OFFICE OF
INFORMATION TECHNOLOGY
YEAR IN REVIEW
2011–2012

MISSION

The Office of Information Technology's mission is to align with and facilitate progress toward the university's strategic goals, improve enterprise technology services, protect electronic data, and partner with distributed campus technology groups.

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

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CIO'S MESSAGE

On behalf of the Office of Information Technology (OIT), I invite you to review our annual report for academic year 2011–2012. Following is a brief overview.

During the past year, OIT's activities supporting the university goals on **instruction and research** were extensive. We helped to modify production systems to support the new suite of academic regulations (see american.edu/provost/registrar/regulations/academicreg.cfm). We expanded the high-performance computing cluster by adding many new applications. And we piloted virtual computing in a couple of computer labs, implementing close to 100 virtual desktops to support the suite of Microsoft applications and statistical packages such as SPSS and STATA. These upgrades enable users to access the software without having to physically go to a specialized lab.

We also piloted Google Mail and Applications for faculty, which is an enhanced version of Google that better integrates with student Google users. An improved reporting system for grants is in now in place, helping research faculty and departments track and forecast budgets, and a system has been implemented to facilitate grant submissions. In addition, we provided technical support to the implementation of the SharePoint collaborative suite used by the Center for Research on Collaboratories and Technology Enhanced Learning Communities (COTELCO), a social science research center in the School of International Service (SIS).

Under the university goal of **enhancing student services**, OIT completed a number of action steps, including the execution of a tool for tracking student retention and success called MAP-Works and the new web-based Eagle Finance system to provide better information to students on the status of their bill and financial aid. Many different business processes affecting students were reviewed and improved, resulting in a 25 percent reduction in reported student difficulties in these areas. These efforts will continue this year with a focus on advising support, improvements to admissions and registration, and transfer articulation.

Under the goal of **enhancing the university reputation and marketing**, OIT accomplished a number of initiatives, including a major software and hardware upgrade of the content-management system, the development of a mobile strategy, and the rollout of our first mobile platform that includes 14 applications. We also upgraded the portal and assisted the Development and Alumni Relations office with implementing the iModules community system, which helps to keep alumni engaged nationally and internationally.

Under the goal for **improving our administrative efficiency and effectiveness**, we implemented a new system for staff for professional development and learning management. Testing of a new imaging- and online document-management solution took place and the introduction of a business intelligence (BI) suite that includes an

executive dashboard for key performance indicators. Additionally, we implemented a tool for capital projects planning and financial management to support campus plan development underway. We launched a self-service space-reservation system and undertook one of our largest projects, the upgrade to the new Datatel UI 4.3 system, requiring modification and conversion of more than 700 reports and interfaces.

Under the enabling goal to address **general infrastructure and operational improvements**, we enhanced the campus edge network and doubled our Internet bandwidth. We also upgraded campus firewalls, security monitoring, and the intrusion prevention system. In planning stages is the implementation of a configuration management database to help track assets, system configurations, and changes. Also under development are the plans for infrastructure and support for the many forthcoming buildings and spaces that will require technology.
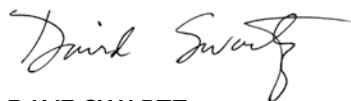
In regard to **information technology customer services and training**, we successfully partnered with the University Library to create a one-stop support desk for technology and upgraded our technology issue and case-management system (i.e., iSupport). We continued to mature our service management by creating a dashboard with key performance indicators of service and rolled out a few additional service-level agreements (SLAs). We are planning to implement an online catalog of university services, not only related to information technology, but to other areas of campus as well.

As we look toward next year, a number of other important initiatives are being planned, including support of the new partnerships in online learning and the modernization of our admissions processes and systems. We are also planning continued improvements to student business services and an expansion of our mobile applications platform and creating an IT infrastructure master plan focusing on the basic network infrastructure for the next 10 years. Other plans include additional improvements to our security systems to comply with Payment Card Industry regulations and additional imaging- and document-management support to the areas of admissions, financial aid, and accounts payable.

OIT's portfolio during the past year was busy and productive on the operational front, as we are now operating at an average of 99.95 percent uptime, exceeding our previous benchmark of 99.90 (sometimes referred to as 3-9s). Based on our point-of-service customer surveys, our response time to requests for support continues to improve, as well as our overall approval level rating of 93 percent, representing an increase over last year, despite a 23 percent increase in user support requests.

For an in-depth discussion of the above points, please continue reading—and thank you for taking the time to review OIT's activities and accomplishments during the past year and those we have planned for the year ahead.

Regards,

DAVE SWARTZ
Chief Information Officer and Assistant Vice President

"OIT's portfolio during the past year was busy and productive on the operational front."

ORGANIZATIONAL OVERVIEW

IT Customer Service

The IT Customer Service group manages, delivers, and communicates reliable and effective information technology services to the AU community. We employ industry-standard best practices in Information Technology Infrastructure Library (ITIL) service management, change management, and performance measurement.

The IT Customer Service group includes four teams.

- The **IT Help Desk team** answers questions and troubleshoots IT-related issues via telephone, email, and instant messaging. With system administrator rights, the Help Desk team resolves most issues directly and coordinates with other technical support partners to solve customer problems and respond to questions.

- The **IT service manager** provides team leadership in developing and managing service standards and processes with the goals of fostering effective relationships, managing expectations, and reporting performance metrics to the functional service owners and primary customer contacts across the university.

- The **technical support team** provides on-site technical assistance to AU faculty, staff, students, and guests for issues pertaining to supported hardware, software, and network connectivity. The team responds to requests for service either through direct interaction with customers at OIT's walk-in Technology Support Desk at the library or through requests from the Help Desk.

- The **technical training team** designs, administers, and delivers the technical training curriculum. The team leverages industry best practices to design and implement learning solutions that meet university goals and IT process standards.

Enterprise Systems

The Enterprise Systems group is responsible for providing a comprehensive, integrated set of technology solutions, enabling AU to improve the way it conducts business, supporting various staff and academic functions. Managing the university's technology portfolio continues to be a fine balance among modernizing existing solutions, charging ahead with new solutions, and continuing to operationalize best practices. Organized to provide a single point of contact to the staff and academic units, the group focuses particularly on the university's data infrastructure and website.

The Enterprise Systems group includes five teams.

- The **application analysis and development team** shapes, furthers, and manages a variety of enterprise solutions in supporting university staff and academic units and their activities on behalf of faculty, staff, students, alumni, and other related university constituencies.

- The **application management team** provides application administration and third-level technical support for all enterprise systems applications through the formulation of a well-defined quality assurance function.

- The **information services team** defines the university's data infrastructure, providing reliable, accurate, secure, and accessible data to the campus community through managing the university's data warehouse and analytical reporting functions.

- The **project office** institutionalizes best practices in several IT management service areas, building a reusable framework related to technology project- and portfolio-management practices.

- The **web and emerging technologies program team** realizes an effective and compelling university website and a high-quality, web-enabled campus—integrating web technologies to support learning, teaching, and communications through the web—and provides innovative solutions by introducing and formalizing new technologies across all enterprise applications.

Did you know?

OIT completed more than 330 projects and serviced more than 66,000 Help Desk support requests.

Information Security

OIT's Information Security group supports AU's executive leadership in protecting and defending the university's information assets. To achieve high-level security, it executes appropriate practices in IT planning, implementation, management, and operations, while assuring confidentiality, integrity, authenticity, accountability, and availability.

The team accomplishes this through:

- ensuring compliance with applicable policies, laws, and regulations

- enforcing university policies and standards

- highlighting sources of risk to university management

- implementing technologies that increase the visibility of potential risks to AU data

- developing repeatable processes that validate security in IT systems and services

- contributing to awareness, training, and education programs

- initiating partnerships with departments to evaluate and improve their computer security practices

- safeguarding new technologies and services

TAKE IT FROM RED
IT'S A WOLF IN DISGUISE.

Technology Operations

The Technology Operations group administers the university information technology infrastructure, continually striving for the balance of efficient applications of human resources, repeatable processes, and technology investment.

The Technology Operations group includes two teams.

- The **network operations team** provides operations management and monitoring, after-hours Help Desk assistance, information technology facilities management, and network engineering. The team also furnishes telecommunications services and workstation life cycle management.

- The **systems engineering services team** provides directory architecture management and engineering, systems engineering and operations, and database administration. The team also administers the email and collaboration software environment and server- and storage-platforms architecture, engineering, and operations.

From left: Cathy Hubbs, Terry Fernandez, Kamalika Sandell, and Dave Swartz

STRATEGIC GOALS AND ACCOMPLISHMENTS

The projects and initiatives in OIT's portfolio align with the university's strategic plan and overall goals, as described below.

Epitomize the Scholar-Teacher Ideal

ACCOMPLISHMENTS

Piloted Google Mail for Faculty
Over the last year, OIT conducted a pilot program to investigate the potential of alternative email and collaboration platforms for faculty members. With a majority of our students successfully using the AU-sponsored Google domain for four years, Google was a natural platform for a pilot program for faculty. Twenty-four faculty members agreed to take part in the program, representing a variety of users, including those using Lotus Notes Client, webmail, and IMAP and those having their mail forwarded to other mail systems. Faculty feedback from the pilot was generally positive. In the coming year, OIT will offer Gmail to faculty members as an alternative to Lotus Notes email.

Piloted AU's First Virtual Computing Lab
In partnership with the Center for Teaching, Research, and Learning (CTRL) and the University Library, a successful pilot of AU's first Virtual Computing Lab (VCL) was implemented. The goal of the pilot was to demonstrate the ability to extend the desktop virtualization implementation, to build and support virtual labs, and to make the lab available to the AU academic community over the campus network and the Internet. This pilot phase demonstrated the ability to virtualize a lab in support of two graduate SIS classes, allowing face-to-face instruction of the specialized applications used in these classes, as well as an extension of students' use of these applications outside the classroom from any Internet-connected device at any time, day or night. This pilot will serve as a model for virtualizing other traditional labs across campus.

Implementing Phase Two of the Virtual Computing Labs Initiative

Building upon the success of the initial VCL pilot, chartered by the Academic Technology Steering Committee, OIT, CTRL, and the library will look to extend the reach of the VCL program. The main focus of phase two of the program will be to further increase the mobility, availability, and accessibility of specialized software and computing environments to desktops, laptops, and mobile-computing platforms. This expansion will support the growing needs of various models of education, including face-to-face, hybrid, and distance learning. Also in this phase, we plan to expand the VCL footprint to include up to 200 additional virtual desktops and additional specialized software such as MS Office, SPSS, STATA, Nvivo, MatLab, SAS, Mathematica, EViews, Adobe Writer, and Dreamweaver. We also hope to extend the life cycle replacement of existing lab workstations by moving this processing power to the data center, eventually replacing these typical lab environments completely or reducing replacement costs of the lab workstations by using thin terminals. Lab managers wishing to participate in this program may contact OIT to discuss how this program can help increase the availability of their lab environment.

Provide an Unsurpassed Undergraduate Education and Experience

ACCOMPLISHMENTS

Partnered with the University Library to Create a One-Stop Center for Technology Support

In partnership with the University Library, OIT launched the Technology Support Desk on the first floor of Bender Library on October 17, 2011. This service was intended to be a one-stop center for in-person service for the community. Since opening day, more than 2,500 students, faculty, or staff received, according to their feedback, exceptional assistance with technology issues. This represents a 205 percent increase in the number of tickets at the Technology Support Desk, since moving to the University Library, compared to the previous year at the same time when located in the Anderson Computing Complex.

Walk-in traffic is managed by a new queuing system that automatically creates tickets in the iSupport case-management system. This approach ensures high-quality and thorough service. It also allows the university administration to better understand the demands for support, so we may identify other strategies to improve our service delivery. Despite the unrelenting demand for assistance, the engineers at the Technology Support Desk take care to greet every customer and to ensure their satisfaction, as evidenced by the overall satisfaction rating from customers of 99 percent.

Michael Luong (left) and Seare Habte at the Technology Support Desk

The OIT Technology Support Desk walk-in service on the first floor of the library has been a tremendous asset to our students and faculty. With the ubiquity of laptops, often the technical problems encountered by our community require a technical expert to look to correctly diagnose and resolve a problem. Having OIT on-site in the library, which is truly the research hub of this campus, facilitates the rapid resolution of obstacles to productivity in the location where researchers congregate.

Gwendolyn Reece
Acting Associate University Librarian and Director of Research, Teaching and Learning

Implemented Changes to the Academic Regulations

The university has embarked on a thorough change of academic regulations, both for graduate and undergraduate studies. In addition to these changes, General Education requirements have been modified. The effort to implement these complicated changes was one of the university's top priorities this past academic year. It involved altering the heart of the student information system, requiring a cross-functional campus team to invest time in partnership with OIT. Most of the changes have been implemented successfully, as planned.

Continued the Journey with Virtual Student Services

Over the past year, OIT has continued focusing on implementing process improvements for student-facing processes related to student accounts, financial aid, and the registrar's office. Many large planned projects have been implemented, including improvements to the refund process, work study–related processes, and student registration. The most complicated initiative, and the one likely to have the most impact for students, is the rollout of new online student bill. The new bill is easy to read, comprehensive, and integrated, with a simple payment interface. It allows students to review their financial aid and refund information from a single location. The ultimate goal through future phases and broader campus participation will be to establish a virtual presence for all student services. Such a virtual platform will transcend organizational boundaries and focus solely and effectively on getting students what they need through a simple, easy-to-use, and interactive web-based interface.

Implemented the MAP-Works Student Retention Tool

AU has successfully implemented MAP-Works to manage student retention. This tool has helped improve student experiences at the university by enabling effective early intervention with at-risk students, empowering the faculty and professional staff to effectively and efficiently impact student success, and focusing students on behaviors for college success.

Implemented e-Commerce and Eagle Finance

A comprehensive program had been planned to contemporize many of the processes in student accounts, specifically the processes related to creation of the student bill. Up until now, AU did not use term-based payments. As such, the bill, although accurate, was confusing to students and difficult to interpret. The legacy online bill also had limited functionality; for example, students could not view their outstanding balance unless they had started the term and were unable to view prior-term financial transactions.

Partnering with Ellucian, AU has implemented term-based payments; payment-allocation procedures; brand new e-commerce functionality, in compliance with the Payment Card Industry; and a newly developed interactive web finances module providing much of the functionality that AU lacked in its previous custom programs.

The implemented changes to the academic regulations required a sustained collaboration between OIT, academic advisors, associate deans, staff from the Office of the University Registrar and AU Central, and other administrators. Their untiring efforts resulted in a virtually seamless transition from the old regulations to the new regulations. OIT continued its support by offering training to the academic advisors in order to prepare for how systems were affected by changes in the regulations.

