

Moving Forward

OFFICE OF INFORMATION TECHNOLOGY

YEAR IN REVIEW: 2021 – 2022



OFFICE *of*
INFORMATION
TECHNOLOGY

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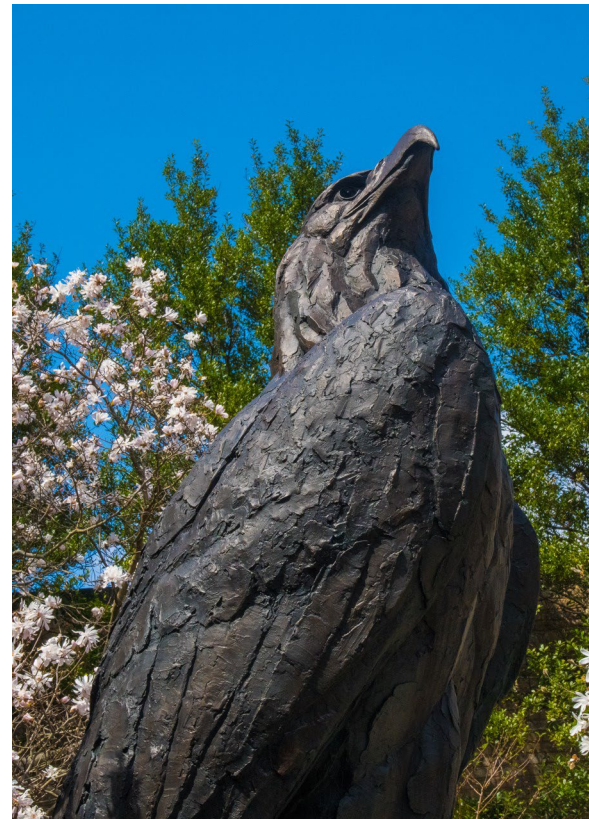
Vice President & Chief Information Officer's Message

The mission of the Office of Information Technology is to *connect people, process, and technology to empower excellence at American University*. Our work this past year provides many examples of how we support this mission currently, and how we will in the future with several transformational projects.

While this Year in Review includes highlights from this past year, it only represents a subset of the value delivered by our talented team in collaboration with our customer partners. This report also transparently shares several key metrics on our operational performance and our organization structure.

The Office of Information Technology is indeed moving forward, will continue to bring innovative technology solutions to the university community, and focus on empowering excellence at AU.

Steve Munson
Vice President & Chief Information Officer



Our Mission, Vision, & Values

OUR MISSION

Connect people, process, 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*



**Mohammad
Mirzabeigy**
*Senior Director,
Enterprise
Infrastructure*



**Erika
Ogedegbe**
*Chief Data
Architect*



**Funda
Topcuoglu**
*Manager, Budget
& Administration*

Our Talented Staff

The OIT senior leadership team celebrates our deeply dedicated, hard working, and diverse staff. We are proud of our diversity with 68% of our staff comprised of women or racially and ethnically diverse individuals in a field where that is rare. We employ a “people first” mentality to support the OIT team and customer partners who work around the clock to support the AU community.

Previously identified by Computerworld as a *Best Place to Work in IT*, our division 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 map out development paths for their teams. Just this year, eleven deserving employees earned promotions or changed positions.

HIGHLIGHTS OF 2021-2022 STAFF PROMOTIONS:

Jessica Connaghan, *Director, IT Product Management*

Adam Dougherty, *Application Administrator*

Kevin Drummond, *Communication Services Manager*

Daniel Kupke, *Senior Business Intelligence Solutions Architect*

Andrew MacDonald, *Business Intelligence Solutions Architect*

Jordan Maidman, *Cyber Security Engineer III*

Marcus Melo, *Web Development Manager*

Cenk Nair, *Senior Network Engineer*

Filemon Palero, *IT Product Manager*

Megan Shumate, *Help Desk Team Lead*

Laurie Trayers, *Digital Accessibility Program Manager*

Service Delivery & Support Metrics

TOTAL ANNUAL SUPPORT REQUESTS

57,471

OVERALL SATISFACTION

★★★★94%

of Customers Reported Satisfaction with OIT's Overall Support

AVERAGE RESOLUTION TIME

 11.75

Business Hours for Help Desk

 18.25

Business Hours for Requests Escalated to Other OIT Groups

CONTACT METHOD FOR HELP DESK SUPPORT REQUESTS



47%

Email



30%

Phone



18%

Self-Service Form Submission



5%

Instant Message, Walk-Ins, & OIT Initiated

FIRST CONTACT RESOLUTION

 84%

Support Requests Resolved by Help Desk in Initial Contact

Personnel & Budget

TOTAL FULL-TIME
OIT STAFF

126

OF PROMOTIONS OR
POSITION CHANGES

11

DIVERSITY, EQUITY, &
INCLUSION

68%

of OIT Staff identify as Women
or Racially or Ethnically Diverse

AVERAGE TENURE FOR
OIT STAFF

11 years

TOTAL
EXPENDITURES

 \$30M

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

FY2022 EXPENDITURES BY CATEGORY



59%

Personnel



11%

Internet, Network, &
Data Center Services



25%

Software &
Application Services



5%

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.



