SPARKING IDEAS INTO ACTION: NEW ACHIEVEMENTS MOVE AU FORWARD

American University
WASHINGTON, DC

OFFICE OF INFORMATION TECHNOLOGY   YEAR IN REVIEW: 2016-2017

SPARKING IDEAS INTO ACTION

CONTENTS

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 & CHIEF INFORMATION OFFICER'S MESSAGE

Much progress was made over the last year. This report highlights many of the accomplishments to improve infrastructure and advance institutional effectiveness through adoption of new IT applications and processes.

Our networks are the life-blood of this university and demand seems to double every couple of years, so we work hard to keep up with the rapid growth. To that end, significant upgrades were made to our wired and wireless network infrastructure. To support the campus plan, we addressed the technology infrastructure needs of our new East Campus and the renovated space in the Spring Valley Building. We introduced a new guest wireless system that facilitates easy access to the Internet by our visitors.

On the applications side, we finally said goodbye to Lotus Notes and Novell, replacing them with Microsoft Office 365 and Active Directory services. We implemented innovative technologies to support student success, recruitment, and advancement, integrating the entire lifecycle of our students into a new customer relationship management system to further engagement and support of our students. We also implemented numerous mobile-enabled self-serve applications to improve access to services.

Securing our campus community against the cyber-attacks that are occurring and affecting many organizations remains an important priority. One of the greatest vulnerabilities to our systems actually comes from our users, who may open the doors to our community to attackers. Once a hacker gets a beachfront on your systems, they can elevate their access to other critical enterprise systems. To reduce this risk, we have launched online training programs and awareness campaigns to educate our community about the risks.

It may surprise some to learn that our support does not begin and end with technology. We are One AU– One Team with the rest of AU; and we continually support the success of our students, faculty, and staff colleagues to achieve the core mission of this institution. Through a variety of means, OIT staff have made significant contributions to educate AU students, both inside and outside the classroom. I am proud to highlight these contributions for the first time.

We also have shared some examples of our conscious actions to improve workforce planning through the adoption of best practices. OIT is considered one of the best places to work, as identified by Computerworld and the Chronicle of Higher Education surveys for important reasons. A happy and productive workforce better serve our community, so this remains an important priority for me.
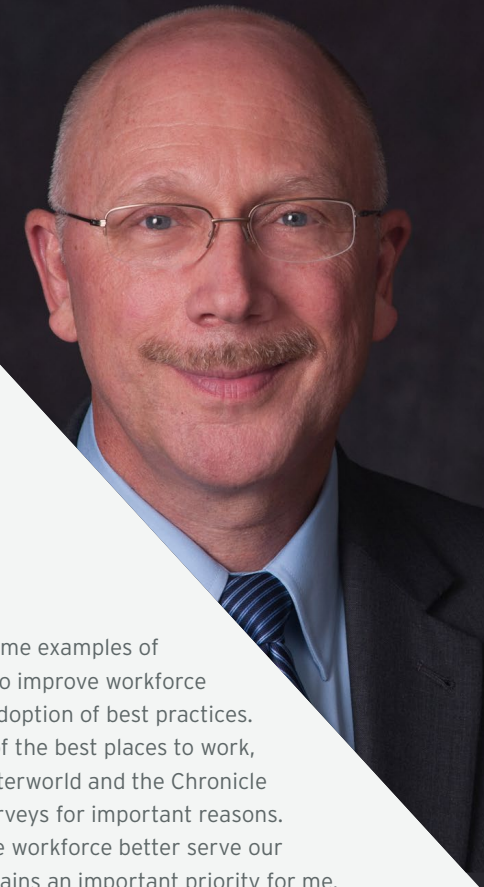
I encourage you to review our report and to share your questions, concerns, or comments with members of our team and with me, as we continue to build an outstanding IT environment for our university.

Regards,

DAVID SWARTZ
Vice President & 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 & SERVICE

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 strives 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 LEADERSHIP TEAM

Sharjil Hasan
Director, Project
Management Office

Hassan Marvi
Director, Network Operations

Kamalika Sandell
Associate Chief
Information Officer

Terry Fernandez
Senior Director,
Customer Services & Support

Laurie Ambach
Senior Director, Enterprise
Application Analysis & Development

Dave Swartz
Vice President &
Chief Information Officer

Cathy Hubbs
Chief Information Security Officer

Mohammad Mirzabeigy
Senior Director, Enterprise
Infrastructure

SPOTLIGHT: PARTNERS IN EDUCATION

A desire to give back and impart their knowledge and experience on students serves as a central motivation common for all OIT staff that teach and counsel students. In parallel, these staff benefit from an increased appreciation and understanding of the students they serve, usually from behind the scenes, as well as a renewed sense of purpose.

When you think of staff within AU's Office of Information Technology, what comes to mind? Most members of the AU community envision staff at all levels of our organization, available and ready to help them with their technology needs whenever and wherever they may occur. Common expectations include: receiving excellent customer support, benefiting from expertise, knowledge, and analysis of the team, seeing mission critical projects lead to successful completion, and enjoying a reliably available technology infrastructure.

It may surprise some to learn that our support does not begin and end with technology. To quote Vice President and Chief Information Officer Dave Swartz, **"We are One AU—One team continually supporting the success of our students, faculty, and colleagues to achieve the core mission of this institution.**   Through a variety of means, OIT staff have made significant contributions in educating AU students, both inside and outside the classroom.

A myriad of examples demonstrate the positive impact these interactions have had on all involved parties.

POST-MEETING SUGGESTION EVOLVES INTO BUSINESS INTELLIGENCE DEGREE PROGRAM

Associate CIO, Kamalika Sandell, and Kogod faculty member, Bill DeLone, participated together in a cross-functional group discussion charged with defining the vision and approach for introducing business intelligence to AU's administrative enterprise to aid in decision making. The dialogue piqued Dr. DeLone's interest and motivated him to suggest a partnership to develop a course for Kogod students.

Illustrating AU's theme of "Ideas into Action," that conversation sparked a collaboration between Dr. DeLone, Sandell, and Kogod alumnus Yana McConaty, an executive at Neubrain, a business intelligence consulting company. The trio developed AU's first course on business intelligence, a 1.5 credit course, which received positive reviews from the 32 enrolled students. Next, the curriculum expanded to become a more comprehensive 3 credit course. After two years, the evolution progressed into a brand new graduate degree offering–Masters of Science in Analytics–offered both onsite and online, where Sandell continues to teach. And it all began with Dr. DeLone's piqued interest and suggestion.

ABSTRACT CONCEPTS COME TOGETHER DURING DATA CENTER TOURS

Almost every semester for at least the past ten years, multiple faculty members arrange a class field trip to have OIT's Director of Network Operations, Hassan Marvi, provide a tour of the primary data center for AU. While faculty members teach their students about information technology throughout the semester, a majority of students have not seen an actual data center, prior to this scheduled tour. This onsite experience allows them to better understand the abstract concepts, allowing them to associate classroom teachings with physical locations, hardware, and electronics, when they actually see the physical connections between servers or to the internet. Predictably, the most rewarding part of the experience is seeing the face of the faculty member, as the students' show their surprise and excitement.

> " Kogod's partnership with OIT has increased dramatically our ability to leverage information in decision making. From improving our graduate admissions process to providing better tracking of interactions with alumni and others, OIT's expertise has made Kogod stronger.
>
> **JOHN DELANEY**
> Dean of Kogod School of Business

> "The OIT team has provided invaluable leadership and support in building out the RiSE framework, both in terms of collaborating on development of the vision and also through designing, building and refining the systems to drive the student experience work forward.

JEFFREY RUTENBECK
Dean of School of Communication

MSOD ALUMNI COUNSEL AND OFFER SUPPORT

Three OIT staff demonstrate their pride through continual support of their alma mater, after earning a Master of Science degree in Organizational Development from AU's School of Public Affairs. Upon the request of the Program Chair, Associate CIO Sandell, also an MSOD alumnus, counseled several prospective students with a technology background to share the value of an IT professional going through the graduate program, based on her own personal experience. Another alumnus, Matteo Becchi, serves as a Practicum Counselor, guiding students in completing their practicum project–a supervised, full-cycle OD project at the intersection of theory and practice. Additionally, OIT has sponsored a practicum consultant to work with us, in support of our change management initiatives.

IT EXPERTS JUDGE STUDENT COMPETITIONS

OIT senior leadership team members, Terry Fernandez, Senior Director of Customer Services & Support, CISO Hubbs, and Associate CIO Sandell, have served as Judges for student team competitions, including Kogod's annual *Best in Class* competition for students enrolled in the foundational *ITEC 200: The Edge of Information Technology* course. In the course, teams of students research a new information technology with potential to impact a business, and then persuade senior management to adopt it. Additionally, Sandell judged the prestigious *Kogod Case Competition*, which offers teams of undergraduate or graduate students from the entire university a venue to showcase their case analysis, problem-solving, leadership, teamwork, and communication skills.

PARTNERSHIP BETWEEN KOGOD AND OIT FACILITATES PRACTICAL APPLICATIONS OF LEARNING

Kogod professors have partnered with OIT leadership to provide practical consulting experiences for students to conduct analysis and apply their classroom learning to a finished product. Associate CIO Sandell and Senior Director of Enterprise Application Analysis and Development, Laurie Ambach, have collaborated with Dr. Alberto Espinosa for Kogod's course on Process Design. As guest lecturers, they delve into business process analysis, redesign, and effectiveness. Student groups select a process to research and ultimately redesign. After introducing them to key campus stakeholders, the groups conduct a condensed consulting project and present their redesign ideas. Several times, OIT staff have provided the recipient of the "best in class" award with the opportunity to work together to build a prototype. Enabling students to serve as consultants overseeing a process design effort allows them to better understand the other dependent processes, as well as the challenges of trying to change long standing practices, as the "logical choice" will not always provide the best fit for the organization.

