

Making an Impact

OFFICE OF INFORMATION TECHNOLOGY

YEAR IN REVIEW: 2020 – 2021



OFFICE *of*
INFORMATION
TECHNOLOGY

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Vice President & Chief Information Officer's Message

The mission of the Office of Information Technology is to connect people and technology to empower excellence at American University. Our work provides many examples of how we support this mission and, specifically this year, helped the broader AU community to overcome the challenges associated with remote learning and work during the pandemic and successfully return to on campus presence this Fall.

This Annual Report includes some of the highlights from this past year, however it only represents a subset of the value delivered through the hard work of our talented team and collaboration with our customer partners. This report also transparently shares several key metrics on our operational performance and our organization.

The Office of Information Technology is looking to the future and will strive to bring innovative technology solutions to the university and continue our work to empower excellence.

Steve Munson
Vice President & Chief Information Officer



Our Mission, Vision, & Values

OUR MISSION

Connect people and technology to empower excellence at AU

OUR VISION

Lead organizational transformation with innovative technology

OUR VALUES

PUTTING AU'S VALUES INTO ACTION

INTEGRITY: Do the right thing, even when no one is watching

EXCELLENCE: Aim high and exceed customer/service expectations

HUMAN DIGNITY: Acknowledge the whole person

COMMUNITY: Collaborate openly

DIVERSITY, EQUITY, ACCESSIBILITY & INCLUSIVE EXCELLENCE: Build solutions for everyone

FREE INQUIRY & SEEKING TRUTH: Seek facts, appreciate civil discourse, be curious, and continue learning

IMPACT: Realize business value through future-focused solutions and innovative technology

OIT Senior Leadership Team



**Steve
Munson**

*Vice President &
Chief Information
Officer*



**Buddhi
Abeysekera**

*Director, Network
Operations*



**Laurie
Ambach**

*Senior Director,
Planning &
Delivery*



**Francesco
De Leo**

*Senior Director,
Solutions
Engineering*



**Terry
Fernandez**

*Assistant Vice
President,
Customer Services*



**Sharjil
Hasan**

*Director, Project
Management
Office*



**Tracey
Hennemann**

*Assistant Vice
President,
Application &
Data Services*



**Cathy
Hubbs**

*Chief Information
Security Officer*



**Kirill
Lobachyov**

*Director, Analytics
& Business
Intelligence*



**Mohammad
Mirzabeigy**

*Senior Director,
Enterprise
Infrastructure*



**Funda
Topcuoglu**

*Manager, Budget
& Administration*

Our Talented Staff

The OIT senior leadership team celebrates our deeply dedicated and diverse staff. We know that our most valuable assets are our committed and hard-working team members. We are proud of our diversity with 60% of our staff comprised of women and minorities in an industry where that is rare. We employ a “people first” mentality to support our excellent colleagues who work around the clock to support the AU community.

Previously identified by Computerworld as a *Best Place to Work in IT*, our office strives to attract and retain a talented team of 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. Recognizing the wealth of knowledge and ability among our ranks, managers consciously plot out promotional paths for their high performers. Just this year, nine deserving employees were awarded promotions or changed positions.

HIGHLIGHTS OF 2020-2021 STAFF PROMOTIONS:

