

MOVING FORWARD

OIT Marks Milestones of Success

YEAR IN REVIEW: 2014-2015
OFFICE OF INFORMATION TECHNOLOGY
AMERICAN UNIVERSITY



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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

VICE PRESIDENT AND CHIEF INFORMATION OFFICER'S MESSAGE

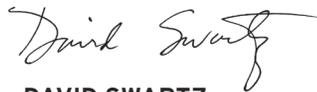
As we look back over the past year, we see significant progress on the IT front. This report highlights many of our accomplishments, including continued success in rolling out new systems to support graduate recruitment, automation of vendor payment and employee reimbursement processes, development of the We KNOW Success website, numerous infrastructure upgrades, and meaningful improvements to security systems. We also share information about new initiatives, such as the IT Risk Register, a formalized risk management program.

OIT was honored to be recognized by Computerworld as one of the best places to work in IT. This is important, because creating a great work environment and taking care of our employees—who, in turn, support thousands of people on campus—is critical to our ability to retain and recruit the most talented staff needed to provide excellent service.

Finally, I am pleased to announce the kickoff of our partnership with Verizon to upgrade cellular antennas and our network in 54 campus buildings to the most modern 4G LTE network, thus ensuring good connections and expanded bandwidth. This is an exciting milestone for American University and will make us one of the only universities with this capability.

I invite your feedback as you read our annual report and learn more about the successes of our talented team, who have made this an outstanding year for the Office of Information Technology.

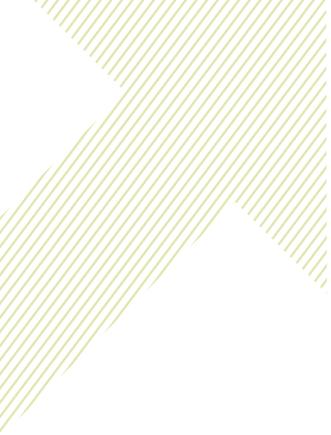
Regards,



DAVID SWARTZ

Vice President and Chief Information Officer





ORGANIZATIONAL 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 collaborate to provide services in three 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. The network operations and enterprise infrastructure teams jointly administer the university's technology infrastructure, striving for reliability, availability, and stability of services on which the campus depends.

INFORMATION SECURITY

Information Security supports AU's executive leadership and the 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 committed to manage end-user expectations, train the community on the latest technology, troubleshoot all IT-related issues, and equip faculty and staff with secure, reliable workstations.



OIT SENIOR MANAGEMENT TEAM

Sharjil Hasan, director, project management office; **Hassan Marvi**, director, network operations; **Kamalika Sandell**, associate chief information officer; **Terry Fernandez**, senior director, customer services and support; **Laurie Ambach**, senior director, enterprise applications and analysis; **Michael Grinnell**, director, enterprise architecture; **Dave Swartz**, vice president and chief information officer; **Cathy Hubbs**, chief information security officer; **Mohammad Mirzabeigy**, senior director, enterprise infrastructure

SPOTLIGHT ON EMPLOYEE ENGAGEMENT

OIT management strives to attract and retain highly skilled technical professionals, challenge them with new projects and initiatives, encourage their growth and development, and actively engage them to ensure the organization's success. In business, it is widely believed that an engaged workforce increases innovation, productivity, and performance, while reducing costs associated with staff turnover. To that end, OIT has explored several ways to inform, engage, develop, and recognize our staff.



OPEN COMMUNICATION

It is not uncommon to spot Vice President and Chief Information Officer Dave Swartz conversing with staff members in the hallways as he solicits their input on projects and operations. Each team hosts regular meetings to share ideas, discuss upcoming initiatives, and align staff with our business objectives.

Twice a year, the leadership team hosts an all-hands meeting to share its vision and plans with the entire OIT staff, inviting feedback and encouraging alignment across teams. Naturally, OIT uses email frequently to share news and updates on policies, procedures, projects, and operational issues.

The World Café methodology emphasizes:

- setting the context, so everyone understands the expected outcome
- creating hospitable space conducive to interaction and discussion
- exploring questions that are timely, relevant, and matter most to the organization
- encouraging everyone's contribution and participation
- connecting diverse perspectives and interacting with individuals from other OIT units
- listening together for patterns and insights
- sharing collective discoveries and summarizing key findings and subsequent actions



ENGAGE STAFF

Over the past two years, OIT has explored a new approach to encourage feedback and engagement from all employees. At the summer all-hands meeting, staff participated in facilitated World Café-style conversational exercises to access the collective wisdom of the group, with the goal of informing future strategy and policies. Groups of six to eight people convened to explore key questions. Participants randomly selected their roles as table host, time keeper, scribe, and participant. Collectively, each group was asked to write or sketch ideas on easel paper while they talked. After each round of conversation concluded, employees changed tables to consider a new question with a different group of participants. Only the assigned table host stayed behind to share the images, insights, and questions that emerged from the prior group's dialogue. In conclusion, hosts from each table summarized the essence of all the discussions that took place at their tables.

PROFESSIONAL DEVELOPMENT

OIT strongly encourages professional development by having staff attend and present at annual trade conferences, participate in training opportunities to maintain or learn skills, acquire and maintain professional certifications, network with colleagues from other institutions, and work with mentors.

RECOGNITION

OIT annually recognizes outstanding staff contributions to our team and to the larger AU community. Staff nominate peers who embody our core values: Campus Partner, Critical Thinker, Customer Service, Dependability, Enlarger, Initiative, Leadership by Example, and Vision. Winners are recognized and presented with a plaque at the year-end all-hands meeting. In addition to this formal recognition, OIT encourages team lunches and celebrations to acknowledge the hard work and effort required to successfully complete a major project. Staff also share customer praise and acknowledgement with the appropriate individuals and teams.



FUN

Although we are often all about business, OIT's Fun Committee helps to keep us balanced by hosting events that encourage interaction and promote wellness. Activities have included listening to the OIT house band, The Leftovers, play at a local establishment; attending a yoga session in the office; sampling healthy cooking recipes; and playing on the office softball team.



OIT ROADMAP UPDATE

One year ago, OIT published *The Road Ahead: IT Solutions Empower Campus*, an ambitious roadmap charting our course and vision for the next four years. Since then, staff have worked diligently to make significant progress on 34 major initiatives. Although the roadmap encompasses several hundred individual actions, OIT intends for the plan to be a living document that changes as we adapt to the evolving needs of our institution.

All initiatives align 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

ROADMAP

Look for this symbol throughout this report to see how projects align with the OIT Roadmap.



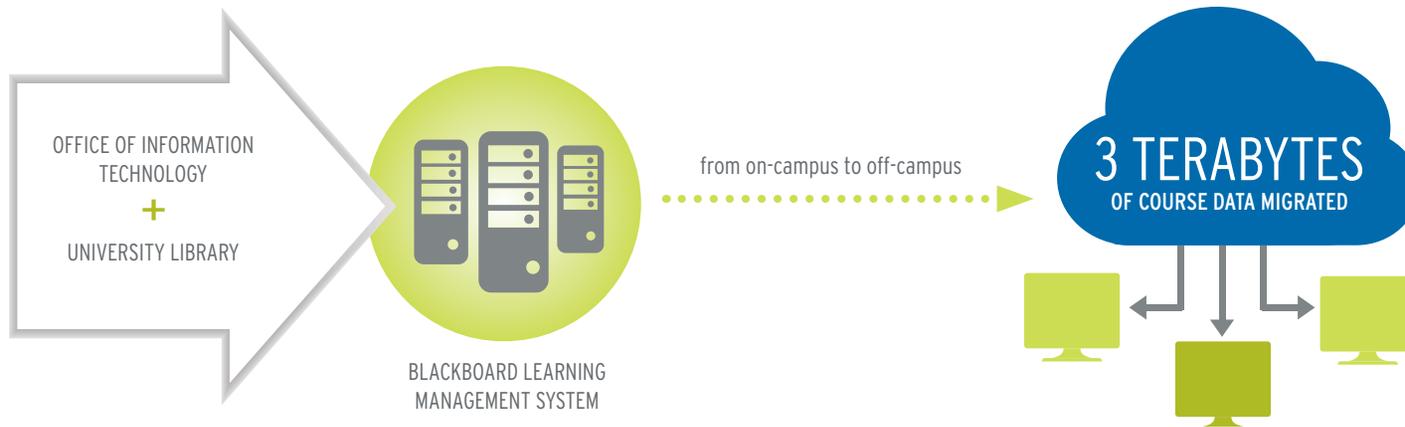
Although all major initiatives are progressing, OIT has adjusted timelines for some actions. Staff completed the majority of planned actions for Year One, with the remainder in progress. Just under 20% of first-year actions were deferred, as a result of resource constraints, in favor of unanticipated or higher priority projects. For example, staff invested significant time preparing a new system environment to support the migration of Colleague to a more powerful server infrastructure.

Staff also rewrote older portal applications to improve day-to-day performance of Colleague and the MyAU portal. A few Year Two actions were completed ahead of schedule, such as upgrading the campus's Internet bandwidth, as demand increased faster than predicted. This document presents highlights of major accomplishments for the past year.