99.98%

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



1389

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



2233

Views of OIT-Produced Technology How to Videos



91%

Training Course Attendees Reported Satisfaction

Highlights of Major Accomplishments

Migrated Student Email from Gmail to Outlook

Late in the Spring 2022 semester, a situation was discovered where some student email was not being delivered. This situation was caused by the combination of increased industry security standards and AU's unique architecture where employees use Outlook and students use the Gmail platform for email services.

To mitigate these email delivery issues, OIT developed a rapid response plan which culminated in the migration of student email from Gmail to Outlook, the same platform as faculty and staff.

OIT announced the plan for this transition before students left for summer break. Throughout the summer, a series of communications were sent via email and social media leading up to the transition in August.

OIT also developed a "surge staffing" plan to assist the Help Desk in responding to the peak volume of support requests expected at the time of transition and leading up to the start of classes in August.

With this migration, reliable email delivery was restored for our students; and our university email architecture was simplified by moving both student and employee email services to a single platform.

BY THE NUMBERS



9,147

Views of Knowledge Base Articles Regarding the Transition



1,508

Resolved Help Desk Support Requests



95%

Customers Reported Satisfaction with the Overall Support Received During the Transition

Upgraded Wireless Network Infrastructure

BY THE NUMBERS



1,589

Wireless Access Points
Replaced within All AU
Buildings



28,977

Average Number of Devices
Connected to the AU
Wireless Network Daily



87%

Decrease in Network-
Related Support
Requests

OIT embarked on an ambitious project to comprehensively replace the entire wireless infrastructure with the latest Cisco access points (APs) for increased network bandwidth and density. Benefits included:

- Enhanced our wireless network with the latest Wi-Fi 6 (802.11ax) standard to provide connectivity for four times as many devices per access point.
- Increased bandwidth up to four times more than the previous standard.
- Optimized traffic handling for voice, video, and gaming.
- Centralized the management of wireless components for improved network operational efficiency.

After months of surveying, configuring, and planning, the team deployed the new APs over an 8-week period. Additionally, the team installed eight new wireless controllers and implemented the Cisco DNA Center Network management platform which provides real-time performance management data, improving our troubleshooting capabilities.

Following the upgrade, the team performed indoor wireless site surveys within all campus buildings to verify the coverage. Consequently, the number of network-related support requests have dramatically decreased.

Expanding on last year's work to improve outdoor wireless connectivity, OIT deployed an additional 20 APs to provide outdoor coverage throughout campus including the Amphitheater, the Beach, Hall of Science patio, East Campus outdoor areas, Jacobs and Reeves fields and other locations. These upgrades continue to improve wireless coverage and density to offer AU students, faculty, and staff with a superior outdoor Wi-Fi experience.

Implemented Atrium, a new One Card & Dining System

OIT partnered with Auxiliary Services to implement Atrium, a new cloud-hosted transactional system for campus dining, that offers benefits above and beyond our former system, such as:

- a streamlined meal plan portal,
- integration with GrubHub,
- kiosk balance reloading, and
- easy parent access for managing student dining funds.

The system was piloted in summer dining locations and went live for students and staff in the Fall.


This implementation involved replacing all cash registers, managing several deliveries of physical equipment, coordinating network connectivity, as well as with student-managed and third-party dining vendors.

Auxiliary Services also worked with OIT to ensure that data moved seamlessly into Atrium, so students and staff could access the meal plan portal as needed with options appropriate to their AU role.


Additionally, both teams collaborated to ensure the Atrium system addressed customers by their chosen name, same as in other AU systems.

By upgrading to a modern transactional system, AU has improved and streamlined its dining program offerings. Community members may now use their dining funds on- and off-campus by ordering directly through the website or Atrium app, or the GrubHub app. The change to this new system allowed AU to be responsive to student needs and reflects dining changes resulting from the pandemic.

BY THE NUMBERS



600,000
Unique Transactions Processed in 1st Quarter Since Implementation



2,600
Self-Service Meal Plan Changes Completed



2,400
Self-Service Eaglebucks Deposits Processed in New One Card Portal



1,700
Meals Donated to Students Experiencing Food Insecurity through *Eagles Helping Eagles* Program

Protected AU Email Accounts with Multi-Factor Authentication

Email accounts are frequently targeted by malicious actors where messages are sent attempting to trick users into providing their AU account password. Once compromised, malicious actors leverage these email accounts to send additional messages from within the organization and also to determine if additional systems can be exploited.