Mostak Ahmed, *Desktop Support Team Lead*

Parker Chace, *Desktop Support Analyst*

Adam Dougherty, *Technology Operations Analyst*

Terry Fernandez, *Assistant Vice President, Customer Service*

Subikram Pandey, *Cyber Security Engineer II*

Ann Parambil, *Director, Digital Experience Systems*

Jeremy Schatten, *Associate Director, Identity & Storage Services*

Wilford Tejada, *Technical Support Engineer*

Gary Wood, *Director, Enterprise Platforms*

Service Delivery & Support Metrics

TOTAL SUPPORT REQUESTS

48,976

OVERALL SATISFACTION

★★★ 93%

of Customers Reported Satisfaction with OIT's Overall Support

AVERAGE RESOLUTION TIME

 **7.5**

Business Hours for Help Desk

CONTACT METHOD FOR HELP DESK SUPPORT REQUESTS



48%

Email



33%

Phone



15%

Self-Service Form Submission



4%

Instant Message & OIT Initiated

FIRST CONTACT RESOLUTION



85%+

Support Requests Resolved by Help Desk in Initial Contact

Personnel & Budget

TOTAL FULL-TIME
OIT STAFF

126

OF PROMOTIONS OR
POSITION CHANGES

9

DIVERSITY, EQUITY, &
INCLUSION

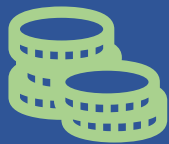
60%

of OIT Staff are Women
or Minorities

AVERAGE TENURE FOR
OIT STAFF

11 ½ years

TOTAL
EXPENDITURES



\$28M+

OIT Accounts for 3.9% of the
University's Overall Budget

FY2021 EXPENDITURES BY CATEGORY



63%

Personnel



8%

Data Center Services



26%

Software

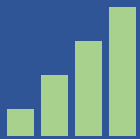


2%

Hardware

Key Technology 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 widespread adoption campus wide.



99.99%

Service Availability for Core Services



96%

Servers Virtualized to Offer Redundancy, Simplify Maintenance, & Support Carbon Neutrality



23

Service Level Agreements Formalize Service Structure Allowing for Consistent Service Delivery as Negotiated with Campus Partners



1418

Changes Successfully Made to IT Systems Following the OIT Change Management Process



3418

Views of OIT-Produced Technology How to Videos



98%

Training Course Attendees Reported Satisfaction

Highlights of Major Accomplishments

Moved AU Forward with Safe Return to Campus

American University spent considerable effort planning and carrying out a safe return to campus for our community. OIT partnered with the Office of Campus Life and Human Resources to deliver the AU Forward portal, providing COVID-19 related resources and processes. The portal was first implemented in July 2020 to support staff and faculty already working on or transitioning back to working on campus. Enhancements were made each subsequent semester to support the increasing faculty/staff and student presence on campus.

Utilizing ServiceNow's Safe Workplace application suite, the OIT portal systems team tailored and implemented the following processes:

- COVID-19 Health and Safety training for all constituents
- Daily self-screening for campus visits
- COVID-19 self-reporting and contact tracing to support and provide resources to AU community members
- Integration with RokMetro on-campus testing results to support COVID-19 case tracking and contact tracing
- Vaccine attestation and importing of student vaccination data for integrated reporting
- Automated email reminders, dashboards and reporting in support of these processes

BY THE NUMBERS

25,065

COVID-19 Test Results
Recorded for AY20-21

16,224

Community Members
Acknowledged Completing
Training


12,488



Daily Screenings
Completed

AU FORWARD




COVID-19 continues to affect our community and the nation in many ways. The AU Forward portal hosts the processes American University has implemented to protect our community members.


 Unvaccinated community members must test twice weekly and vaccinated members must test if exposed to someone who is COVID-19 positive or has COVID-19 like symptoms. The University reserves the right to change testing frequency. For more information on testing see [AU's COVID-19 Testing Procedure page](#) for details on who must test, how often, and testing locations and hours.



COVID-19 Proof of Vaccination


Faculty, staff, and affiliates are required to submit their mandatory COVID-19 proof of vaccination.

Health and Safety Faculty, Staff, and Affiliate Acknowledgement


 Last taken on: Aug 16, 2021 3:11:51 PM

RETAKE ACKNOWLEDGEMENT


Daily Self Screening

Required if you are a student, faculty, staff, or affiliate who is not vaccinated or partially vaccinated prior to each visit to campus/university premises.

You can check your current Self Screening status on the [Health and Safety Status](#) page.


Self Report

Use this page to confidentially report any COVID-19 symptoms or other health statuses*.

*There is no need to submit a Self Report if you are healthy.

AU Forward Portal Screenshot

Additionally, the OIT portal systems team delivered numerous forms and business processes to support AU's effort to return to campus following the prolonged period of telework and online teaching/learning during the pandemic:

- Personal Travel form to request individuals notify the university of their personal travel during the time when COVID-19 cases were peaking nationally
- Restart Research form to track research activity and personnel returning to campus
- Work modality form for staff and faculty transitioning from remote work to a hybrid work arrangement

Expanded Outdoor Wi-Fi Coverage to Support Teaching, Learning, & Social Activities

In preparation for the return of students to campus and likelihood that students would be spending more time outdoors with COVID restrictions, the Office of Information Technology evaluated the wireless network coverage on the Main Quad.