Another course charges students with examining a product that OIT built for the campus, reviewing the original project plan, requirements document, and charter to identify the goals and objectives. Next, the students interview campus stakeholders to evaluate if the product fulfilled the original intent. Finally, they prepare both short and long term recommendations of next steps to aid in adoption and maturity. Sandell recounts, "personally, it is most rewarding to involve many stakeholders across campus in these engaging discussions, between students and our campus stakeholders, as they get a fresh perspective." Every different group of gathered stakeholders generates a unique discussion, as executives discuss their executive metrics and explain why they matter, directly with their customers—AU students. This engagement often enlightens these campus administrators, as it allows them to view their solution through the lens of someone applying newly learned knowledge in a "pristine" way.

LEAVING A LASTING MARK

After serving as a guest lecturer in Dr. Alberto Espinosa's *ITEC 334: Online Application Development* course within the Kogod School of Business, Espinosa invited Dr. Francesco De Leo, Director of Web and Mobile Platforms, to teach the course himself to share the latest trends in web application development. He admitted, "Teaching is hard and requires a significant amount of work, as I had to design the curriculum to include all of the technologies that I wanted to teach. I had to prepare labs and class content, which I wanted to make engaging, ensuring that lessons built from one to the next." To that end, De Leo explored new ways of teaching undergraduate students, as this generation requires vastly different teaching methods from how he had been taught.

All of that effort feels immediately validated, when a student approaches with an interesting question after class, as it indicates they acquired knowledge and built an increased interest in the subject. De Leo recounted a recent experience while walking around the Kogod building. A former student approached him, eager to share details of his participation in an entrepreneur's group, which explored many of the same topics and activities that they had studied in class, namely, coming up with an idea and developing it into a business application. The student invited De Leo to come to see their virtual reality project, which further confirmed that he had left a mark on that student.

RAISING AWARENESS OF CYBERSECURITY RISKS

CISO Cathy Hubbs and Director of Information Security, Eric Weakland, serve as guest lecturers in Kogod classes to raise awareness of the risks and opportunities for the average student posed by cyber security. Truly, a win-win situation—students receive practical knowledge to help better protect themselves in their everyday lives, while AU's security experts engage in a dialogue with the students to understand their current interests and concerns.

TEACHING WEB SKILLS TO SUPPORT ENTREPRENEURSHIP

Director of Portal Systems, Fabian Jozsa, enjoys teaching the *ITEC 334: Online Application Development* course for Kogod business majors, as it allows him to tap into his natural ability to help people translate technical terms into easy to understand principles. Few of his students plan to pursue a highly technical career, such as coding advanced applications or developing algorithms; however, they need to understand the overarching concepts and apply that knowledge to practical applications, since web and cloud based services dominate the marketplace. Jozsa asks students to do things they may not do in other classes, such as building a website on their own to market or showcase an entrepreneurial idea--without the benefit of simple tools, instead writing code. Students find it challenging, but by the end of the semester, many remark, "This is really cool. It's the first time that I have built something from the ground up by myself, seeing it through from inception to a final product."

PROVIDING CONTEXT ON BUSINESS APPLICATIONS IN EVERYDAY LIFE

Director of Analytics and Business Intelligence, Kirill Lobachyov, always had a desire to teach. First afforded the opportunity two years ago, he continues to teach the foundational *ITEC 200: The Edge of Information Technology* course for undergraduate students. The curriculum focuses on developing practical skills in data management and manipulation, advanced use of Microsoft Excel, and understanding fundamental concepts of information technology. While Lobachyov's expertise lies with data management and manipulation, he finds the final aspect most exciting, as he strives to explain the relevance or context of the various components to help students advance beyond basic mechanics. Discussing business applications of IT in everyday life, Lobachyov shares his personal understanding of how various components work together to influence decision-making and business strategy.

SERVICE DELIVERY & SUPPORT

54,517 support requests, excluding those for our technical support partners, with an average resolution time of 12 business hours for the Help Desk and 26 business hours for requests escalated to other OIT groups

ACCURACY	92%
TIME TO RESOLVE	91%
PROFESSIONAL ATTITUDE & COURTESY	94%
OVERALL SUPPORT	93%

LINKAGE TO THE OIT ROADMAP

Published three years ago, our ambitious roadmap, The Road Ahead: IT Solutions Empower Campus, charts our course and vision for the remaining duration of the plan. This document presents highlights of major accomplishments for the past year, with initiatives aligned under four strategic objectives:

1 Strengthen the core with a resilient, agile, and secure infrastructure

2 Enable transformation through change leadership, organizational maturity, and professional development

3 Forge partnerships to deliver inclusive IT services

4 Advance institutional effectiveness and efficiency through responsible stewardship

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

OFFICE of INFORMATION TECHNOLOGY
AMERICAN UNIVERSITY • WASHINGTON, DC

THE ROAD AHEAD
IT SOLUTIONS EMPOWER CAMPUS

2014–2018

STRATEGIC GOALS & ACCOMPLISHMENTS

PROVIDE AN UNSURPASSED UNDERGRADUATE EDUCATION & EXPERIENCE

4 PILOTING STUDENT ENGAGEMENT SYSTEM TO IMPROVE STUDENT SUCCESS

American University has committed to addressing several challenges, highlighted through the *Reinventing the Student Experience* (RiSE) initiative. The silo-like nature of our technology systems presents one of the major challenges for faculty and staff, as it hinders their ability to identify and share information regarding students in need, which would allow them to better facilitate problem solving to address their issues. OIT identified Ellucian's CRM Advise solution, as a means of addressing this challenge. This student engagement solution integrates with core administrative systems to support student success and retention throughout their academic career at AU.

OIT partnered with Ellucian to pilot the CRM Advise system with a small group of AU advisors and counselors, with the goal of improving engagement between students and advisors. The implementation of CRM Advise allows us to aggregate institution-wide data from disparate systems into a single system to provide a more complete view of each student's level of engagement with the institution on a daily basis.

Examples of student information aggregated within CRM Advise are: academic records, financial aid decisions, orientation attendance, and CARE network reports and survey data. The aggregated student information forms the basis for the behavioral and success indicators. Additionally, the system tracks institution-wide communications related to student success, making it easier to identify at-risk students with early alerts and consistent, timely interventions utilizing appropriate campus resources. Advisors and counselors will actively monitor action plans to ensure student success.

> As we begin to implement Advise, its potential to change how we support students is clear. The ability to obtain student data and information at a glance, and in real time, will enable us to more efficiently, effectively, and holistically support our students.

JESSICA WATERS
Dean of Undergraduate Education &
Vice Provost for Academic Student Services

(4) IMPLEMENTING A NEW STUDENT ORIENTATION SYSTEM

Each year, the Office of Campus Life (OCL) hosts eight orientation events for undergraduate students, parents, and guests, including:

- six two-day orientation sessions occur throughout June and July, typically attracting between 1,200 and 1,300 students,

- a combined two-day freshman orientation session and a one-day transfer program occurs in August, typically drawing 200-250 students, and

- a two-day orientation session occurs in January for all students starting in the spring semester, typically attracting between 80 and 100 students.

Students, parents, and guests must pay the required fees to attend orientation, with the option to sign-up for overnight accommodations, if desired. Previously, OCL managed these events using Symplicity's Transitions system; however, the vendor discontinued support of the product. Therefore, OCL partnered with OIT to implement a new system to support student orientation—Visual Zen.

This new solution supports OIT's strategic objective of migrating from AU-hosted to cloud-based systems. The system implementation included: enabling single sign-on authentication, integrating with AU's enterprise resource planning system—Colleague, and developing an integration with the university's payment gateway.

Symplicity's announcement to retire their product, less than a year before the spring orientation registration opened, drove an accelerated timeline for the selection and implementation of an alternative solution. The new Visual Zen system went live in December 2016.

DEMONSTRATE DISTINCTION IN GRADUATE, PROFESSIONAL, & LEGAL STUDIES

4 **STRENGTHENING AU'S ABILITY TO IDENTIFY & ATTRACT PROSPECTIVE STUDENTS**

Complementing the implementation of the admission prospect management system, Ellucian's CRM Recruit, OIT rolled out a new Recruit Analytics business intelligence application. The application enables admissions officers within the schools and colleges to:

- perform analysis of all phases of prospect management and subsequent conversion to students,

- analyze admission trends over the course of the admission cycles, as well as compare current and previous years, and

- examine admission statistics by graduate program.

The Recruit business intelligence application provides easy access to over one hundred characteristics of prospects and applicants, including demographics, academic performance, and more. This richness of data allows analysts within the schools and colleges to perform statistical and predictive analyses of the applicant pool to identify and attract the best fitting applicants.

4 **MATURING USE OF ENTERPRISE GRADUATE RECRUITMENT TOOL**

With a motivation of enhancing recruitment processes and outcomes, OIT collaborated with the Office of Graduate Studies (OGS) to increase and mature usage of the Ellucian's CRM Recruit solution within the graduate admissions units for each of the schools and colleges. Our team established a sustainable, self-paced online training platform to guide users through the comprehensive training at their convenience. The team designed evaluation instruments and criteria to identify, appoint, and retain highly skilled individuals for the CRM Specialist positions within each of the school or college's graduate admissions units.

To support the efficient operation of the call center being piloted by OGS, the team defined standard operating procedures and programmed them within CRM Recruit. These changes allowed the call center to manage their strategic calling lists, record call information, and view reports. This initiative resulted in the launch of a variety of call campaigns, designed to reach out to prospective students and applicants. Additionally, the collective

admissions staffs agreed to standardize business processes across all of their units and to institute new governance structures to manage overall system-level usage and maintenance, going forward.

INTEGRATING SYSTEMS TO SUPPORT NEW ONLINE PROGRAMS IN EDUCATION

As the result of a new partnership between the School of Education (SOE) and Noodle Partners, three online graduate programs went live on April 3, 2017, including Master of Arts in Teaching, Master of Arts in Education, and Master of Arts in Special Education degrees. Our staff collaborated with both Noodle Partners and SOE faculty and staff to integrate Ellucian's CRM Recruit, AU's admissions prospect management tool, with Noodle's third-party vendor systems.

This project required integrating the online inquiry webpage for the school with Circa Marketing's webpage, as well as integrating recruitment data with Noodle Partners coaching system, InsideTrack.

In addition, OIT incorporated the school's three new online programs seamlessly inside CRM Recruit, while accommodating the specific requirements unique to their programs. We also provided training and support to the Program Director and staff to ease the transition.