To improve our security posture and add increased protection from compromised accounts, OIT developed a multi-phase plan to enable multi-factor authentication (MFA) on all AU email accounts.

Key milestones included:



All Staff email accounts were MFA protected on September 30, 2021.



All Faculty email accounts were MFA protected on October 28, 2021.



Students and alumni were encouraged to opt-in to Google two step verification, resulting in a success rate of 90% of the current student population.



As described previously, student email transitioned from Gmail to Outlook on August 1, 2022. MFA is required for all accounts on the Office 365 platform.

Piloted the Blackbaud Award Management System

The Blackbaud Award Management system (BAM) helps to match students to scholarship opportunities that they may not have known existed. These scholarships could fund a significant portion of a student's financial aid package, or even fully cover their tuition.

Scholarships are created in BAM and automatically matched to students based on scholarship selection criteria.

BAM facilitates communicating with potential scholarship recipients and provides a reporting module to track a wide variety of data points, i.e., number of students accepting scholarship awards, total funding available for awards, the donor that is funding the award, etc.



Following this successful pilot, the BAM system will be fully launched for the 2023-2024 academic year.

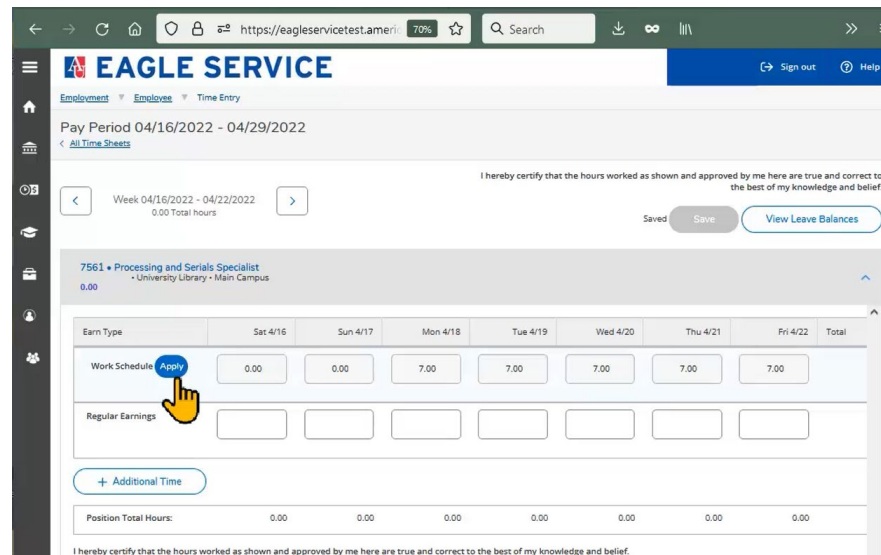
The BAM solution provides:

- A fair and open, FERPA-compliant process to apply for aid.
- A simplified student application process and faster application of funds to student accounts.
- The ability for school and unit administrators to review potential scholarship recipients more easily.
- Improved donor experience with more personalized and timely stewardship reports.

Transitioned to Self-Service Time & Leave Reporting System for Staff

In advance of Ellucian's announced plans to retire the WebAdvisor timesheet application, AU transitioned to our ERP-integrated, self-service platform, known as Eagle Service, for time and leave functionality for biweekly and monthly staff. The new Time and Leave Reporting system captures time and leave entries, manages supervisor approvals, and provides current leave balance reports.

With a great deal of coordination between offices, the system was successfully implemented in early June 2022. The Payroll Office and OIT teams created detailed video instructions and facilitated just-in-time training sessions. The tutorials were designed to provide employees and supervisors with step-by-step instructions on how to report and approve bi-weekly timesheets and monthly leave reports.



Eagle Service Time Entry Screen

Implemented Elements, a new Faculty Information System

OIT partnered with the Dean of Faculty's office to implement Elements, a new Faculty Information System. The new Elements system was successfully implemented in March, and will streamline the faculty rank and tenure processes, replacing a system called Faculty Activity Reporting System (FARS). This system will save faculty time with the annual review process as scholarly work will be harvested from external sources automatically, eliminating the need for manual entry.

OIT continues to work with the Dean of Faculty's office as well as the University Library, to integrate this system with Figshare and Dimensions, to leverage all three systems and ensure faculty profiles are fully populated with minimal need for manual information or data entry.

BY THE NUMBERS



13,986

Claimed Scholarly Works Recorded in Elements



1,959

AU Service or Professional Service Entries Entered in Elements



67%

% of Faculty that Logged into Elements during the Pilot

Looking Forward



AMERICAN UNIVERSITY
WASHINGTON, DC



Planning for Workday Finance, Budget, Human Resources, and Payroll Implementation

In February 2022, American University selected Workday, the leading cloud-based Enterprise Resource Planning (ERP) solution, as its new ERP system for Finance, Budget, Human Resources, and Payroll. The ERP is the core system to manage the day-to-day operations and essential administrative functions of the university. Workday will replace the Ellucian Colleague ERP that has been in place at AU for over twenty years. Workday will create a strong foundation of standardized, integrated, and efficient human resources and financial systems and processes that provide accurate, timely, and relevant information to support and advance the university's mission.

