INFORMATION TECHNOLOGY

ANNUAL REPORT   FISCAL YEAR 2024

DIVISION OF THE CHIEF INFORMATION OFFICE

A

THE UNIVERSITY
OF ARIZONA

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A Year of Transformation

In Fiscal Year 2024, the University of Arizona's CIO Division made significant strides in aligning technology initiatives with institutional priorities, emphasizing operational efficiency, strategic investment, and innovation. This report outlines our key performance metrics and strategic accomplishments, reflecting our continued commitment to supporting the university's mission through secure, resilient, and forward-looking information technology services.

Our division supported a high level of research activity, with 545 principal investigators actively using high-performance computing (HPC) systems and 1,320 researchers overall leveraging our advanced computing resources. In the academic space, we enabled the creation of over 14,500 course sites within the university's learning management system, serving more than 45,000 active users and facilitating modern, flexible teaching and learning. Support Services maintained a strong user-centered approach, resolving over 75,000 help desk tickets with an average resolution time of just 2.5 hours—demonstrating our commitment to responsive and effective service delivery.

These performance outcomes reflect the strength of our realigned teams, the impact of modernized infrastructure, and our dedication to a service model rooted in accessibility, collaboration, and innovation. We are proud of the progress made this year and remain focused on delivering technology solutions that advance the academic, research, and operational goals of the University of Arizona.

Looking ahead, we remain committed to being a trusted partner in innovation and a driver of strategic technology adoption. Through realignment efforts and expanded training opportunities, we've strengthened internal coordination and positioned our teams to deliver more efficient and cohesive services.

We thank our campus partners for their continued support and collaboration and look forward to building on this momentum in the coming year.

RESTRUCTURE OF INFORMATION TECHNOLOGIES

The Centralization Journey

As part of the University's financial action plan, it was announced in late January 2024 that information technology staff positions across the institution would be centralized into the University Information Technology Services (UITS) division. The centralization of IT services would lead to cost savings, greater operational efficiencies and stronger information security practices across the institution. This change on March 4, 2024 sparked concern and apprehension among many IT staff. What ideally would have been a carefully planned 12- to 18-month transition instead became an immediate source of anxiety for nearly everyone in an IT role at the university.

Since then, the effort moved from complete centralization into a discovery and planning process about how best to restructure the university's IT services and staff. In addition to meeting the initial goals of university leadership, UITS leaders focused on the best organizational design to meet the campus community's growing needs.

CENTRALIZATION TO RESTRUCTURE

The IT Restructure (ITR) effort, which was led by Lanita Collette, Susan Legg, Michael Medina and Darcy Van Patten, worked diligently to identify and define the roles of over 600 IT staff supporting colleges and departments. This effort involved a comprehensive discovery process, conducted on multiple levels, to gain a deeper understanding of the IT work being performed by the IT workforce. This was a challenging task for all involved and UITS leaders were committed to approaching this work thoughtfully and with empathy. It was and continues to be crucial to thoroughly understand the activities and the people involved in supporting IT operations across the university. UITS was dedicated to ensuring continuity in technology support for research, instruction, and business activities during the restructuring process that continued into 2025. Subject-specific workstreams ensured that the many areas of the ITR initiative stayed on task and within timelines to achieve goals.

Organizational Discovery

Recognizing that some IT positions might not fit into an individual's current job code and description, an opportunity was given for individual staff and supervisors to request a special review and potential remapping of positions that were borderline IT or falling within another job family. This remapping request opportunity took place in late March 2024 before the discovery process commenced.

The first stage of the individual discovery process began in April with meetings including ITR leaders with Deans or Vice Presidents who would be impacted by the restructure. These high-level meetings continued into June.

In late May, an IT Professional Questionnaire was published for all those who were affected by the shift into UITS so they could detail what tasks they perform most often as related to their job code, and whether their actual tasks align to their position.

IT job tasks in smaller units often strayed beyond job titles and position description. The questionnaire helped to clarify the job tasks and IT positions in practice by individual IT professionals.

Questionnaire responses were collected, and the information was used to identify the IT environment before setting individual discovery meetings with IT leadership. Step two of discovery was individual discovery meetings with the IT professional, ITR leaders, and their previous unit's navigator. These meetings continued into September with great care taken to fully develop and maintain a high level of engagement with the IT professional affected, that person's previous unit supervisor and the unit's team as well as their previous unit's leadership.

FOCUS GROUPS

As the restructure evolved, a CIO listening tour was facilitated by Barry Brummund, CIO of the University of Arizona. Each UITS employee received an invitation to participate in a focus group.

The focus group setting aimed to give voice to employees to share their ideas, concerns, expectations and hopes for what the new UITS organization would look like. The focus group process lasted four months, from late April to August. During these group meetings, 2,070 unique comments were collected.

Prior to the March 4 centralization, the university's information technology was organized as a large central organization (UITS), and then there were many other small- to medium-sized IT organizations.

Each IT organization was different, ultimately leading to divergent perspectives for individuals in each organization. The CIO focus groups were established to gain insight into the experiences and perspectives of the entire university IT organization.

Barry Brummund, explains, "It's easy to get sidetracked and listen to just the loudest voices. And I really didn't want to hear from just the loudest voices or have only the top of the organizational hierarchy drive the conversation on establishing our culture and what we as a division want to be."

The question posed in all focus groups was the same: "What do you want UITS to be?" The responses were recorded anonymously and later synthesized into themes that would become guiding principles to help shape UITS identity, culture, and decision-making. The group structure allowed a small group setting to create safe and open spaces for good discussion, not only with the CIO but also among colleagues in the room.

Tremendous insight was gathered from these focus groups.

One factor that became most visible for Brummund is that the university has the talent to do anything. "Determining how the new UITS is organized, how we work with one another, our processes, how we work with campus colleagues, how we prioritize things, and what technologies we use is a big next step."

64
Unique
Focus Groups

493
Focus Group
Attendees

UITS has a lot of talent, experience, and rich diversity that can be leveraged to undertake incredibly complex changes quickly and durably over a long period of time. The focus group journey allowed executive leaders to update that context from across the university and tap into the strengths of all the employees who joined the organization on March 4 as well.

Brummund explained, "There is a lot to do to put the structure in place for UITS to be able to tap into the diversity that we have. But we truly have the ability, we have the talent to do anything from an information technology perspective, which is very exciting."

THE NAVIGATORS

UITS Navigators have become reliable sources of information that college and department partners know to contact in this big world of information technology. They are one constant in an industry that is always changing. Their exceptional people skills allow them to understand the complexities of technology while serving those who may not understand the tech but need to use it. In this past year of centralization, Navigators continued to be trusted resources who could find the right person to give the answer if they didn't already have the answer

Campus IT Partnerships (CITP) and the Navigators primarily focused on service continuity, maintaining relationships, and finding opportunities for collaboration and partnerships across the organization, promoting the ONE team concept. **Five Navigators serve 76 units** across the university.

During the restructure, the Navigators worked with the **Service Continuity Team** to create an expanded and comprehensive list of services, including those unique to specific departments and enterprise-level services. Working with departmental-focused leaders, the navigators identified risks to services and helped ensure IT support was not negatively impacted.

WORKSTREAMS

Dozens of people within UITS collaborated on specific workstreams designed to support the IT restructuring process. The workstreams were charged with moving specific activities forward. As the restructure initiative was complex and affected many areas of IT, the workstreams created manageable focus on real-time progress for timelines, milestones, risks and issues to track and complete. **There were 11 workstreams** (including the Navigators) in total which range from data and metrics to IT procurement and work modality and space.

The Data Workstream was created to assist in all aspects of data collection, organization, and analysis for the IT Restructure initiative. This team helped administer surveys and deliver the findings to ITR leadership for insights. The data team examined the discovery data closely and synthesized it using both quantitative and qualitative methods.

The Employee Engagement & Culture (EEC) Workstream fostered a sense of community and positive workplace culture in the division by organizing and coordinating engagement activities. These activities have been designed to facilitate employee connections, enhance employee health/ wellness, or provide opportunities for giving back through philanthropic efforts.

The IT Restructure Procurement Workstream focused on creating efficiencies in processes for making IT purchases. Campus IT departments have used various processes and systems for procurement, including purchases funded by non-UITS divisions through central **Purchasing and Contracting Services (PACS).** The Procurement team was created to define when and how IT purchases should be routed through UITS.

The Metrics for Success Workstream was created to develop and track measurable indicators of success for the IT Restructure initiative. This team, composed of staff from across the organization, developed measures to represent the work encapsulated by the initiative's categories and goals.

The Organizational Discovery and Design Workstream developed and implemented a plan outlining the strategies and steps for effectively managing the IT reorganization and centralization process. The plan's purpose was to ensure successful service delivery during the transition period, achieve key organizational goals, and address the needs of all stakeholders.