OIT continues to work with Noodle Partners to accomplish additional integrations required for the NoodleBus, Noodle Analytics, and Schoology systems.

" After all of the contracts were signed to launch our first SOE online programs, the work began to make it a reality. While the work required many technical elements, the heart of the project was driven by the expertise and passion of the OIT staff. Through the process, it was clear that they wanted this project to be successful and they were truly partners in our launch.

JULIE SARA BOYD
Assistant Dean, Online Education
School of Education

SERVICE DELIVERY & SUPPORT

High satisfaction reported by 2,015 AU employees attending OIT classroom-based or online training classes

OVERALL SATISFACTION WITH AMOUNT LEARNED	88%
ADEQUATELY ANSWERED QUESTIONS	88%
KNOWLEDGEABLE OF SUBJECT MATTER	97%
PROFESSIONAL ATTITUDE & COURTESY	97%
INSTRUCTOR PRESENTATION	93%
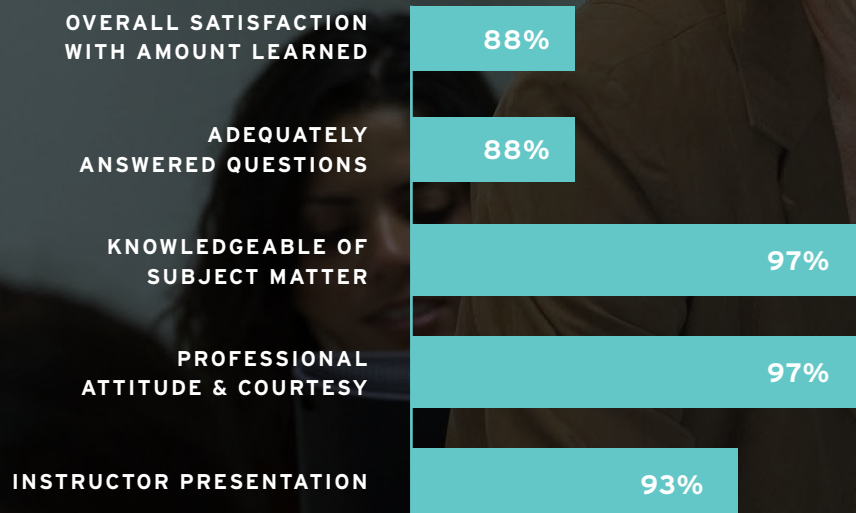
ENCOURAGE INNOVATION AND HIGH PERFORMANCE

ENABLING IT SELF SERVICE THROUGH ADOPTION OF SERVICE MANAGEMENT SOLUTION

On March 13, 2017, OIT adopted a transformative enterprise service management platform–ServiceNow. Not just any old IT ticketing system, ServiceNow provides a comprehensive service management platform. At launch, OIT utilized the new system for all of the critical functions:

- incident management,
- problem management,
- change management,

- outage postings for planned, unplanned, or service degradation interruptions that were integrated in a new System Status page,
- business service definition,
- application inventory,
- next-generation self-service,
- an internal knowledge base to promote knowledge sharing among our staff,
- real-time business intelligence dashboards and reports,
- built-in chat, and
- customer surveys.

DID YOU KNOW?

Remarkably, two OIT staff members configured the entire system within three months. While they had the support of a cross-functional working group for governance decisions, other comparable universities had dedicated teams two to four times that size.
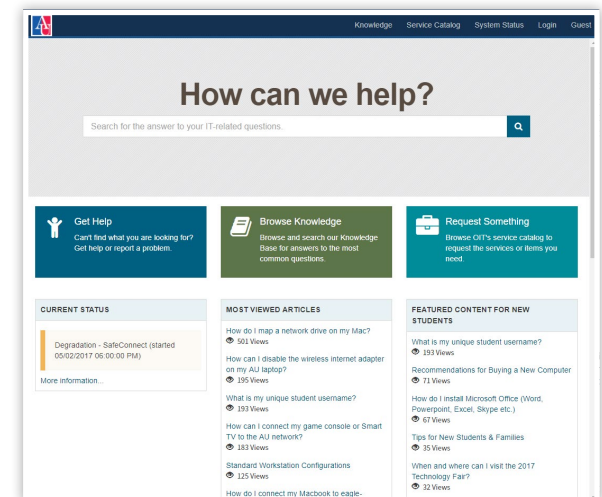
The two main drivers for adopting ServiceNow were the self-service and automation potential provided by the cloud-based suite of applications. Confident that our customers—ranging from AU students, faculty, staff, administrators, alumni, parents, prospective students, and campus guests—would benefit from enhanced self-service support capabilities to receive help when and where they need it, we devoted a great deal of time and effort to populating the knowledge base for frequently asked questions regarding AU's information technology services. Available via the web at help.american.edu, customers simply enter a keyword to describe the information they are looking for, and the system will present the relevant articles, tips, and how-to videos from the available entries. There are currently 500 articles, with more being added every day. Without any advertising, an average of 2250 customers per month are already viewing knowledge articles, which significantly reduces the volume of support requests we receive.

A desire to simplify day-to-day actions and offer efficiency gains to OIT staff throughout the organization served as the other primary driver for transitioning to the more mature ServiceNow product. Through utilization of workflows and basic automation of processes, a significant amount of staff time has already been saved. For example, our Director of IT Service Management used to spend 1-2 days per month preparing and distributing service availability reports and summaries of customer support requests pertaining to a given system. In ServiceNow, those reports were created and scheduled to automatically email the service owners and relevant stakeholders at the beginning of the day on the first of every month. Additionally, real-time dashboards empower employees to monitor and adjust their actions to ensure they achieve departmental performance targets.

Since the initial implementation, OIT continues to mature its adoption and use of ServiceNow. In May, the workstation asset inventory containing information regarding all AU-owned desktop, laptop, and mobile devices was migrated from LANDesk's Asset Lifecycle Manager tool to ServiceNow. Consequently, OIT staff are better able to attribute support requests to the asset involved, allowing us to proactively address widespread, systemic, or recurring issues.

OIT's ServiceNow administrator developed his first custom application, building off the extensive platform. The application allows members of the AU community to submit issues identified during the user acceptance phase of project implementations or upgrades for our enterprise systems. Staff can track progress to ensure all issues are addressed prior to going live. An extensive roadmap is being developed to chart AU's long-term adoption of ServiceNow as a transformative solution.

" The self-service portal form will allow campus partners to quickly and accurately report issues during the upcoming SQL migration user acceptance testing, while providing OIT the ability to track, assign, and correct issues as they arise. The application will also be instrumental in fostering improved communication with campus partners regarding issues and the need to conduct further testing.

This application is already providing OIT staff with a wealth of information regarding the issues encountered during system testing. Additionally, reports can easily be shared to the appropriate personnel to review the progress of the testing.

GREG MACPHEE
Lead Student Systems Analyst, Enterprise Systems

4 MODERNIZING AU'S CONTRACT MANAGEMENT SYSTEM

In the spring of 2017, American University's Procurement and Contracts Department approached OIT to evaluate the Contracts Management module within the ServiceNow system, as they needed to identify a suitable replacement for the custom-developed database that had reached its end of life, with the university's move away from Lotus Notes.

In just three months, the two offices worked closely together to configure the new system to best manage the lifecycle of a contract from initial negotiations through approval and final ratification, and eventually renewal, as appropriate. The effort required a complex process of copying the contract attachments and metadata for approximately 12,000 contracts from the old Lotus Notes database to ServiceNow. Then, each attachment file had to be systematically paired with the appropriate corresponding contract record.

The Contract Management module officially went live at the end of May 2017. Since that time, we have continued to collaborate with PCD to share best practices to ease the transition and ensure accurate data. In the future, the team plans to utilize workflows and automation capabilities to streamline their processes. Additionally, we expect to offer university administrators the ability to review contracts pertaining to their division.

> " The migration from Lotus Notes to a new contracts management system—ServiceNow—will allow for more enterprise-wide availability to certain key functions within the university, as well as adding new custom fields, not available in the older system. There was significant interaction between PCD and OIT to migrate, configure and "go-live" within a four-month period around fiscal year closing. The new system allows for speedier searches, better ability to consolidate contracts, and identify duplicate entries, as well as utilizing a real contracts management system, instead of a database that can work like a contracts repository.

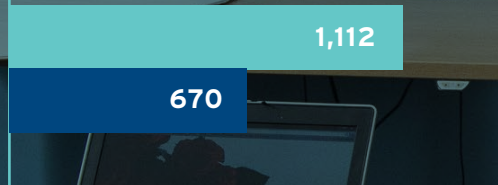**BRIAN BLAIR**
Senior Director, Procurement & Contracts

SERVICE DELIVERY & SUPPORT

AU's rapid technological advances inspired new training offerings balancing needs for timely and informative, on-demand training with in-depth workshops.
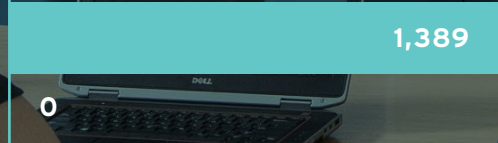
CLASSROOM TRAINING
- 903
- 814

2016-2017
2015-2016

ONLINE TRAINING
- 1,112
- 670

"HOW TO" VIDEO VIEWS
- 1,389
- 0

EMPLOY TECHNOLOGY TO EMPOWER EXCELLENCE

MIGRATING FROM LOTUS NOTES TO OFFICE 365

After thorough research and detailed analysis, which included obtaining buy-in from various campus constituencies, AU selected Microsoft Office 365, as the preferred cloud-based email platform for all faculty and staff. Using a phased project approach, OIT partnered with Dell Services to migrate all email accounts from the legacy Lotus Notes system to a more modern, cloud-based, enterprise-class solution—the Microsoft Office 365 platform for email and calendar and Skype for Business for instant messaging, screen sharing, and video-conferencing.