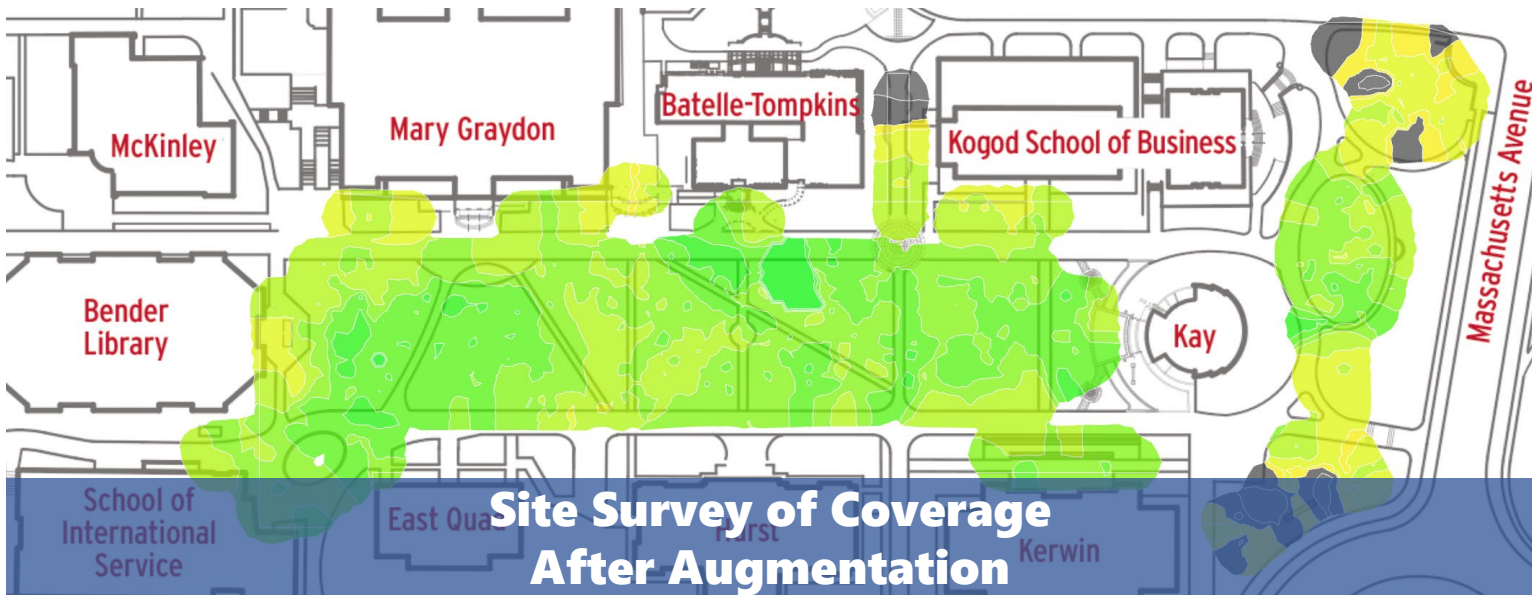
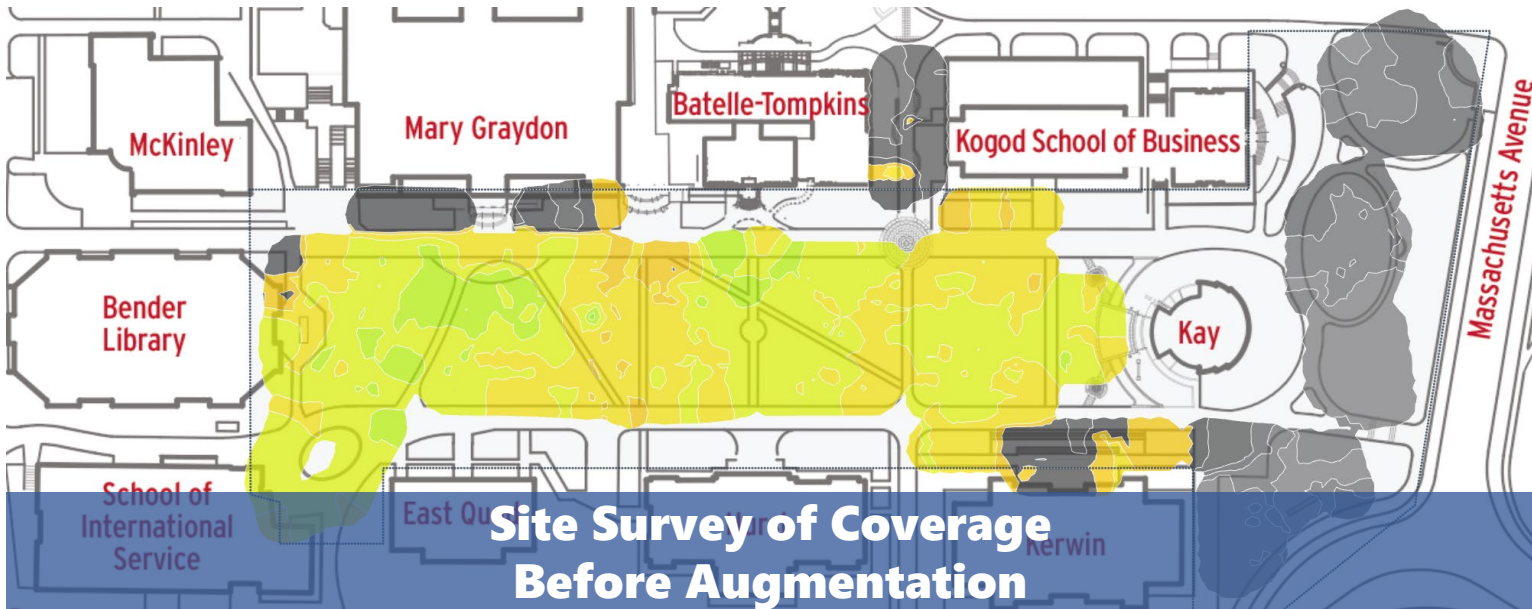
Using wireless site survey tools, OIT's network engineering team determined that the Quad needed to be augmented for both density and coverage. The existing setup of five roof-top mounted access points supported only casual use (such as sending and receiving email) and did not support video streaming. Additionally, coverage gaps were also identified.