The Research Liaisons Solutions Workstream analyzed and provided recommendations on issues related to the intersection of the university research community and Campus IT.

The Service Portfolio Management Workstream provided comprehensive visibility and governance of IT services, ensuring the efficient and successful delivery of an IT management strategy that encompasses service delivery, system interoperability, asset management, and risk management.

The UITS Communities Workstream was formed to foster a collaborative, unified IT environment where everyone could feel valued. It also fostered knowledge-sharing across the university community

through support of continuous growth, skills improvement, and a sense of belonging through participation in Professional Learning Communities (PLCs).

The UITS Staff Hub Workstream delivered a Sharepoint intranet site that was created to allow UITS members to find resources and links to support their needs as employees of the CIO division. Included in the Staff Hub are upcoming events, links to past communications and meeting recordings.

The Work Modality and Space Workstream created an inventory of space, including vehicles and golf carts, used to provide IT Services prior to centralization. The inventory assessment included conducting a series of interviews with IT leaders from across campus to understand the spatial footprint used for providing their services.

WHAT'S AHEAD

As of early September, 61% of the Discovery process was completed, which included meetings with individual IT staff that transitioned to UITS on March 4 as well as meetings with their prior unit's respective Deans and VPs. The individual meetings helped UITS leadership understand the work the individuals had been performing, the type of work they would like to do going forward, and their thoughts on how to make the future of UITS brighter.

Once all the Discovery meetings were complete, the data collected was reviewed and information on next steps for our future organizational design was shared. One thing ITR leaders made clear is that there would not be organizational changes all at once, like what happened on March 4, 2024. Plans were made for incremental change, over time, to ensure a smooth transition for people and for our customers and the services supported.

IT RESTRUCTURE TIMELINE
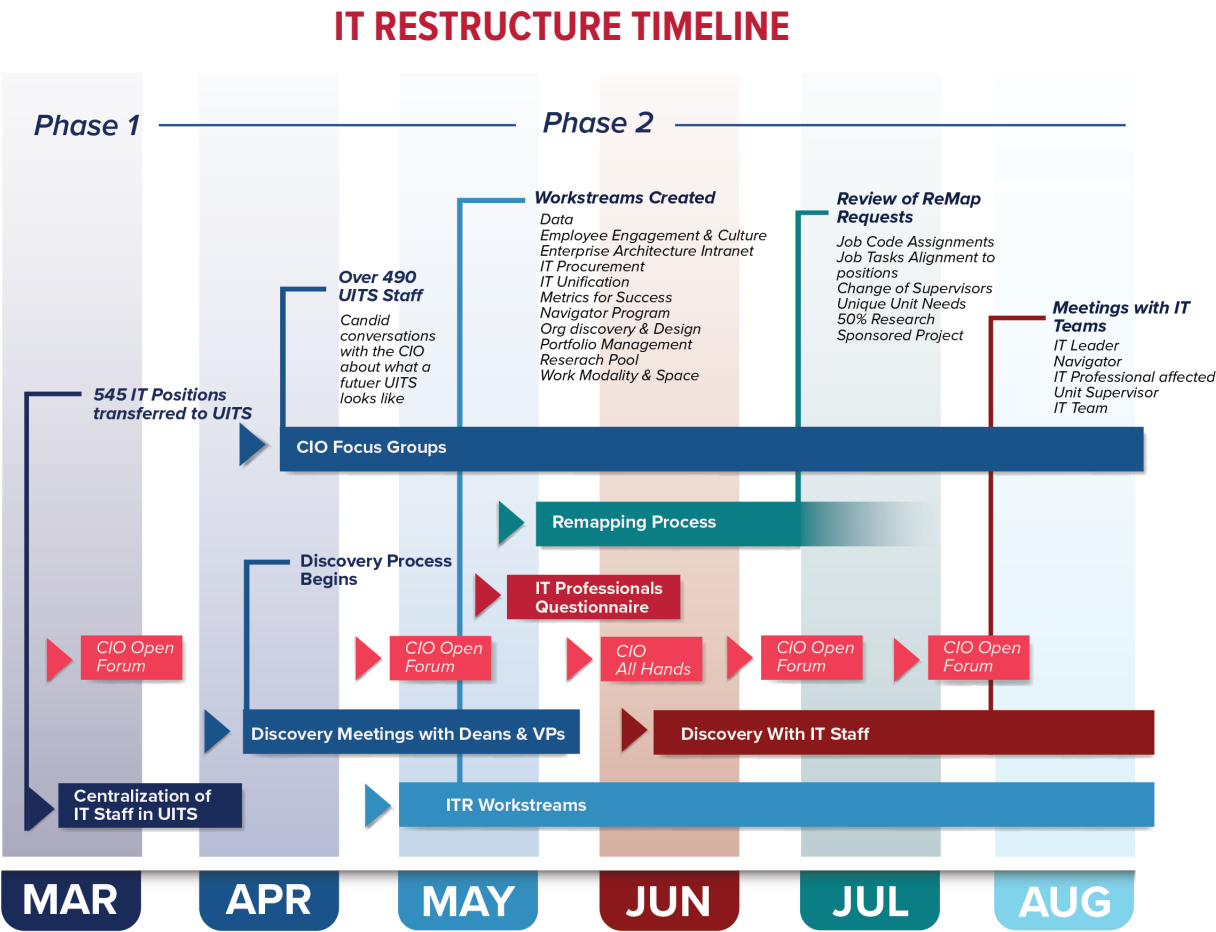
RESEARCH & DISCOVERY TECHNOLOGIES

University of Arizona's Tier 2 Storage: A Smart Solution for Archiving Research Data

The University of Arizona has partnered with **Amazon Web Services (AWS)** to provide a scalable, cost-effective storage solution for research data that doesn't require immediate access. This solution, known as Tier 2 Storage, is designed for archiving inactive data or storing backups, offering a contrast to Tier 1 storage, which is tightly integrated with high-performance computing (HPC) for active analyses.
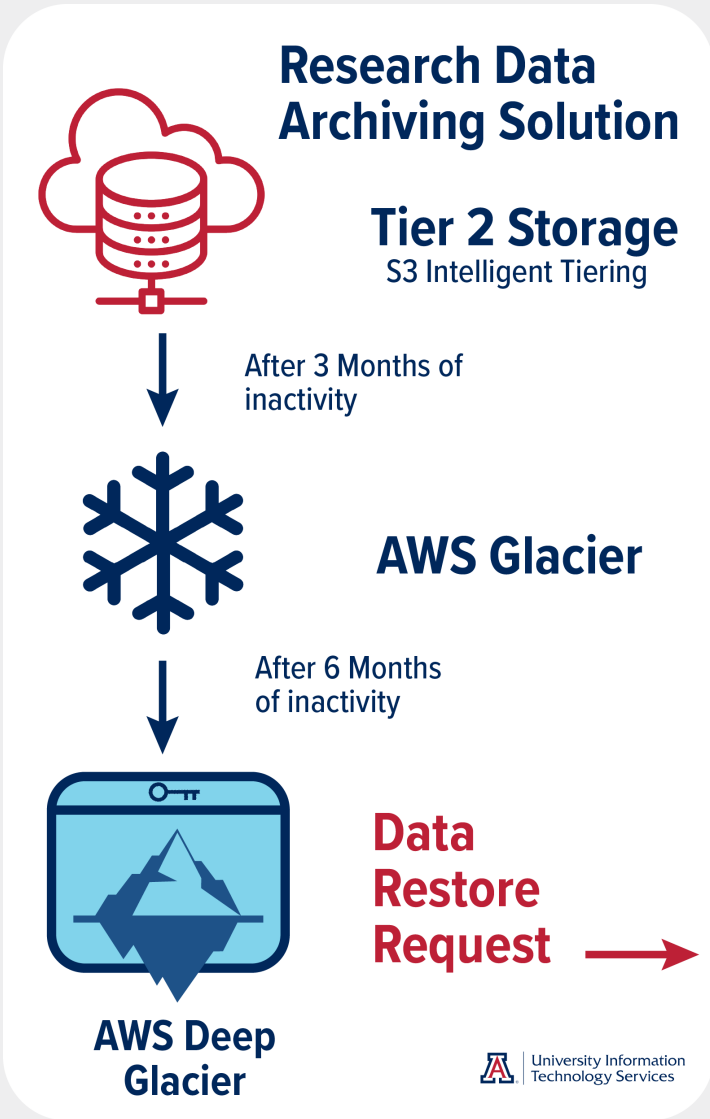
Tier 2 Storage utilizes **AWS's intelligent tiering** feature to optimize costs while managing data efficiently. When data is first uploaded, it resides in the standard access class. After three months of inactivity, the data automatically transitions to **Glacier storage**, a more cost-effective, long-term storage option. Glacier is slower to access, meaning users need to request a restore to retrieve their data. If the data remains inactive for another three months in Glacier, it is then moved to **Deep Glacier,** an even more economical but slower option, requiring the same restore request for access.