The successful Office 365 implementation required migrating the email, calendar, and contact data for more than 8,000 faculty, staff, and departmental accounts, carefully preserving their attachments and folder structure. Beyond email and calendaring, AU's contract with Microsoft provided all members of the community with the other Office 365 components, including the full Office suite, OneDrive cloud-based storage, OneNote, eDiscovery, Yammer, Teams, and many other applications at no additional cost. Recently, the new and powerful Outlook application replaced AU's custom-developed, legacy mass mailing application used for distributing email communications.

" I think that OIT did a really great job with the rollout of Office 365. What could have been a really painful process went really well, thanks to everyone who assisted with the rollout. Thank you!

SHANDRA KELLY
HRIS Coordinator, Human Resources

DID YOU KNOW?

75% of faculty and staff survey respondents indicated they were either extremely or somewhat satisfied with Office 365, following the transition, as compared to the Lotus Notes system that had been used for almost 20 years.

To support the Office 365 migration, OIT's support staff ensured onsite assistance was available for affected users, as each migration completed. In addition, the technical trainers enhanced their traditional services offerings with both online, virtual training and traditional, in-person classes for the Office 365 suite of products. To aid in adoption of the new tools, the team developed and published brief, informative how to videos to explain how to perform common tasks.

> " I would like to compliment OIT on the efficiency with which this transition has taken place. Also, I have generally noted that there seems to be a much better campus-wide adoption rate of the standard tool (i.e. Office 365) as opposed to Lotus Notes in recent years.

MICHAEL GIESE
Associate Registrar for Catalog & Curriculum, Office of the University Registrar

4 PROTECTING THE COMMUNITY FROM SPAM, PHISHING, & MALWARE

Universities and businesses, around the globe, have seen a rise in malicious spam and phishing email campaigns. These targeted emails often contain an embedded link, which redirects you to a malicious website, where the attackers will attempt to steal your organizational or financial account credentials, or install malware and compromise your workstation's security. Often, these messages, links, and sites look legitimate, even though they are not.

To counteract this, in December of 2016, OIT enabled Targeted Attack Protection—a new anti-spam technology that protects your personal information and AU's assets by evaluating all URLs in delivered emails. And then, the system blocks access to sites deemed malicious, regardless of whether you are on or off of the AU network.

After winter break, OIT launched Proofpoint—one of the most advanced systems on the market today for filtering spam, phishing, and malware email messages, designed to better protect the AU community from malicious emails that could potentially harm computers and/or infrastructure, or compromise sensitive data.


Like the previous anti-spam system, Proofpoint quarantines messages deemed suspicious or dangerous; however, the more advanced system has proven vastly superior in blocking spam and phishing campaigns that have targeted AU. Many individuals recovered hours of productivity in their work day, as hundreds of messages they previously would have had to sort through are quarantined.

④ INTRODUCING SELF-SERVICE ONLINE BANKING FOR AU TRANSACTIONS

In July of 2017, a new self-service module launched within the Eagle Service suite of applications, which enables faculty, staff, and students to manage their online banking information used to process refunds and payroll earnings from AU. Individuals may securely view and change the information pertaining to their bank accounts, as it uses a two-step verification process to confirm the identity and authorization of the requestor before allowing any changes. Additionally, the online banking application masks the full account number, so all of digits are not visible. This helps to reduce

institutional risk by better protecting against the unauthorized diversion of funds by a cyber-criminal.

During the planning for the Eagle Service banking implementation, the team—comprised of staff from the OIT, Accounts Payable, Payroll Office, and Office of Students Accounts—unanimously recognized the need to modernize their dated processes. Working together, the team overcame any obstacles they encountered, while maintaining a high level of commitment. In the end, the new redesigned process was seamlessly introduced to the campus. Behind the scenes, we cheered that another custom-developed application was retired with a vendor provided module, which offered new features, increased security, and a better overall experience for the community.
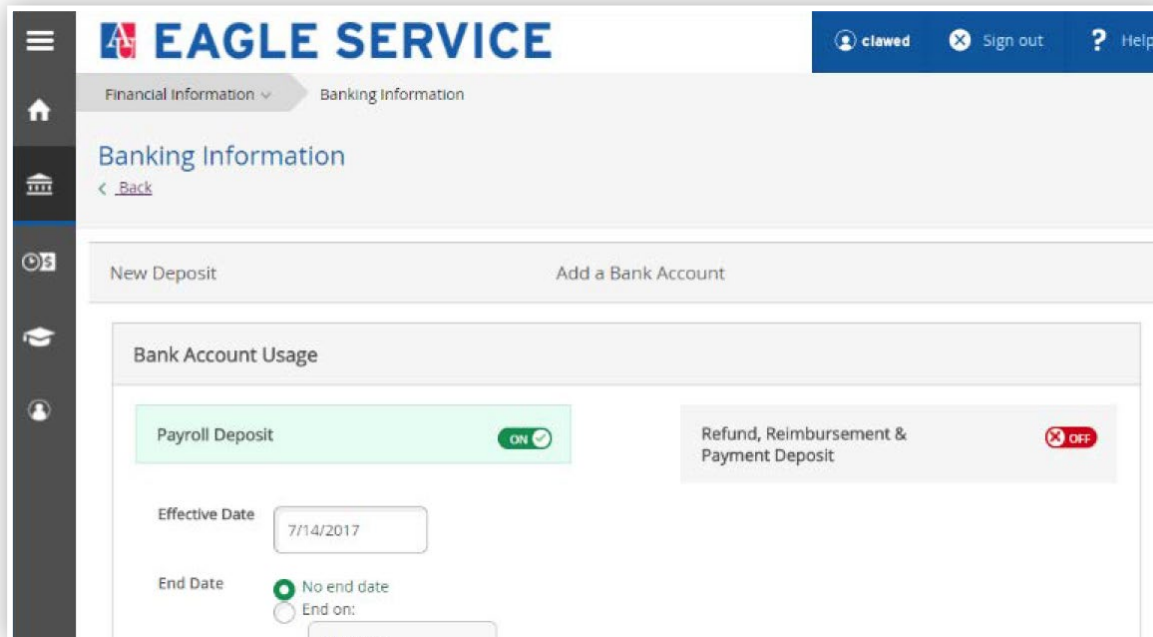
① STREAMLINING PROCESSES FOR ACCOUNT CREATION AND MANAGEMENT

Every year, OIT advances further on our journey to fully utilize industry identity management tools to simplify and automate our account creation and access provisioning processes. This year, we transitioned our account creation process away from the old infrastructure to instead interact directly with our new identity vault solution, abbreviated as IDV, through driver automations. As account creation now occurs directly within the identity vault, IDV has become our directory of authority.

This initiative allowed us to streamline our synchronization processes between the enterprise directories, positioning us to use this platform to later manage other disparate account environments, such as those for AU-sponsored Gmail and Office 365. Attributes were aligned between Colleague, AU's enterprise resource planning system, IDV, and our enterprise directories to create matching dedicated attributes on both sides of the account creation process, thus removing the ambiguities and complexities associated with dual use of attributes.

By moving the account creation process to IDV, operations may now be automatically initiated by the system, using attribute-based identification or events. This allows us to reduce the complexity of our custom-developed account management code, as well as unify our account creation and account management platforms. This centralization allows us to continue automating key processes and enhancing our security of accounts and access.

① UPGRADING AU'S TECHNOLOGY INFRASTRUCTURE

A great deal of time and effort are devoted by OIT engineers and system administrators to improve AU's technology infrastructure. Over the past year, notable accomplishments were made to increase the performance of our storage area networks (SAN),

supplement our back-up capabilities, enhance the network infrastructure for both wired and wireless users, strengthen the security and resiliency of our equipment to continue operations in the event of a major outage or catastrophe, and outfit AU's newly constructed buildings with the latest technologies.

Over the past year, our enterprise storage environment underwent several significant upgrades. Engineers upgraded the primary SAN to maximize our storage bandwidth and increase the maximum input/output operations processed per second. One hundred terabytes of high performance storage were installed and designated for use by AU's virtual server environment. This helped to speed up searches within our Colleague enterprise resource planning system and other enterprise applications. At both our primary and remote data centers, we expanded the capacity of the fiber switches that connect our SANs to further improve performance.

To improve our enterprise back-up capabilities, OIT purchased two additional SANs dedicated to back-up data, allowing us to replicate our back-ups to our remote site to improve our business continuity posture. This is already standard practice for our other SANs, as they are replicated between both data centers.

OIT completed a network upgrade which provided a ten-fold increase in the bandwidth to all residence halls from the core of the network, going to full 1 Gigabit connections to each access point. The upgrade encompassed the network distribution and access layers for the wired and wireless networks. In the end, 573 new wireless access points were installed, along with 47 switches, 14 routers, and 3 wireless network

controllers. Additionally, the team oversaw the work of multiple cabling contractors, and coordinated with Facilities, Housing, and Public Safety to ensure a smooth implementation of the project.

To adhere to lifecycle best practices, OIT replaced 180 older wireless access points with new, next generation models. This significantly improved the wireless capabilities in AU's off campus buildings, increasing the bandwidth from 100M to 1G per access point.

OIT also completed an upgrade of the distribution layer network in all campus buildings. This involved installing 68 new building routers and providing multiple 10Gbps connections to the core network. The effort improved redundancy of equipment to increase network availability, further eliminating single points of failure in our infrastructure.

To improve our business continuity posture in the event of disaster or prolonged planned outage at our primary data center, OIT engineers installed and configured new state of the art, advanced network firewalls and load balancers at our remote business continuity site. Additionally, we contracted with Verisign to obtain full-time monitoring support of the University network to protect against Distributed Denial of Service attacks.

Finally, OIT successfully provisioned the technology infrastructure for the East Campus and Spring Valley buildings, on time and on budget. Every building requires the provision of diverse backbone fiber connectivity, wired and wireless networks, cable television, and phone services. Throughout the year, OIT staff assisted campus departments in relocating their offices from one location to another.

③ SIMPLIFYING THE GUEST WIRELESS EXPERIENCE

Previously, AU guests were required to complete a self-service registration form and designate a sponsor to approve their request, in order to obtain access to the guest wireless network. This process proved challenging and cumbersome, at times, for visitors either without a sponsor or those delayed waiting for their sponsor's approval.