Over the spring and summer of 2022, the university readied itself for the launch of the Workday project by establishing project governance, identifying project resources, communicating across campus, and completing activities to hit the ground running at project launch. This readiness initiative involved 14 working groups and 138 working group members tasked with

identifying and completing key activities prior to the start of the implementation.

In July 2022, AU selected Deloitte, a leading provider of higher education professional services, as our Workday implementation partner. The Workday implementation project kicked off in August 2022 with a planned go-live date of January 2024. The project team is comprised of 6 workstreams and 23 sub-streams, 60+ AU staff, and 20+ Deloitte consultants. Between August 2022 and January 2024, the project team will plan, design, and configure Workday following industry best practices with extensive guidance from Deloitte. The system will go through end-to-end testing in 2023 to prepare for launch. Training will be provided throughout the project to prepare individuals for testing and go-live.

Recognized as a state-of-the-art and modern ERP, Workday will increase process efficiencies, reduce manual work, and provide staff and faculty the opportunity to focus on the next level of university success.

Salesforce for Undergraduate and Graduate Recruiting and Admissions

Starting in 2020, key stakeholders supporting undergraduate and graduate recruiting and admissions at AU conducted an extensive assessment of the customer relationship management (CRM) landscape. As a result of this assessment, Salesforce CRM and Marketing Cloud were selected as the future solution for American University.

Salesforce is a state-of-art, cloud-based CRM system and market leader in higher education. The implementation of Salesforce CRM and Marketing Cloud will enhance recruitment processes by providing tools such as marketing automation, workflow automations, data collection and reporting, and robust applicant communication.

The use of Salesforce will enable AU to build strong relationships with constituents from the moment they inquire about AU and throughout their student life cycle through connected technology platforms that allow consistent engagement. Salesforce will help to identify the best candidates for AU, help them select the right program, engage them to apply, nurture them through the admissions decision-making process and enroll them as AU students.

Salesforce will empower AU's admission staff to proactively address incoming student needs, improve operational efficiency and provide a more personalized student experience. This solution will replace the two current instances of Ellucian CRM Recruit and three existing instances of Salesforce Marketing Cloud (SFMC) with one enterprise version.

In 2022, AU secured the funding to support the Salesforce initiative and conducted a planning project with an external partner to confirm the scope, timeline, and budget for the project. The planning project was completed in August; and the selection of an implementation partner is underway. The implementation is targeted to commence in January 2023 and go live to support the Fall 2025 undergraduate class. The first phase of graduate implementation is planned to start in summer 2023 and go live in summer 2024.



Maturing AU's Data Governance Program

American University's data is a strategic asset leveraged to improve decision-making, increase efficiencies, safeguard regulatory compliance, and ensure accountability. The need for accessible, quality data is especially important as the university embarks on large technology transformation projects.

In 2018, the AU Data Governance program was initiated with leaders and data stewards from across the university. The program framework is aligned with best practices and AU's Strategic Imperative #9 – How AU Works.

During the upcoming year, there are several initiatives focused on maturing the data governance program, including:

- intentional data-centered design decisions for the Workday ERP and Salesforce CRM,
- implementation of Collibra to support the iterative development of a Data Catalog and identify Trusted Reports, and
- support leadership focus on data, reporting and analytics for operational and decision-making purposes.

These initiatives will help to increase the value of institutional data for decision-making by improving data quality, literacy, accessibility, and security.



Data Strategy Diagram

Other Key Projects

PROJECT COMPLETION BY THE NUMBERS

222

Epics

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

2,212

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.

- Implemented the automated discovery capabilities of the ServiceNow IT Operations Management application, populating real-time infrastructure information in our Configuration Management Database.
- Upgraded various campus systems to maintain currency of security patches, support, and introduce new features, including:
 - Colleague ERP servers and database
 - CRM Recruit Graduate
 - CRM Advance
 - CRM Advise
 - ServiceNow
 - CommonSpot content management system
 - ColdFusion web development platform
 - VMware server infrastructure
 - MicroStrategy business intelligence
- Retired Ellucian WebAdvisor platform and self-service solutions for Time and Leave Entry, Faculty Status System, DC Wage Statements, Employee Contact Information and W-2 Electronic Consent.
- Published an OIT Service Delivery Model dashboard for tracking ideas, epics, stories, and projects, as well as onboarded all 10 Sprint and Kanban teams to our Agile and Kanban process and framework.



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