STRATEGIC GOALS AND ACCOMPLISHMENTS

STRATEGIC GOAL

PROVIDE AN UNSURPASSED UNDERGRADUATE EDUCATION AND EXPERIENCE



ACCOMPLISHMENTS

OUTSOURCED AND STREAMLINED MANAGEMENT OF BLACKBOARD LEARNING MANAGEMENT SYSTEM

4 In partnership with the University Library, OIT planned and executed the successful migration of the Blackboard learning management system over winter break. This migration involved copying the application and course data from servers housed in the AU data center to those hosted and managed by the vendor, Blackboard. This external hosting model provides a team of support professionals dedicated to continually managing the application and infrastructure to ensure optimal performance. Blackboard can easily allocate additional resources as needed and deploy system upgrades more quickly in this standardized, controlled environment.

In addition, the move to a hosted environment allowed OIT and library staff who had administered the system and supported day-to-day operations to shift their resources to other critical needs in our community. Library staff now focus on supporting faculty with instructional design and development. Immediately after the migration concluded, Blackboard successfully upgraded to the latest software release, which provides new grading and collaboration features for faculty and students.



“
The system has internally improved patient workflow and has standardized documentation across the board.”

— DAVID REITMAN, MD, MBA
Medical Director
Student Health Center

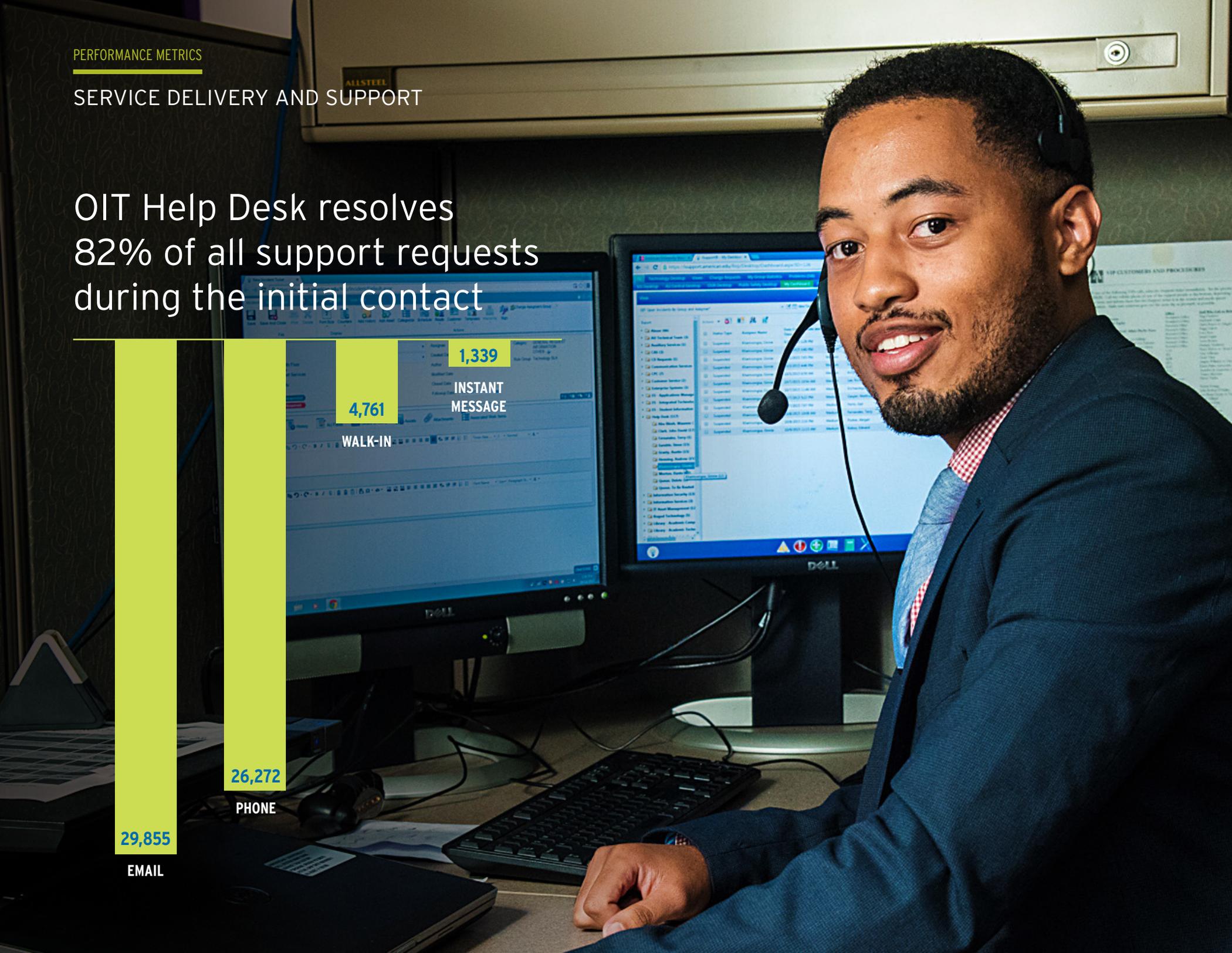
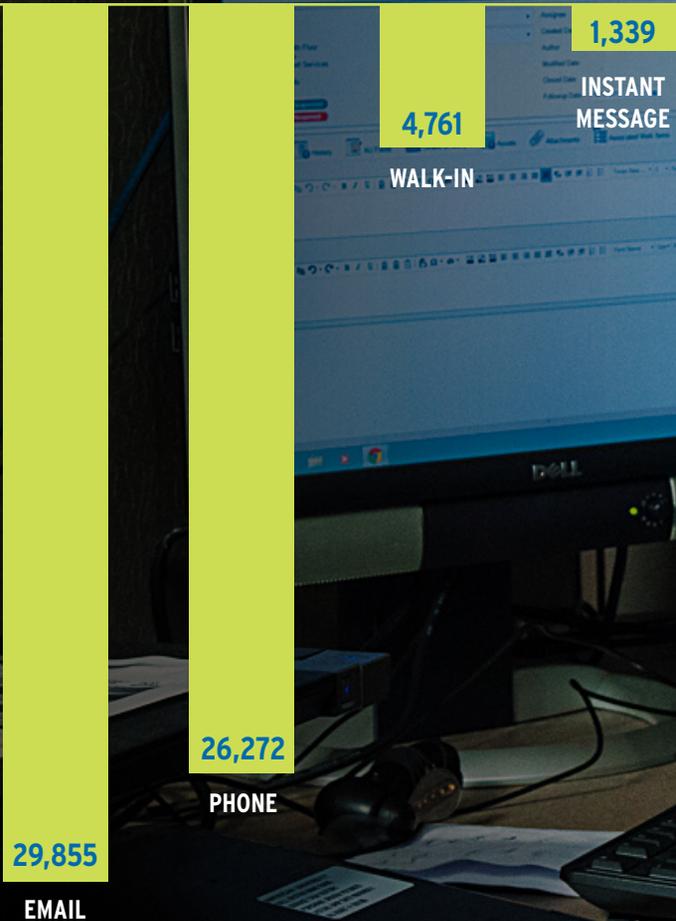
IMPLEMENTED ELECTRONIC MEDICAL RECORD SYSTEM

4 AU's Student Health Center provides scheduled appointments and walk-in service to students. This year, OIT implemented a new electronic medical record system, PyraMED, which the vendor hosts in the cloud. The new system, implemented in phases, offers expanded capabilities such as digitized charts for medical providers, real-time web scheduling for students, and direct integration with AU's prescription provider.

The scheduling component went live at the start of the spring semester, followed by immunization tracking and digital medical charts at the end of the semester. OIT implemented integration with Pharmedix in the summer.

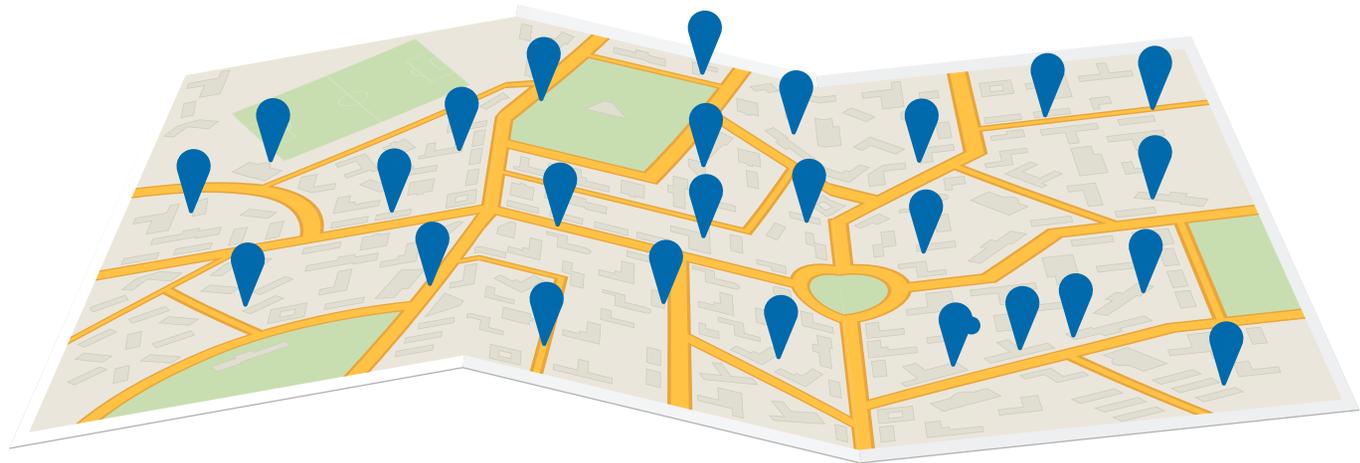
Since the start of the spring semester, 4,477 appointments have been scheduled.