This solution supports an **S3 intelligent tiering** bucket per fund account, with multiple buckets possible upon request. Tier 2 Storage is ideal for archiving and backing up research data, and researchers can use **Globus** software to transfer data between Tier 1 and Tier 2, or move data from other endpoints. Unlike Tier 1, Tier 2 is not mounted on the HPC clusters, but Globus provides an efficient way to move data when needed.

By offering a flexible, low-cost storage option, Tier 2 ensures that research data is safely archived while minimizing unnecessary expenses for researchers.

SERVICES

- ● Supercomputing (HPC)
- ● Regulated Research Environment
- ● Research Support Services
- ● UAVITAE

Research Data Archiving Solution

Tier 2 Storage
S3 Intelligent Tiering

After 3 Months of inactivity

AWS Glacier

After 6 Months of inactivity

Data Restore Request

AWS Deep Glacier

University Information Technology Services

FY24 METRICS

RESEARCH DATA CENTER USAGE

Principal Investigators (PIs) Using HPC Systems	564
Active Awards Using HPC Systems	1.54K
Active Root Awards Using HPC Systems	2.62K
Total Sponsored Research Expenditures by Investigators Using HPC Services	$408M
Top 100 PIs Using HPC	73%

SUPERCOMPUTING CAPACITY

Total Cores of All HPC Systems	43.8K
Monthly Faculty Compute Allocation	257K hrs./mo.
Yearly Faculty Compute Allocation	3.08M hrs.

ADMINISTRATIVE TECHNOLOGY SERVICES

MODERNIZING TRAVEL MANAGEMENT AT THE UNIVERSITY OF ARIZONA

As a prominent institution of higher education and a Tier 1 Research University, travel plays a crucial role in student recruitment, research, professional development, and academic exploration. However, managing travel logistics and ensuring accurate financial oversight has traditionally been a complex and time-consuming endeavor. Until 2024, all travel-related accounting was conducted manually.

To modernize this process, University Information Technology Services (UITS) was tasked with helping to implement a new travel management system. University Accounts Payable led the transition to **SAP Concur,** replacing the outdated PDF-based Travel Authorization form used for university travel. This project required collaboration among several university departments, including the **Accounts Payable travel team**, **UITS**, **Human Resources**, and **University Analytics & Institutional Research**.

Key UITS contributions included:

System Integration & Security: The UITS Administrative Technologies development team created an integration file for the university's **Chart of Accounts**, allowing fiscal officers to approve anticipated travel expenses. They also established secure methods for sending and monitoring travel data, emphasizing strong encryption.

Data Management & Reporting: Business analysts facilitated the integration of systems with **JIRA** and **Confluence**, supported daily monitoring, and assisted in functional testing. Additionally, University Analytics & Institutional Research developed a **Travel Dashboard**, implementing the university's first-ever pre-travel reporting capabilities.

Training & User Support: The HR **Outreach & Initiatives Training Team** developed an **EDGE Learning tutorial** that provides guidance on utilizing the Travel Request tool, mobile app, and updating personal travel profiles.

This modernization effort has greatly improved travel management, enhancing efficiency, security, and transparency throughout the university.

FY24 METRICS

UACCESS EMPLOYEE
(Peoplesoft HCM 9.2.041 PeopleTools 8.59.07)

Total Payroll Amount Processed	$1.41B
Average Unique Visitors Per Day	3.87K
Average Number of Paychecks Processed Annually	623K

UACCESS FINANCIALS
(Kuali Financials v7 2010-10-30 with Rice 2.7.0)

PCard Transactions	214K
Average Monthly Travel Reimbursements	1.92K
Active Accounts	22.2K

UACCESS RESEARCH (Kuali Research Saas)

Active Parent Awards	4.29K
Average Unique Visitors Per Month	580

EDGE LEARNING (Saba 53.0.6.7)

Average Unique Daily Users	93.6K
Completed Certifications	125K
Completed Courses	183K

CONTRACT INFORMATION SYSTEM (v.1.0)

Contracts Entered	33K
Active Users	186

eDISCLOSURE (V9.0.1)

Average Unique Visitors Monthly	1.64K

eIRB (V9.2)

Average Unique Visitors Monthly	1.21K

SERVICES

- ● UAccess Employee
- ● UAccess Financials
- ● UAccess Research
- ● EDGE Learning
- ● Contract Information Systems

DIGITAL EXPERIENCE TECHNOLOGIES
A New Digital Home: A Streamlined Web Solution for University Faculty

In early FY24, the University of Arizona transitioned to a new approach for faculty web services. As the **U-System** and **Office of Instruction & Assessment's Faculty Sites** services were retired, faculty members had the opportunity to explore a modernized platform for hosting their research, projects, and professional websites. This shift marked a new chapter in providing a more streamlined and university-supported web presence.

Recognizing the need for a reliable and sustainable alternative, **Campus Web Services (CWS)** launched **Arizona Faculty Sites**, a platform designed to provide faculty with an easy-to-use, secure, and university-branded web solution. The launch began with a small group of early adopters, testing the system and ensuring it met the unique needs of faculty members who often lacked dedicated web support.

Unlike large-scale university initiatives that require complex infrastructure, Arizona Faculty Sites was built with simplicity in mind. Powered by **WordPress**, it provides faculty with an intuitive way to create and manage their own sites, whether for personal research, labs, or academic collaborations. The goal was not just to replace the old system but to offer a better one—one that was accessible, flexible, and responsive to faculty needs.

The transition wasn't without challenges. Any shift in web platforms raises concerns about data migration, learning curves, and functionality gaps. Yet, within a year, adoption grew rapidly. By the end of 2023, **183** faculty members had moved to Arizona Faculty Sites, and by the close of FY24, that number had climbed to **200 active sites**.

For many faculty members, the platform became more than just a digital space—it was a vital tool for sharing their work with the world. **Joela Jacobs, an Assistant Professor of German Studies**, found it to be an essential resource.

"I have had only positive experiences with the system and CWS support. This tool is essential for my research, and I am grateful for its availability. A Tier 1 research institution like ours needs this kind of resource," she shared.

As more faculty adopt Arizona Faculty Sites, the platform keeps evolving, driven by the needs and feedback of the scholars who utilize it. What started as a necessary replacement has transformed into a thriving digital ecosystem, ensuring that faculty voices, research, and projects remain accessible to the university community and beyond.

200
Active Arizona Faculty Sites by end of FY24

FY24 METRICS

TRELLIS CRM
Total Active Users	1.28K
Early Progress Reports Sent	32.61K
Number of Courses	1.16K
Appointments Scheduled	150.71K

CASE MANAGEMENT
Service Cases Created	308K

TRELLIS EVENTS
Unique Event Creators	193

TRELLIS MARKETING CLOUD
Total Active Users	447
All Units: Individual Emails Sent	21.8M

CAMPUS WEB SERVICES
Websites Supported	828
Website Launched	258
Service Requests	1336

SERVICES
- Campus Web Services
- Trellis Service
- Trellis Engagement
- Employee Email & Collaboration
- Student Email & Collaboration
- Video Conferencing
- Arizona Mobile App

STUDENT & ACADEMIC TECHNOLOGIES
Collaboration Makes GradPath an all-inclusive Resource

Student & Academic Technologies, **Curricular Affairs**, **Human Resources**, the **Graduate College**, and **University Analytics & Institutional Research (UAIR)** have collaborated in recent years to improve the University of Arizona's graduate degree auditing and tracking system, known as **GradPath**. GradPath, a component of **UAccess Student**, uses a series of electronic forms with built-in approval workflows. These forms allow students to plan their courses, identify their advisor, and specify which faculty members, if any, will serve on their graduate committees.

The **Graduate Faculty Project** streamlined this process by integrating data about employees' eligibility to serve on graduate committees directly into UAccess Student. Before this integration, committee members had to be manually vetted to ensure they had the necessary qualifications to supervise graduate studies. Additionally, the project replaced an outdated **Microsoft Access** database that previously stored eligibility information.

The **GradPath/GradVIP integration project** enhanced GradPath by enabling the **Plan of Study Form**—the primary degree auditing document used by the **Graduate College**—to incorporate **Advising Report data**. Several departments are now piloting these hybrid forms, paired with professional advisors, for master's programs with highly structured curriculums.

This project also introduced flexible customization options for forms, such as changing form order or titles and hiding unnecessary forms. Importantly, it ensures that downstream forms still become available as needed. Previously, these customizations required developer assistance, but they can now be managed directly by users through a self-service setup page.