The OIT team worked with the campus architect to determine aesthetically suitable locations to install the new Wireless Access Points (APs), and agreed on an approach to install APs on some of the Blue Light Emergency Phones, given their height and locations.

OIT deployed 16 new outdoor wireless access points— replacing five existing APs located on roof tops, installing eight APs on Blue Light Phones, adding two APs above the entrance to Mary Graydon Center, and adding one AP to the roof-top of Kay Spiritual Life Center.

Configuration, installation, and testing of these APs was completed by March 2021. Post installation surveys clearly indicated improved coverage and density as well as an increase in student use of the wireless network on the Quad.

On the next page, you will see before and after Wireless Site Surveys, which clearly depict the improvement. The use of the Blue Light Emergency phones for mounting APs significantly contributed to success of this initiative.



Supported Chosen Name Designations for Students

In alignment with the AU's 5-Year Inclusive Excellence plan, the Office of Campus Life and Office of Information Technology partnered to establish a new process for students to designate a chosen name, pronouns, and gender identity with the university. The focus of this work centered on improving the classroom experience, where it has historically been tedious and/or uncomfortable for students to inform faculty when their chosen name doesn't match the legal name printed on a class roster.

Beginning in the Spring of 2021, students could designate their chosen name in a central, single location via Eagle Service, which will then automatically display in approximately twenty core systems and processes within 48 hours. These systems include Canvas, class rosters, and the student organization platform, Engage.

Following a positive response to this initial release, AU ratified the Name and Gender Identity Policy in September 2021, formally recognizing the university's commitment to this important work.

Virtual Computing Labs

Prior to the Fall 2021 semester, Virtual Applications were delivered using a VMware solution called Horizon View. During the summer of 2021, OIT redesigned the Virtual Applications system using a feature of Microsoft Azure Cloud called AVD (Azure Virtual Desktop). Since this feature is included with AU's licensing agreement with Microsoft, there was no additional cost and it allowed us to discontinue paying for the VMware Horizon View licensing.

Along with the cost savings, AVD allowed for a significantly easier level of administration for the University Library staff who are responsible for delivering virtual applications and desktops, as well as provided a much better user experience for the students.

The new Virtual Applications and Desktops system allows access to software that is not installed on your local computer. Users can launch a single virtual application as well as a fully virtualized Windows 10 desktop with the same software installed. Single virtual applications are ideal for those who need to work with just one program at a time. Virtual desktops are better suited for work that would normally be done in one of the campus computer labs.