OIT Help Desk resolves
82% of all support requests
during the initial contact



FORGE PARTNERSHIPS BY LEVERAGING OUR CAPITAL LOCATION

54 AU BUILDINGS UPGRADED TO 4G LTE TECHNOLOGY



ACCOMPLISHMENT

PARTNERED WITH VERIZON TO MODERNIZE CAMPUS MOBILE INFRASTRUCTURE

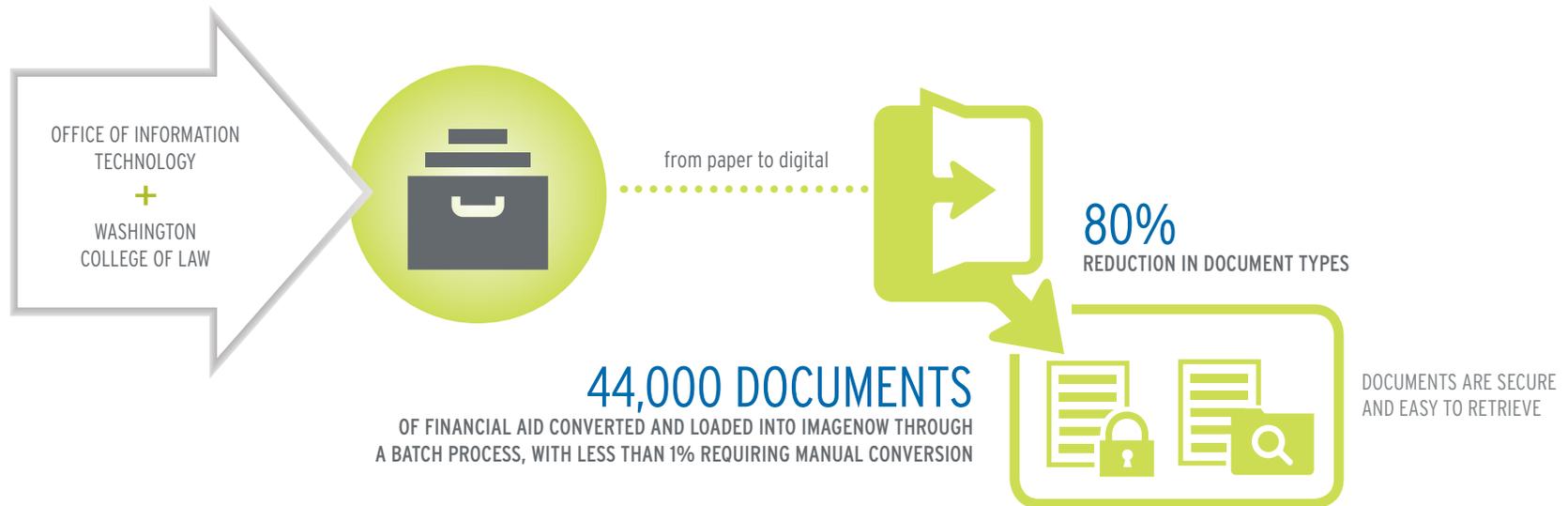
1 The distributed antenna system (DAS), which increases indoor signal quality and coverage for wireless voice carriers such as AT&T, Sprint, and T-Mobile in AU buildings, has not been upgraded since it was installed years ago. The system was designed to handle voice, text, and video for second- and third-generation (3G) technologies, not the fourth-generation (4G) and 4G Long-Term Evolution (LTE) technologies that are now the industry standard.

A third-party analysis of AU's DAS confirmed that the entire system would need replacing to accommodate 4G

LTE, costing millions of dollars and requiring all-new cabling, connectors, splitters, antennas, and electronics.

OIT approached Verizon Wireless, a leader in 4G LTE technologies, to evaluate its interest in building a neutral DAS infrastructure for all AU properties, at no cost to AU. Verizon agreed to provide the multimillion-dollar infrastructure and to maintain and upgrade the system on a long-term basis, resulting in a recurring savings for AU. When implementation is completed in AY2015-2016, other carriers can join the system to provide in-building 4G service to their wireless clients on campus.

DEMONSTRATE DISTINCTION IN GRADUATE, PROFESSIONAL, AND LEGAL STUDIES



ACCOMPLISHMENTS

IMPROVED HANDLING OF FINANCIAL AID DOCUMENTS FOR WASHINGTON COLLEGE OF LAW

4 In October 2014, the Washington College of Law (WCL) financial aid office went live with Perceptive's ImageNow system, a document management system that adapts to business processes and ensures all documents are secure and quickly retrievable. ImageNow captures and maintains documents while allowing users to process them through tasks, projects, and workflows.

The office now utilizes the workflow, annotation, and security functionality to process documents. For example, staff can transfer documents to AU's financial aid office

seamlessly for audit purposes, using ImageNow's workflow functionality rather than email. New features also allow WCL to easily scan, upload, process, and search all financial aid documents.

"The transition from Domino.Doc to ImageNow was very smooth for WCL Financial Aid," said Director Ryan Bien. "The system is easy to navigate when uploading and searching for documents. The ease with which all my staff is able to access necessary documents has certainly improved our business operations and the quality of our customer support."



IMPLEMENTED RECRUITMENT AND ADMISSIONS PROCESSING SYSTEM FOR TWO COLLEGES

4

After successfully implementing Ellucian Recruiter within the College of Arts and Sciences, the School of Communication, and the School of Professional and Extended Studies, OIT shifted focus to maturing reporting capabilities and processes in support of their graduate and professional recruitment and admissions functions. In July 2015, OIT launched a recently upgraded version of Ellucian Recruiter in the School of International Service and the Kogod School of Business.

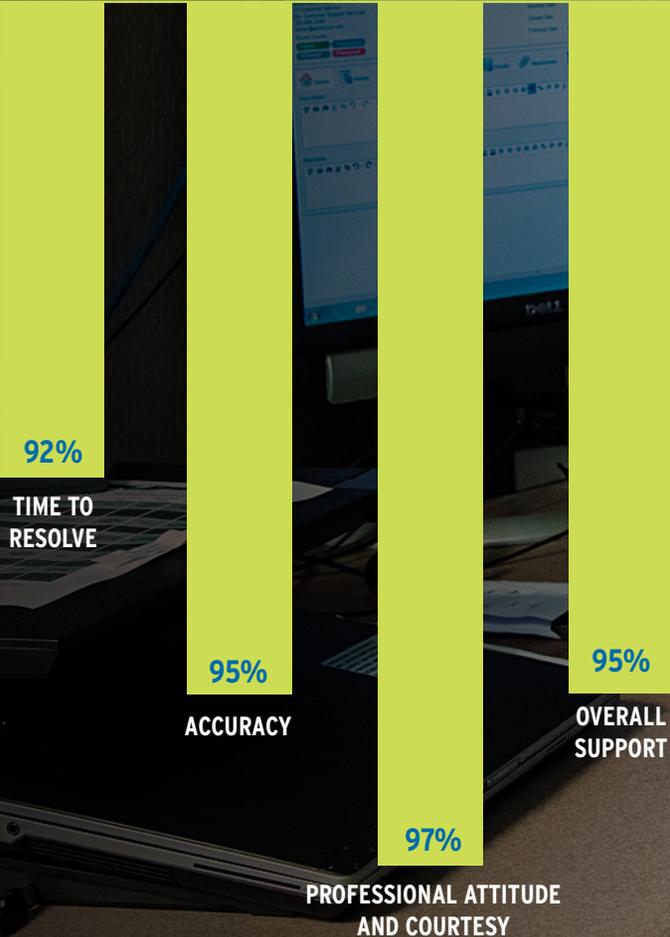
The system supports personalized relationship management with prospective students to facilitate timely completion of applications. Once applications are submitted, faculty and staff can use sophisticated, standardized workflow processes to enable efficient, timely admissions reviews. Metrics from all three colleges that implemented Ellucian Recruiter last year showed a significant increase in processing speed and efficiency, resulting in an increase in applicants.

PERFORMANCE METRICS

TECHNOLOGY SERVICE REQUESTS RESOLVED

62,524 support requests with an average resolution time of 21 business hours for OIT and 5 business hours for the Help Desk