Graduate Faculty data and **GradPath Form** data are now integrated into UAIR and accessible through UAIR dashboards. Authorized users can view Graduate Faculty memberships, and dashboards provide an aggregate view of GradPath Form statuses. For example, **Graduate Program Coordinator**s can monitor all students in the programs they oversee, while college deans can track all students within their colleges. This level of data accessibility was not possible before the project.

Overall, this project significantly improved processes by reducing manual reviews of forms and committee memberships, simplifying the creation of **Plans of Study** for students, expanding the availability of graduate student data, and minimizing the need for development when alternative form progression or routing is required.

FY24 METRICS
D2L LEARNING MANAGEMENT SYSTEM
(Version 20.21.7.31019)
Unique Daily Users	51K
Peak Daily Logins	205K

ACCESS STUDENT
(Oracle PeopleSoft 9.2 PUM 8.60.14)
Financial Aid Disbursed	$679.4M
(20-21 Academic Year)	
Distinct Enrolment Requests	906K
Total Modifications to System	1940

ZOOM
(Version 5.4.1)
Number of Sessions	1.3M
Number of Participants	4.4M
Meeting Minutes	175M
Total Zoom Calls Internal/External	237K
Total Office 365 User Accounts	143K
Active Microsoft 365 Users	66K

SERVICES
- UAccess Student
- Classroom & Lab Technologies
- Instructional Technologies

BUILDING A ROBUST MATURITY MODEL
Implementation of NIST SP 800-171 Elements

In 2024, the **Information Security Office (ISO)** team began introducing the university IT community to the adoption of a more robust security model that includes elements from the **U.S. Department of Defense's (DoD) Cybersecurity Maturity Model Certification (CMMC)**. Narrowing that vision to the principles of the **National Institute of Standards and Technology (NIST) Special Publication (SP) 800-171** enhances the University of Arizona's cybersecurity posture, which began with the development and standardization of **UASecure** as the risk assessment and planning tool.

UASecure was established as the risk assessment tool in 2018. The **Information Security Risk Management Program (RMaP)** serves as the central program for providing an integrated, prioritized approach to addressing risk to University Information Resources. It aligns with the University's business and academic objectives. RMaP is implemented through UASecure, the official system of record for RMaP. Currently, UASecure reports a success rate for 100% of academic and administrative units across the university that have completed at least one (1) approved security plan in UASecure. For these units, their successful participation makes it easier to implement the next level of cybersecurity more achievable. UASecure addresses compliance with ISO policies through **55 questions that map to NIST SP 800-53 objectives.**

"CMMC was developed by the U.S. Department of Defense and has become the gold standard for other agencies to adopt in protecting information categorized as Controlled Unclassified Information (CUI)," explains **Wendy Eppley, Principal Analyst, Information Security Office-Governance, Risk and Compliance**. "CMMC is a very complex framework specific to the DoD and applicable to **Federal Contract Information (FCI)** and **Controlled Unclassified Information (CUI)**."

The university will use NIST SP 800-171 as the standard for cybersecurity practices, incorporating CMMC elements. "With so many federal agencies now adopting the NIST SP 800-171, it has become the primary standard we are adopting to help units to mature their cybersecurity practices. These controls will ensure that university information and resources are protected and consistent with the policies of various government agencies."

The Initial response to enhanced cybersecurity practices may feel overwhelming to some IT professionals. Epley reminds us that many of the information security processes already in place at the university align with the federal government's model. "While the university as a whole is a long way from the upper levels of CMMC equivalency, there are several units on campus that are likely very close to achieving them."

Implementing of the ISM's tiered structure will take time. The first step in this process will require units to identify their Information Resources, inventory their assets, and scope the boundaries for the key focus area to meet the controls outlined in NIST SP 800-171. Once the scoping process is complete, units will address the foundational cybersecurity practices specified by NIST SP 800-171. "The objectives for the foundational cybersecurity practices are very basic cybersecurity hygiene," explains Wendy. "This level is not difficult to achieve, as many have already standardized their security practices through the annual assessment in UASecure."

The university's **Information Security Maturity (ISM) program** will utilize the **Cyturus Compliance and Risk Tracker (CRT)** to assess NIST SP 800-171 compliance and manage remediation plans. In 2023, Cyturus partnered with The Cyber AB, the official accreditation body of the CMMC Ecosystem, to provide the CRT to Registered Practitioner Organizations (RPOs)
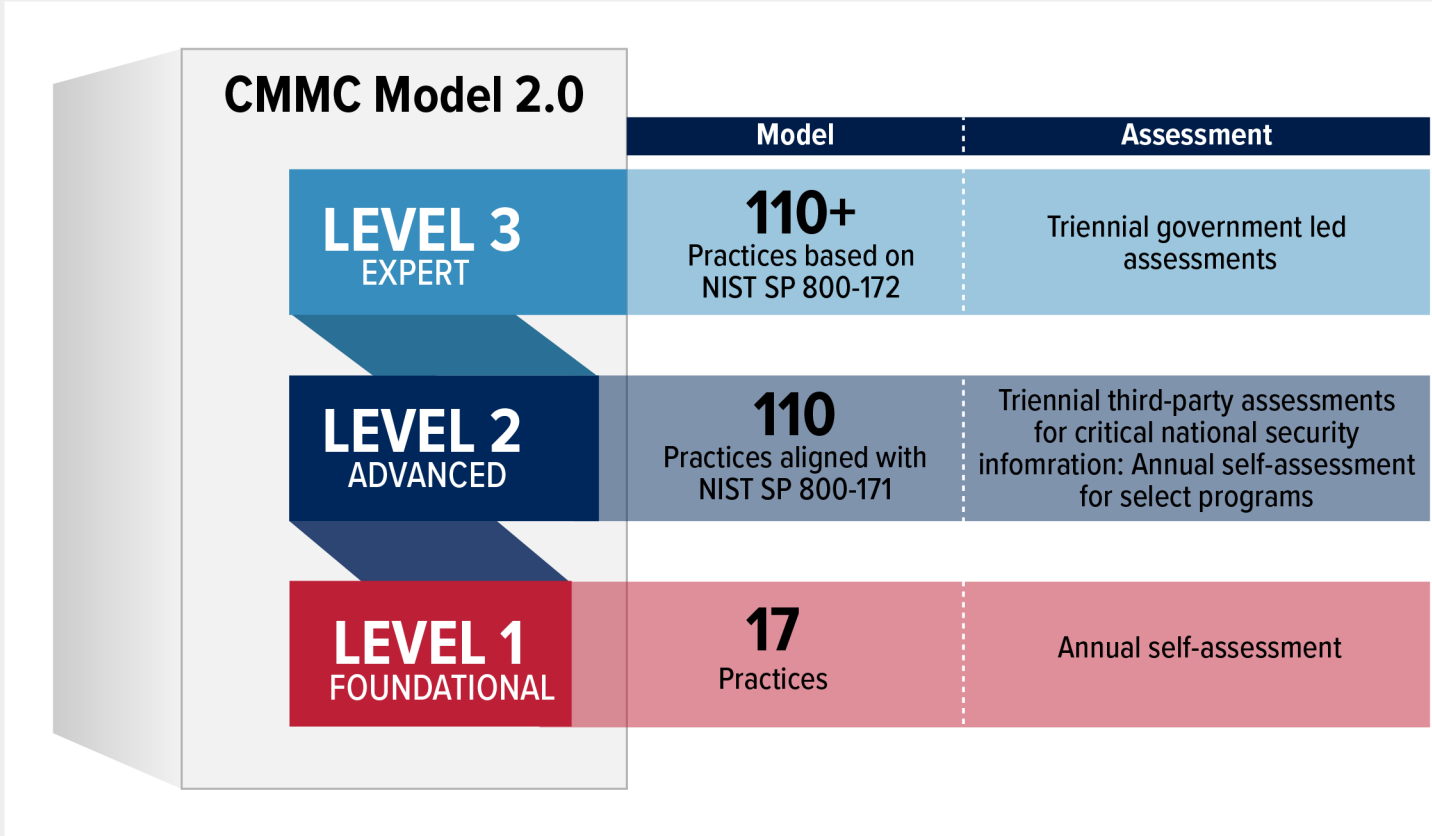
equipping them with the essential readiness, assessment, and compliance tools for CMMC compliance. Assessments will be conducted against the scoped Information Resource with support from the ISO-GRC team throughout the year. Units will still need to complete their annual assessments in UASecure until the in-scope Information Resource has been fully assessed in Cyturus. This means a Unit may maintain multiple security plans in UASecure or manage various engagements within Cyturus.