Lyn Stallings
Interim Vice Provost for Undergraduate Studies

The phase one rollout of Eagle Finance, AU's new online source for student account activity and bill payment, is very exciting for students and our staff who answer questions from students about their bill, their account activity, their pending financial aid, and their refunds. OIT's collaboration with our colleagues in Student Accounts has greatly enhanced our students' experience and has reduced the number of requests for assistance in AU Central. We look forward to our continued involvement with the Virtual Student Services project as we continue to create an unsurpassed experience for our students in the area of self service.

Jonnel Clothier
Director, AU Central

Continuing with the Next Phase of Virtual Student Services

The Virtual Student Services (VSS) program targets improvements to the student's online experience while completing his or her business transactions with the university. The VSS program currently supports the Student Accounts, Registrar, and Financial Aid offices. Over the last 18 months, more than 200 process improvements to the student's virtual experience have been identified, with 125 now completed. Several large projects are planned for the upcoming academic year, including redesigning the student services web pages on american.edu and myAU.american.edu and improving such business processes as transfer articulation, registration, billing, and refunds processing through additional automation. The university has started a task force, led by the registrar and involving several OIT members, to review the current registration policies and practices at AU, review practices at peer institutions, evaluate technical imperatives, then create a short-term and a long-term plan for establishing best practices for freshman and for transfer, graduate, and returning students. OIT is also in the process of developing a web application for transfer articulation. This system will allow prospective students to see courses from community colleges that will automatically transfer to AU.

Implementing an Online Student Bill

One of the most significant initiatives last academic year focused on providing a rich, interactive, easy-to-use way of reviewing and paying student bills online. This next academic year, we will implement the next phases to continue improving student billing. Initiatives include automating deposit functionality, so that deposits show up clearly on student bills, implementing new ways to integrate sponsor payments, and implementing e-bills so that the university can consider an alternative to sending out paper bills.

Improving the Undergraduate Admissions System

A modernization is planned of the online experience for undergraduate prospective students and applicants involving a graphical and easy-to-use interface for students considering or applying to American University. Robust functionality will provide state-of-the-art marketing outreach features, such as email communication campaigns and event registration. The full application process will be supported, including an interface with the Common Application, used exclusively for undergraduate applications, and Colleague, the university's student information system.

Implementing a Student Services Catalog

In an effort to provide easy and centralized access to information about web resources and services available to the university community, this fall we will release a university-wide services directory. The initial launch will focus on AU Central–related services, which include those from the Office of the Registrar, student accounts, and financial aid. Forthcoming are listings of services from OIT, the library, and the Center for Teaching, Research, and Learning (CTRL). Over time, publishing access will be extended to other academic and administrative departments to produce a directory of services that is intuitive to use, with comprehensive, up-to-date information.

The new student web finance view (Eagle Finance) offers students a more dynamic and detailed view of their student bill, including a breakdown of charges, pending financial aid, refunds, and details of payments made. Coming soon will be a PDF statement which can be electronically accessed by the student through Eagle Finance and emailed to the parent. In addition, the recent implementation of e-commerce has helped the university increase its Payment Card Industry compliance by offering a more streamlined and secure approach to taking payments. The collaboration between the offices of Student Accounts and OIT was instrumental in making these implementations successful for the university. We continue to appreciate and value the good partnership with OIT and look forward to the future project implementations already underway.

Laura McAndrew
Senior Director, Treasury and Student Accounts Management

Demonstrate Distinction in Graduate, Professional, and Legal Studies

ACCOMPLISHMENTS

Implemented System Changes to Support Academic Regulations for Graduate Students

The university has implemented a set of new regulations for graduate studies. The regulations reflect national best practices in policies significant to achieving a strong academic environment and strengthening the graduate student experience. Their implementation required countless hours of systems reprogramming by OIT developers in coordination with staff from the offices of the Registrar and Academic Affairs.

UPCOMING PLANS

Implementing Online Education by Partnering with Online Service Providers

AU is in the process of partnering with online service providers to roll out online programs. OIT plans include designing a robust, secure, and scalable solution that integrates the university's student information systems and related services with these providers.

Improving Graduate Admissions Processes

Currently, graduate admissions processing is decentralized in each of the seven schools and colleges. A variety of technology systems are in place to support the schools in their marketing, prospecting, and application processes. Some of the systems are outdated. In an effort to achieve economies of scale, a single enterprise-wide technology solution for graduate admissions will be selected for phased rollout across the graduate schools. Consistent data collection and processing will improve the interface with the university's student information system, Colleague, and subsequent enterprise-wide reporting.

Did you know?

The work required to comply with the new academic regulations entailed 122 weeks worth of effort from staff from OIT and the offices of the Registrar and Academic Affairs.

Engage in Great Ideas and Issues of Our Time through Research, Centers, and Institutes

ACCOMPLISHMENTS

Implemented a Grants-Management System

The Research and Grants Infrastructure Task Force identified the need for better management of the pre-awards phase of the overall grant process. Working with the office of Sponsored Programs, the controller's office, and campus stakeholders from schools and units, Cayuse424 was selected and implemented as the product that automates the approval and management of pre-awards. This new system cuts down on a number of manual processes, dramatically improving effectiveness.

UPCOMING PLANS

Partnering to Foster Research Collaboration

OIT is currently working with the Center for Research on Collaboratories and Technology Enhanced Learning Communities (COTELCO), on a pilot project implementing technology solutions to foster research collaboration. Building on previous work, OIT plans to implement the information rollup portion of the COTELCO team site to automatically provide project data, such as project status information from contributors up to program managers and executives and/or board members, to further improve COTELCO's collaborative capabilities and information transparency. Once this has been successfully implemented for COTELCO, similar solutions can be considered across other areas of the university. OIT is also in the process of working with CTRL and the library to develop a research portal for AU faculty.

> It has been a great pleasure working with OIT in developing collaborative infrastructure to support our geographically distributed research teams. We have a number of externally funded research projects and a range of faculty and doctoral- and master's-level and undergraduate student investigators. The OIT approach to project management and information sharing has been very valuable to our research team and allows me and my management team to better understand the status of each project.

Derrick L. Cogburn
Associate Professor, School of International Service, and Executive Director, Center for Research on Collaboratories and Technology Enhanced Learning Communities (COTELCO) and the Institute on Disability and Public Policy (IDPP)

Engage Alumni in the Life of the University, On and Off Campus

ACCOMPLISHMENTS

Integrated the Alumni Community and Management Experiences

OIT partnered with the Development and Alumni Relations office to facilitate selection and implementation of a set of tools that realize an integrated alumni community experience, blending existing social networking strategy. This past year OIT, in collaboration with that office, successfully implemented iModules. Prior to its implementation, there were multiple separate tools that provided pieces of functionality but did not integrate to provide a holistic, useful experience. With the implementation of iModules, we can now utilize this cohesive platform to connect and engage our alumni community, allowing them both the interaction and the services they need from AU and creating a more effective and satisfying experience for them.

Upcoming Plans for Development and Alumni Relations

This academic year OIT will build upon its past initiatives to improve reporting and access to critical data for Development and Alumni Relations. OIT's self-service reporting tools, Entrinsik Informer and MicroStrategy, will be further leveraged to increase self-sufficiency. The ability to access, analyze, and track giving and participation data is a key driver in determining how to best engage alumni and in measuring progress toward this strategic goal.

Encourage Innovation and High Performance

ACCOMPLISHMENTS

Upgraded and Expanded Use of the iSupport Case-Management System

Throughout the year, the use of the iSupport case-management system has spread from one department to the next, as groups look for a way to collaborate and share information, easily record customer issues or interactions, identify and escalate problems, and better inform management. This year, the following teams and offices began utilizing iSupport: AU-wide technical team members, content-publishing leaders, Kogod academic advisors, the office of Sponsored Programs and Procurement and Contracts. In January of 2012, OIT upgraded iSupport from version 10.0.2 to version 10.5.1.

Implemented a Learning-Management System for Staff

In partnership with Human Resources (HR), OIT successfully launched uLearn, the part of an integrated talent-management program overseen by HR to be rolled out in phases over the next year. This new tool will improve access to professional development opportunities around campus. It includes training registration and a tracking module, making it easy for staff to register for professional development courses offered by HR, the library, OIT, and Campus Life. This tool also allows staff to track and record internal and external professional development and training in one location; provide a searchable edition of the professional development catalog; and find and register for specialized training offered by departments such as Facilities Management or Public Safety.

Introduced Business Intelligence Executive Dashboards

OIT has successfully completed the implementation of phase one of an executive dashboard, utilizing the university's BI platform, MicroStrategy. This dashboard includes key indicators for the institution. OIT has been working with a cross-functional campus team to design the dashboard and will be rolling out phase one of the dashboard to the university leadership later this year. Future releases will focus on additional datasets like development and fundraising. The goal is to make sure that our university leadership is relying on a single source of truth in order to make decisions. The platform allows for easy reporting and viewing, as well as dynamic navigation and powerful "what if" analysis.

OIT has partnered with the office of Development and Alumni Relations to facilitate the selection and implementation of a set of tools that realize an integrated alumni community experience for our alumni constituents, while offering vastly improved marketing, event planning, and volunteer-management functionality for the staff. The implementation of iModules has streamlined our ability to connect with and engage our alumni community, enabling alumni to take advantage of programs, benefits, and services—as well as to volunteer their time and talent—quickly and easily. The ease with which we can involve alumni in the life of AU has increased dramatically as a result of this platform, and without OIT's partnership and expertise, it would not have been possible.

Raina Lenney
Assistant Vice President of Alumni Relations

Piloted an Imaging- and Document-Management Solution

AU's leadership has identified the need for an enterprise imaging- and document-management solution as a key priority for the upcoming year. Phase one of this huge initiative focuses on processes in accounts payable, enrollment, and risk management. Implementation of risk management–related processes has already been completed, with accounts payable and admissions implementations currently under way.

Developed a Self-Service Space Planning Process

In collaboration with a campus-wide working group, OIT has led a structured planning process to determine how to optimize the limited availability of campus space to support the many events and meetings conducted by the AU community. The group assessed all aspects of reservations for campus spaces, including people, process, policy, and technology. As a result, the work group recommended (and received approval for) a self-service space reservation process. This process will employ new technology (an enhancement to the existing Resource25 system called 25Live) and allow for immediate reservation of space for a significant percentage of campus meetings.

Enhanced AU's Web Presence

The enterprise content-management system, CommonSpot, successfully went through a major upgrade in the past year. CommonSpot version 6 comes with better caching functionality, which has improved web performance. The new version provides a robust infrastructure that will allow AU to extend some of our key applications, such as profiles, news, and success stories. Earlier this year, we completed a successful pilot rollout of an enterprise blog tool. Full rollout and adoption is expected to occur in phases over the next few months.

Implemented a Capital Projects Planning and Management Tool

AU is establishing the next campus plan, involving a substantial investment in capital projects. To facilitate this ambitious effort, OIT has worked with facilities management and the Office of the Controller to select and implement PMWeb, a tool for enabling structured planning and management of these projects.

Implemented Phase Two Enhancements of the Portal

In addition to refining much of what has been made available through phase one, the overall goal of phase two of the myAU portal implementation was to target content—such as links, announcements, and services—dynamically and specifically to personalize the portal-user experience. Beyond phase two, OIT will also explore creating additional landing pages or portals for other constituencies. Combining the power of targeted links and the creation of team sites enabling collaboration, the new portal architecture will enable the creation of additional portals for such constituencies as the Board of Trustees, newly admitted students, new students, new faculty, and so on.

ImageNow from Perceptive Software was selected by the university as a document-management and imaging solution. Working with OIT and representatives from Perceptive Software, a document-imaging pilot project was implemented for claims and lawsuit and gift and estate documents. As a result, we have a secure and well-managed document repository, which provides a comprehensive and searchable database while allowing us to share documents efficiently and securely.

Melanie Ringle
Executive Assistant to the CFO,
Vice President and Treasurer

The new PMWeb project-management system will provide comprehensive financial management and reporting for all construction projects undertaken by the University. OIT contributed project-management expertise on the front-end of the implementation and currently is finalizing the interface between PMWeb and Colleague. OIT staff members have served as our technology experts every step of the way, and I look forward to continuing our work together.

Mike MacArthur
Director, Capital Accounting
and Reporting

Matured the IT Asset Management Program

OIT continues to mature the IT Asset Management Program with the goal of helping to standardize AU's workstation platforms and to ensure timely replacement of the primary computers which have reached their end of life. At the same time this program provides visibility into the life cycle replacement of staff and faculty computers in order to maintain consistent costs. Fiscal year 2012 was another great year for the program: OIT was able to keep the budget flat for PC replacement, while seeing an increase in the deployment base as well as an increase in the minimum standards for desktops and laptops. In addition to accurately projecting future replacement costs and staying ahead of large deployments, OIT has been able to provide a key benefit by maintaining an adequate inventory of new workstations. This has allowed a rapid deployment of machines to new staff and faculty as well as a quick turnaround for machines that fail or need to be replaced outside of the schedule.

UPCOMING PLANS

Introducing New Performance-Management System

OIT has partnered with Human Resources to support the campus-wide initiative to restructure performance management for staff at AU. In fall 2012, AsuccessfulU, a new tool that streamlines the staff and manager experience, will be available to all full-time staff and faculty who supervise staff. AsuccessfulU will provide for more robust goal setting and will enable the assignment of core and job-related competencies for staff by job role. This tool will be used for annual performance assessment, facilitate open communication between managers and staff members, and clarify the link of pay to performance. Overall, the implementation of AsuccessfulU will increase consistency in goal setting and the performance review process across the university and will provide for governance and accountability to ensure alignment with the new structure.

Rolling Out and Adopting of 25Live

To enable self-service space reservations for campus meetings, OIT and University Events Scheduling have partnered to implement 25Live, a web-based application that is part of the existing Resource25 system. This application will improve the user experience in reserving campus spaces by enabling faculty and staff to make their own reservations for meetings and events that meet specific criteria. It will allow them to select specific locations from a dynamic list of available spaces and will enhance the usability of space-request forms. The new application will also reduce the need for system maintenance by moving AU's use of Resource25 to the cloud, empowering University Events Scheduling to modify the space-request form and administer the system.