CUSTOMER FEEDBACK ON OIT SUPPORT



STRATEGIC GOAL

ACT ON OUR VALUES THROUGH SOCIAL RESPONSIBILITY AND SERVICE



ACCOMPLISHMENT

SERVED THE AU COMMUNITY AND BEYOND

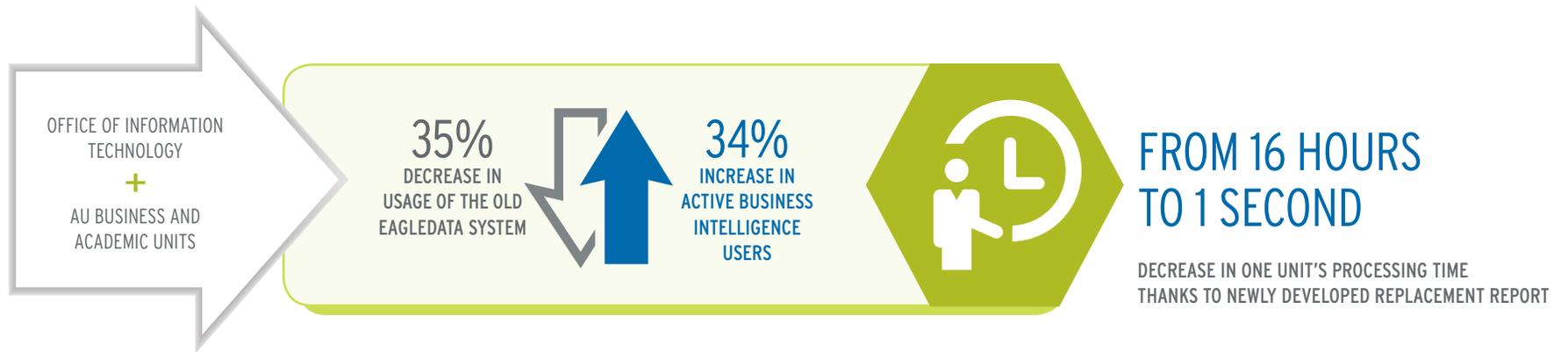
3 OIT staff took to heart the AU Strategic Plan's charge to "strengthen our culture of service and social responsibility." Through commitments large and small, staff have followed their passions and contributed to the community. OIT staff have participated in cross-functional working and advisory groups, including Staff Council, and served as guest lecturers in Kogod School of Business courses. Several staff members have encouraged children's exploration of science, technology, engineering, and mathematics (STEM) fields by supporting primary and secondary students' participation in the Girls in Technology mentorship program, sponsored

by Women in Technology, and the global Hour of Code movement, which introduces students to computer science. Demonstrating our "vigorous commitment to the city and people of Washington, DC," other OIT staff devoted their time to local homeless shelters and soup kitchens. They collected coats and other winter apparel for those in need. Staff members shared career advice with colleagues at other higher education institutions through EDUCAUSE's mentorship program. Still others walked, ran, and fundraised for causes near and dear to them, such as Race for the Cure, Relay for Life, Walk MS, and Walk with Us to Cure Lupus.

ROADMAP

STRATEGIC GOAL

ENCOURAGE INNOVATION AND HIGH PERFORMANCE

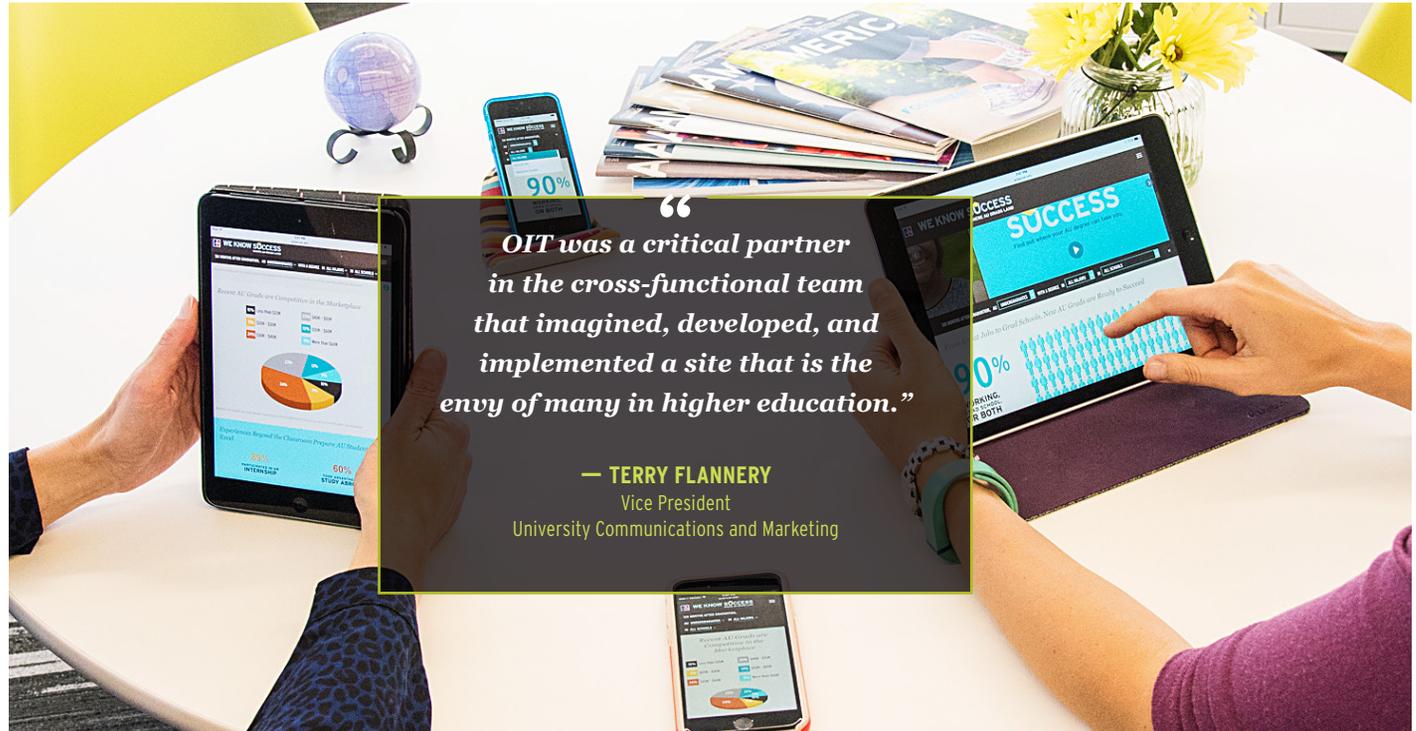


ACCOMPLISHMENTS

MATURED BUSINESS INTELLIGENCE CAPABILITIES

4 In partnership with business and academic units, OIT successfully rolled out various analytics applications over the last few months. The enterprise business intelligence (BI) platform now provides admissions analytics, along with tuition revenue and enrollment analytics. The latter analytics enable users to compare data across years at specific points of time, providing early trend indicators. The BI platform also includes deep assessment tools that provide access to detailed data for extensive analysis of enrollment. Admissions dashboards give academic units

visibility into both annual trends and “just in time” deposit information. Many service units on campus, including AU Central and the IT Help Desk, now have access to service metrics using BI. These metrics provide powerful views into trends through performance indicators and point-of-service satisfaction survey results, allowing users to examine service performance and effectiveness holistically and identify opportunities for improvement. Current BI projects include analytics for retention, fundraising and alumni relations, and financial aid.



DEVELOPED WEB PRESENCE FOR WE KNOW SUCCESS INITIATIVE

4 In partnership with University Communications and Marketing, the Office of Institutional Research and Assessment, and the Career Center, OIT successfully implemented We KNOW Success, an innovative website that highlights AU students' success within six months of graduation. The website puts powerful, relevant, specific, and reliable information in the hands of students and families. The site also offers profiles of faculty mentors, alumni success stories, internship information, and study

abroad participation rates by degree. The site has received numerous accolades internally and externally. *CURRENTS*, the monthly periodical of the Council for Advancement and Support of Education (CASE), featured the site prominently in a recent issue. CASE is one of the world's largest education associations, with 72,000 individual members and 3,000 member institutions, providing exceptional exposure for AU in higher education circles around the world.

ENCOURAGE INNOVATION AND HIGH PERFORMANCE



INTRODUCED DIRECT DEPOSIT FOR VENDOR PAYMENTS AND EMPLOYEE REIMBURSEMENTS

- 4 In partnership with Accounts Payable (AP), OIT introduced an automated electronic ACH (direct deposit) payment system to pay university vendors and reimburse employees. In January, automated electronic ACH payments through Capital One Bank replaced a manual process of paying vendors with paper checks. This initiative significantly reduced the cost of labor, materials, and postage required to produce paper checks, as well as the risk of fraudulent paper checks, while increasing the convenience and security of payments to our vendors.

AP and OIT extended this capability to employee reimbursements as of March 2015. This provides timely, secure reimbursements to employees while significantly reducing operational overhead.

When employee reimbursements were processed as paper checks, employees typically had to wait several days for checks to arrive in the US or campus mail and then take checks to the bank to be cashed. Now, within one day after AP approves and processes submitted reimbursement requests, faculty and staff receive authorized reimbursements directly into the same bank account the Payroll Office uses for payroll direct deposits.



EXPANDED SERVICE PERFORMANCE DASHBOARDS

4

For many years, OIT has improved and matured its comprehensive set of performance dashboards. We share these with university senior management to measure current performance, track trends, and support management decisions. Over time, OIT has moved from manually created dashboards, generated in Microsoft Excel, to comprehensive, automated, self-service dashboards utilizing AU's BI tool.

The dashboards permit greater analysis, interpretation, and forecasting of support requests and point-of-service survey data captured through the iSupport customer relationship management system. Originally developed to support OIT managers, staff modified the dashboards this year to allow managers to filter data based on their group or call center location. This change enabled other campus groups, such as AU Central, Public Safety, and many academic advising offices, to benefit from the same performance information.