One big advantage with using AVD over VMware Horizon View is the ability to use your AU OneDrive cloud storage account. This allows you access to your personal files as you can open and save documents directly to your OneDrive folder regardless of whether you use a virtual application, virtual desktop, or your personal workstation.

BY THE NUMBERS

660

Unique Users

8,865

User Sessions Generated
in 30-Day Period

Implemented a New Event Management System

In conjunction with many campus partners, OIT successfully launched Accruent's EMS solution in 2021—American University's enterprise-wide, cloud-based, space management and room scheduling system. This effort allowed for the consolidation and replacement of all previously used space reservation systems, including 25Live and two on-premises instances of EMS. This project also required integration with Colleague data to enable classroom scheduling in the new system.

By managing all space reservations in a single consolidated system, AU achieves a better understanding of how its spaces are utilized, making it easier to plan and track space needs for academic uses and events, as well as simplifying reporting.

This project was implemented in two phases, the first phase included the College of Arts and Sciences, Katzen Arts Center, and Greenberg Theater which went live in April 2021. In the second phase, which launched in August 2021, scheduling of all academic activities and all university events transitioned to EMS.

To make this implementation possible, OIT coordinated with campus stakeholders including the Office of Campus Life, the Office of the University Registrar, College of Arts and Sciences, Washington College of Law, Kogod School of Business, University Communications and Marketing, and Planning and Project Management.

Launched Recruit CRM Integration with HubSpot Marketing Automation

Partnering with the Kogod School of Business and Office of Digital Learning and Strategy teams, OIT launched an integration between CRM Recruit and HubSpot marketing automation system in July of 2021. This integration allowed Kogod to provide personalized and targeted communication to every contact or prospect through sophisticated workflows. This technology solution uses powerful logic to determine the funnel status of every individual contact when they change from one status to another within CRM Recruit.

Taking full advantage of this integration, Kogod's admissions team began utilizing the all-in-one marketing automation tool to engage with prospects in a more personalized manner and move them through the funnel to enrollment.

Additionally, HubSpot was integrated with the new phone system, enabling the recruitment team to use soft phones remotely to contact leads and easily update records in the CRM Recruit system, thereby making the process more unified and efficient for both the recruitment team and students.

Furthermore, this solution allowed Kogod's marketing team to track actual goals to their marketing campaigns. This seamless integration helps the team manage inbound and outbound marketing efforts for admissions in a more efficient and streamlined manner.

Developed Dashboards to Support Student Retention Intervention & Registration

Improving undergraduate student retention and graduation rates has long been a strategic priority of the university. In the Spring of 2019, a Retention Task Force was assembled to closely examine student attrition and develop strategies for intervention. In support of this critical mission, several business intelligence tools were developed to measure retention outcomes, including the Retention Intervention and Registration dashboards.

- The Retention Intervention dashboard is a focused tool that tracks intervention strategies and related outcomes for undergraduate student groups identified as having an increased risk of attrition. Never have these analytics been consolidated into a single report.
- The Registration dashboard brings together active term registration rates and final rates from the preceding year, enabling a valuable comparison-level view across multiple undergraduate student populations.

Lastly, to support broader consumption and centralized access to this important information, a new site was created on the myAU Portal to serve as a shared repository for retention analytics.

Improved the Graduate Deposit Process

The graduate deposit process used to be a laborious process where admitted applicants in CRM and Colleague were tracked by various schools using spreadsheets. These spreadsheets were then shared with the Office of Student Accounts to create the deposit assignments for the applicants to pay through Eagle Service. In addition, Student Accounts also generated numerous reports to capture admitted applicants and reconcile the lists between the multiple schools. This process was tedious, error prone, and took days to complete.

With a sharp focus on operational efficiency, our OIT team converted this manual procedure into a streamlined process in which the deposit record was automatically generated for admitted graduates within one day.

The new process provided the following benefits:

- Offered a consistent platform for updating and maintaining program deposits.
- Eliminated the need to track program deposit details in spreadsheets.
- Eliminated the need to email such spreadsheet to the Office of Student Accounts.
- Reduced data entry and improved accuracy.
- Freed Student Accounts from updating deposit details, running reports, tracking spreadsheets, and running batch processes.
- Made deposits available for applicants within one business day.
- Allowed applicants to obtain admission letters sooner.

