy	96%
Overall support	95%

OIT has adopted an architecture and mindset of providing secure, sustainable technology platforms and consistent service delivery. The necessary ingredients involve the right platform technologies, system software updates, and application architecture in place and ready at the appropriate time. Over the past year, OIT has continued to advance its goals of maturing our architecture by aligning with the following industry-standard best practices:

- Ensuring continuity of operations through use of business continuity data centers



- Measuring our current performance and tracking historical trends to inform management decisions

99.92%

SERVICE AVAILABILITY FOR CORE SERVICES, TRANSLATING TO FEWER THAN 9 HOURS OF UNPLANNED DOWNTIME PER YEAR FOR SERVICES INCLUDING BLACKBOARD LEARN; ELLUCIAN'S COLLEAGUE; EMAIL, FILE, AND PRINT SERVICES; NETWORK INFRASTRUCTURE; AND THE AU PORTAL

- Virtualizing as many services as possible to offer redundancy, simplify maintenance, and support AU's goal of carbon neutrality

95%

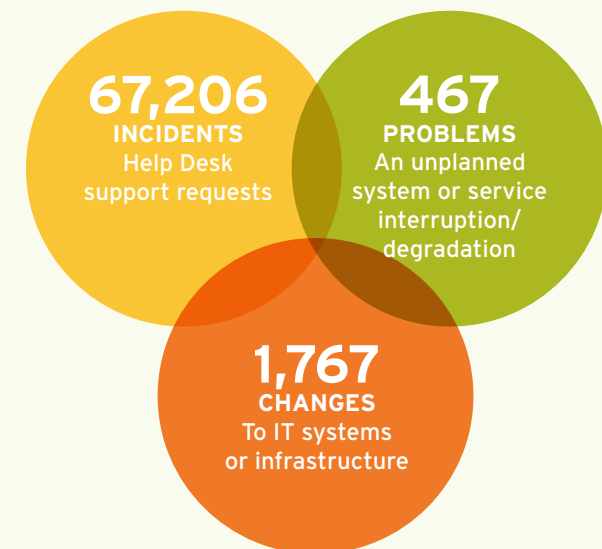
OF SERVERS VIRTUALIZED WITH 460 PRODUCTION OR TEST SERVERS RUNNING ON 29 HOSTS AND THE REMAINDER NOT SUPPORTING VIRTUALIZATION

- Articulating the roles and responsibilities for each group within OIT to support a particular service

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SERVICE-LEVEL AGREEMENTS, THE FORMALIZED SERVICE STRUCTURE ALLOWING FOR CONSISTENT SERVICE DELIVERY AS NEGOTIATED WITH CAMPUS PARTNERS

- Streamlining the handling of incidents, problems, and changes through formalized processes and use of an integrated case management system



This table represents many of the services that have a service-level agreement. For each service, OIT set a target average of 99.9 percent service availability. For services where the target was not met, we developed plans to address problem areas and improve availability for the upcoming year.

SERVICE AVAILABILITY FOR KEY SERVICES

Service	AY2012-13	AY2013-14
AU Campus Connect	100.00	100.00
Blackboard Learn	99.89	99.91
Blackboard Transact	99.76	99.94
C-Cure Access System	99.73	99.83
CommonSpot	99.75	99.93
iSupport	99.99	99.92
EagleBucks Printing	99.99	99.98
25Live	99.68	99.92
WCL Core Services	100.00	99.95

AVERAGE CONCURRENT WIRELESS NETWORK USERS

41% INCREASE IN AVERAGE CONCURRENT WIRELESS USERS BETWEEN AY13 AND AY14

PROJECT MANAGEMENT OFFICE

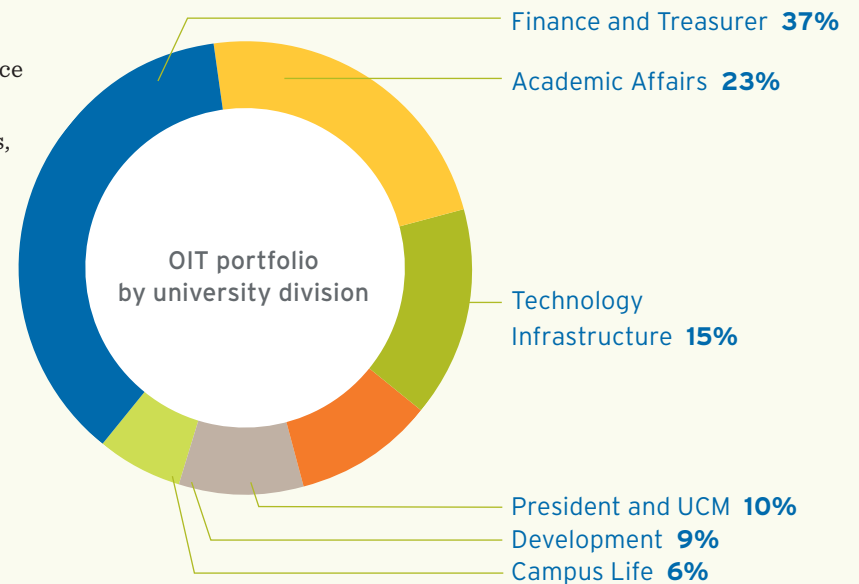
Last year, OIT staff responded to approximately 205 project requests. The OIT portfolio is well-balanced and represents every area of the university and every OIT mandate for maintenance, innovation, and support. Technology staff maintains existing infrastructure and applications, invests in new functionality, and responds to quick-service requests.