Implementing Several Facilities Management–Related Initiatives

Several projects are scheduled for the AiM system that supports the university's facilities-related work order processing. The university intends to adopt the use of mobile devices for technicians to track and report work orders. Using mobile devices will greatly reduce manual and paper processing, allowing for improved efficiencies and increased productivity. Additionally, an automated interface will be implemented to transfer financial data from AiM to Colleague, the university's financial system, thereby eliminating the need for duplicate data entry. OIT will partner with Facilities

The OIT Asset Management program has really made a positive difference for the Academic Affairs Division. For the provost's office itself, we are so happy to have a team of staff dedicated to managing the computer inventory and replacements. Once we place a request, we get a very quick response, and the staff are some of the best and most helpful that we work with. Not only do they do their part, but, if requested, they also offer to put in a ticket sometimes to have the computers set up as well. I know that I can count on the OIT asset management team to deliver consistently as promised, and the communication among the team is excellent. In the past, when we needed new computers or old ones replaced, it could take six weeks or more from the time of placing the order to arrival. The idea of having extra PCs in stock has made a tremendous difference to the staff, and everyone has very positive feedback to provide.

Katya White
Director of Finance and
Administration, Office of the Provost

Management to adopt additional functional modules within AiM, the first of which will be the Planning and Scheduling module, allowing the AU community to schedule routine facilities maintenance work.

Upcoming Plans for the Office of Campus Life

Several major initiatives supporting the office of Campus Life are planned for 2012–2013. A project is in progress to streamline the integration of the systems that enable use of the One Card to perform financial transactions, such as for meal plans and EagleBucks, as well as provide building access. With the implementation of this project, duplicative manual data entry to these systems will be eliminated. OIT is also working with the Academic Support Center to implement an appointment-scheduling system. This system will improve the student experience in using the center's important services and in facilitating interaction between academic counselors and students. Several other new systems are on the horizon for the office of Campus Life, including a new system to manage summer housing and conferences. Vendor evaluation and selection will be conducted throughout the year in planning for future initiatives.

Planning the Next Phase of Document Imaging

The next phase of this major initiative will focus on processes in the Admissions and Financial Aid office. OIT is assembling a project team to finalize the design and begin the implementation of AU's new document-imaging system. Other departmental implementations that are being considered include the offices of Development and Alumni Relations, Graduate Admissions, Human Resources, and International Student Scholar Services (ISSS).

Win Recognition and Distinction

ACCOMPLISHMENTS

Recognized CIO for Leadership in Higher Education Information Technology

At the fall 2012 Annual Conference of EDUCAUSE, a nonprofit association advancing higher education through the use of information technology, CIO Dave Swartz will receive the EDUCAUSE Leadership Award. This honor celebrates his work at AU, experience at prior institutions, service to EDUCAUSE, and overall leadership in the profession, which have had a significant positive impact on furthering the theory and practice of information technology in higher education. At the conference, Swartz will conduct a leadership-focused session, and a $3,000 contribution will be made to a scholarship to benefit an AU student in need.

Appointed Associate Chief Information Officer

Kamalika Sandell has been appointed associate chief information officer for the Office of Information Technology. With this change, she becomes the official second in command under CIO Dave Swartz and assumes more of the day-to-day responsibilities for the organization. Sandell, at American University for more

Associate CIO Kamalika Sandell

than five years, has built and transformed the university's enterprise systems unit. She also has helped to mature the IT governance process, including the creation of a campus-wide technology portfolio that utilizes shared governance and a transparent process for project prioritization and budgeting across campus groups. Sandell is a recognized IT leader having recently received a national award from the Women in Technology organization for Best Woman Technologist in the Education Category.

Awarded OIT Staff Performance

OIT recognizes the exceptional efforts and accomplishments, both collaborative and individual, of our staff. In December we celebrated the third annual internal OIT awards program.

- Nahlah AlSiryani—Critical Thinker Award

- Francesco de Leo—Vision Award

- Debra Gonski—Leadership by Example Award

- Myle Luong—Dependability Award

- Seydou Ly—Enlarger Award

- Jacqueline Palumbo—Campus Partner Award

- Lushan Silva—Customer Service Award

- Kenneth Tse—Initiative Award

Recognized for Outstanding Communications by National Professional Organization

The Office of Information Technology is proud to announce that American University won three separate best-of-category communications awards at the conference of the Association for Computing Machinery's (ACM) Special Interest Group on University and College Computing Services (SIGUCCS) in November 2011.

The university took honors in the following categories:

- **Electronic Newsletter** for our AU Information Technology newsletter, spring 2011 edition. OIT's online newsletter is published twice a year at the start of each major academic semester. It provides the AU community with the latest news and updates regarding our recent accomplishments and upcoming IT initiatives.

- **Electronic How-To Guides** (individual) for our Introduction to AU's myAU portal for Students. This online guide was created to introduce current AU students to the new portal during its rollout in summer 2011. It was only our third OIT-created electronic tutorial.

- **Printed Instructional Classroom Materials** for our Research Grants Financial Reporting guide. This instructional guide was created to teach faculty principal investigators how to examine and project budget, expenses, and unobligated amounts for their research grants, using AU's new Research Grants Reports in the MicroStrategy BI system.

From left: Kelly Wainwright (conference liaison), Terry Fernandez and Steve Kelly (OIT), and Greg Hanek (communications awards chair)

The awards were presented to American University at ACM's SIGUCCS conference in San Diego, California. The award-winning publications developed at college and university computing centers were showcased there, giving attendees an opportunity to review the model publications to help them develop or enhance their own work.
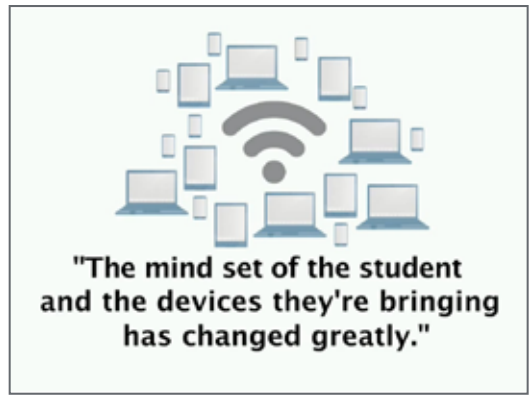
Engaged in Professional Development

OIT encourages its staff to contribute to their own professional development planning and execution, for example, by belonging to professional organizations, writing technical papers, and delivering presentations.

Terry Fernandez and Steve Kelly discuss OIT's poster showcasing the award-winning communications and training materials at SIGUCCS 2011.

- Matteo Becchi—Member of the Washington, D.C., chapter of the Project Management Institute's board of volunteers

- Matteo Becchi—Member of the Washington, D.C., chapter of the Microsoft Project Users Group's board of volunteers

- Matteo Becchi, Joyce Deroy, and Kamalika Sandell—Co-presenters at EDUCAUSE's 2011 conference ("BI: Paradigm Shift, or Just a New Set of Tools?")

- Suzanne Barron, Terry Fernandez, Jacqueline Palumbo, and Pamula Tyler—Judges for the 2012 SIGUCCS communications awards

- Terry Fernandez—Member of the SIGUCCS 2011 and 2012 Communication Awards Team

- Terry Fernandez and Steve Kelly—Co-presenters at SIGUCCS 2011 management symposium ("IT Service Management Best Practices Extend Beyond IT")

- Terry Fernandez and Steve Kelly—Co-presenters for poster session at SIGUCCS 2011 conference ("Office of Information Technology's Award-Winning Communications and Training Materials")

- Chris Gehring—Interviewee for Aruba Networks video case study (youtube.com/watch?v=emehTKXmOJo)

- Chris Gehring, Saeed Pater-Rov, and Dale Roberts—Interviewees for Dell case study October 2011 ("American University Provides 99.9% Application Availability")

- Chris Gehring, Saeed Pater-Rov, and Dale Roberts—Interviewees for Dell customer video ("American University Gets 10x Performance with Dell Compellent") (youtube.com/watch?v=m2MmA5Qwg2U)

- Chris Gehring—Presenter at Dell Storage Forum 2011 ("Business Continuity in the Virtual Data Center")

- Debra Gonski, Marico Hawes, Seydou Ly, and Dale Roberts—Co-presenters at EDUCAUSE Mid-Atlantic Regional Conference 2012 ("War of the Constituencies: Migrating to a New Institutional Portal")

- Debra Gonski, Seydou Ly, and Dale Roberts—Co-presenters at Datatel Users Group 2012 ("War of the Constituencies: Migrating to a New Institutional Portal")

- Debra Gonski and Dale Roberts—Co-presenters at Datatel Users Group 2012 ("Disaster Strikes! How Do We Get Our ERP Back Online?")

- Cathy Hubbs—Co-presenter at EDUCAUSE Mid-Atlantic Regional Conference 2012 ("Mobile and Cloud Security: Practical Applications of the Information Security Guide")

- Cathy Hubbs—Co-presenter at University Risk Management and Insurance Association 2011 ("Information Technology Trends and Implications for Privacy, Security, and Risk Management")

- Cathy Hubbs—Co-presenter at VA SCAN Conference 2011 ("Mobile and Cloud Security: Practical Applications of the Information Security Guide")

- Cathy Hubbs—Featured alumna for *Scholar*, vol. 15, no. 3, summer 2012 ("Safeguarding Student Data")

- Cathy Hubbs—Member of the advisory board for the CISO Executive Network

- Cathy Hubbs—Member of the Security Guide Editorial Board for the EDUCAUSE Higher Education Information Security Council

- Cathy Hubbs—Presenter at Security Threats Conference 2012 ("AppSec Case Study: Ensuring Strong Application Security")

- Cathy Hubbs—Presenter at UBTech 2012 ("Partnering to Achieve PCI Compliance")

- Hassan Marvi—Interviewee for Aruba press release October 2011 ("More Than Half of 298 U.S. Colleges and Universities Surveyed See Wireless Network Upgrade as a Top Priority for 2012")

- Kamalika Sandell—Co-presenter at EDUCAUSE Enterprise IT Leadership Conference 2012 ("Approaches to Prioritizing Projects and Aligning with Institutional Goals")

- Kamalika Sandell—Co-presenter at NCCI Annual Conference 2012 ("Creating a High Performing Organization: When Bottom-Up Innovation Meets Top-Down Strategy")

- Kamalika Sandell—Presenter at HigherEdWeb Annual Conference 2011 ("Everything But the Kitchen Sink: A Campus-Wide Web Design Perspective")

- Kamalika Sandell—Presenter at UBTech Conference 2012 ("The Entirety of Enterprise IT")

- Dave Swartz—Co-presenter at EDUCAUSE Institute Leadership Program 2012 ("Challenge Statement Project," "Challenge Project," and "The Rewards and Challenges of Being a CIO")

- Dave Swartz—Member of the EDUCAUSE Institute Leadership Faculty for 2012–2013

- Dave Swartz—Member of the EDUCAUSE Hawkins Leadership Roundtable 2012

- Dave Swartz—Moderator for EDUCAUSE Webinar ("Cybersecurity as a Shared Responsibility: Stop, Think, and Connect")

- Dave Swartz—Presenter at EDUCAUSE Institute Leadership Program 2012 ("Architecting Relationships")

- Eric Weakland—Co-presenter at EDUCAUSE Security Professionals Conference 2012 ("Network Security That Works for IT and Users")

- Eric Weakland—Member of the EDUCAUSE Higher Education Information Security Council's Awareness and Training Work Group

"The mind set of the student and the devices they're bringing has changed greatly."

wireless is a NECESSITY

Earned Certifications

OIT staff attained a number of professional and technical certifications in the past year, an objective validation of their knowledge and skill sets. The following individuals support OIT's goal of maintaining a 1:1 ratio of relevant and current technical and professional certifications to personnel.

- Jonathan Griffin—International Association of Information Technology Asset Managers: Certified IT Asset Manager

- Paul Hardy and Irene Lam—MicroStrategy Certified Developer

- Seare Habte, Steve Kelly, Albert Luc, Michael Luong, and Avenash Nanan—Microsoft Certified Technology Specialists in Windows 7 Configuration

From left: Terry Fernandez, Steve Kelly, Myle Luong, Lushan Silva, Dave Swartz, and Avenash Nanan at University Honors Program award ceremony.

Recognized by AU's University Honors Program

At the seventh annual University Honors Program award ceremony, OIT staff members were presented with two separate awards. Myle Luong, senior application developer for Enterprise Systems, was acknowledged for her work in moving forms for the University Honors Program from paper to the web. This change made a significant impact for the staff within the office, as well as for the students. A group award was presented to the Help Desk and technical support teams for their support to the University Honors Program throughout the year, especially during the Honors Program's relocation from Hurst Hall to Hughes Hall.

Honored with University Staff Award for Teamwork

Ann Parambil, application integration specialist for Enterprise Systems, was awarded the 2012 University Staff Performance Award for Teamwork along with Ryan Anderson, Marianne Huger, and David Kaib for the successful implementation of the MAP-Works software tool in only three months. The tool—designed to increase student retention through early identification of risk factors known to affect student attrition—featured an online survey that had a 65 percent completion rate among first-year students and helped boost the fall 2011 to spring 2012 retention rate to 97.5 percent. In just three months, the team benchmarked best practices, met with campus constituencies to identify AU-specific needs, configured the software for the AU environment, marketed the program to the campus community, and trained users on the software. The ambitious project was implemented on time, within budget, and produced results that exceeded all expectations.

Acknowledged by National Affiliation of University Residence Halls

In March 2012, the Central Atlantic affiliate of College and University Residence Halls acknowledged the work of Marico Hawes by naming him Institution Staff of the Month. The organization recognizes individuals and organizations for upholding academic, intellectual, cultural, and social understanding among affiliated schools. Hawes was honored for his hard work and dedication in support of AU's Residence Hall Association elections process.

Honored with University Staff Award for Service to the AU Community Sharjil Hasan, associate director of the Project Management Office (PMO) for Enterprise Systems, was awarded the 2012 University Staff Performance Award for Service to the AU Community. In addition to his day-to-day activities overseeing the Project Management Office in the Office of Information Technology, Hasan developed a project-management training program to share his highly specialized project-management knowledge and skills with both the technical staff within his department as well as with the university at large. This allowed trained individuals to apply effective principles to manage their assigned projects from start to finish. Hasan worked tirelessly to educate and champion the principles required for ensuring successful project delivery. His efforts included the preparation of extensive instructional materials and countless hours conducting day-long sessions. Thus far, more than 80 individuals from outside of OIT, from 26 units throughout the campus, have attended his project-management training classes.

From left: CFO Don Myers, Sharjil Hasan, and President Neil Kerwin

UPCOMING PLANS

Striving to Be Recognized as One of the Best Places to Work in IT

OIT's senior leadership feels that the OIT work environment deserves to earn the title of one of the best places to work in the IT field. In fact, in the upcoming year, the organization will participate in ComputerWorld's annual survey ranking the top 100 best places to work in IT.

What makes OIT stand out is the staff's loyalty and commitment, and in turn, the organization's commitment to them. OIT values and rewards its talent. Professional development is encouraged through attendance and presentations at annual trade conferences, training opportunities, and the development of networks with colleagues from other institutions. And OIT staff, with 64 percent either women or minorities, reflect the organization's commitment to diversity.