To simplify wireless access for guests, while maintaining compliance with the Communications Assistance for Law Enforcement Act (CALEA), OIT contracted with internet servicer prover, RCN, to install a dedicated Internet link to provide guests with an open wireless network. OIT's network engineers collaborated with RCN to install and configure the required infrastructure to support the guest network. These components included the 1G Internet link, a router, and a DHCP server at AU's primary data center.

After the infrastructure was completed, OIT made the new wireless network, AUGuest-byRCN, available to guests within all campus and off campus buildings including at the Washington College of Law, offering a simple and consistent experience for guests regardless of their location. Thus far, 3300 simultaneous, concurrent devices have connected to the guest wireless network, at any one time.

" The new RCN guest wireless network has enabled WAMU's studio guests to simply and securely connect to the public Internet. The new system has significantly reduced the complexity and provided a seamless user experience, virtually eliminating all calls for technical support with regard to guest Wi-Fi connectivity.

VIRENDRA SILVA
Director of Information
Technology at WAMU

ENABLING FINANCIAL SAVINGS BY MOVING EAGLEDATA TO AN ALTERNATE PLATFORM

Responding to the high Oracle platform license cost, OIT embarked on an ambitious project to change the underlying platform beneath the EagleData historical reporting system. Our team researched, designed, and implemented an alternative platform, which is based exclusively on Microsoft. The new platform incorporates a Microsoft SQL Server database, SQL Server Reporting Services, and SharePoint, while substantially reducing licensing costs. This new platform possesses a sleek, streamlined look, with straightforward navigation. Additionally, the designed platform allows for simple integration with AU's identity management system and other myAU portal applications.
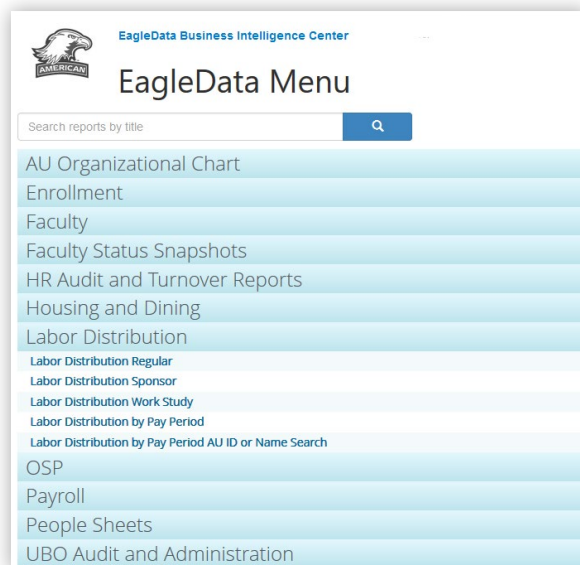
DEPLOYING PATCHES TO AU SERVERS USING MICROSOFT SYSTEM CENTER

With an objective of reducing costs and simplifying our environment, OIT charted a course to retire two old systems, namely LANDesk and Symantec, replacing them with a single industry-standard product—Microsoft System Center Configuration Manager (SCCM)—on all our Windows servers. In the past, LANDesk was used to manage the scheduled distribution of system patches; and Symantec provided endpoint protection on the servers.

To support the effort, OIT hired an SCCM expert and configured the system management platform. Within a short period, the team rolled out the new patch client to over 400 servers, which run a Microsoft Windows operating system. In June of 2017, OIT rolled out new endpoint protection clients on all servers, and removed the Symantec software. This effort allowed us to apply standard antivirus management policies to ensure all servers are configured with the latest updates to defend against virus and malware infections.

CONVERTING TO NEW VOICEMAIL SYSTEM

OIT successfully migrated over 3,000 user and departmental voicemail accounts to the AVST CallXpress Unified Messaging system, which replaces the legacy Avaya system used previously. The AVST voicemail system provides a secure, reliable, and scalable platform that fully integrates with AU's new cloud-based Office 365 collaboration environment. Using an integrated messaging model, users can send, receive, store, and listen to voicemail messages, wherever they prefer, using either the email application on their computer or mobile device, or by using their office desk phone.

As part of the project, OIT published an opt-in/opt-out survey to allow faculty and staff, as well as departments, to indicate their preference for receiving voicemail. As a result, 20% of AU faculty and staff opted out of voicemail, instead directing callers to alternative means of contacting them; while 80% opted to continue to receive voicemail.

EagleData Business Intelligence Center

EagleData Menu

Search reports by title

- AU Organizational Chart
- Enrollment
- Faculty
- Faculty Status Snapshots
- HR Audit and Turnover Reports
- Housing and Dining
- Labor Distribution
  - Labor Distribution Regular
  - Labor Distribution Sponsor
  - Labor Distribution Work Study
  - Labor Distribution by Pay Period
  - Labor Distribution by Pay Period AU ID or Name Search
- OSP
- Payroll
- People Sheets
- UBO Audit and Administration

DID YOU KNOW?

After less than thirty days of successfully patching the servers with SCCM, the team **reduced and consolidated the number of nights that servers required downtime** for monthly maintenance.

② RAISING AWARENESS THROUGH PHISHING SIMULATIONS

Phishing remains a persistent problem for universities, businesses, and individuals. Attackers know they can capture passwords, by sending out a well-crafted message to hundreds or thousands of individuals, as they only need to *net* one person. Armed with that person's password, they often gain access to the individual's account which they use as a foothold. From there, the attacker attempts to find weaknesses in the systems to gain more privileged access with the ultimate goal of stealing sensitive data or attacking other systems.

In response to this large-scale problem, OIT adopted a sophisticated filtering solution, which helps to curb future attacks. Like many of our peer institutions, AU rolled out an awareness campaign last year to help address the human factors involved. Through the campaign, simulated phishing emails, constructed like those sent by attackers, are distributed to the AU community. However, when a community member clicks an embedded link, they are presented with an awareness message, rather than having their password stolen or malicious software installed. With the goal of continually raising awareness of the types of emails attackers use, our team strives to help community members recognize the characteristics, so they know when to delete and not click. We also want to inform the community on how to report malicious messages to the Help Desk. Throughout the year, OIT sends these phishing simulation emails, always with the intent of being educational and not punitive.

① MATURING TOOLS TO LEVERAGE GEOGRAPHIC INFORMATION IN THREAT ANALYSIS

Successful phishing attacks, lead to account abuse, requiring mature monitoring, threat analysis, and notification. OIT's information security professionals continue investing time to develop sophisticated tools that can provide geographic information about external network activity. These tools enable better reporting and analysis of potential threat and attack activity.

To identify accounts which are compromised, security experts often rely on the collection and analysis of authentication records, based on geographic location.

This information aids the team in recognizing and stopping fraudulent access as quickly as possible, as they detect "superman" activity where an account can be witnessed authenticating to AU resources from several geographically dispersed locations. For example, no user should ever log into AU systems from Singapore, Chicago, and Seattle, all within seconds or minutes of each attempt. Therefore, alerts are generated to signal a potential account compromise, which attackers may use to try to penetrate the AU network.
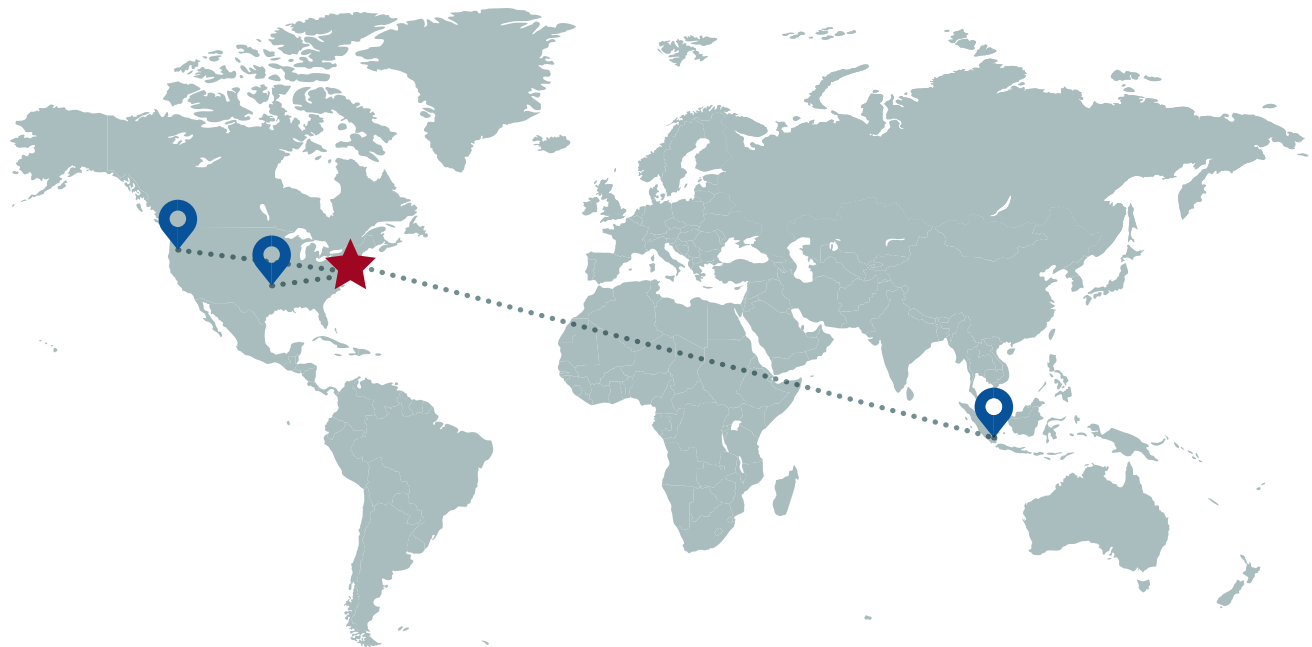
WIN RECOGNITION & DISTINCTION

AWARDING EXCELLENCE WITHIN

Instituted in 2009, OIT proudly offers annual awards to recognize our staff that demonstrate excellence and best exemplify the award. While eight awards are designated for our own internal staff, two special awards recognize campus partners that have been instrumental to our success.