17 DIRECTORS

DEVOTED TIME TO FOSTERING CUSTOMER RELATIONSHIPS
WITH 117 KEY CAMPUS CONSTITUENTS

PILOTED RELATIONSHIP MANAGEMENT PROGRAM

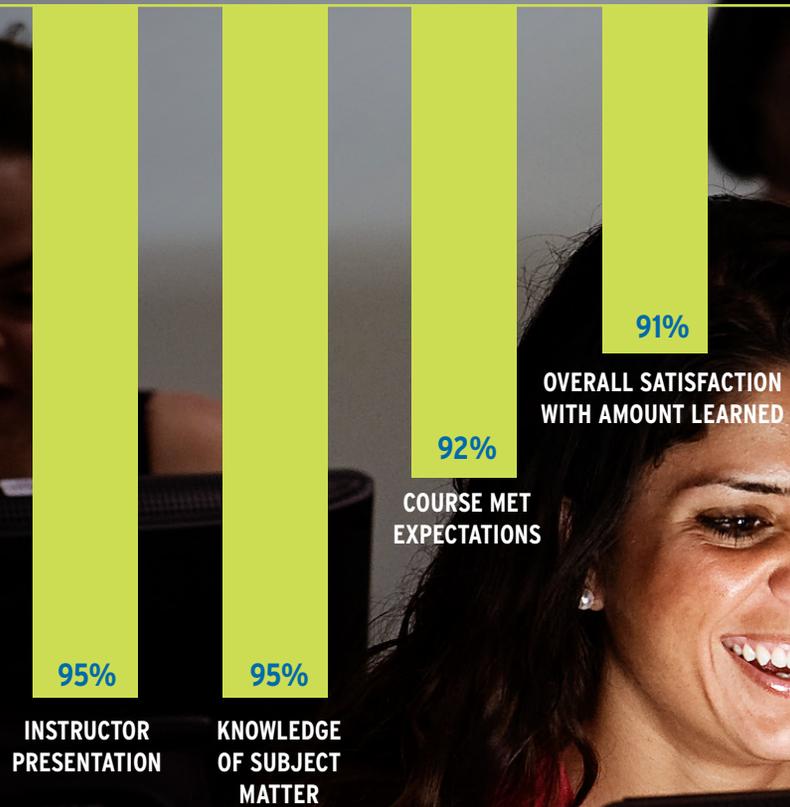
3 OIT is a customer-focused organization in which relationships are highly valued, but sometimes underleveraged. Vice President and Chief Information Officer Dave Swartz had a different vision for our organization, one in which we devote time and attention to foster and develop relationships with key academic and administrative university constituents, solicit the voice of the customer, and serve as their gateway into our organization. OIT identified more than 100 campus leaders, partners, and stakeholders representing each major area of the university. At the beginning of 2015,

OIT began a pilot of a relationship management program that pairs OIT directors with these leaders, partners, and stakeholders. Each director is responsible for initiating and sustaining relationships with specific individuals through formal and informal communication. Each director represents OIT by sharing performance metrics, support information, project status, and recent accomplishments and highlights. Relationships have grown at varying paces; however, we will continue to adapt and mature this program as the benefits have been unquestionable.

PERFORMANCE METRICS

SERVICE DELIVERY AND SUPPORT

High satisfaction reported by 810 AU employees attending OIT classroom-based training classes



EMPLOY TECHNOLOGY TO EMPOWER EXCELLENCE



ACCOMPLISHMENTS

MANAGED INFRASTRUCTURE IMPROVEMENTS

- 1 OIT is proactive in planning for capacity increases and upgrades to strengthen and secure AU's technology infrastructure. Recent improvements include upgrading the connection between the primary and secondary data centers from 4G to 20G per second and upgrading the Internet link from the secondary data center, as well as the university's connection to Internet2, from 100 megabits per second (M) to 1G.

OIT upgraded the wireless network infrastructure in the University Library and Mary Graydon Center's first floor and terrace levels from 802.11n to the latest 802.11ac, increasing capacity from 100M to 1G per access point, with a 10G uplink to the core network. OIT also added

capacity and improved performance in AU's storage infrastructure, with new storage controllers, 12 terabytes (TB) of solid-state storage, and 72TB of fast-spinning disk.

OIT upgraded the high-performance computing cluster in September 2014 with new versions of the cluster management software, scheduling software, and operating system on the individual nodes. This improved manageability and increased resource scheduling performance and efficiency.

Finally, OIT upgraded and expanded the virtual server management infrastructure that supports 95 percent of all AU servers to include a new software version and more physical servers to host virtual machines.



“
All areas of the arena now receive increased connectivity and the ability to more quickly and effectively transport video, social media notifications, and mobile communications to Eagles around the world.”

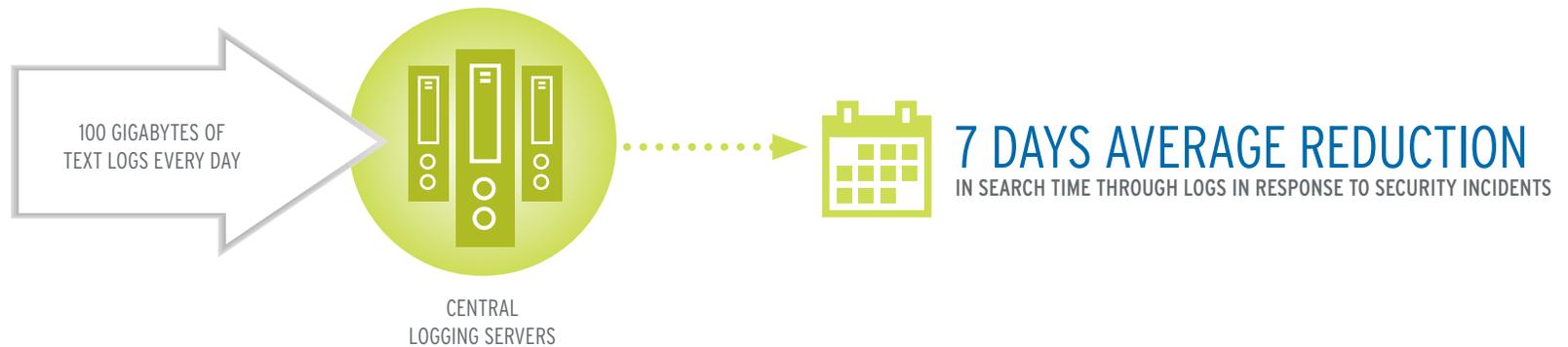
— DOUGLAS DULL
Associate Athletics Director for Communications
Athletics and Recreation

INSTALLED WIRELESS SYSTEM IN BENDER ARENA TO SUPPORT LARGE EVENTS

1

The need for better wireless access in Bender Arena has grown in recent years. New wireless handheld technologies, such as iPhones and Androids, have become integral to events, such as commencement, where students regularly post comments and photos to social media. The increase in demand put a strain on the legacy wireless network in the arena, which was originally designed to accommodate a few hundred users at most. OIT reviewed best-of-breed wireless

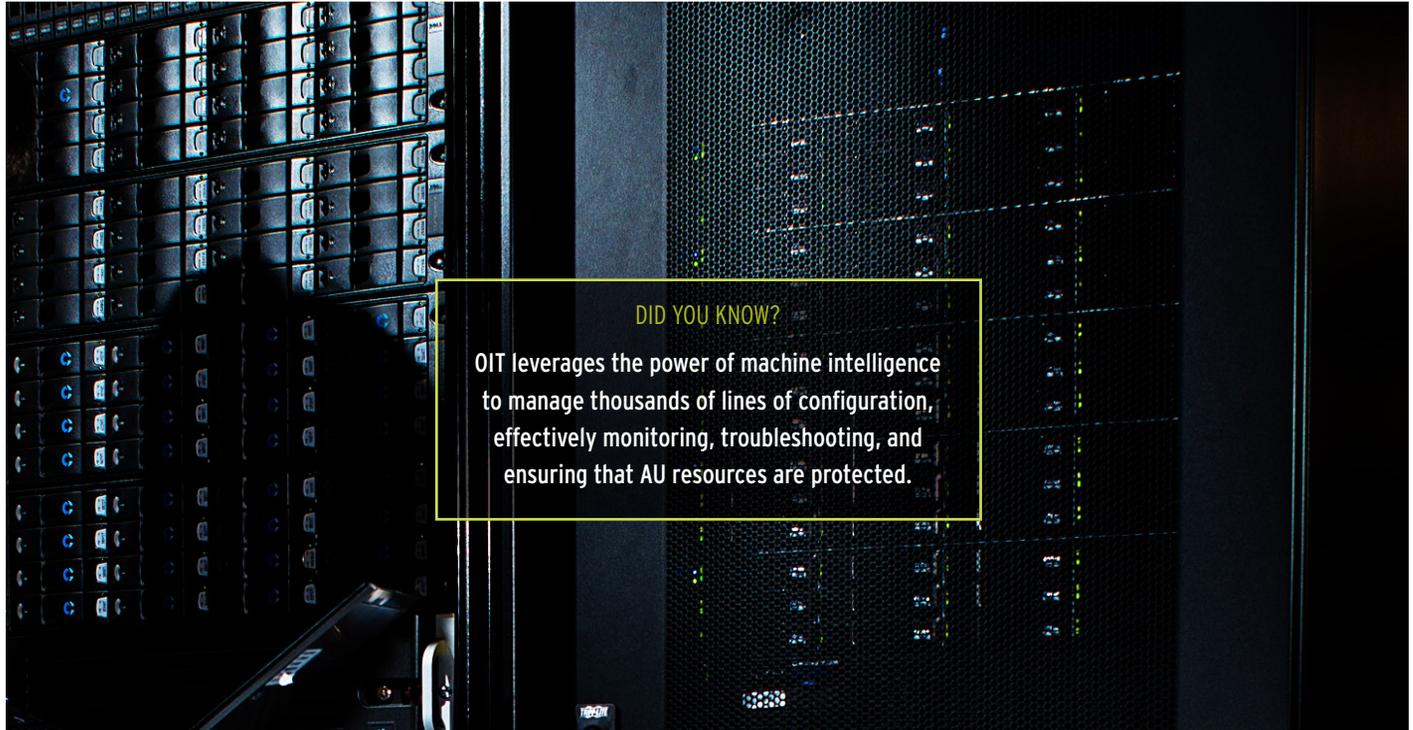
solutions and chose Xirrus Array Wireless as the best fit for the arena's physical restrictions. Through 10 unique, internal access points, each Array can support hundreds of users, such that **Bender Arena now can accommodate more than 5,000 concurrent connections.** The Arrays successfully provided complete wireless coverage for attendees of recent events, including spring commencement and the women's NCAA basketball tournament appearance.