Due to the university's attractive benefits package and sense of community, many employees work at AU for the long term. AU's commitment to building and strengthening OIT's robust, reliable, and secure framework of information and communication technology supports its status as a world-class university. Over the past four years, the IT budget has almost doubled, allowing investments in state-of-the-art technology and plans for future initiatives.

Did you know?

Almost 50 percent of OIT staff have been promoted internally at some point in their career.

Employ Technology to Empower Excellence

Enhanced the AU Technology Infrastructure

In an effort to stay ahead of the growing demands on the technology infrastructure, OIT completed several infrastructure-related projects to improve the performance, reliability, and availability of the campus network. One of the most important improvements made during the past year was to deploy a new network edge infrastructure to include new border routers, new firewalls, and upgraded redundant Internet connections. These improvements have increased the university's Internet bandwidth from 800Mbps to 2,000Mbps, providing 250 percent more throughput for the user community. This improved infrastructure also positions AU for future Internet bandwidth and capacity growth to 10,000Mbps when necessary. In addition, several improvements were made to the campus networks, including cabling upgrades for Osborn and the broadcast center, deploying redundant wired and wireless network connectivity for the library and for 3201 New Mexico Avenue and making Internetwork Operating System (iOS) upgrades to all access-layer switches across campus. OIT also provisioned 120 uninterruptible power supplies in network closets to ensure power protection and reliability to the network access layer.

Continued to Mature IT Service Management Best Practices

Over the past year, OIT continued to align our business processes more closely with the best practices of information technology service management, based on the ITIL standard. We added two service-level agreements (SLAs) with partners throughout campus, while working to mature existing SLAs through the renewal process with lessons learned over the past year, service measurement, and governance.

Did you know?

OIT's Intrusion Prevention System blocks more than a million malicious attacks to our networked devices every week.

This graph shows the aggregated Internet traffic, inbound and outbound, for our various Internet service providers for the start of the fall 2012 semester. After upgrading from 800 Mbps to 2,000 Mbps (or 2 Gbps), usage was already reaching 1.2 Gbps.

Aggregate Internet Traffic

	Current:	Average:	Maximum:
Sidera Inbound	451.40 M	385.18 M	764.00 M
Sidera Outbound	12.96 M	9.04 M	23.94 M
Cogent Inbound	161.20 M	135.23 M	925.81 M
Cogent Outbound	130.03 M	82.15 M	188.59 M
Internet-2 Inbound	7.50 M	8.66 M	32.49 M
Internet-2 Outbound	9.02 M	7.30 M	37.87 M
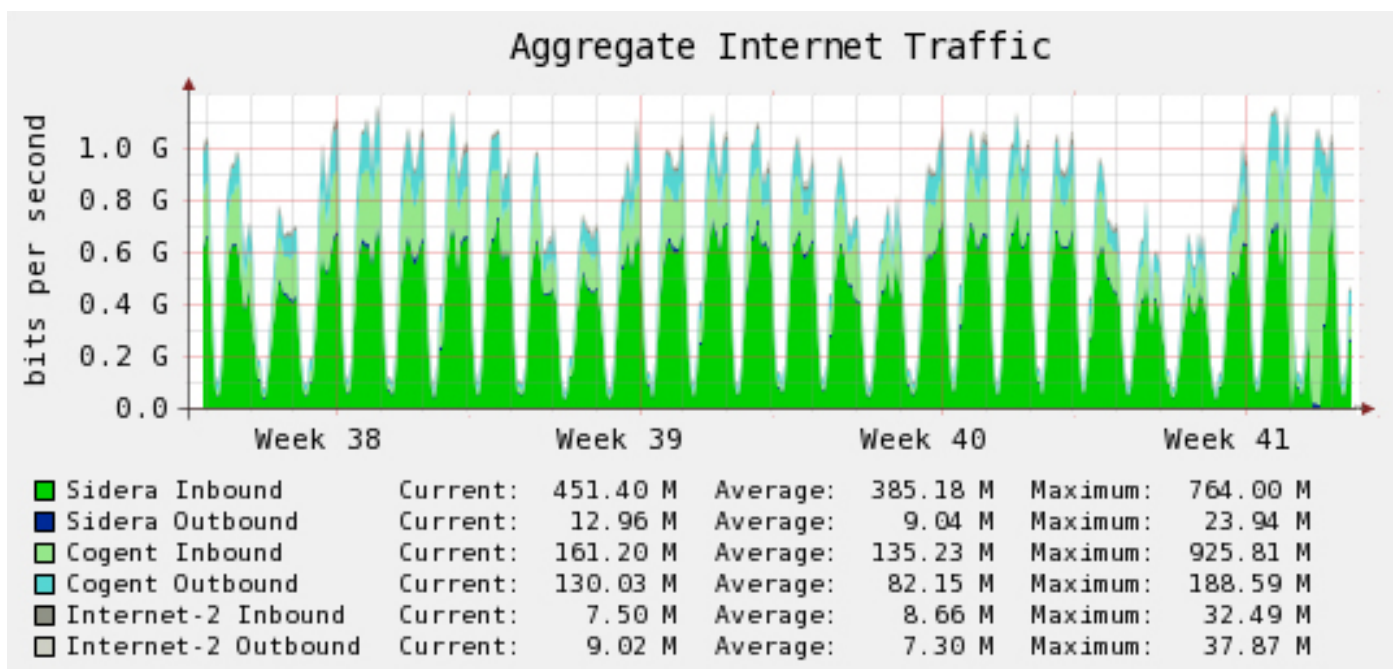
The new SLAs pertained to the management of the iSupport case-management system and the energy-management system for AU facilities. Because every group in OIT plays a critical role in ensuring the successful operation of technology services, OIT created the first two internal operational-level agreements (OLAs) to better articulate the roles and responsibilities for each group's support of a particular service. The new OLAs pertained to the management of AU's BI reporting system and of the Safe•Connect and EagleSecure wireless network infrastructure.

OIT continues to mature its process for critical incident management to better handle problems affecting multiple users simultaneously. We are very confident serving in our defined roles as either the designated communications manager or incident manager. We have also improved our process documentation in this area.

In an effort to continuously improve, OIT progressed in maturing its comprehensive set of performance dashboards for its senior management team, which are shared with university senior management to measure current performance, track trends, and assist in making management decisions. In the upcoming year, we will work to recreate these manual dashboards in our BI environment to provide daily real-time reports to be more proactive and better analyze trends.

Implemented New Colleague Web-User Interface

Datatel UI 4.3, a major release impacting more than 700 processes and reports, was completed this past academic year. The implementation plan utilized full Agile project-management practices. Seven releases were rolled out, without any major downtime. This upgrade gives the university a more robust set of tools to manage database updates more securely. The older desktop interface allowed direct updates to the database, bypassing the application (commonly referred to as working at the colon prompt); while this practice was extremely limited, it should be discontinued. The new version of the user interface comes with options that enable users to choose more acceptable ways of working with the data without going to the database directly. Parallel to the UI 4.3 rollout, we have also made a lot of progress rolling out the reporting tool Informer, which allows users to create and run ad-hoc reports without needing to go directly to Colleague.

Developed Mobile Strategy and Mobile Pilot

With the rapid growth in the use of mobile devices by students, faculty, and staff, American University faced the challenge of providing remote connectivity between these groups and the critical information found on university systems and in the cloud. Without the benefit of any "do-it-all" mobile applications, OIT set as a key goal the development of AU's mobile strategy, along with the rollout of an applicable suite of services and applications. Both these goals were completed—with AU's mobile launch including 14 apps, not 5, as originally planned!

Accomplished Security Advancements

In the 2011–2012 academic year, Information Security welcomed a new team member and continued maturing our capabilities, compliance and audit work, incident response, and collaboration with other OIT groups on major projects and initiatives, notably on AU's new document-imaging system, the faculty grants-management system (Cayuse424), and the

> "In an effort to continuously improve, OIT progressed in maturing its comprehensive set of performance dashboards for its senior management team."

replacement of AU's firewalls and Internet edge upgrade. AU joined the InCommon Federation, allowing AU to leverage a standard process for user management with many vendors. We completed the installation and configuration of Tripwire, a tool used to monitor and notify users of system changes on servers that process credit cards, fulfilling a compliance requirement for the Payment Card Industry's Data Security Standard (PCI-DSS). We also worked with our partners across IT to implement other standard tools to improve the security and reliability of AU's servers. Last year's replacement of Cisco's Clean Access with Impulse's Safe•Connect system required diligent monitoring of customer experience and extensive collaboration with other OIT groups and the vendor to optimize the system, resulting in a much improved user experience and stability for our customers.

UPCOMING PLANS

Modernizing Our Virtual Private Network

Purchased in 2006, the six-year-old socket layer Virtual Private Network (VPN) Gateway has been a stable, secure, and user-friendly platform for our customers. It offers them a secure way to connect to the AU network and work remotely via the Network Connect VPN client. It also allows AU to enforce the IT Security Policy, requiring that desktop and laptop computers undergo a network health check prior to connecting to the AU network. With the recent network architecture changes and the increase of mobile devices, the VPN will be refreshed early fall 2012 to provide better 64-bit operating system support; better support for the Microsoft stack of applications, such as SharePoint, and Silverlight; Lotus Connections 2.5 and 3.0 qualification; and Host Checker, Secure Meeting, and Security Suite support for Android and Apple iOS devices.

Rolling Out Additional Mobile Applications

Usage of AU's mobile site (american.edu/m) continues to increase, having received many positive reviews and feedback. The next phase of the mobile initiative is being planned, with areas of development including tablet renderings of the mobile site, additional social media integrations, and the porting of selected portal applications into the mobile framework.

Implementing a Configuration Management Database

OIT has already implemented the iSupport case-management system, which conforms to ITIL version 3 standards. OIT staff and technology-support partners from around the campus currently utilize iSupport's integrated incident, problem, and change-management modules to track issues or changes through an entire life cycle. In the upcoming year, OIT plans to implement the configuration management database (CMDB) solution, built into iSupport, to enable a single source of authority for best understanding our infrastructure, highlight any changes to its configuration, and map its interdependencies. Configuration items will be manually entered into the CMDB for our core systems; while time consuming, this approach allows us to leverage our existing IT infrastructure investments and saves several hundred thousand dollars.

Implementing Standard Server Security

Protecting American University's data and system assets require vigilance and diligence to keep them secure. OIT has adopted several best practices to meet the service-level requirements of our customers and to keep our engineers working
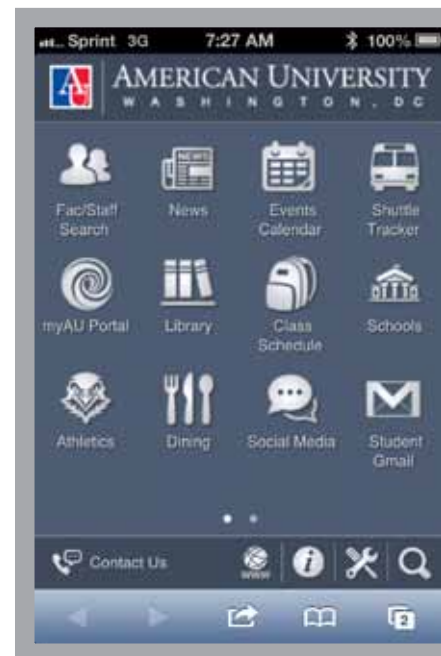
Did You Know?

There were more than 50,000 page views per month for AU's mobile site at the start of the fall semester.

effectively. With the installation and policy configuration of TripWire last year, we are working with OIT's systems engineering services team to ensure that the TripWire agent is installed on all OIT-managed servers and becomes part of the standard "gold image" installation process for any new server. Additionally, we will look for opportunities to leverage TripWire in AU's efforts to populate a configuration management database.

Implementing Other Upcoming Web Initiatives

A number of additional web initiatives are in various stages. A new department directory, developed in conjunction with HR, will go live in the fall. New social media integrations with AU's web content are being considered, in particular the ability to publish AU news, events, and other media programmatically into popular social media sites and to allow users to choose to integrate their AU web profile with profiles from other systems such as Facebook, Twitter, and LinkedIn. Improvements in video-streaming capabilities and the development of a new media aggregator are also being planned, which will allow for optimal streaming of AU-hosted media and an integrated presentation of other AU-related media hosted on popular services such as iTunes, YouTube, and Vimeo.

Continuing the Rollout and Adoption of Business Intelligence

Over the next year OIT will lead the development and champion the adoption of the new BI platform paradigm at American University. The new BI platform uses the MicroStrategy technology stack, representing a shift from a single-tier standard

Did you know?

OIT uses information from other universities and vendors to identify known sources of hacking, blocking an average of 100,000 malicious attacks from the Internet to university systems and computers.

report centric system to the state-of-the-art multi-tier product offering. The platform will feature business key performance indicators and visual information products intended for decision makers and information consumers; highly interactive, analysis-centric applications for business analysts, as well as the ability for AU data owners to participate in design and development of the information products through the BI franchise model. The subject areas for which OIT plans to deliver information products in the next year are space utilization, admissions (undergraduate and graduate), and an integrated (general ledger, accounts receivable, enrollments) financial model. In addition to specific projects, OIT plans to establish a strategic BI road map with emphasis on reaching out to AU organizations with untapped data potential, enabling these organizations to sift their data through the BI platform, to increase user adoption, to solidify development methodology, and to stay up to date with the technical and business innovations in the BI space.

Retooling the Extraction, Transformation, and Loading Infrastructure

As OIT continues to expand information product offerings to more organizations within American University, establishing a robust, efficient, and scalable data-integration platform becomes imperative. This year OIT is embarking on an ambitious effort to streamline multiple data-integration modules into a single state-of-the-art Extraction, Transformation, and Loading (ETL) platform–DataStage. In parallel, OIT is revamping the ETL development methodology to introduce best practices in the data warehousing space. All current and future data-integration efforts will follow these practices, while the existing information products will see the data backbone redesigned, with a significant reduction of data-loading jobs, shorter data-loading window, and smaller footprint.

Strengthening the Colleague Infrastructure

With OIT continuously striving to improve the performance of our systems, we are working on several initiatives within our cross-functional team to strengthen our Colleague environment. First and foremost, we are in the process of building a reporting server to replicate our Colleague production environment for reporting purposes. This will allow our production environment to process transactions and balance the load better, as reporting can primarily be directed to the reporting server. We are also considering improvements to the Colleague-user interface to speed up processing. Over the next few months, we are implementing a newer version of the user interface, a dedicated connection to the environment, and a load-balanced environment (which will improve capacity and performance). OIT is also planning to roll out a user-education initiative. The goal for this initiative is to educate users about their impact on the system—record locks that impede processing, reports and batch processes that slow transaction processing, scheduling options, and the importance of testing.