In May of 2017, CIO Swartz presented the following deserving individuals with their award plaques:

- OIT Campus Partner Award–Denis Cofer, Communications Services Manager
- OIT Critical Thinker Award–Steve Kelly, Director of Customer Support Services
- OIT Customer Service Award–Tremaine Johns, Technical Trainer
- OIT Dependability Award–Isabelle Grey, Cyber Security Engineer
- OIT Enlarger Award–Jack Esteve, Web Developer
- OIT Initiative Award–Jill Ivey, Senior Student Applications Specialist

- OIT Leader by Example Award–Filemon Palero, eSupport Analyst
- OIT Vision Award–Francesco De Leo, Director of Web and Mobile Platforms
- Partner of the Year Award–Tyler Catalani, Treasury Analyst, Treasury Operations
- Technology Adoption Leader Award–Michael Ross, Directory of Advancement Information Systems, Office of Development and Alumni Relations

RECOGNIZING OUR STARS

Launched in early 2016, our World Café Implementation Team continues to oversee the staff recognition program, known as the OIT STAR Awards, which was implemented for staff by staff. The program empowers OIT staff to nominate their colleagues for a monthly award for doing something notable, using entirely subjective criteria that may include: having a great attitude, displaying care for others, fostering teamwork, showcasing creativity, and/or performing exceptional service.

A monthly departmental email message acknowledges each of the nominees. Additionally, a randomizer tool selects one lucky person each month to win a small gift card. Our STARs for the year included: Isabelle Grey (August), Andy Henning (September), Homer Manila (October), Debra Gonski (December and January), Alex Nyce (February), Paul Hardy (March), Kiera Atkins (April), Kristina Whitchurch (May), BJ Whitacre (June), and Suzanne Barron (July).

TECHNOLOGY SERVICE REQUESTS RESOLVED

Key services exceed the 99.9% availability target

Service	Availability
ACTIVE DIRECTORY	100%
BLACKBOARD LEARN	99.99%
BLACKBOARD TRANSACT	99.98%
C-CURE ACCESS SYSTEM	100%
COLLEAGUE	99.98%
COMMONSPOT	99.99%
CRM RECRUIT	99.99%
EAGLEBUCKS PRINTING	99.95%
FACULTY/STAFF EMAIL	100%
IMAGENOW	99.97%
ISUPPORT	99.99%
MICROSTRATEGY	99.99%
NETWORK	100%
PORTAL	99.97%
VIRTUAL PRIVATE NETWORK	100%
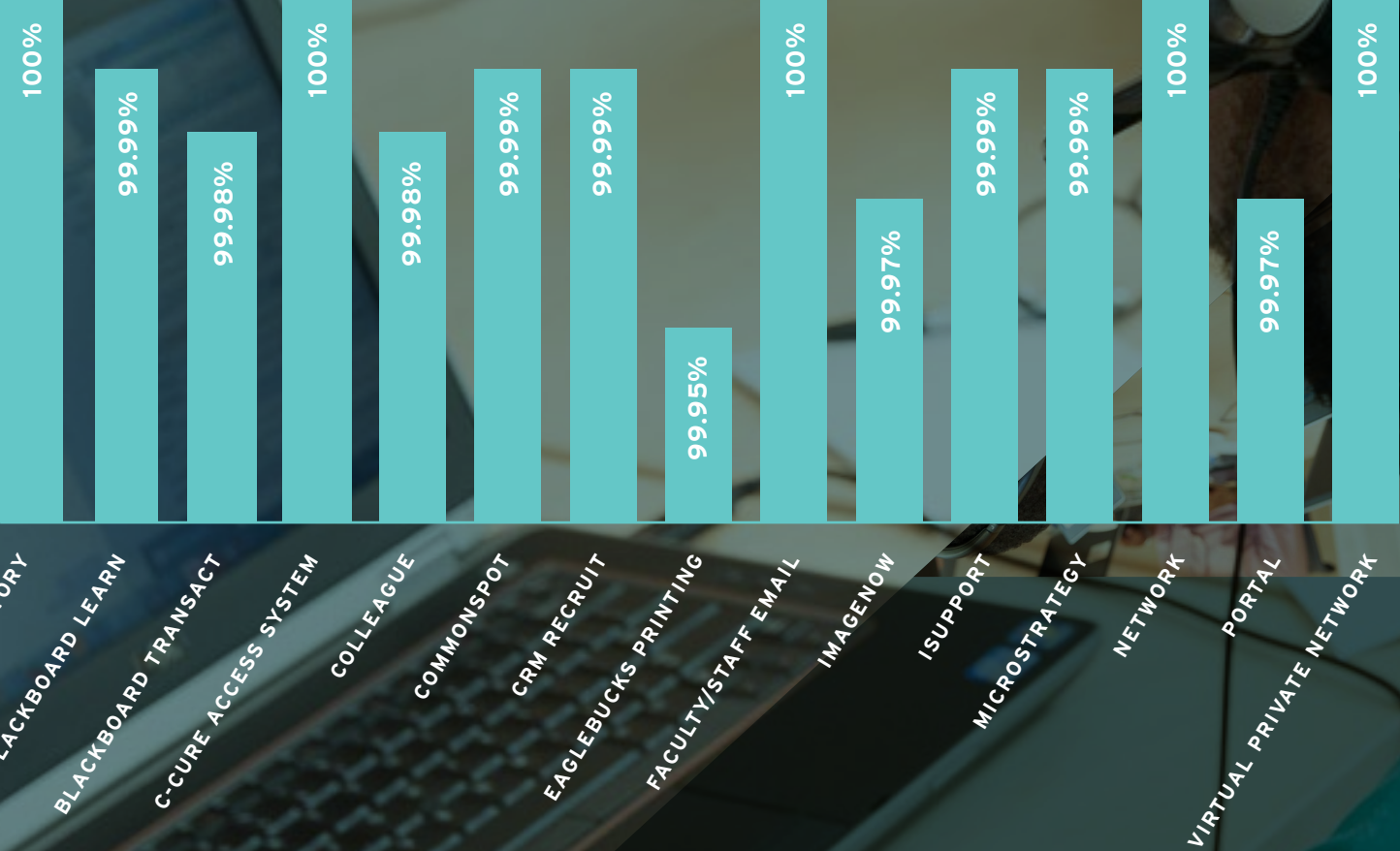
# ENHANCE THE UNIVERSITY LIBRARY AND RESEARCH INFRASTRUCTURE

(4) LAUNCHING SYSTEM TO MANAGE THE LIFECYCLE OF GRANTS

In partnership with the Office of Sponsored Programs, OIT successfully launched a new grant management system—Cayuse SP—to manage the full lifecycle of grants from proposal development and submission through non-financial post award and award close-out. This cloud-based system enables researchers and research administrators across AU's campus to access their specific research portfolios, anywhere, any time.

Cayuse SP provides high level dashboards, which offer real-time visibility into the status of projects, proposals, and awards. From a dashboard, users can view all their proposals and award data, highlighting current status, important dates, and pending approvals. This transparent view of the grant lifecycle effectively removes barriers and delays to unit-level decision making.

The system centrally stores research awards, budgets, personnel records, events, proposals, subcontractors, general information, and a host of attachments to facilitate efficient management of sponsored projects. Leveraging these improvements will help AU researchers recover more of the administrative costs associated with the University's federally negotiated indirect cost rate agreement (NICRA), capped at twenty six percent of the total rate.
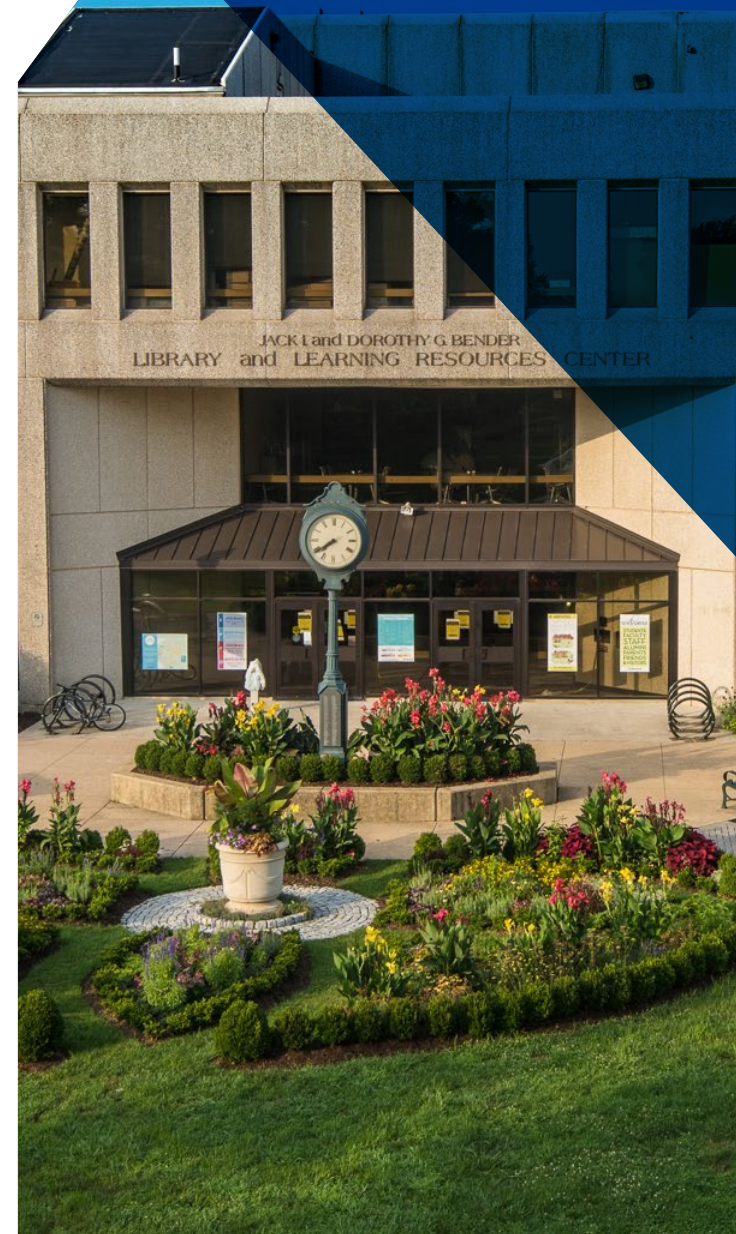
SERVICE DELIVERY & SUPPORT

OIT Help Desk resolves 84% of all support requests during the initial contact.