Launched a New Marketing & Engagement Platform for Alumni

OIT partnered with the Office of Development & Alumni Relations to implement a new marketing and engagement platform to advance the university's fundraising and engagement efforts. This is a strategic initiative in support of the university's comprehensive campaign.

The new system, *Engaging Networks*, was selected and implemented to deliver new and enhanced functionality for email campaigns, online giving, event management, and gift processing.

Significant accomplishments included:

- The online donation form was improved both by adding PayPal and bank debit (ACH) capabilities for the first time.
- Additionally, the form was simplified from a multi-page transaction to a single page transaction, thus improving the user experience for thousands of donors annually and contributing to a significant increase in online giving volume.
- The procedure for documenting and providing receipts for online gifts was also dramatically changed to replace the previous, manual keyed-in entry with an automated nightly process.
- The email campaign and event management modules of the new system were successfully deployed.
- The university's new brand campaigns, *Challenge Accepted* and *Change Can't Wait*, were integrated into Engaging Network's online donation forms, event pages, and email communications.

Leveraged Artificial Intelligence for Cloud Threat Hunting

The compromise or takeover of Office 365 accounts has become the largest security threat vector in the cloud. In addition to email, compromise of an Office 365 account might expose documents, chat logs, recorded meetings, and other types of data managed under this one service.

In the past year, OIT's information security team has augmented our capabilities to address this threat and detect nefarious activity in Office 365, partnering with our threat hunting platform vendor to bring artificial intelligence (AI) enabled technology to AU's Office 365 cloud.

With a deep understanding of Office 365 application semantics, OIT's latest threat hunting capability, applies AI-derived machine learning algorithms to

proactively detect and respond to hidden cyber attackers and stop data breaches. The solution analyzes malicious behavior patterns across all Office 365 applications, not just email. The detections are then correlated to user account privileges and prioritized based on risk, giving the team a complete narrative to quickly respond and mitigate attacks and stop data breaches.

The information security team can focus on investigating activities already identified as suspicious, based upon technology that can efficiently examine and analyze millions of events in a day. Our improvements have allowed the team to better protect our community, our data, and our mission, in the most efficient and cost-effective way possible.

Supported AU Brand Campaigns with New Websites

In support of the University's Changemakers for a Changing World strategic plan imperative, OIT's Web Development team worked with University Communications and Marketing to launch *Challenge Accepted*, a new brand campaign designed to highlight the passionate and engaged AU community and the meaningful change it creates in local, national, and global pursuits.

A rebranded [American.edu](#) homepage and a campaign [microsite](#), showcasing a fast-paced [video](#) of still photography conveying energy and action, went live on April 15th together

with an interactive degree program finder, which is fully keyword searchable, filterable along several facets, and capable of being embedded in multiple places through the American University digital ecosystem.

Immediately after, the Web Development team worked with the Office of Development and Alumni Relations to launch a [microsite](#) for *Change Can't Wait* on May 12th, a fundraising campaign with a \$500 million goal.

Other Key Projects

PROJECT COMPLETION BY THE NUMBERS

12

Major Projects

119

Epics

Higher-level groupings of work, such as functions or features that are broken down into stories

2091

Stories

Short requirements or requests written from the end user's perspective, which can be broken into smaller tasks

To ensure AU's technology solutions remain innovative and state of the art, OIT modernized and updated several enterprise solutions by implementing new solutions, upgrading existing solutions, or replacing legacy systems.

- Campus Kaizen's Guardian case management software was implemented to replace the legacy Symplicity Advocate GME system to offer greater flexibility for the Office of Equity and Title IX.
- Hyland Software's ImageNow legacy system was upgraded to the Perceptive Content Suite to facilitate the University's transition from Oracle Java to an Open-Source Java platform.
- Several CRM system upgrades were completed successfully including CRM Recruit 6.2 and 6.3 upgrades and CRM Advance 3.1 and 3.2 upgrades.
- CRM Advise was implemented for Washington College of Law and the Career Center, as well as AU's International Accelerator Program.
- CRM Recruit was deployed to the Washington College of Law to streamline management of the LL.M. admissions processes.
- The ServiceNow platform was also upgraded first to the Paris release, followed by the Quebec release earlier this year.



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