MATURED SECURITY EVENT MONITORING

- 1 Since 2005, OIT has followed best practices by centrally storing a second copy of logs, wherever possible, on a central log server. In all, **AU's central logging servers collect more than 100 gigabytes of text logs every day.** This year, OIT implemented a commercial tool to manage the gigabytes of data that many of our enterprise services generate.

This Security Event Monitoring (SEM) tool positions AU's information security staff, and eventually other OIT partners, to better detect abuse, troubleshoot problems, and respond to security incidents. The SEM's faster search capabilities reduce processing time, in some cases from weeks to days and even minutes. Moreover, SEM permits correlation with alerting when certain security events are detected. Finally, granular access control supports the principle of least privilege by allowing access to only those logs staff need to perform their job functions.



IMPROVED NETWORK CONFIGURATION MODELING AND ENFORCEMENT

1

The information security team, in coordination with network engineering, has implemented a service that models the AU network. The service downloads the live configurations of network devices, such as firewalls, routers, and wireless infrastructure, and pairs them with vulnerability data. The service distills the configurations to generate an effective model of our network posture, which enables OIT staff to

monitor network rules for change and alert when they are inconsistent with policy. This service aids in troubleshooting, as engineers do not have to interpret hundreds of lines of firewall rules, and alerts when a serious vulnerability is exposed. Additionally, the service enables OIT to forecast the effect of a change on our network configuration by performing what-if analysis.

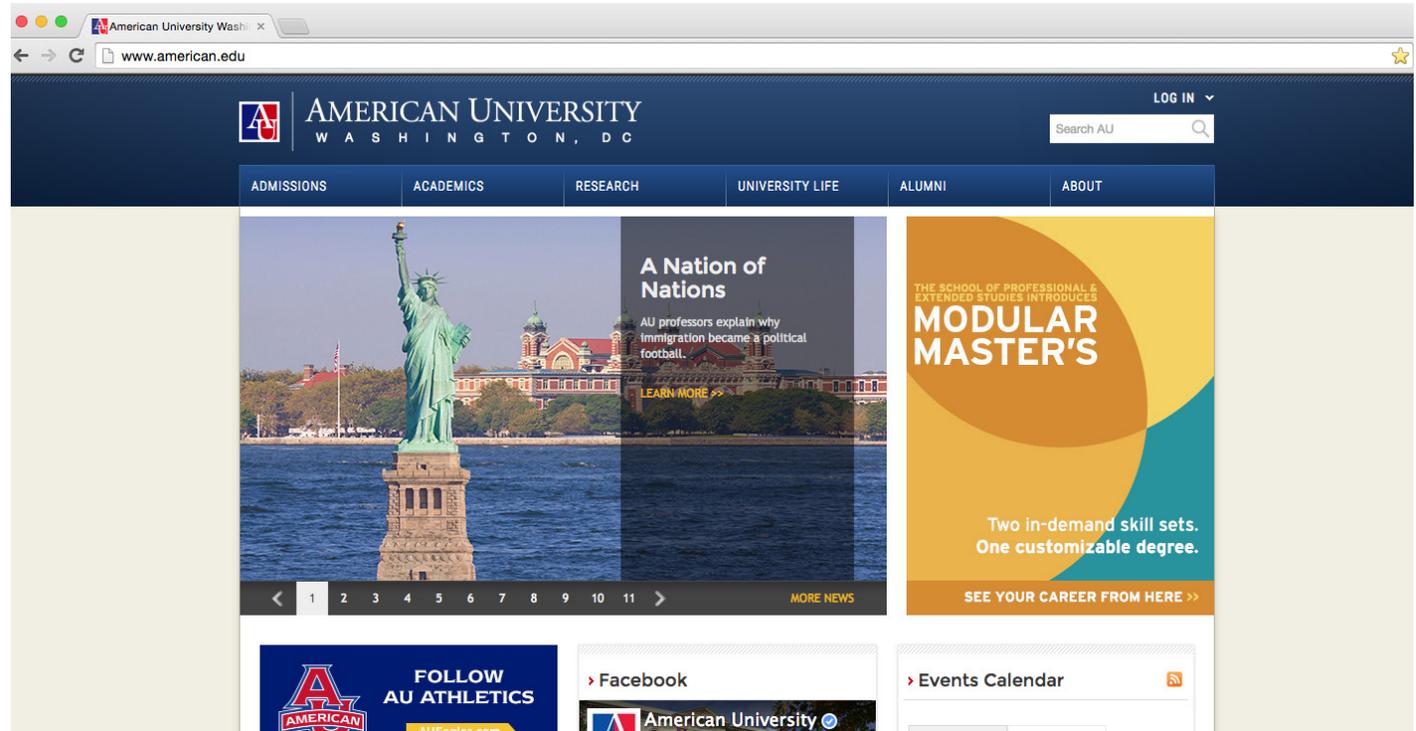


DEVELOPED IT RISK REGISTER

2

The chief information security officer introduced the IT Risk Register, a process for OIT staff to report on known technology or process risks that might affect the integrity or confidentiality of data or interrupt service availability. This process moves the maturity needle for IT risk management by creating a people-centric, risk-aware culture. All staff members are encouraged to report on known risks at any time. Appointed functional leaders meet monthly to review reported risks and score them as high, medium, or low priority. The committee bases scores on its determination of the combined probability and impact of the risk occurring and a recommendation on how to proceed.

The committee then shares these risk scores and recommendations with executive management, who determine whether to accept the risk, prioritize efforts to fix the issue, or defer a response, often due to extenuating circumstances. The adoption of a standard, repeatable process to report, review, and strategize risk management should limit the number of unexpected, unplanned issues. Over time, OIT envisions that the IT Risk Register will facilitate bi-directional communication with AU's Enterprise Risk Management working group to inform strategic business decisions that may be impacted by departmental risks.



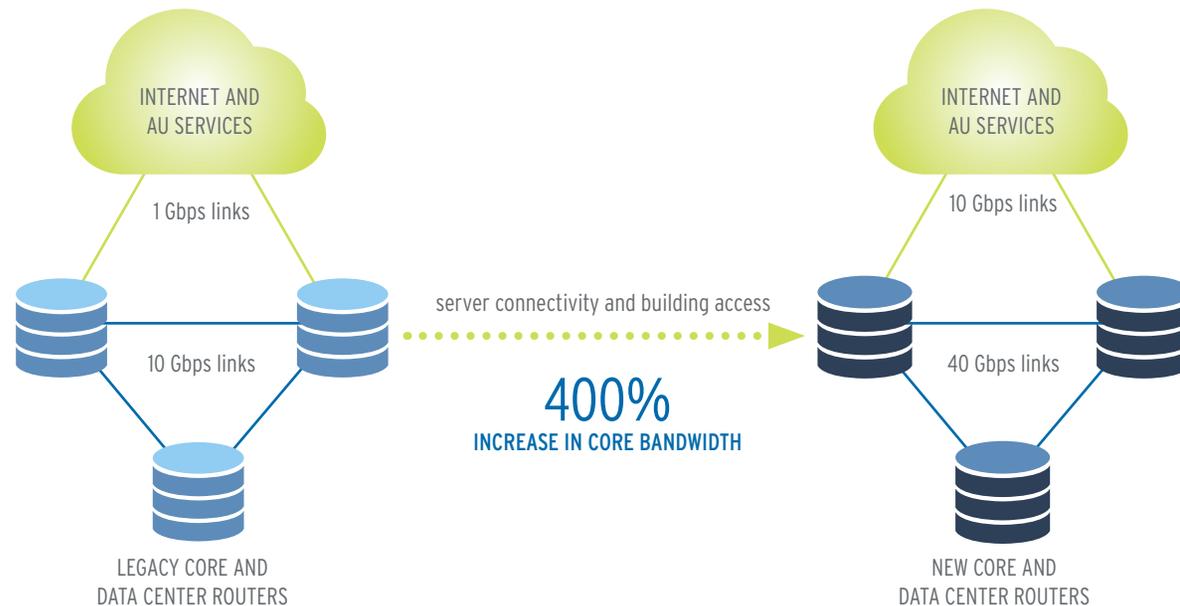
UPGRADED AU CONTENT MANAGEMENT SYSTEM

1

In partnership with University Communications and Marketing, OIT successfully upgraded the university's content management system to CommonSpot 9.0.1. This complex effort happened behind the scenes over a five-day period, with no substantial downtime beyond an extended period when content changes were not permitted.

This upgrade could not have been completed without the invaluable assistance of content publishing leads from around the campus, who completed user acceptance testing, before and after the upgrade, to ensure the system was functioning as desired. CommonSpot 9.0.1 introduced new features, enhanced security, and improved system performance.