Channel	Count
EMAIL	31,408
PHONE	25,000
WALK-IN	4,480
INSTANT MESSAGE	1,647
SELF SERVICE	206
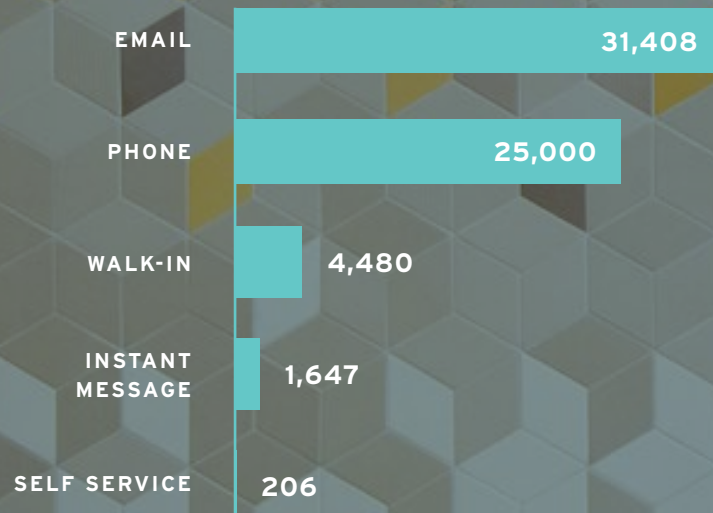
ENGAGE ALUMNI IN THE LIFE OF THE UNIVERSITY, ON AND OFF CAMPUS

PIONEERING IN DONOR & PROSPECT MANAGEMENT

AU agreed to serve as one of only five institutions to beta-test Ellucian's CRM Advance development information system, which was built on the Microsoft Dynamics CRM platform. The Office of Development and Alumni Relations (DAR), in partnership with OIT, performed comprehensive testing of the new system's functionality to evaluate whether it would meet their current and future needs of creating and deepening relationships with their top donors and prospects. One key component of CRM Advance is that its functionality is focused on Moves Management, a widely recognized best practice in major gifts fundraising, which manages these relationships in a formal, strategic fashion.

Through the partnership of DAR, OIT, and Ellucian, AU holds the distinction of being the first higher education institution to ever implement and deploy CRM Advance into a production environment. As a result of this implementation, DAR now possesses the following capabilities:

- track social media accounts on constituent records;
- code constituents by gender, outside of the male/female binary to be more inclusive;
- record constituent preferences for how they would like to hear from AU;
- attach files to donors and contributions, such as: gift agreements, proposals, and acknowledgement letters; and
- quickly and easily search for alumni by school, demographic, or last gift date.
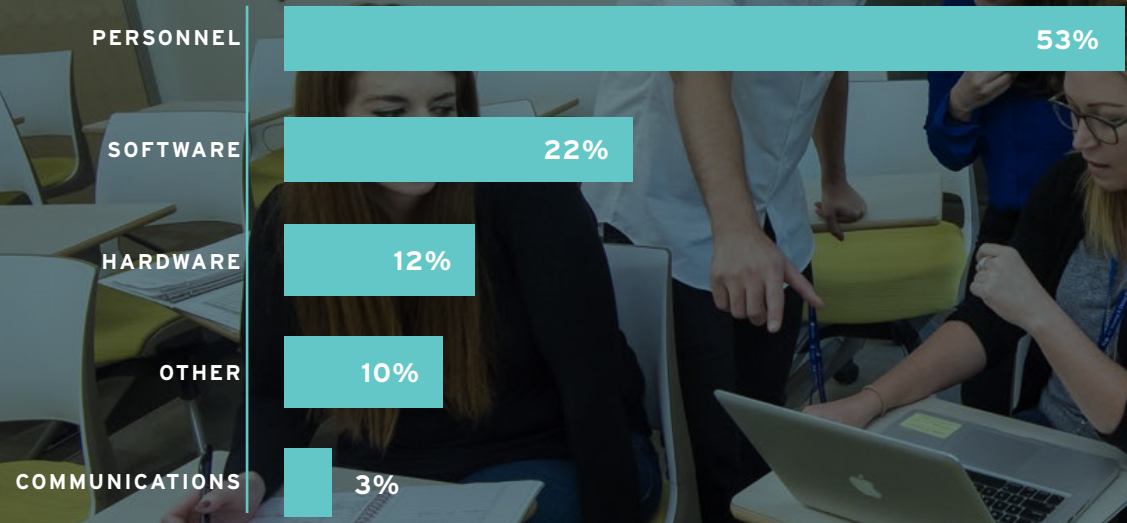
> Thanks to our collaboration with OIT and other key partners throughout AU, our transition from Colleague Advancement to CRM Advance has been an incredible success. Already, we are finding new ways to identify unique funding opportunities for the university thanks to CRM Advance.

MICHAEL ROSS
Director of Advancement Information Systems, Office of Development and Alumni Relations

RESOURCES

With more than $27 million in total expenditures last year, OIT accounts for approximately 4.24% of the university's overall budget.

Category	Percentage
PERSONNEL	53%
SOFTWARE	22%
HARDWARE	12%
OTHER	10%
COMMUNICATIONS	3%

RESOURCES

OIT EXPENDITURES FROM 2013–2017

Year	Expenditure
2013	$22,005,848
2014	$23,270,394
2015	$24,136,530
2016	$26,847,073
2017	$27,366,713

ENTERPRISE RISK MANAGEMENT

In the fulfillment of AU's mission, the University engages in many activities that involve risk and uncertainty. Enterprise risk management (ERM) signifies a coordinated approach to assessing and responding to all risks that affect the achievement of the University's strategic and financial objectives.

The goal of an enterprise risk management process is to identify and evaluate significant risks, and assure that university-wide risk management decisions align with the University's mission and strategic goals.

AU recognizes that risks often interconnect, with risks in one area having the potential to affect other units. The University strives to promote a culture of risk management in all university activities, so a risk management framework may be applied consistently at every level, reducing "silo" risk decision-making.

BACKGROUND

The ERM organized, under the leadership of David Swartz, in the summer of 2016. In November 2016, the new membership held their first meeting with representatives for each of the AU Divisions, along with Internal Audit, and the Office of General Counsel. The newly formed ERM differentiated itself from previous groups by creating division-level risk groups. Fundamental to creating a culture of risk awareness, these groups invite community members to identify risks and opportunities. This level of engagement aids in uncovering risks and opportunities that may cross divisions, which ultimately facilitates managing and tracking the risks at the enterprise level and informing budget requests and decisions.

PROCESS

The ERM members meet monthly to discuss current status of the top ten critical risks, as well as any emerging threats or opportunities. The ongoing cycle lends itself to spending each spring reviewing divisional top risks to create the top ten critical risk list to submit for review by the Cabinet, during their summer retreat. The Cabinet's feedback is then incorporated into the list. Next, the ERM members craft management updates for each of the top 10 critical risks. At the conclusion of the annual cycle, the group shares the list of the top ten primary risks, secondary risks, and emerging risks with the Board of Trustees' Audit committee each fall. Status updates are provided in their quarterly meeting, or as requested.

PROJECT MANAGEMENT OFFICE

The Project Management Office (PMO) successfully managed many critical projects and initiatives this year, including the implementation and migration to the cloud-based Microsoft Office 365 collaboration platform, Ellucian's CRM Advise student success and retention system, Ellucian's CRM Advance alumni management system, and Self-Service Banking, among many other 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. This year, the PMO offered eight TeamDynamix training workshops, with a total of forty attendees, to encourage staff to incorporate end-to-end project lifecycle management best practices. In

addition, the project managers started offering weekly office hours, every Tuesday and Thursday, to provide OIT staff with supplemental project management support and assistance with TeamDynamix. The PMO also implemented a standard status reporting format to allow consistent reporting and tracking of projects across our organization.

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. Find upcoming project management training sessions online via AsuccessfulU.
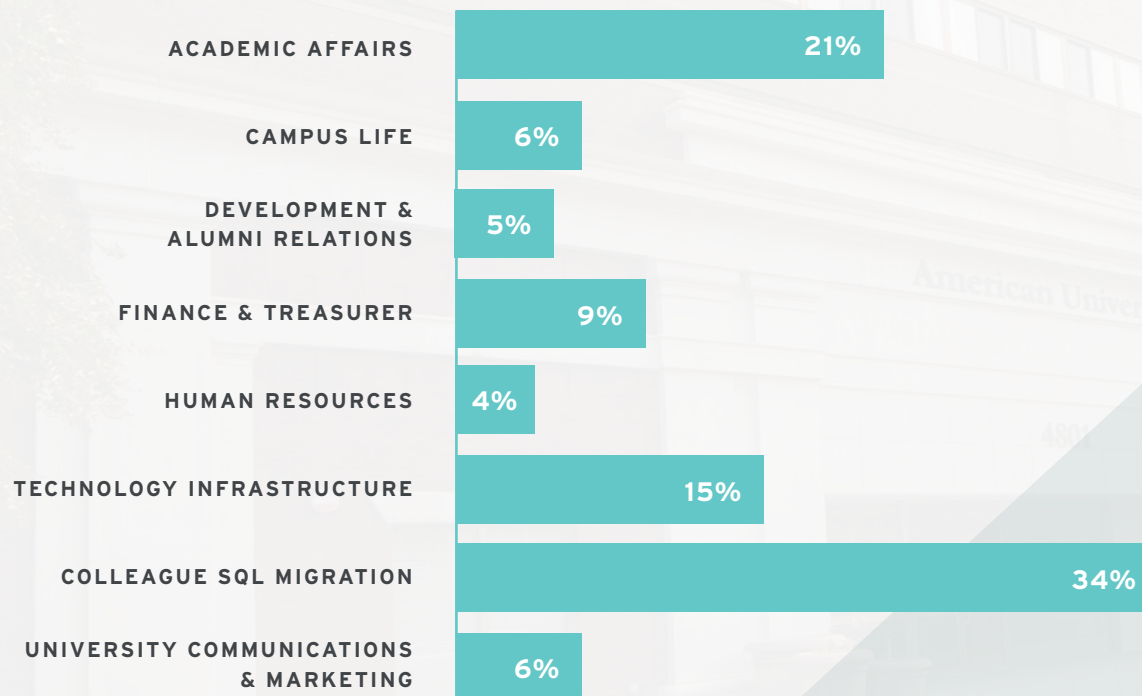
> " I've experienced four major database conversions in my career. None have been executed as professionally or smoothly as the one led by the Office of Information Technology at American University. Our colleagues in OIT work with a true spirit of partnership.
>
> **COURTNEY SURLS**
> Vice President,
> Office of Development and Alumni Relations