CMMC Model 2.0

	Model	Assessment
LEVEL 3 EXPERT	**110+** Practices based on NIST SP 800-172	Triennial government led assessments
LEVEL 2 ADVANCED	**110** Practices aligned with NIST SP 800-171	Triennial third-party assessments for critical national security infomration: Annual self-assessment for select programs
LEVEL 1 FOUNDATIONAL	**17** Practices	Annual self-assessment

FY24 METRICS

FIREWALL (BORDER) BLOCKS
Firewall Blocks Per Day	300M

SECURE MONITORING
Log Aggregation	200TB
Phishing and Spam Emails Blocked Per Day	0.5M

RISK MANAGEMENT
Percent Units Completed FY23 Plans	100%
Number of FY23 Completed Security Plans	200

SECURITY AWARENESS TRAINING
FT Faculty/Staff Participation in Training	100%
Application Developer Training Participation	99.20%

DATA MODERNIZATION
A Decade of Transformation

For years, the University of Arizona relied on **Extract, Transform, and Load (ETL)** processes and a suite of legacy data tools to meet its growing data needs as well as the ever-increasing data storage needs, it was clear the University of Arizona was ready for a shift. With a vision for modernization, the **University Analytics and Institutional Research (UAIR)** team, encouraged by Chief Information Officer Barry Brummund, evolved their approach to move from a traditional data warehouse to a modern data lakehouse environment. The university is uniquely positioned to lead in this endeavor, ready to push the boundaries of data ingestion and integration.

Under the leadership of **Ravneet Chadha, Associate Vice President and Chief Data Officer, UAIR** began exploring scalable, cutting-edge techniques to transform data from a basic utility into a powerful driver of institutional growth.

A DECADE OF EVOLUTION

The university's data modernization journey began in 2010 with the implementation of **PeopleSoft HR and Student systems**, as well as **Kuali Financial** and **Research systems**. In 2018, the university took a major step forward, migrating to **Amazon Web Services (AWS)** under a "Bring Your Own License" model. By 2022, the **Data Warehouse Modernization** Initiative was launched to explore advanced ETL and ELT tools through proof-of-concept projects, shifting from long-term licensed technologies to flexible solutions like **Software as a Service (SaaS)**, **Reporting as a Service (RaaS)**, and **application programming APIs)**.

In just the past year, the university has successfully migrated third-party systems such as **Academic Insights** and **Trellis Salesforce** to AWS, reaffirming its

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ETL (Extract, Transform, Load) *is a traditional data integration method that transfers data from a source to a data warehouse, involving separate extraction and transformation processes. In contrast,* **ELT (Extract, Load, Transform)** *loads raw data directly into the data warehouse, enabling transformations within the warehouse and offering greater flexibility for analyzing both structured and unstructured data. Choosing between ETL and ELT significantly impacts data storage, analysis, and processing strategies.*

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commitment to modernizing data management and addressing the future challenges of higher education.

UAIR'S DATA ENGINEERING TEAM: LEADING THE CHARGE

Under the leadership of **Shiva Chidara**, who brings over 18 years of ETL experience, UAIR's Data Engineering Team has effectively transferred data from UAccess Systems and other sources into the **Enterprise Data Warehouse (EDW)** since the initiation of the Data Warehouse Modernization project in 2022. Through nightly batch loads, the Data Engineering Team guarantees that the data is fresh and easily accessible each morning via **UAccess Analytics**, highlighting a strong commitment to data availability, efficiency, and quality.

In recent months, the Data Engineering Team has led the **Data Warehouse Modernization** initiative through both internal and external collaborations. They prioritized identifying an infrastructure that satisfied the university's data storage and performance needs, ultimately selecting AWS for its support of both ETL and ELT processes. With this robust tool and ongoing support from AWS professionals, the team has committed the past 12 months to improving data warehousing processes, paving the way for a more efficient, insightful, and data-informed future for the campus community.

"The primary reason for transitioning from ETL to ELT is to leverage more efficient tools that accelerate data processing, shorten load times and enable quicker insights, all of which make analytics more accessible to campus users"

— *Shiva Chidara, Data Engineering Team Lead*

During the data warehouse modernization implementation, the **Data Engineering Team** transformed the organization's approach to data management by conducting comprehensive training sessions on AWS. Through hands-on learning and collaboration with AWS experts and UAIR's Systems team to provide guidance on best practices, the team acquired the skills necessary to successfully integrate diverse data sources into the new system. With a focus on innovation, the team designed numerous **AWS Glue** jobs, enabling the

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ingestion of new data while consolidating previously overlooked reports. This effort was not merely technical; it aimed to revitalize the university's entire data landscape. By leveraging best practices for ELT workflows, the team developed a streamlined process that facilitated efficient operations.

Developing critical process resources has ensured the UAIR team adheres to best practices in database view development, data validation, and migration throughout this modernization, fostering a unified approach to making data more accessible and actionable at the U of A.

SYSTEMS SUPPORT & OAS UPGRADE

The Data Engineering Team did not navigate this complex project alone; they received crucial support from UAIR's Systems and Security Team, led by Business Intelligence Architect Doug Hester. Hester and his team of middleware analysts played a vital role in ensuring seamless systems integration, enhanced workflows, and improved customer support. Their expertise was instrumental in executing tool upgrades and system enhancements, transforming potential challenges into opportunities for growth. The Systems Team not only supported the Data Engineering Team but also empowered the university to embrace a future where data management is not only efficient but strategic.

THE INCEPTION OF VISUALIZER

In early 2024, as the data warehouse modernization project gained momentum, UAccess Analytics underwent a significant upgrade managed by Hester and UAIR's Systems Team. This upgrade was particularly noteworthy because UAccess Analytics is powered by **Oracle Analytics**, which continuously aims to improve user experience. Their latest upgrade, OAS 2023, introduced an innovative tool called **Visualizer**, designed to transform how users engage with institutional data.

"Visualizer enables customers to not only work with the datasets and data models we've provided and pre-created, but they can also incorporate their own datasets."

– *Doug Hester, BI Architect & Systems Team Lead*

Visualizer allows provisioned users to effortlessly integrate their own datasets with the institutional data available in UAccess Analytics, creating new opportunities for analysis and insight. As users explore this powerful data tool, they will discover

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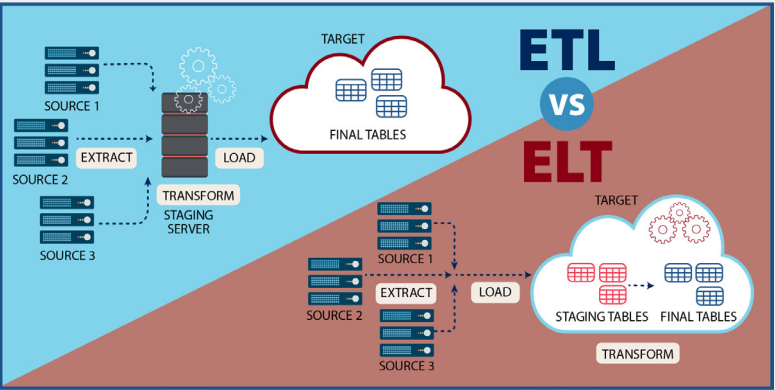
two key features: the ability to upload and incorporate personal data and an expanded range of visualization options. With Visualizer, users can generate compelling visuals using graphs, charts, and maps, layering custom datasets with the robust institutional data from UAccess Analytics. This enhances data exploration, making it more intuitive and effective for producing meaningful insights.

COLLABORATION & SYSTEMS SUPPORT

This transformation was supported by UAIR's **Systems and Security Team**, led by **Business Intelligence Architect Doug Hester.** Hester's team ensured smooth systems integration, tool upgrades, and workflow enhancements. Their work not only addressed technical challenges but also paved the way for strategic data management, positioning the university for future success.

THE ERA OF SELF SERVICE

The **data warehouse modernization initiative** has significantly enhanced self-service capabilities, positioning the institution as a leader in empowering users to create their own reports—an uncommon advantage in higher education. By transitioning away from IBM DataStage's multi-year licensing contracts, the university not only improved data integration and analytics but also significantly minimized storage expenses while gaining a more scalable and flexible infrastructure.

Through this transformation, the University of Arizona is now equipped with a modern data management framework that enhances processing capabilities, supports strategic decision-making, and fosters a culture of innovation. With leaders like Brummund and Chadha at the helm, the university is prepared to tackle the challenges of tomorrow with agility and insight.