EMPLOY TECHNOLOGY TO EMPOWER EXCELLENCE



UPGRADED DATA CENTER AND CORE NETWORK INFRASTRUCTURE

1 In November, OIT replaced AU's core network components with newer, faster routing switches that can transmit critical voice, high-definition video, and high-capacity data transfers. This expansion allows us to meet anticipated requirements for the next five years. The new core interconnects at a bandwidth of 40 gigabits (G) per second.

OIT performed this upgrade without significant downtime, despite hundreds of moving parts, thanks to substantial planning and site preparation. Staff ensured continuity of service by first switching over primary connections for campus building routers to the new core, followed by

secondary connections. Staff then transferred primary and secondary Internet links and data center distribution switches. Each port required multiple attempts, configuration changes, tests, and occasional cabling and hardware changes.

In July, OIT completed a major data center network upgrade by installing state-of-the-art network electronics. New routers increased connectivity to data center servers from 1G to 10G. The new load balancers increase security and enhance web application performance. The installed firewall appliances increase security, threat management, and intrusion protection to data center servers.



“
OIT identified, developed, and launched an electronic notification system that eliminated the need for notifications on paper. We estimated that we would have had about 30,000 additional pieces of paper to handle if we had not been able to automate this process.”

— CAROL EDWARDS
Senior Director of Service Delivery
Human Resources

PRODUCED GOVERNMENT- MANDATED EMPLOYEE WAGE STATEMENTS

4

In late 2014, the DC Council passed the Wage Theft Prevention Amendment Act of 2014, which went into effect in February, requiring all DC employers to provide a wage statement to full- and part-time employees whenever their wages change. Prior to the deadline, OIT worked with Human Resources (HR) to automate the distribution and required acknowledgements electronically.

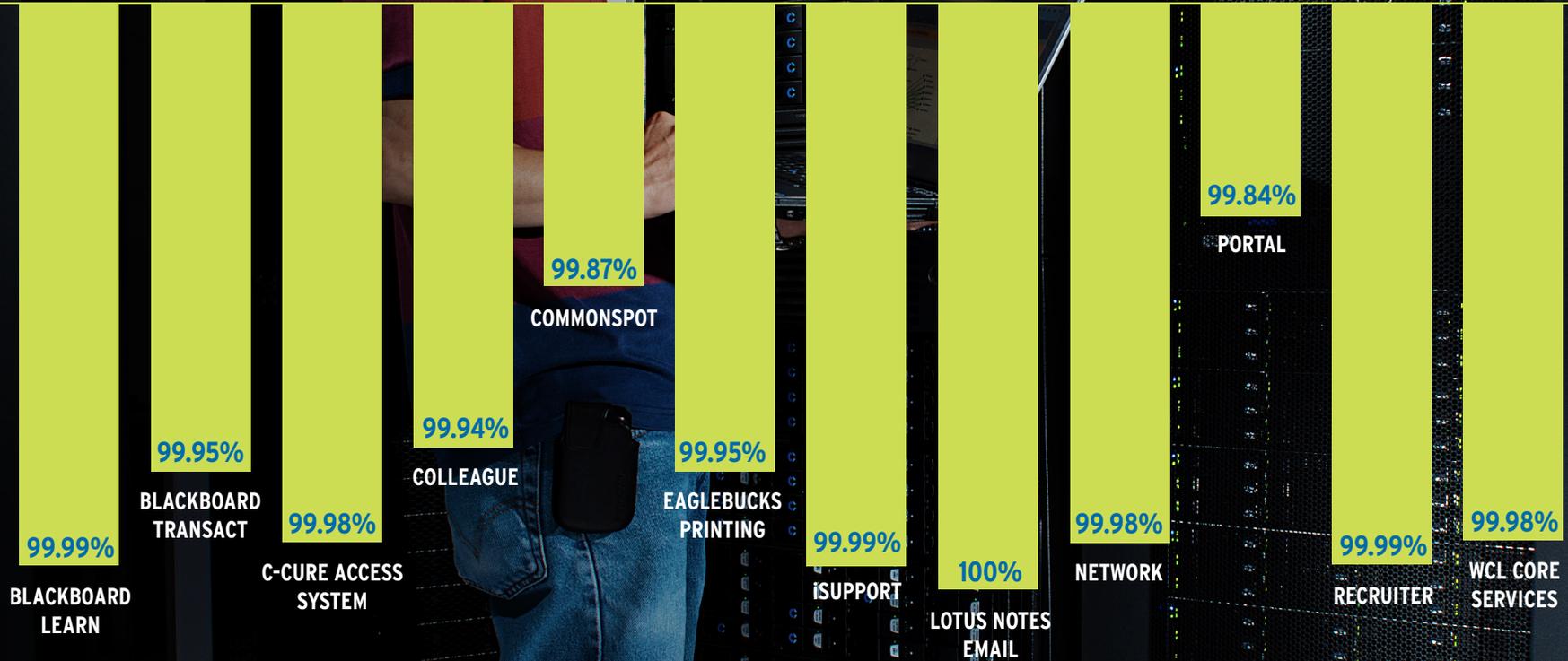
The system went live at the end of May 2015. HR notified all AU employees to review and acknowledge their wage statements. This project was complicated by the large number of stipend and student workers to be notified.

In all, 7,952 wage statements were generated for AU employees.

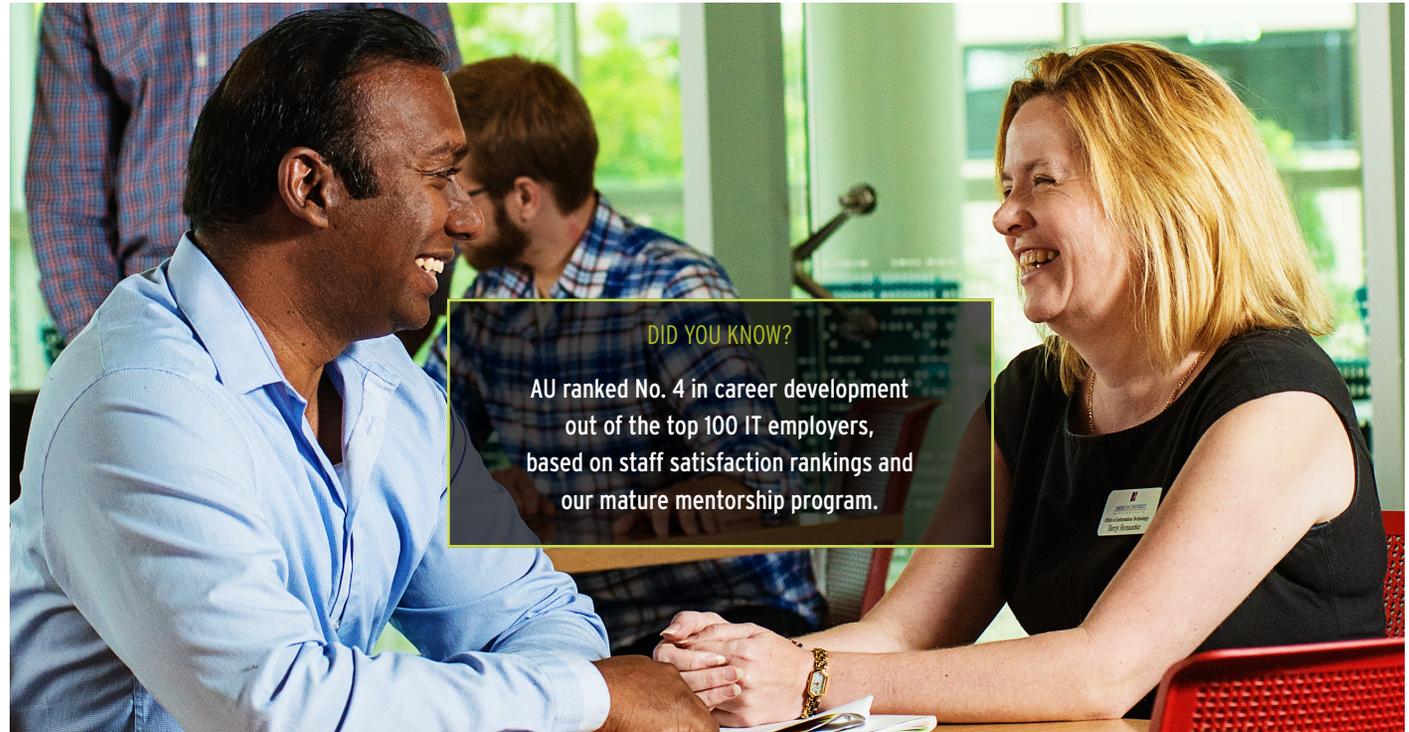
PERFORMANCE METRICS

TECHNOLOGY SERVICE REQUESTS RESOLVED

Key services exceed the 99.9% availability target



WIN RECOGNITION AND DISTINCTION



RANKED A BEST PLACE TO WORK IN IT

AU ranks No. 44 among large organizations in Computerworld's Best Places to Work in IT, an annual ranking of the top 100 organizations that challenge their IT staffs while providing competitive benefits and compensation. AU ranked No. 4 out of the top 100 in career development, based on staff satisfaction rankings and our mature mentorship program.

Computerworld compiles the list based on a comprehensive questionnaire regarding employer offerings in categories such as benefits, career development, training, and retention. In addition, Computerworld conducts extensive

surveys of IT workers, and their responses factor heavily in determining the rankings.