2 OIT PORTFOLIO BY UNIVERSITY DIVISION

During the 2016-2017 portfolio year, OIT responded to over 200 project requests, and completed over 173 projects. The graph below shows the breakdown of projects by resource allocation. Notably, projects required to support the planned migration in 2018 of the underlying database for our enterprise resource planning system—Colleague— consumed the most resources, across both OIT and campus units.

| Division	Percent
ACADEMIC AFFAIRS	21%
CAMPUS LIFE	6%
DEVELOPMENT & ALUMNI RELATIONS	5%
FINANCE & TREASURER	9%
HUMAN RESOURCES	4%
TECHNOLOGY INFRASTRUCTURE	15%
COLLEAGUE SQL MIGRATION	34%
UNIVERSITY COMMUNICATIONS & MARKETING	6%

INDUSTRY-STANDARD BEST PRACTICES

OIT continually strives to advance and mature our business processes, architecture, and workplace culture by aligning with industry-standard best practices. Not only do we adopt and consistently employ these practices ourselves, but we also model them for our AU colleagues to encourage more wide spread adoption campus-wide.

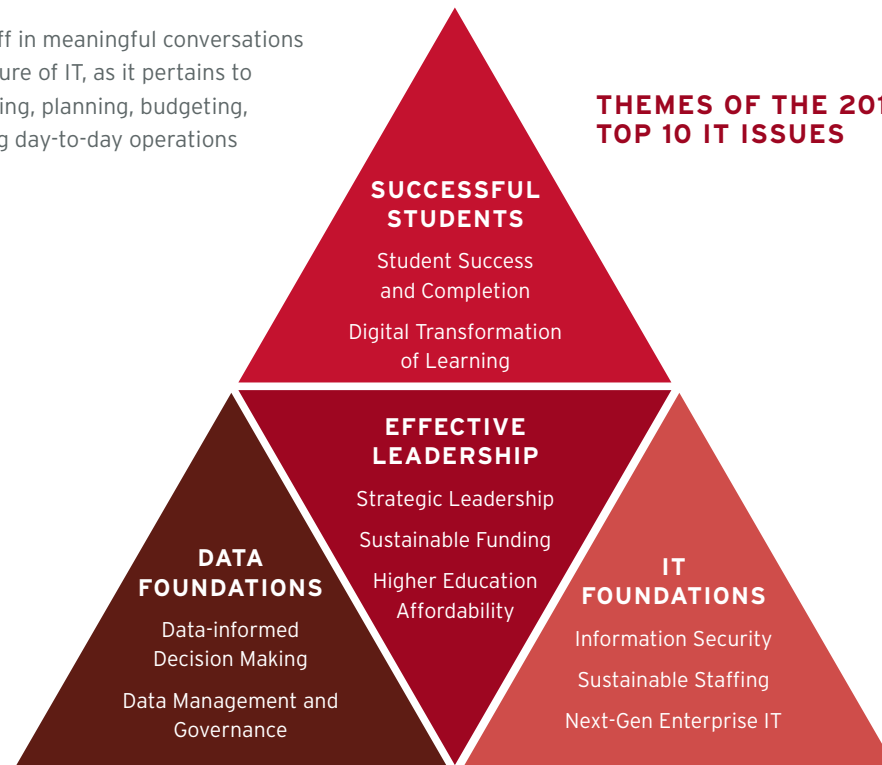**PEOPLE FIRST AND INFORMATION TECHNOLOGY PROFESSIONALS SECOND**

- Hiring a diverse workforce, despite the profession being dominated by Caucasian or Asian males

42%
MEN OR NON-MINORITY

58%
WOMEN OR MINORITY
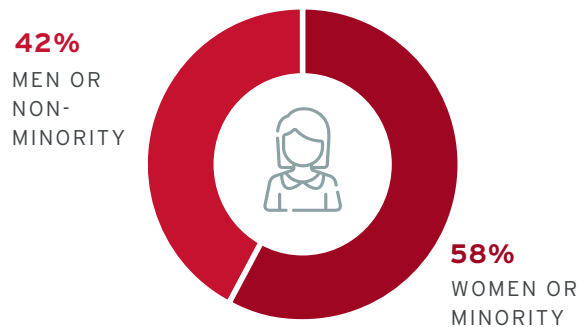
Industry-wide only 26% of the computing workforce are women and 15% of the computing workforce are underrepresented minorities.

- Engaging staff in meaningful conversations about the future of IT, as it pertains to decision-making, planning, budgeting, and managing day-to-day operations

THEMES OF THE 2017 TOP 10 IT ISSUES

SUCCESSFUL STUDENTS
Student Success and Completion
Digital Transformation of Learning

EFFECTIVE LEADERSHIP
Strategic Leadership
Sustainable Funding
Higher Education Affordability

DATA FOUNDATIONS
Data-informed Decision Making
Data Management and Governance

IT FOUNDATIONS
Information Security
Sustainable Staffing
Next-Gen Enterprise IT

EDUCAUSE

- Collaborating with academics and colleagues to improve team effectiveness, cohesiveness, and knowledge transfer

- Mitigating stress through meditation and yoga using techniques taught by OIT colleagues

- Consciously address workforce planning to hire and retain talented professionals eager to serve AU's mission
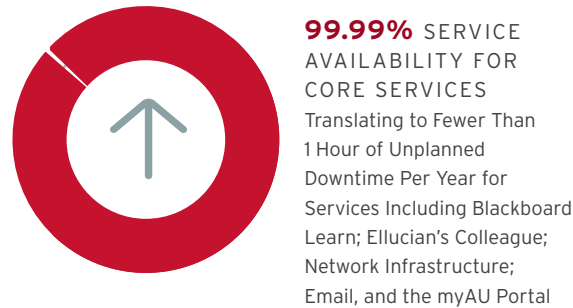

LEADERSHIP DEVELOPMENT

STAFF MENTORING

FOCUS ON CONTINUAL IMPROVEMENT

METRICS-BASED DECISION MAKING

STAFF RETRAINING & REDEPLOYMENT

KEY TECHNOLOGY BEST PRACTICES

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

MARY GRAYDON CENTER

WISCONSIN AVE.

RESTON, VA
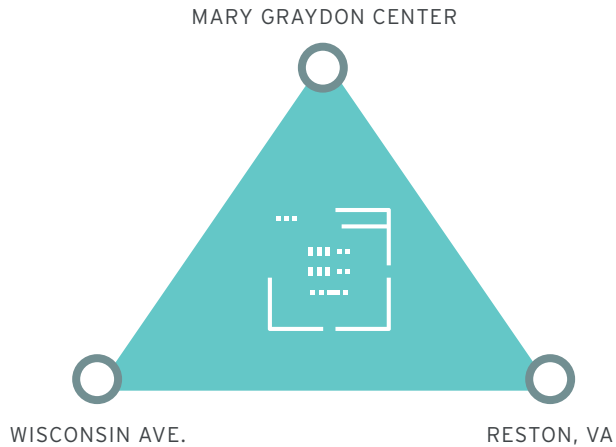
- Measuring our current performance and tracking historical trends to support management decisions

99.99% SERVICE AVAILABILITY FOR CORE SERVICES
Translating to Fewer Than 1 Hour of Unplanned Downtime Per Year for Services Including Blackboard Learn; Ellucian's Colleague; Network Infrastructure; Email, and the myAU Portal

- Incorporating security measures throughout our technology and operational processes

PLAN
WHAT, WHEN, HOW

ASSESS
IDENTIFY AND ANALYZE

MONITOR & REPORT
KNOW WHAT'S HAPPENING

HANDLE
MITIGATE THE RISK

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

96%
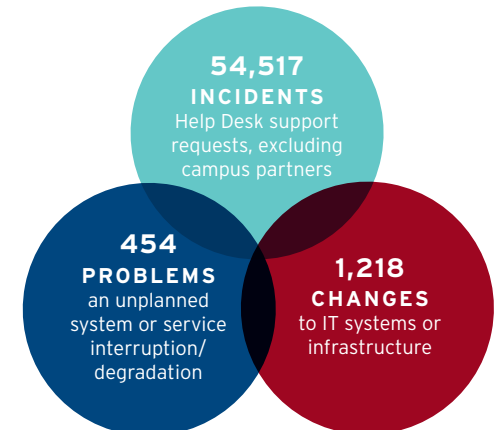OF SERVERS VIRTUALIZED TO SUPPORT CARBON NEUTRALITY
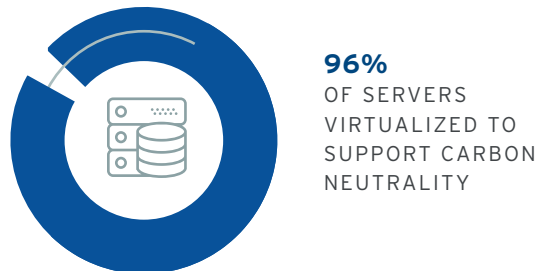
- Articulating the roles and responsibilities for each group within OIT to support a particular service

23

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 a state of the art, integrated case management system

54,517
INCIDENTS
Help Desk support requests, excluding campus partners

454
PROBLEMS
an unplanned system or service interruption/ degradation

1,218
CHANGES
to IT systems or infrastructure

OFFICE OF INFORMATION TECHNOLOGY

4400 Massachusetts Avenue NW
Washington, DC 20016

202-885-2550

helpdesk@american.edu

help.american.edu

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