UNIVERSITY ANALYTICS & INSTITUTIONAL RESEARCH

FY 24 METRICS

UACCESS ANALYTICS
(Oracle Business Intelligence Enterprise Edition Version 12c)

Active Daily Users	781
Active Subject Areas	188
Reports Run	11M
Nightly ETL Jobs	10K
Active Dashboard Pages	4.5K
Queries Run	39.7K

EXTERNAL REPORTING

Total Surveys	175

SERVICES

- Student Data
- Employee Data
- Financial, Budget, Research & Space Data
- Interactive Factbook
- External Reporting
- Enterprise Data Warehouse

CAMPUS IT PARTNERSHIPS

FY24 METRICS

IT STAFF

CIO Division IT Staff	758
Campus IT Staff (Non UITS)	103

CAMPUS TEAMS

IT Coordination Team Members	637
Number IT Coordination Team Meetings	102
Avg. IT Coordination Meeting Attendance	200
Process Automation Team Members	324
Process Automation Team Meetings	118

OUTREACH

Number Engagements with Colleges/Divs	4.77K
Avg. Number Engagements per CITP Members	682
Distinct Number Colleges/Divs Engaged With	69
Distinct Individuals Engaged With	526

COMMUNICATIONS & MARKETING

IT SUMMIT 2024

The Communications & Marketing team worked their magic, raising $44K in external funding for the **12th Annual IT Summit**.

The day started with an insightful morning keynote as **Provost and Senior Vice President of Academic Affairs Joe Glover** teamed up with **Chief Information Officer Barry Brummund** for a thought-provoking dialogue on **Artificial Intelligence.** Throughout the day, the Student Union Grand Ballroom buzzed with energy, featuring a **Navigator Expo, Open House** sessions, and **Birds-of-a-Feather Networking**.

In the afternoon, the energy soared with an inspiring keynote from **Peter Hughes, Director of Arizona Adaptive Athletics.** He captivated the audience with stories from his journey, showcasing the transformative power of adaptive sports.

With 475 IT professionals and 60 inspiring speakers, the event sessions were packed with fresh ideas and innovative discussions. Attendees left energized and ready to bring new technologies and insights to their teams. A standout addition? The **Engagement Arcade**—a fun, interactive space with games for both solo players and teams.

This year's IT Summit also featured a follow-up "virtual" day to engage IT professionals remotely. This provided even more content and ensured that those unable to attend in person could still participate and learn. The virtual day welcomed 364 unique attendees via Zoom.

475
In-person Attendees

60
Sessions

364
Virtual Attendees

24
TechRevealed Podcasts

TECH REVEALED PODCAST

Tech Revealed, a podcast hosted by CIO Barry Brummund, became the latest communications channel to bring visibility to the tremendous talent in the CIO Division. Twenty-four podcast episodes were recorded throughout the year and published at regular intervals. Collaboration with the College of Education media staff was new and rewarding as Brummund hosted professionals from a diverse group in the University who are leaders in their area of IT. The podcasts may be heard at any podcast provider or online at *it.arizona.edu/tech-revealed*.

FY24 METRICS

News Stories For The Web	50
Podcasts Produced	24
Emails Sent Via Trellis Marketing Cloud	346
Median Open Rate Of Trellis Emails	50%
Department Newsletters	69
Email Recipients	603K

SERVICES

- Website Content
- Writing and Editing
- Graphic Design
- Videography/Photography
- Public Relations
- Events Management
- Fundraising/Development
- Podcasting

ARIZONA'S WORLD CLASS NETWORK

The End of An Era in Telecommunications

The Number 5 Electronic Switching System (#5ESS) was the workhorse of the Public Switched Telephone Network (PSTN) in the United States. The University of Arizona quickly took advantage of the new technology in 1989, enabling telephone service for over **22,000 lines** on campus and to far-reaching locations like the Campus Agricultural Center on North Campbell and the Mount Graham International Observatory. After **a record 12,542 days,** the #5ESS was no longer sustainable. Early diligence in training and a passion for excellence paid off, as UITS telecom technicians kept the system alive long after institutions moved away from it. When university staff began working remotely, telecom needs shifted to match the new remote environment. The Zoom Phone platform has met the institution's demands very effectively, and the decommissioning and removal of the #5ESS was completed in June 2024.

NUMBER OF NETWORK DEVICES

47 NETWORK CORE

4K DISTRIBUTION NETWORK

11.4K WIFI ACCESS POINTS

125K UNIQUE WIRELESS DEVICES

46.5K UNIQUE WIRED DEVICES
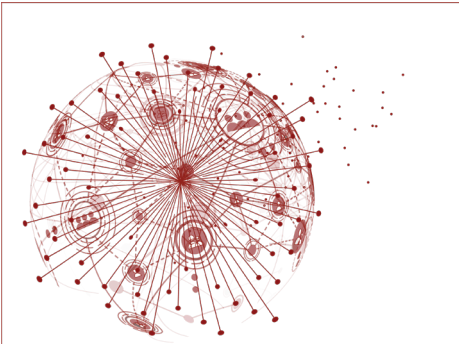
SERVICES

- Network Core & Internet2 ISP
- Campus Data Network
- Voice Services
- Network Management
- Network & Data Center Operations

SUPPORT SERVICES

Improving Support with Knowledge Base and Knowledge-Centered Service

The knowledge base in **ServiceNow** is a treasure trove of information—how to set up and use various systems and services, fixes for common issues, articles about service changes, and more. It serves as the campus services user manual for the campus community and for IT support staff.

During the original implementation of ServiceNow, service documentation from the previous website was imported into the new system as **knowledge articles (KAs)**. The **Self-Service & Training (SS&T)** team started reviewing the content in October 2021 and spent the next 15 months curating the information in the 426 published KAs, editing duplicate information, and adding new content as needed. The knowledge base now stands at 632 published articles, though over 400 have been unpublished over time.

One of the benefits of ServiceNow is that articles can be available to anyone visiting the website or restricted to IT personnel or campus constituents logged in with NetID. This allows the SS&T team to ensure sensitive information that could impact security isn't available to the public. They regularly perform audits of KAs to check whether the information can be shared more widely, to ease access to the campus community.

Content has constantly evolved and improved. Service owners are contacted regularly to review their articles to ensure the content is helpful and correct. This provides the campus community with reliable self-service which results in fewer calls to the 24/7 Support Center during peak times than in previous years.

Content is also validated through knowledge-centered service (KCS). With KCS, support personnel pay close attention to the full context of the customer's context and capture the issue, environment, resolution, and cause. They find the relevant KA and add it to the ticket. If the KA needs to be edited, they flag it or provide edits for approval; this keeps articles current and correct.

If a new issue comes up with information sufficient to solve it, SS&T team can create an article that is accessible to IT personnel. When repeated issues with a service arise, the SS&T team engages knowledge domain experts to find a fix or solution. If the article has long-term value, it is published to a broader audience.

The SS&T team is working to train all 24/7 Support Center personnel as KCS Candidates (will attach a KA link to each support ticket and flag articles for improvement if they're not sufficient to solve an issue). They have also trained a few staff to the next level of Contributor (can make edits to an article and submit them for publishing).

Having up-to-date information and the ability to flag articles has improved the speed of service for 24/7 Support Center staff. There has been a 33% reduction in the use of the Teams channel where staff ask each other for solutions with more answers now available in the knowledge base.

The next step for the knowledge base is adding content from the College of Nursing and the College of Science. This will include removing duplicate information about university-wide services while keeping the content about college-specific services. The SS&T team will also certify someone in each college as a Contributor.

FY24 METRICS

24/7 IT SUPPORT CENTER

Total Technical Support Requests	122K
Non-Technical Support Requests	32K
Classroom Support Requests	2.3K

CONTACT CENTER SERVICES

Calls	599K

DESKTOP SUPPORT

Units Receiving Desktop Support	121
Faculty/Staff Receiving Desktop Support	3.5K
Service Requests	3.9K

CLASSROOM SUPPORT

Number of Supported Classrooms	255
Number of Classrooms Upgraded	15

KNOWLEDGE-CENTERED SERVICE

Number of Knowledge Articles	632
Devices enrolled in Endpoint Mgmt	3K

SERVICENOW

Service Requests (including interactions)	146.3K
Incidents	46.5K

CONTACT CENTER TELEPHONY

Calls	413K
Units Using	41

ACCESS MANAGMENT

Access Flow Requests	12K
Access Flow Tasks	199.4K
Roles Managed	1502
Agents	387
AWS Units Converted	159

SERVICES

- 24/7 IT Support Center
- Contact Center Telephony
- Classroom & Lab Technologies
- Access Management
- Technology Lifecycle Center Managed Services

BENCHMARKING & STRATEGIC PLANNING

The CIO Division conducts an annual benchmarking analysis to assess our strategy and operations relative to higher education peers and IT units across the University of Arizona. The analysis compares strategic priorities, services, organizational design, personnel, operating and capital expenditures, suppliers, and operational maturity to inform data driven decision-making with University leadership, IT leadership and IT staff. This information is published in the University's IT Annual Report to foster transparency and support strategic planning activities.