Did you know?

Approximately 40 percent of the 850 faculty and staff members with access to Colleague log in to the system daily.

Furthering the Adoption of Trustworthy Shared Management of Access to Online Resources

In 2011, American University's OIT joined the InCommon Federation with the goal of supporting collaboration and research efforts. InCommon serves U.S. education and research communities, supporting a common framework for trustworthy shared management of access to online resources. Through InCommon, identity providers can provide their users single sign-on convenience and privacy protection, while online service providers like AU control access to their protected resources. OIT has set up the server infrastructure in support of InCommon and has begun provisioning identity providers. OIT provisioned Cayuse424, the research grant evaluation system; Lynda.com, our online training partner; and R25Live, AU's event-scheduling service. RAVE notification and alerting services are scheduled next.

Developing an IT Infrastructure Master Plan

Over the coming months OIT will be working with campus partners to gather requirements and develop an IT infrastructure master plan. The purpose of the plan is to encompass information technology standards and processes for new campus construction, including for residence halls, classroom space, shared-use space, faculty offices, and staff work areas, as well as for labs, conference rooms, and communications closets. The scope of work will include an assessment phase outlining current systems and standards, brainstorming sessions and interviews with key constituents on campus, a review of the data, and recommendations for moving forward. The plan will allow us to build standards to align with the coming construction associated with AU's campus plan.

Optimizing Identity and Access Management

OIT will be requesting proposals to select a consulting firm for evaluating and grading our identity- and access-management processes and technology. The engagement will involve interviews with OIT staff and campus partners that authorize account access. The goal is to mature American University's identity- and access-management processes and technology to increase operational efficiencies, reduce risk, and meet current compliance requirements. The engagement will provide a gap analysis, proposed multiyear road map for filling identified gaps, and a draft project plan.
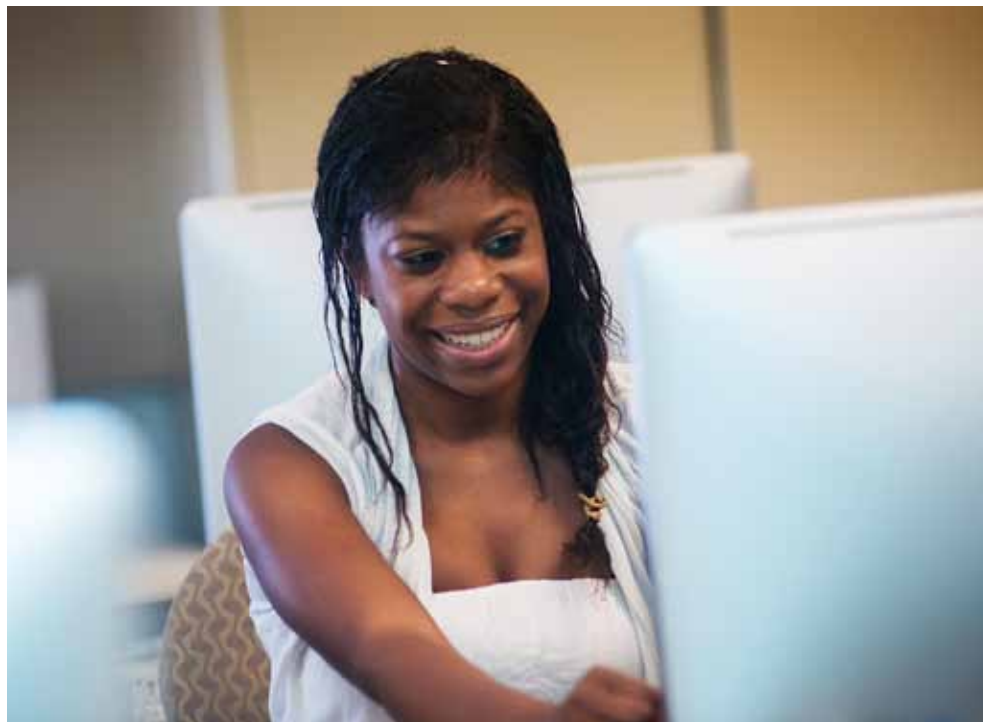
PERFORMANCE METRICS

Project Management Office

Throughout the past year, OIT's staff responded to approximately 330 project requests from all units across campus. The portfolio of these projects is well balanced among maintaining existing infrastructure, nurturing existing applications, investing in new functionality, and responding to quick service requests. To manage these projects, portfolio owners across campus prioritize projects in their respective areas and as a group across all divisions to determine campus-wide priorities. OIT teams collaborate extensively, both with internal staff and with functional users in staff and academic units across campus, to manage scope, protect sensitive data, define schedules, determine budgets, and deliver on commitments.

The Project Management Office (PMO) has developed and rolled out formal project-management methodology and templates to help manage projects. For more information, visit american.edu/oit/projects.

Over the last year, the PMO conducted several project-management training sessions, attended by AU staff from various units. The training focused on project-management concepts, tools, techniques and best practices to better manage stakeholder expectations and improve project delivery. The PMO expects to offer additional project-management training in requirements analysis, MS Project, and risk management. In addition, the PMO plans to select and implement a project- and portfolio-management (PPM) solution to better prioritize project efforts, actively monitor project portfolios, adapt to change, effectively manage resources, and meet commitments on time and on budget.

More and more projects are utilizing Agile practices. The PMO plans on incorporating Agile methodology as part of its PMO standard practices over the next year. One of the key areas of focus for OIT is to develop better change-adoption practices. With better project delivery, it is important to ensure that the products and solutions delivered are successfully used. Many of these solutions incorporate changes in business practices and changes in thinking. Adoption of the solution is not only about understanding how to navigate a new technology but also about understanding how to work with the new paradigm. That is what makes adoption slow and difficult. Part of the rollout of new solutions has to incorporate thoughts around adoption. Otherwise, even with the best technology and solutions, the end goal and the business objective will not be entirely met. One of OIT's key goals next year is to better incorporate change adoption as part of project rollout and project-management practices.

"The portfolio... is well balanced among maintaining existing infrastructure, nurturing existing applications, investing in new functionality, and responding to quick service requests."

This graph indicates the percentage of projects completed for each of the university divisions during 2011–2012. Technology infrastructure projects benefit the entire campus community.

OIT PORTFOLIO BY UNIVERSITY DIVISION

President and UCM

Campus Life

Development

2%

4%

6%

Technology Infrastructure
38%

Finance and Treasurer
23%

Academic Affairs
27%
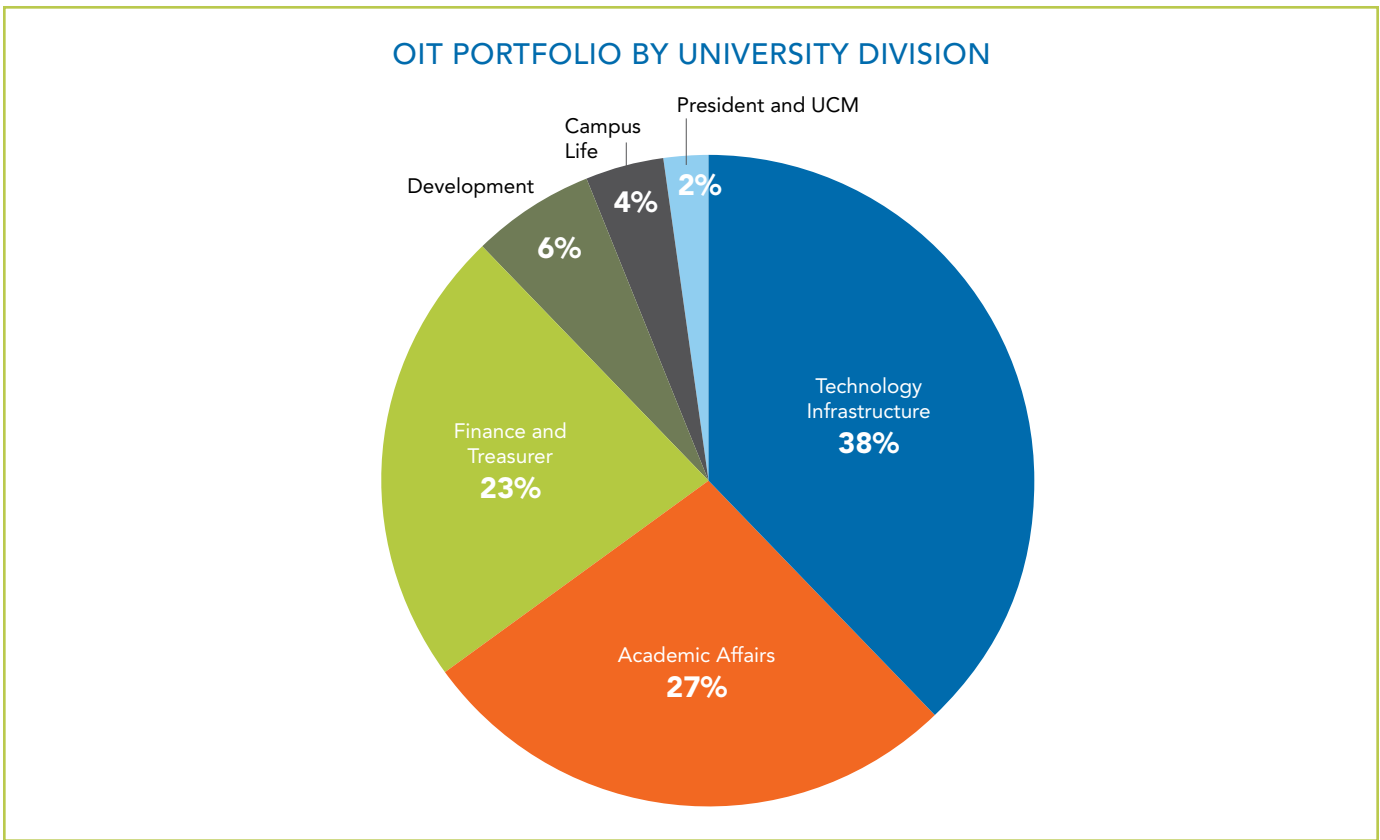
Service-Oriented Architecture

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

- ensuring continuity of operations through use of a business continuity data center

- virtualizing as many services as possible to offer redundancy and simplified maintenance and support AU's goal of carbon neutrality

- measuring our current performance and tracking historical trends to help make management decisions

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

- better articulating the roles and responsibilities for each of the groups within OIT to support a particular service through operational-level agreements

Did you know?

OIT achieved an average of 99.95 percent service availability for the 2011–2012 year for all core services, exceeding the goal of 99.90 percent.

This graph indicates the number of change events recorded to maintain and support AU's technology services for the past two academic years. OIT adopted a formal change-management process in May 2008.

CHANGE EVENTS RECORDED
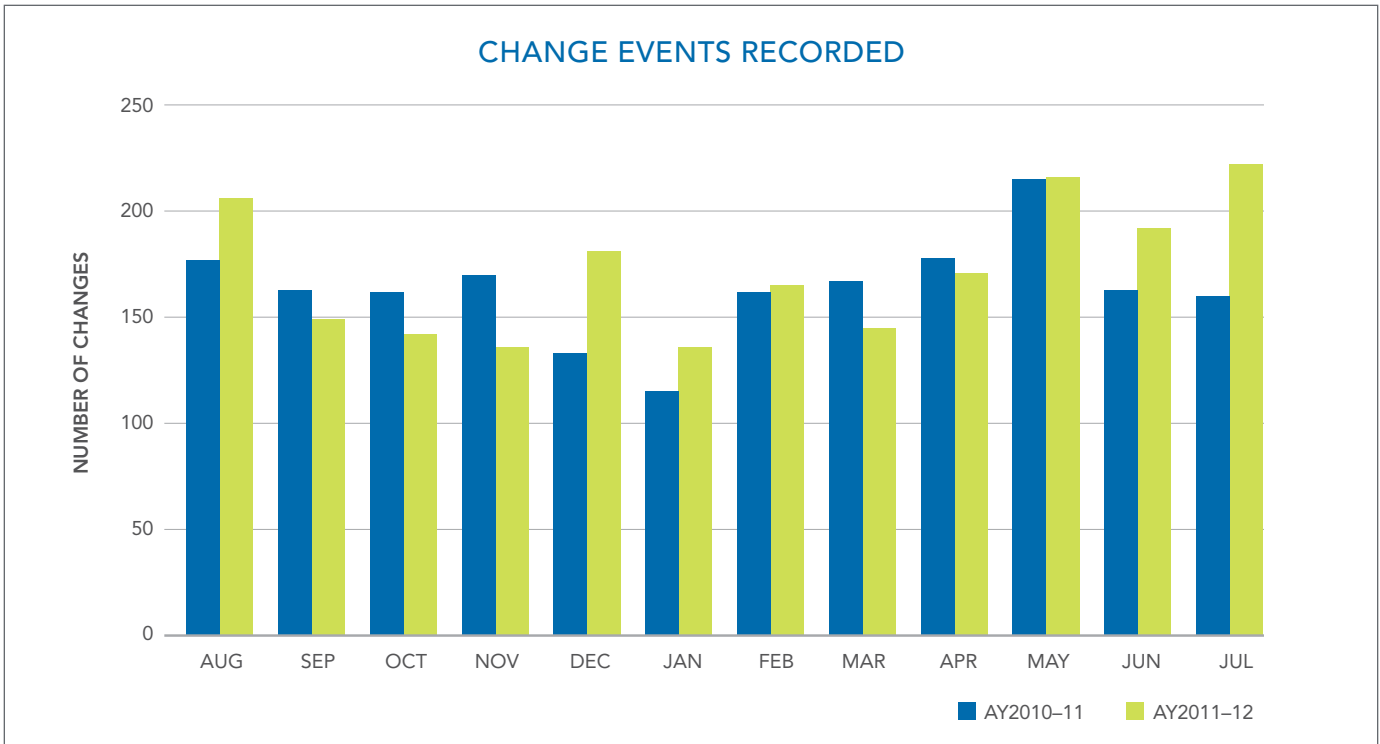
This graph indicates the historical trend over the past two academic years of the average percentage that our core services were available to the AU community. Our core services include Blackboard Learn; Ellucian's Colleague; email, file and print services; network infrastructure; and the portal. An average of 99.9 percent service availability was set as the target for each of these services. An average of 99.95 percent service availability was achieved for the year.