To manage these projects, campus portfolio owners from all areas of AU prioritize their projects and determine campus-wide priorities as a group. OIT teams collaborate extensively, both within OIT and in the community, to manage scope, protect sensitive data, define schedules, determine budgets, and deliver on commitments.

To enhance OIT's project, portfolio, and resource management capabilities, the Project Management Office (PMO) deployed TeamDynamix, a project and portfolio management solution, to better prioritize project efforts, actively monitor project portfolios and adapt to change, effectively manage resources, and meet commitments on time and on budget.

As part of OIT's professional development initiative, the PMO delivered several training sessions focused on project management concepts, tools, techniques, and best practices to help AU colleagues better manage stakeholder expectations and improve project delivery. In partnership with Human Resources, the PMO also developed and delivered "Managing Multiple Projects" training as part of the National "Getting Things Done" Month Brown Bag Certificate Series.

This graph indicates the percentage of projects completed for each university division in 2013-2014. Technology infrastructure projects benefit the entire campus community.



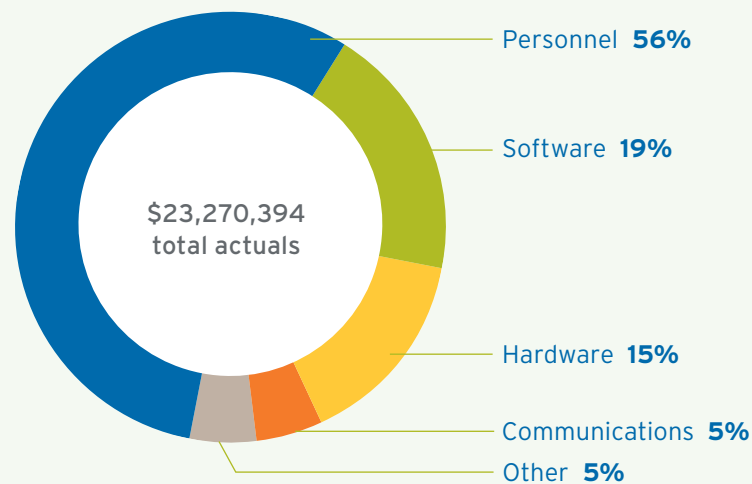
RESOURCES

SERVICE DELIVERY AND SUPPORT

With more than \$23 million in total expenditures last year, OIT accounts for approximately 3.93 percent of the university's overall budget. As in most organizations, the largest expenditure is for personnel. The highly trained and dedicated professionals who work in OIT leverage the remaining funds to manage the infrastructure, hardware and software maintenance, external support, and supplies necessary to ensure reliable, secure, and effective IT services management and delivery.

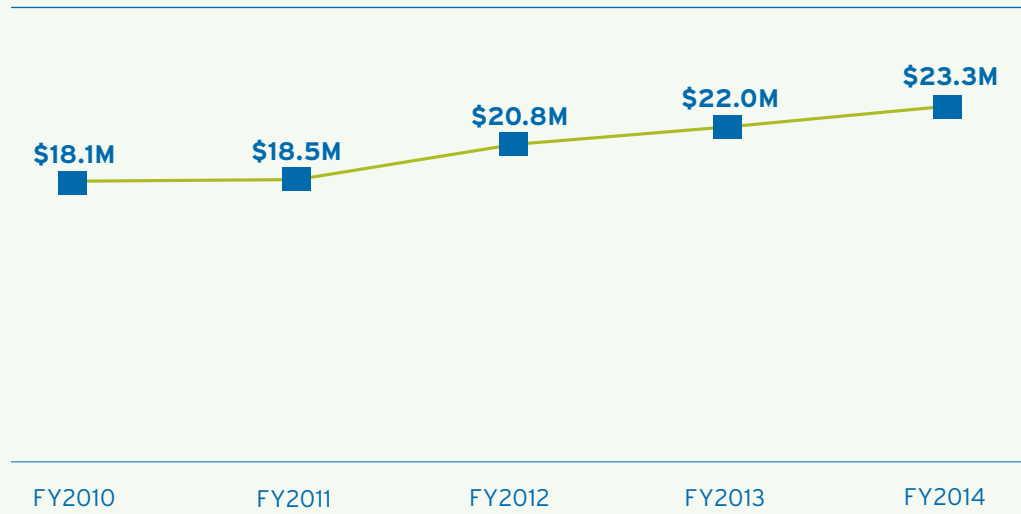
OIT EXPENSES BY TYPE

This chart indicates the percentage of the OIT total actuals for FY2014 by expense type. The expenditure for personnel represents the salaries and benefits of 110 full-time employees.



OIT EXPENDITURES

This graph indicates the historical trend of OIT expenditures over the past five years.





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