EXTERNAL BENCHMARKING

The University of Arizona, a land-grant university with two independently accredited medical schools, is one of the nation's top public universities in the U.S. News & World Report (USNWR) national university rankings. The university is also ranked in the top 20 in research expenditures among all public institutions and is a member of the Association of American Universities (AAU). In FY24, University of Arizona's IT expenditure was 7.2%, which was the smallest expenditure compared to higher education peers in all other benchmark categories.

INFORMATION TECHNOLOGY AT THE UNIVERSITY OF ARIZONA

The University of Arizona's IT community is comprised of 1,008 professionals across central and distributed job functions that support college, institutional, auxiliary and enterprise-wide services. The annual expenditure in FY24 for IT across the University was $160.8M.

UNIVERSITY INFORMATION TECHNOLOGY SERVICES

At the beginning of FY24, the CIO Division had 360.8 FTE. In early March 2024, 492.2 distributed FTE positions were centralized, and the CIO Division ended FY24 with a total of 839.3 FTE, representing the university's 19 UCAP IT job families. The annual expenditure for the CIO Division was $160.8M (Central + Distributed).

HIGHER EDUCATION IT BENCHMARKING

IT AT U OF A

UNIVERSITY INFORMATION TECHNOLOGY SERVICES

	University of Arizona	ABOR Peers	Public AAU	USNWR Public 2024 Top 50 National Universities
Faculty FTE	2,920	3,767	2,906	2,849
Student FTE	40,537	40,720	39,716	35,679
Research Expenditures	$770.0M	$956.4M	$768.1M	$720.7M
Total Expenditures (Net Hospital)	$2,220.9M	$2,564.4M	$2,278.8M	$2,153.7M
IT Staff FTE (Central + Distributed)	1,008	1,041	877	757
Total IT Expenditures (Central + Distributed)	$160.8M	$212.4M	$186.1M	$152.0M
IT Staff per 1K Student FTE	24.9	25.0	22.1	21.0
IT Expenditures as % of Total	7.2%	9.1%	8.4%	7.3%
Number of Institutions	1	4	10	11

*University of Arizona is not included in any of the benchmark group averages

Data used to update the value for Total research expenditures so that it is reported in the millions, consistent with other expenditure fields.				
HERD Research Expenditures (in the thousands)	$770,031	$956,415	$768,095	$720,653

UNIVERSITY IT FY24 WORKFORCE & IT EXPENDITURES

UNIVERSITY IT WORKFORCE FTE

	CIO	Provost	Health Sci	CFO	RII	UAGC	TOTAL
Start FY24, ALL	360.8	253.3	134.4	107.0	32.0	131.0	1018.5
Hires/Transfers In	16.0	17.9	4.3	1.0	0.5	7.0	46.7
Attrition	30.0	5.7	12.1	13.5	2.1	-1.7	61.7
Centralization	492.4	-169.3	-100.1	-82.5	-26.9	-113.7	-
End of FY4, ALL	839.3	96.3	26.5	12.0	3.5	26.0	1003.5
Turnover Rate	8.3%	2.2%	9.0%	12.6%	6.6%	-1.3%	6.1%
% Recv. Comp. Increase	9.3%	11.3%	12.5%	0.0%	0.0%	15.8%	9.8%
% Recv. Promotion	4.8%	5.0%	4.2%	0.0%	0.0%	0.0%	4.5%
Comp Ratio (Avg % of Midpoint)	85.1%	83.5%	84.8%	92.1%	87.0%	100.6%	85.4%
Supervisor (Count)	175	47	20	7	4	11	264
IT Staff/Sup Ratio	4.8	2.0	1.3	1.7	0.9	2.4	3.9

Campus IT Services represents the campus centralization of IT employees which occurred in March. Campus IT Services is not factored into turnover data for the division.

UNIVERSITY IT FTE BY JOB FAMILY GROUPINGS

	CIO	Provost	Health Sci	CFO	RII	UAGC	TOTAL
ITSupport	277.1	7.5	0.5	0.0	0.0	0.0	285.1
ITInfrastructure	125.3	6.0	2.5	0.0	0.0	0.0	133.8
ITNetwork	40.0	1.0	0.0	0.0	1.0	0.0	42.0
ITSecurity	25.0	0.0	0.0	0.0	0.0	0.0	25.0
ITPM	35.6	1.0	0.0	0.0	0.0	0.0	36.6
ITApplications	188.7	27.2	2.3	0.0	0.5	1.0	219.7
ITWebDev	60.6	11.3	2.0	0.0	0.0	2.0	75.9
ITInstructionalTech	37.5	16.0	1.0	0.0	0.0	0.0	54.5
ITAnalysis	35.5	26.2	18.3	12.0	2.0	23.0	117.0
Research/Data Science	14.0	0.0	0.0	0.0	0.0	0.0	14.0
TOTAL	**839.3**	**96.2**	**26.5**	**12.0**	**3.5**	**26.0**	**1003.5**

UNIVERSITY IT PERSONNEL & EXPENDITURES - IT JOB FAMILY GROUPS

	CIO	Provost	Health Sci	CFO	RII	UAGC	TOTAL
Salary	30,867,554						30,867,554
ERE	9,643,723						9,643,723
Software, etc.	26,256,555	7,384,676	4,446,353	6,264,386	1,326,321	848,685	46,526,977
IT Equipment	546,731	6,633,138	2,107,496	1,163,472	606,103	355,898	11,412,839
Network & Equipment	7,478,086	3,432,383	295,837	325,099	245,365	-	11,776,770
TOTAL	**74,792,649**	**17,450,197**	**6,849,687**	**7,752,957**	**2,177,789**	**1,204,584**	**110,227,863**

CIO DIVISION FY24 WORKFORCE
CIO DIVISION WORKFORCE ANALYSIS

	Start FY24	Hires	Attrition	Transfer In	Transfer Out	End FY24	Turnover Rate	% Recv. Increase	% Received Promotion	Compa Ratio	Suprv Count	IT Staff / Sup Ratio
Digital Exp. Tech	43.7	6.0	5.7	2.0	-	46	12.7%	10.3%	7.7%	81.8%	8	5.8
Student & Acad Tech	26.0	2.0	3.0	-	2.0	23	12.2%	9.5%	-	80.3%	4	5.8
Research & Disc. Tech	18.0	2.0	-	-	-	20	0.0%	11.1%	5.6%	81.1%	5	4.0
Admin Tech	28.6	2.0	1.0	-	1.0	28.6	3.5%	3.7%	-	79.6%	3	9.5
UAIR	44.5	-	5.0	-	-	39.5	11.9%	12.8%	2.6%	86.4%	8	4.9
Info Security Office	14.0	-	2.0	1.0	1.0	12	15.4%	9.1%	9.1%	88.5%	3	4.0
Support Services	79.0	-	6.0	5.0	-	77.75	7.7%	2.8%	2.8%	81.0%	8	9.7
Network Technologies	60.0	4.0	-	5.0	-	53	0.0%	21.6%	13.5%	82.2%	11	4.8
Infrastructure Technologies	46.0	-	7.0	-	10.0	45.025	15.4%	3.8%	3.8%	85.2%	10	4.5
Campus IT Services				515.2	22.8	492.445				87.0%	65	7.6
CIO Admin	26.0	1.0	3.0	1.0	-	25	11.8%	8.7%	4.3%	89.9%	7	3.6
Total	385.8	17.0	32.7	529.2	36.8	862.32	5.2%	8.8%	5.0%	85.3%	132	6.5

Campus IT Services represents the campus centralization of IT employees which occurred in March. Campus IT Services is not factored into turnover data for the division.