SERVICE AVAILABILITY FOR CORE SERVICES
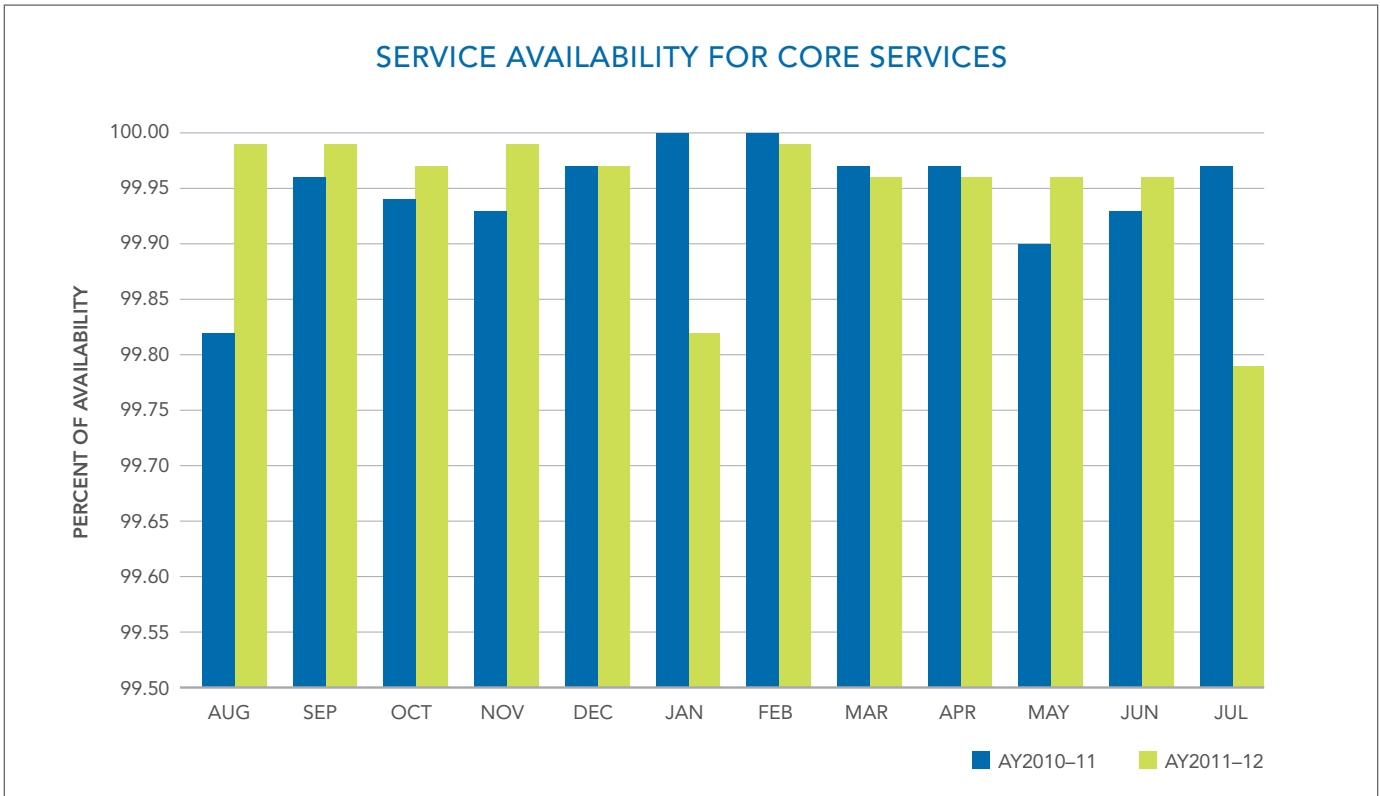
This table represents many of the services that have a service-level agreement (SLA) associated with it. An SLA defines the agreed-upon levels of service and support for a given system, which formalizes the service structure, allowing for consistent service delivery. An average of 99.9 percent availability was set as the target for each of these services.

SERVICE AVAILABILITY FOR KEY SERVICES

Service	AY2010–2011	AY2011–2012
AU Campus Connect	100.00	100.00
Blackboard Learn	99.97	99.89
Blackboard Transact	99.99	99.79
C-Cure Access System	100.00	99.97
CommonSpot	99.86	99.96
iSupport	100.00	99.99
EagleBucks Printing	99.98	99.98
R25	98.82	99.76
WCL Core Services	99.99	99.97

This graph indicates the historical trend of the average number of concurrent users benefitting from AU's wireless network infrastructure during the past two academic years. Usage continues to increase as the wireless experience improves and laptops and mobile devices become ubiquitous.

AVERAGE CONCURRENT WIRELESS NETWORK USERS
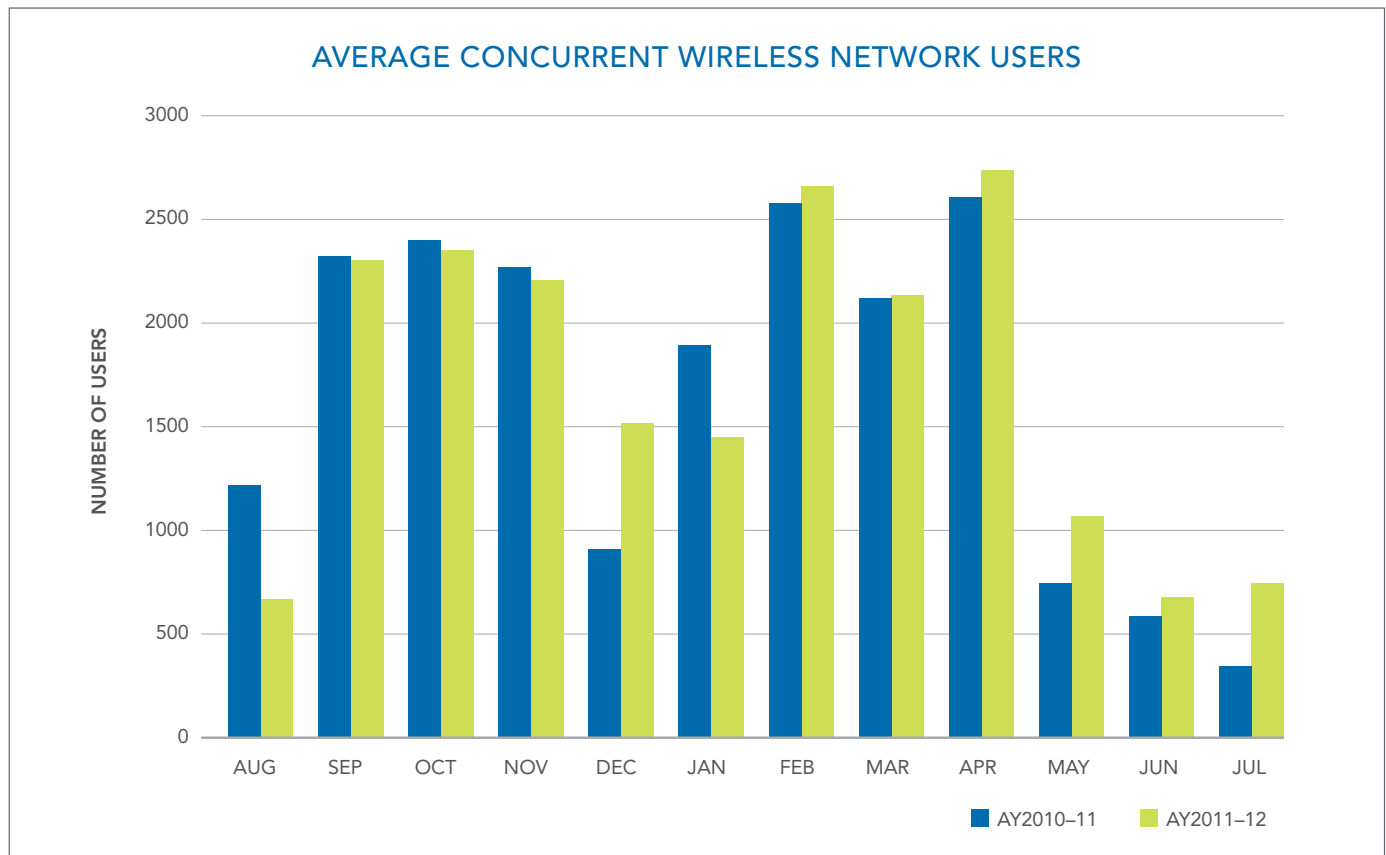
This graph indicates the percentage of users logging in to the AU network according to operating system during academic year 2011–2012.

AU NETWORK USERS BY OPERATING SYSTEM

Windows XP
29%

Macintosh
39%

Windows 7 + Vista
32%
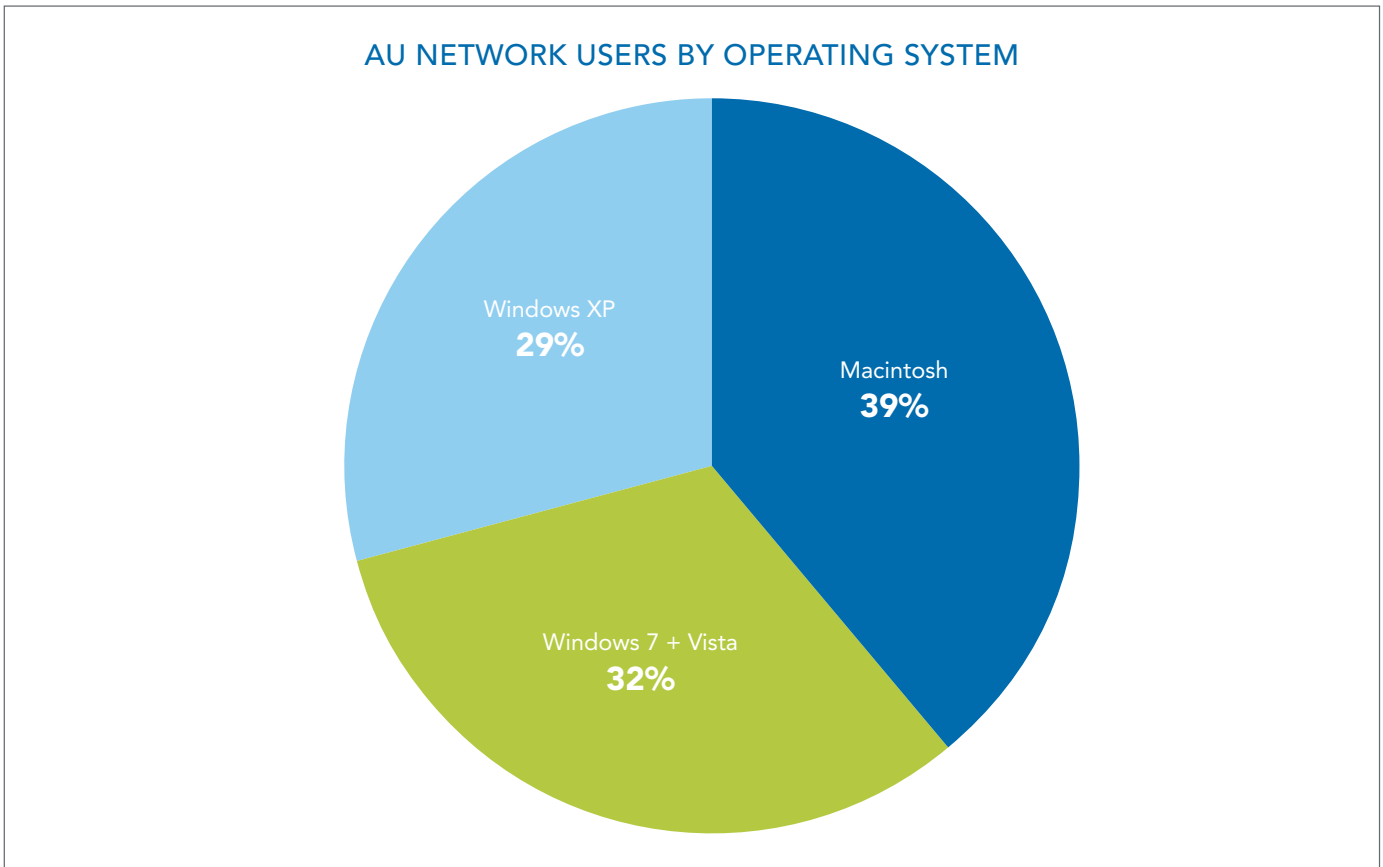
Service Delivery and Support

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, the customer service and technology operations teams within OIT work around the clock. We are constantly analyzing our performance metrics and benchmarking our services against our 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.

Did you know?

OIT staff or its partners resolved 66,662 IT service requests during 2011–2012, representing a 23 percent increase over the previous year.