"I am so proud that American University was once again recognized as a Best Places to Work in IT, standing out as one of the few higher education institutions included among the corporate giants," said Dave Swartz, vice president and chief information officer. "Our excellent benefits package and commitment to professional development allow us to attract and retain top-quality employees seeking a diverse and supportive environment."

WIN RECOGNITION AND DISTINCTION



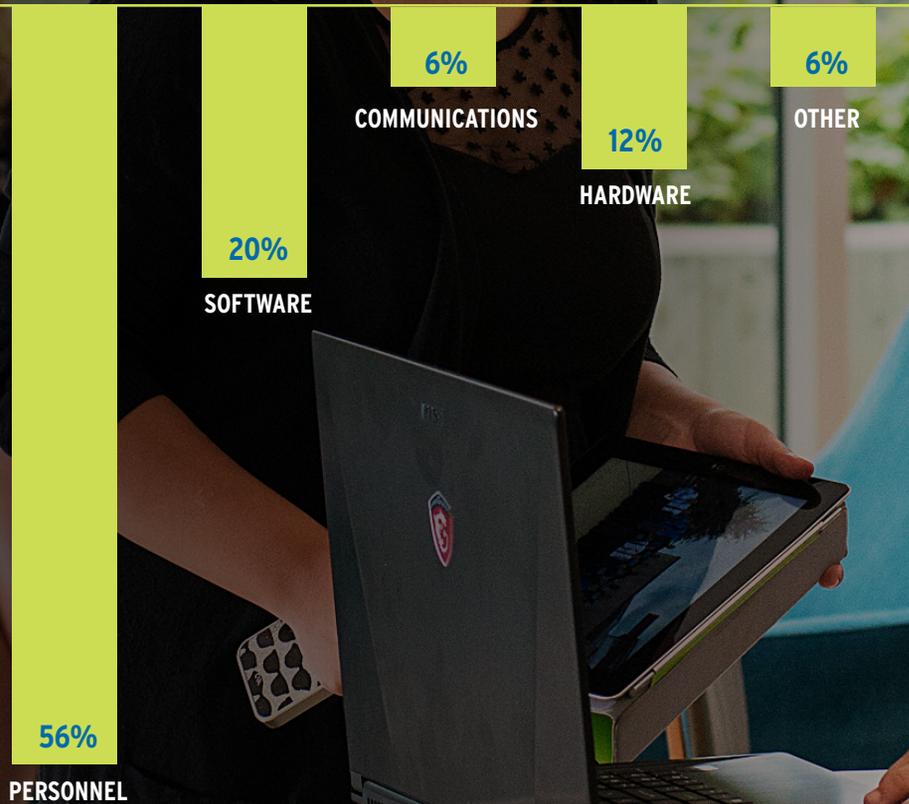
HONORED FOR EXCELLENCE IN COMMUNICATIONS

OIT is proud to announce our Award of Excellence in Communication, presented at the Association for Computing Machinery's Special Interest Group on University and College Computing Services (SIGUCCS) conference in November 2014. Last year's annual report, *Excellence Empowered: American University Office of Information Technology's Year in Review 2012-2013*, was recognized in the General Service Promotional Materials category. Each year, OIT creates this

report with design and editorial support from the University Publications team. Together, we spent countless hours finalizing the text and adopting a new, user-friendly design.

The official award was presented to AU at the SIGUCCS Fall 2014 Conference in Salt Lake City, Utah. The annual conference showcases award-winning publications developed at college and university computing centers.

With more than \$24 million in total expenditures last year, OIT accounts for approximately 3.63% of the university's overall budget.



OIT EXPENDITURES FROM 2011 TO 2015



PROJECT MANAGEMENT OFFICE

The Project Management Office (PMO) successfully managed many critical projects and initiatives this year, including the Recruiter implementations and upgrades, Colleague production server migration and upgrade, and several critical upgrades of the Blackboard, ImageNow, and Oracle systems.



“
The improvement to Colleague performance has been dramatic. Processes are running faster, and we found that many Informer reporting jobs that used to time out are now running acceptably.”

— GAIL FERRIS
Director, Technology and Information Services
Office of Development and Alumni Relations

OIT staff responded to approximately 321 project requests from across the campus, maintaining a well-balanced portfolio representing every area of the university. In addition to OIT's 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.

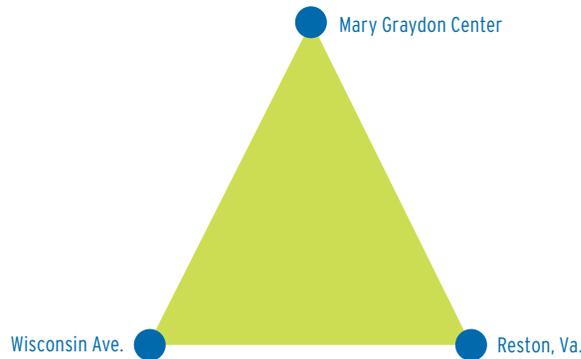
OIT uses TeamDynamix, a project and portfolio management solution, to prioritize project efforts, actively monitor project portfolios and adapt to change, effectively manage resources, and meet commitments on time and on budget.

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 manage stakeholder expectations and improve project delivery.

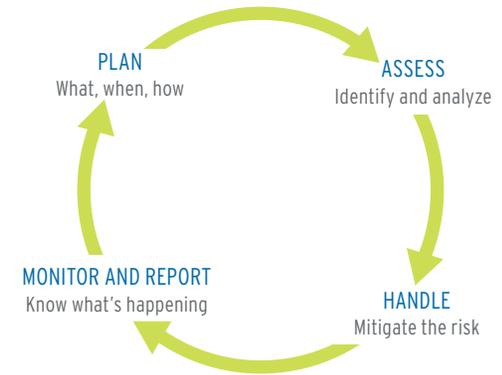
INDUSTRY-STANDARD BEST PRACTICES

Over the past year, OIT has continued to advance its goals of maturing our architecture by aligning with industry-standard best practices.

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



- ➔ Incorporating security measures throughout our technology and operational processes



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

99.96%
SERVICE AVAILABILITY FOR CORE SERVICES, TRANSLATING TO FEWER THAN 4 HOURS OF UNPLANNED DOWNTIME PER YEAR FOR SERVICES INCLUDING BLACKBOARD LEARN; ELLUCIAN'S COLLEAGUE; NETWORK INFRASTRUCTURE; EMAIL, FILE, AND PRINT SERVICES; AND THE AU PORTAL

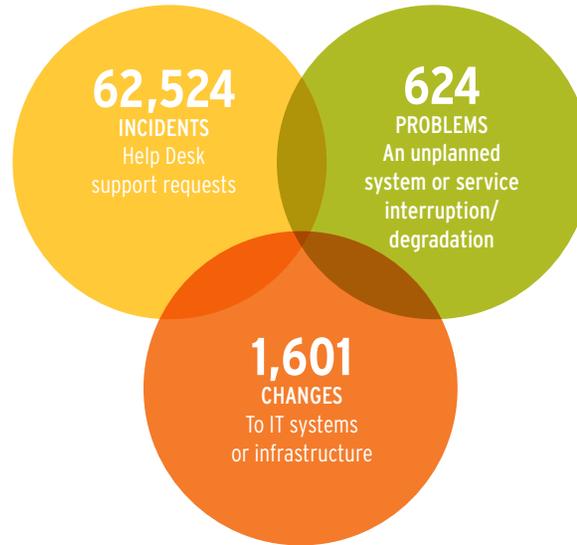
- ➔ Virtualizing as many services as possible to offer redundancy, simplify maintenance, and support AU's goal of carbon neutrality

95%
OF SERVERS VIRTUALIZED TO SUPPORT CARBON NEUTRALITY

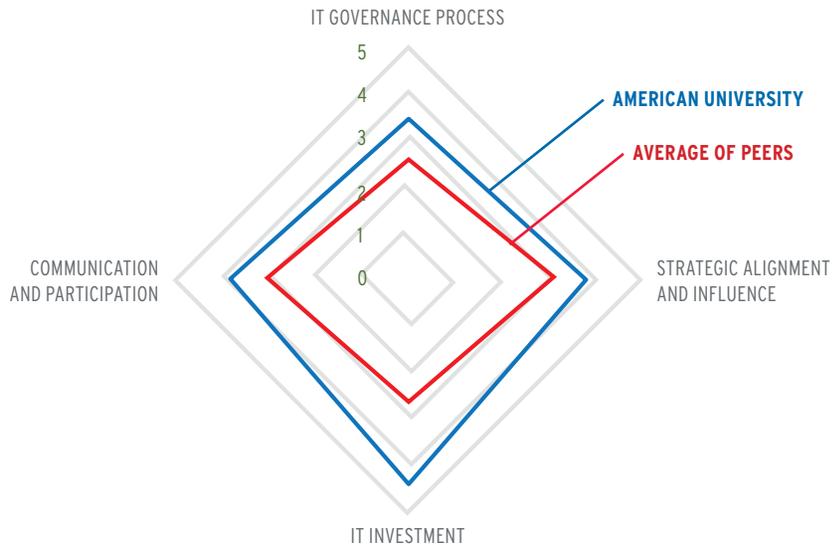
- Articulating the roles and responsibilities for each group within OIT to support a particular service

22
 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



- Benchmarking our organizational maturity against peer higher education institutions



The red line indicates the average maturity ranking of our peer institutions. The blue line indicates the maturity ranking for OIT. A ranking of zero equates to absent processes, one to ad hoc processes, two to repeatable processes, three to defined processes, four to managed processes, and five to optimized processes.



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