CIO DIVISION IT FTE BY JOB FAMILY GROUPING

	Support	Infra	Network	Security	Proj Mgmt	Apps	Web Dev	Instr. Tech	Analysis	Rsrch / Data Sci	Non-IT	Grand Total
Digital Exp. Tech	6.1	3.0	-	-	2.0	20.9	13.0	-	1.0	-	-	46.0
Student & Acad Tech	1.0	1.0	-	-	-	21.0	-	-	-	-	-	23.0
Research & Disc. Tech	-	4.0	-	-	-	2.0	-	-	-	13.0	-	20.0
Admin Tech	1.0	-	-	-	2.6	25.0	-	-	-	-	-	28.6
UAIR	2.0	2.0	-	-	-	-	-	-	32.5	1.0	2.0	39.5
Info Security Office	2.0	-	-	10.0	-	-	-	-	-	-	-	12.0
Support Services	57.8	11.0	-	-	1.0	2.0	-	6.0	-	-	-	77.8
Network Technologies	9.0	14.0	-	4.0	4.0	14.0	-	-	-	-	-	45.0
Infrastructure Technologies	4.0	-	34.0	1.0	6.0	7.0	-	-	-	-	1.0	53.0
Campus IT Services	194.2	89.3	6.0	9.0	19.0	96.8	46.6	31.5	-	-	-	492.4
CIO Admin	0.0	1.0	-	-	1.0	-	1.0	-	-	-	22.0	25.0
TOTAL	277.1	125.3	40.0	25.0	35.6	188.7	60.6	37.5	33.5	14.0	25.0	862.3

Sources:
UAccesss Employee
HCM Census Data
All Active Employees

CIO FY24 FUNDING SOURCES AND USES
REVENUES

Carry Forward in $6,667,257

	Institutional	Investment from Fund Balance	Service	Strategy	Student	TRIF	Subtotal
Digital Exp. Tech	9,044,692	-	394,303	73,320	2,065,338	-	11,577,653
Student & Acad Tech	2,205,111	170,000	-	-	4,425,045	-	6,800,156
Research & Disc. Tech	3,744,720	-	61,507	(40,000)	-	941,988	4,708,215
Admin Tech	6,012,139	-	-	(179,739)	-	393,505	6,225,905
UAIR	5,070,140	-	303,166	9,223	-	-	5,382,529
Info Security Office	4,898,567	-	-	-	-	82,083	4,980,650
Support Services	4,145,218	-	1,943,227	(307,469)	4,235,500	-	10,016,476
Network Technologies	8,024,149	(591,250)	8,277,306	1,444,135	2,370,305	-	19,524,645
Infrastructure Technologies	15,988,364	-	6,509	307,469	-	-	16,302,342
Campus IT Services	-	-	-	-	-	-	-
CIO Admin	3,775,631	-	55,001	4,707	-	-	3,835,339
Divisional Investment	(5,104,216)	421,250	-	(1,331,635)	417,220	-	(5,597,381)
TOTAL	57,804,515	-	11,041,019	(19,989)	13,513,408	1,417,576	83,756,529

EXPENDITURES: PERSONNEL

	IT	NonIT	ERE	Subtotal
Digital Exp. Tech	4,681,866	85,226	1,462,232	6,229,325
Student & Acad Tech	1,988,143	-	636,206	2,624,349
Research & Disc. Tech	1,777,201	-	564,941	2,342,143
Admin Tech	2,507,614	-	801,754	3,309,368
UAIR	2,873,347	109,115	967,388	3,949,850
Info Security Office	1,595,845	-	502,415	2,098,260
Support Services	5,795,353	33,045	1,728,262	7,556,661
Network Technologies	3,934,545	58,693	1,262,940	5,256,178
Infrastructure Technologies	5,220,654	33,046	1,669,794	6,923,494
Campus IT Services	-	-	-	-
CIO Admin	492,985	1,423,425	605,405	2,521,815
Divisional Investment	-	-	-	-
TOTAL	26,185,688	1,657,323	8,739,106	36,582,116

EXPENDITURES: OPERATIONS & CAPITAL

	Software	OpEx, Non-Software	Capital/Network	Admin Service Charge	TOTAL
Digital Exp. Tech	5,582,121	517,822	-	54,979	12,384,247
Student & Acad Tech	3,899,573	969,465	-	96,238	7,589,625
Research & Disc. Tech	563,070	629,420	47,656	-	3,582,289
Admin Tech	2,904,773	1,225,793	-	1,146	7,441,080
UAIR	1,252,861	352,913	-	7,402	5,563,026
Info Security Office	2,400,993	81,875	-	-	4,581,128
Support Services	503,806	477,415	356,987	59,049	8,953,918
Network Technologies	2,763,920	7,274,859	2,375,627	129,853	17,800,437
Infrastructure Technologies	3,953,778	4,017,260	-	-	14,894,532
Campus IT Services	-	35,537	-	-	35,537
CIO Admin	147,948	330,575	-	7,162	3,007,500
Divisional Investment	2,283,712	1,602	-	-	2,285,314
Total	26,256,555	15,914,536	2,780,270	355,829	88,118,631

There is a $138,354 discrepancy in the Carry Forward Out amount. This is due to a year-over-year increase in accounts receivable (i.e., purchases made by UITS on behalf of other units for which UITS will be fully reimbursed for). These figures are not reported above as they will ultimately zero out and do not represent material insights on the financial health of the division.

Carry Forward Out $2,166,801

CIO DIVISION SERVICES

DIGITAL EXPERIENCE TECHNOLOGY (9531)

Service	FTE	Personnel Exp	Operations & Software	Capital & Network Exp	Total Exp
Employee Email & Collaboration Administration	4.1	684,999	1,635,062	-	2,320,061
Integrated Digital Experience Development	5.6	650,557	193,212	-	843,769
Customer Relationship Management (Trellis)	24.7	3,193,707	3,314,612	-	6,508,319
Student Email & Collaboration Administration	0.1	50,318	533,551	-	583,869
Web Services and Consulting	13.7	1,649,744	423,505	-	2,073,249

STUDENT & ACADEMIC TECHNOLOGIES (9523)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Academic Technologies Administration	5	547,550	1,962,995	-	2,510,545
DRC Support	0	79,686	-	-	79,686
Student Administrative Systems	16	1,997,113	2,906,043	-	4,903,156

RESEARCH & DISCOVERY TECH (9524)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Research/HPC Consulting	5.9	711,137	97,327	-	808,464
High Performance Computing Administration	6.0	841,697	520,834	47,656	1,410,187
Research CyberSecurity Administration	5.3	660,070	257,329	-	917,399
UA Vitae Administration	1.0	129,239	317,001	-	446,240

ADMIN TECHNOLOGIES (9522)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Financial Services Systems	5.2	1,016,708	1,991,754	-	3,008,462
HR & Employee Learning Systems	14.3	1,844,013	1,475,145	-	3,319,158
Research Administration Systems	2.8	448,647	663,666	-	1,112,313

UNIVERSITY ANALYTICS & INSTITUTIONAL RESEARCH (9940)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Administrative Data Management	5.2	376,623	6,301	-	382,924
Customer Experience & Support Services	4.5	431,658	5,557	-	437,215
External Reporting	6.9	794,805	6,427	-	801,232
Student Data Management	10.0	936,252	15,996	-	952,248
Systems & Data Engineering	6.3	925,255	252,380	-	1,177,635
UAIR Administration	2.5	485,257	1,319,113	-	1,804,370

INFORMATION SECURITY OFFICE (9521)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Governance, Risk, and Compliance Administration	5.0	809,090	298,993	-	1,108,083
Security Operations Center	7.7	1,289,170	2,183,875	-	3,473,045

SUPPORT SERVICES (9530)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Application Support	3.7	525,985	4,522	-	1,798,531
Classroom Technologies Administration	6.8	588,976	112,869	182,632	2,089,510
Desktop Support & Endpoint Management	20.9	1,794,009	521,106	174,355	2,489,470
Student Computing Labs	7.3	679,851	242,571	-	2,036,580
Student Help Desk	37.8	3,252,632	92,540	-	1,886,549
Data Center Operations	8.4	715,207	6,024	-	1,800,033

INFRASTRUCTURE & FOUNDATIONAL TECH (9526)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Network Operations	24.2	3,423,285	5,364,871	2,025,936	10,814,092
Network Services	4.9	451,441	2,841,766	64,641	3,357,848
Voice Operations	9.0	1,381,452	1,832,143	285,050	3,498,645

MANAGED CLOUD SERVICES (9529)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Infrastructure Services Administration	1.9	509,324	588,877	-	1,098,201
Identity & Access Management	11.8	1,390,763	1,580,453	-	2,971,216
Service Management	11.3	1,314,671	1,164,024	-	2,478,695
Managed Services	4.8	227,721	62,721	-	290,442
Campus Cloud Infrastructure	2.0	261,762	2,507,694	-	2,769,456
Campus IT Partnerships	8.3	1,113,640	137,574	-	1,251,214
Campus IT Architecture	6.4	849,363	1,304,633	-	2,153,996
Cloud Operations	8.8	1,256,249	626,650	-	1,882,899

CIO ADMIN (9520)

Service	FTE	Personnel Exp	Operations & Software Exp	Capital & Network Exp	Total Exp
Business Services	16.4	1,678,444	255,878	-	1,934,322
Marketing and Communications	2.3	319,945	61,856	-	381,801
CIO Administration	1.8	532,813	196,325	-	729,138
Planning		-	2,285,314	-	2,285,314

SUMMARY

	FTE	Personnel Exp	Operations & Software	Capital & Network Exp	Total Exp
Total	357	46,028,222	42,171,089	2,780,270	90,979,581

> "The advance of technology is based on making it fit in so that you don't really even notice it, so it's part of everyday life."
>
> *- Bill Gates*

CIO EXECUTIVE LEADERSHIP

Barry Brummund
Chief Information Officer &
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Laura Bracamonte
Executive Assistant

Ravneet Chadha
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