This graph indicates the historical trend of the number of AU employees who attended OIT training classes during the past two academic years. Note that we attribute last year's high attendance figures to several specialized, mandatory training events in support of new university initiatives, such as the Avaya Unified Messenger system, the Datatel Web UI Client, the iSupport case-management system, and the reporting system for research grants.
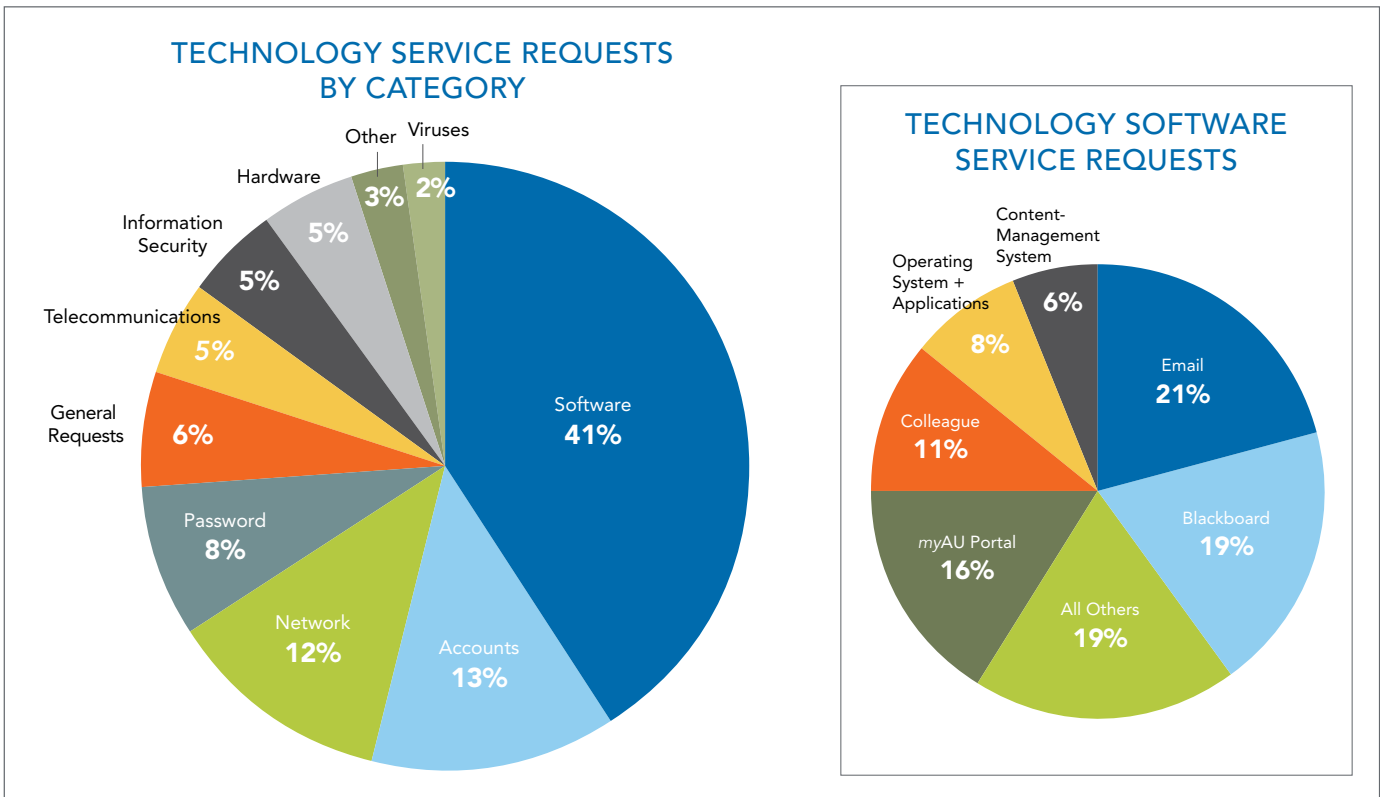
ATTENDANCE AT OIT TRAINING CLASSES
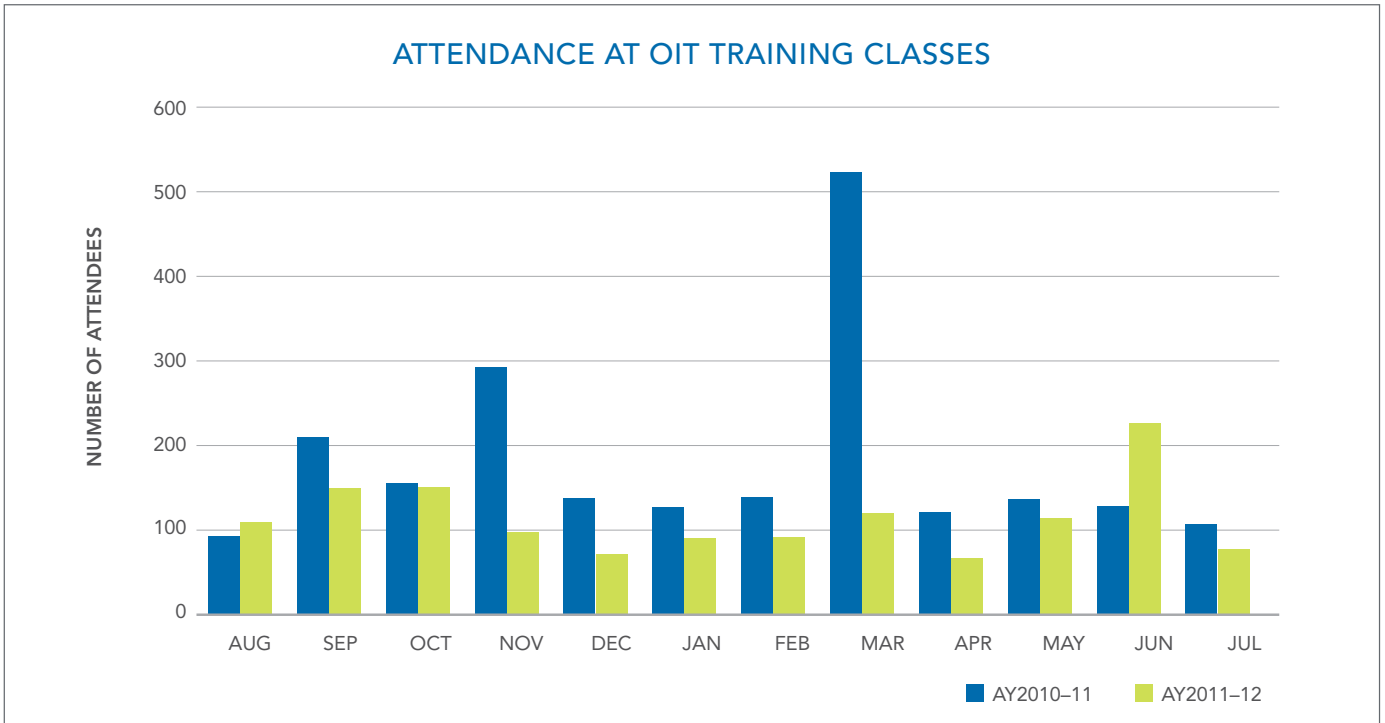
This graph indicates the historical trend of the percentage of customers who, on OIT's point-of-service survey, responded very satisfied or satisfied with their training for the past two academic years. All attendees are encouraged to complete a survey before leaving a training session.

OIT TRAINING SURVEY RESULTS
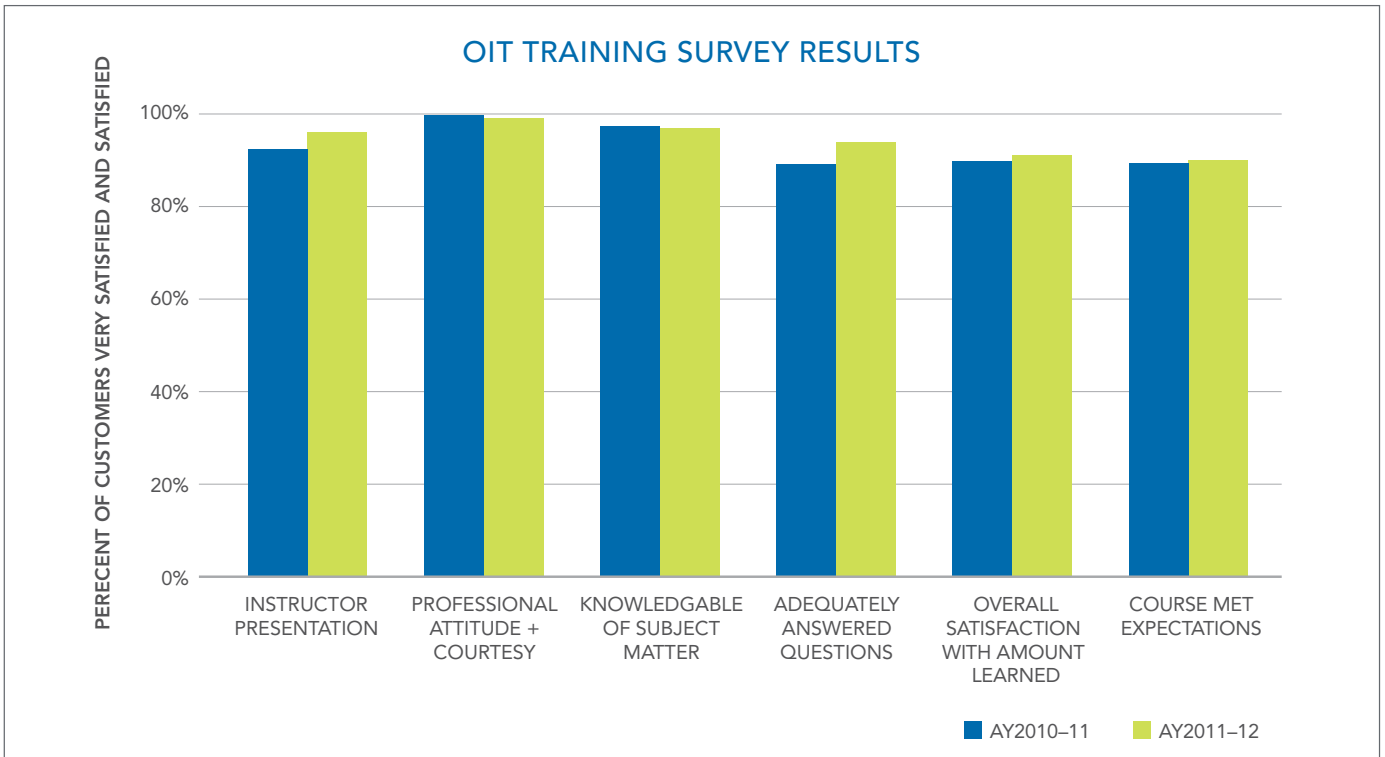
This graph indicates the percentage of service requests submitted to the Help Desk via telephone, email, or instant message; or walk-in at the Technology Support Desk in the library, during academic year 2011–2012.

TECHNOLOGY SERVICE REQUESTS BY SUBMISSION METHOD

- Instant Message 1%
- Walk-in 6%
- Email 46%
- Telephone 47%
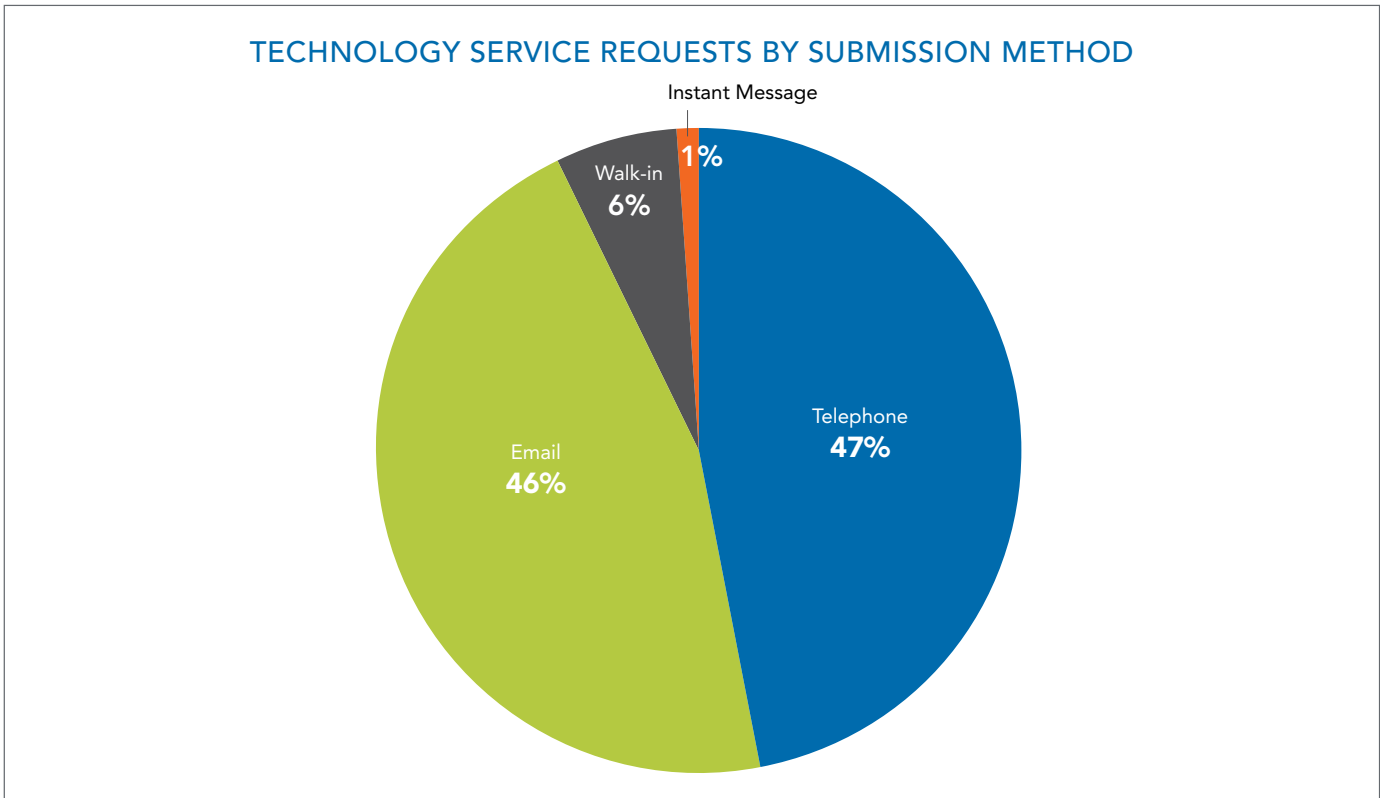
This graph indicates the percentage of the 66,662 total service requests within each major category during academic year 2011–2012. The smaller graph indicates the percentage of service requests pertaining to highlighted AU software applications.

TECHNOLOGY SERVICE REQUESTS BY CATEGORY

- Other 3%
- Viruses 2%
- Hardware 5%
- Information Security 5%
- Telecommunications 5%
- General Requests 6%
- Password 8%
- Network 12%
- Accounts 13%
- Software 41%

TECHNOLOGY SOFTWARE SERVICE REQUESTS

- Content-Management System 6%
- Operating System + Applications 8%
- Colleague 11%
- myAU Portal 16%
- All Others 19%
- Blackboard 19%
- Email 21%

This graph indicates the historical trend over the past five years of customers who, on point-of-service surveys, stated their satisfaction with the overall support provided by OIT staff and our partners. (Point-of-service surveys are sent at random to every fifth customer at the time of the service request closure.)

OIT POINT-OF-SERVICE SURVEY RESULTS
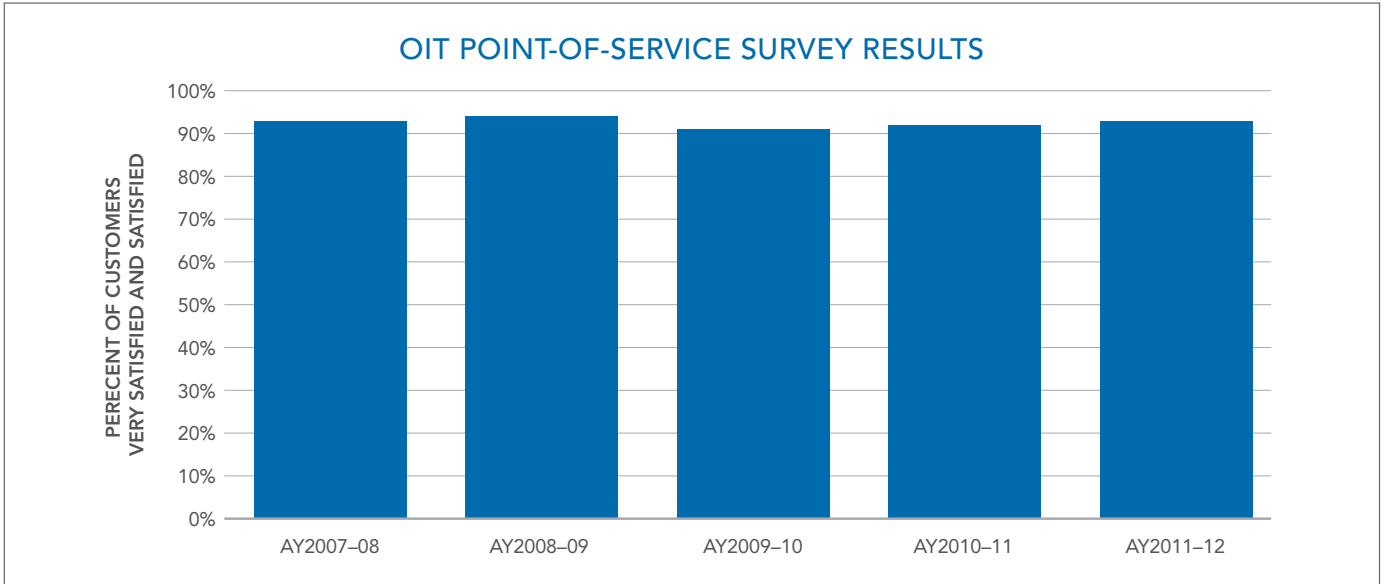
This graph indicates the historical trend over the past two years of the number of service requests resolved by OIT staff and our partners, compared to the amount of time needed to identify a resolution to the service request. Despite a 23 percent increase in the number of service requests handled by OIT, the amount of time needed to identify a resolution was reduced by 32 percent over the year.

TECHNOLOGY SERVICE REQUESTS RESOLVED AND MEAN TIME TO RESOLUTION
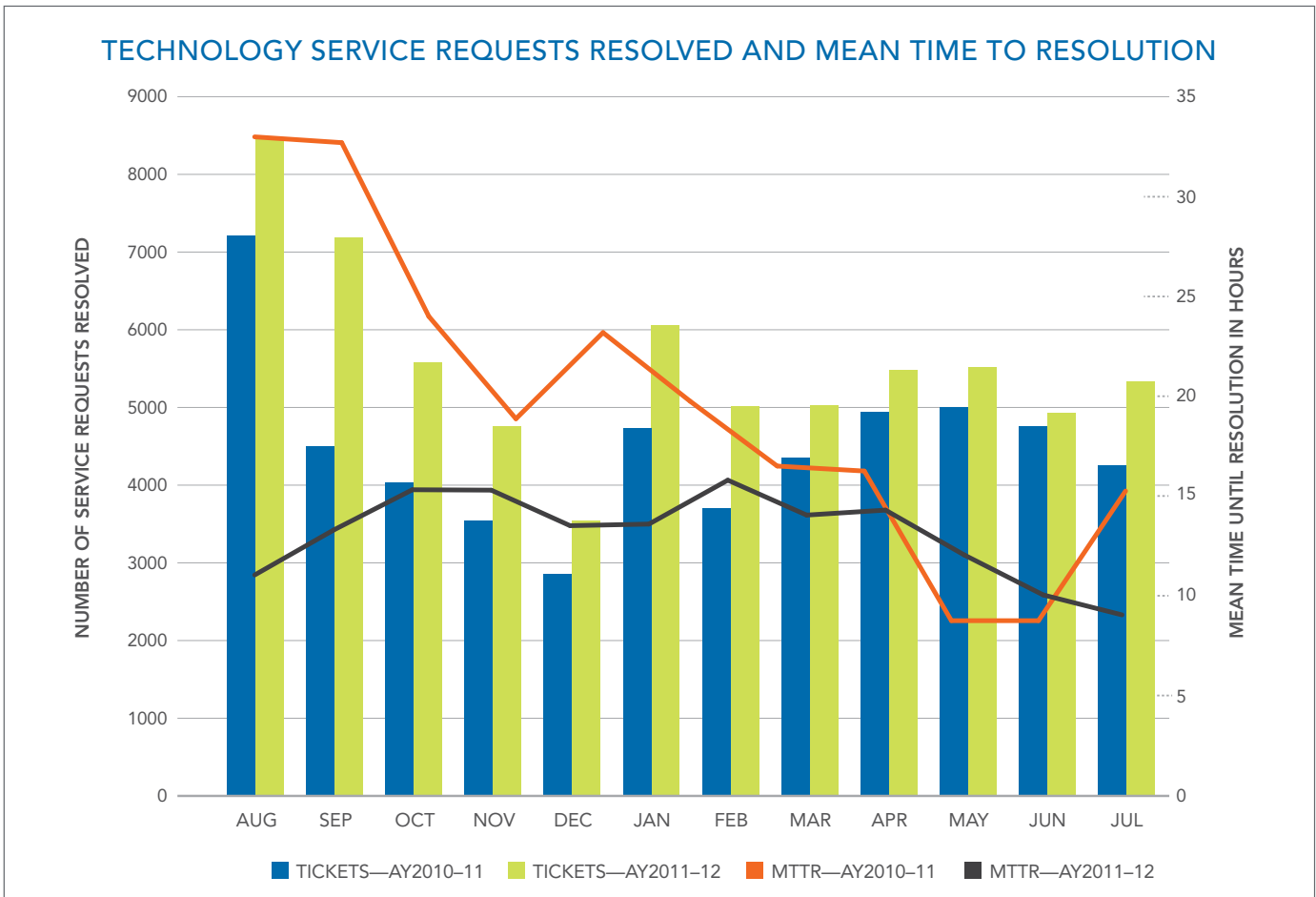
This graph indicates the historical trend of the number of visits to AU's website, american.edu, during the past two academic years. A visit is defined as a series of actions that begins when a visitor views his or her first AU web page and ends when he or she leaves the site.

VISITS TO THE AMERICAN.EDU WEBSITE
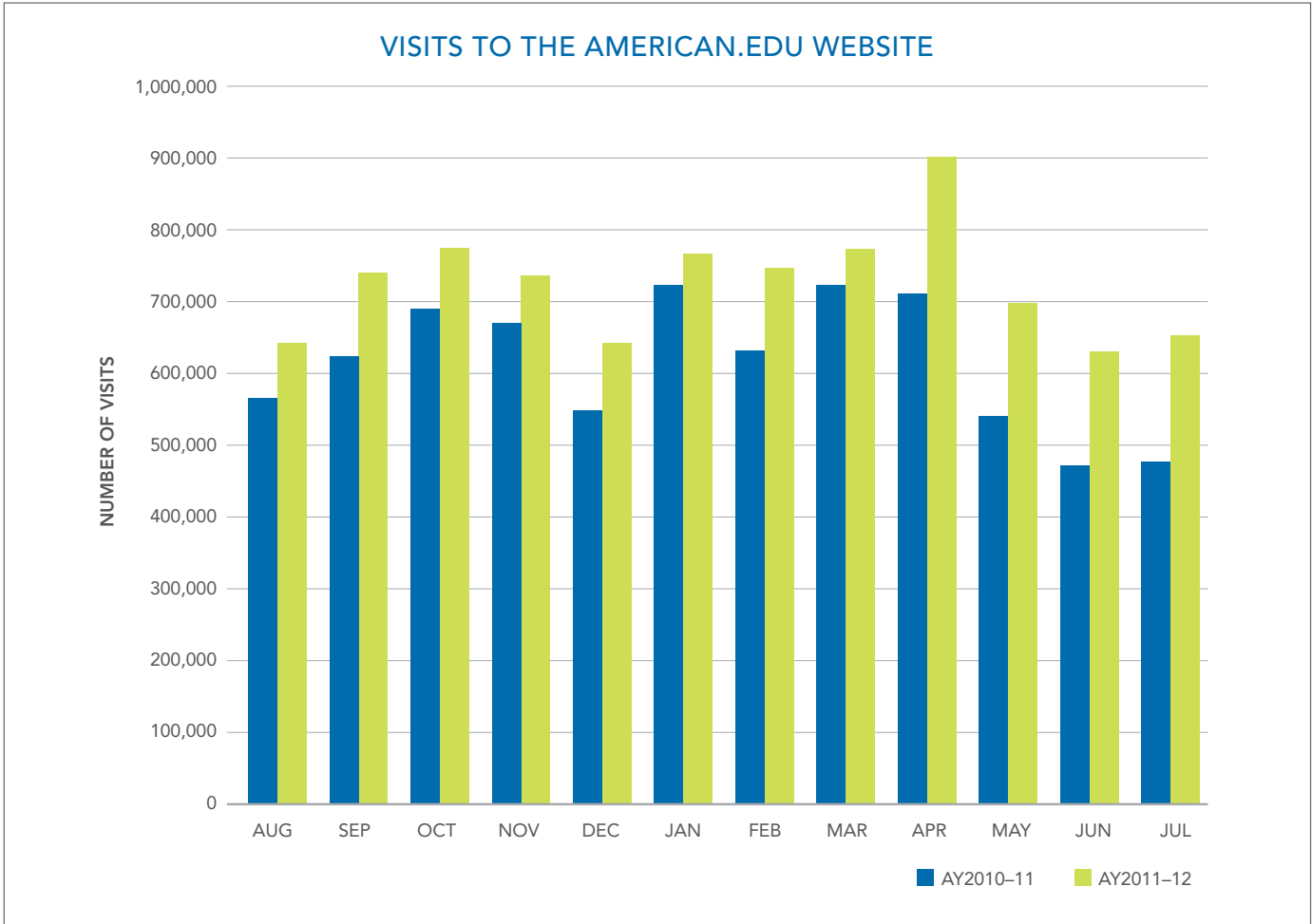
Did you know?

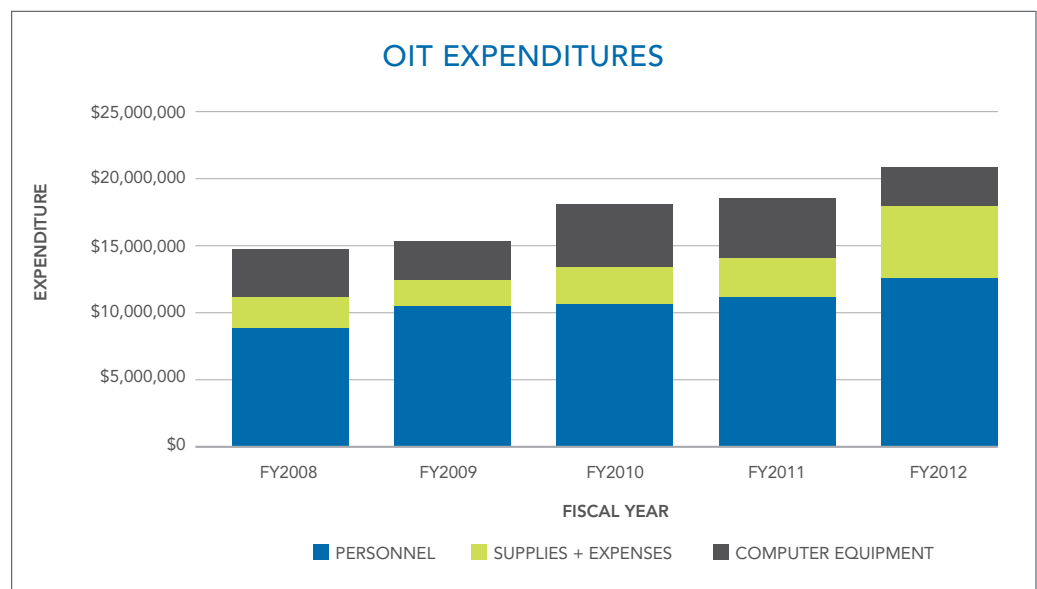There were 8,701,572 total visits to AU's website, representing an 18 percent increase over last year.

RESOURCES

With more than $20.8 million in total expenditures last year, OIT accounts for approximately 3.85 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 management and delivery of information technology services.

This graph indicates the percentage of the OIT total actuals for fiscal year 2012 by expense type.

OIT EXPENSES BY EXPENSE TYPE
TOTAL ACTUALS = $20,817,244

Communications 4%
Maintenance 2%
Other 6%
Hardware 14%
Software 14%
Personnel 60%
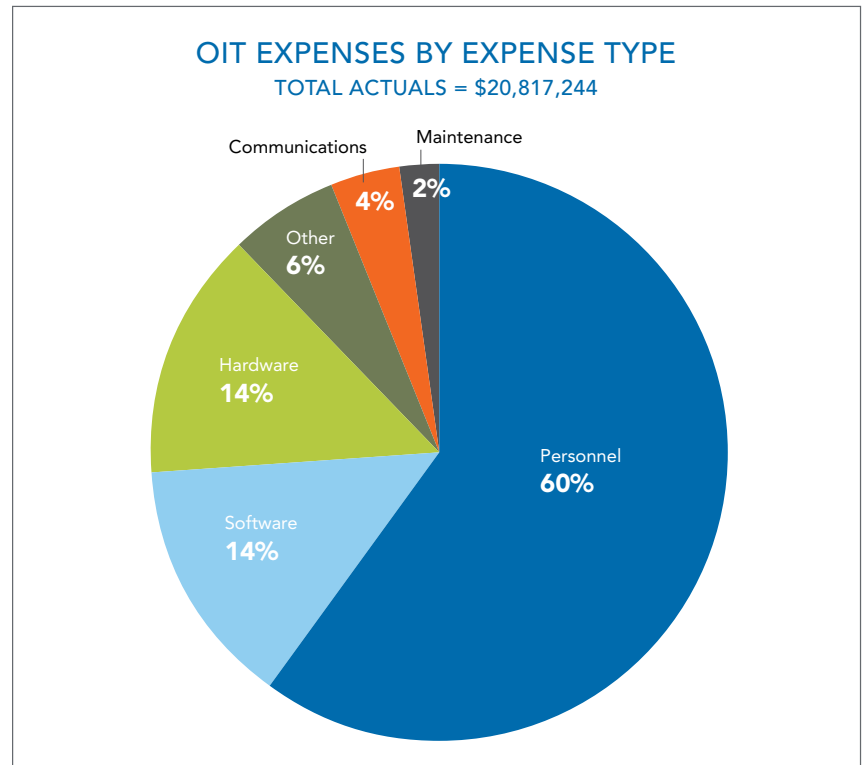
This graph indicates the historical trend of OIT expenditures over the past five years. The fiscal year 2012 personnel expenditure represents the salaries and fringe benefits of 104 full-time employees.

OIT EXPENDITURES

EXPENDITURE

$25,000,000
$20,000,000
$15,000,000
$10,000,000
$5,000,000
$0

FY2008   FY2009   FY2010   FY2011   FY2012

FISCAL YEAR

■ PERSONNEL   ■ SUPPLIES + EXPENSES   ■ COMPUTER EQUIPMENT

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