INFORMATION TECHNOLOGY

UNIVERSITY INFORMATION TECHNOLOGY SERVICES

ANNUAL REPORT | FISCAL YEAR 2020

THE UNIVERSITY OF ARIZONA

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ACCOUNTABILITY
COLLABORATION
COMMUNICATION
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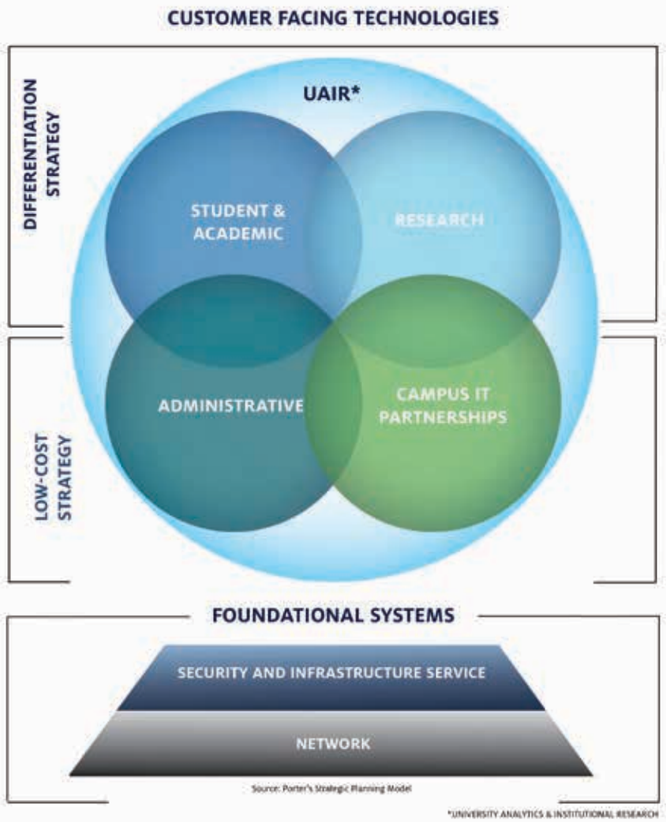

UNIVERSITY OF ARIZONA VALUES

ADAPTATION
COMPASSION
DETERMINATION
EXPLORATION
INCLUSION
INTEGRITY

Dear Colleagues,

The 2019-20 fiscal year has been a year like no other in our lifetime. While it has had unprecedented obstacles, the events over the past year brought renewed emphasis on the University of Arizona's core values as we strive to "improve how we educate and innovate so we can lead the way in developing disruptive problem-solvers capable of tackling our greatest challenges." 2020 was undoubtedly one of our greatest challenges.

But 2020 was not just about responding to the challenge of COVID-19. IT achieved significant milestones this year including many that were important for the University as a whole. We continued to make progress on our operational maturity to achieve the goals outlined in the IT Security Performance Audit while advancing University priorities including curriculum; teaching and learning; research; diversity, equity, inclusion; health (Test, Trace, Treat); marketing and communications.

Collaborative efforts of the IT community transformed our work beyond the focus of technical innovation and support. We came together as one campus IT community each and every day, thereby achieving greater success and accomplishments across campus, in the local community, and across the state. During this pandemic, it has never been clearer that information technology and the people behind it are integral to achieving the University of Arizona's mission and succeeding in reaching the vision that boldly speaks of working together to create solutions to big problems. I am proud of all that UITS and our campus IT community have achieved during this challenging this year.

This annual report highlights some of the dedicated work that UITS undertook to support our faculty, staff, and students in their teaching, learning, research, and service missions. Please take a moment to review these accomplishments beginning with the Critical IT Services During the COVID-19 Pandemic infographic on page 2 of this report.

I look forward to serving our campus community to not only solve their technology needs in new and exciting ways, but also continue to advance Arizona as a world-class academic institution.

Sincerely,

Barry Brummund
Chief Information Officer
The University of Arizona

annualreport.it.arizona.edu/2020

CRITICAL IT SERVICES DURING THE COVID-19 PANDEMIC

COMMUNITY AND HEALTH

TEST

END-OF-DAY TESTING ALERTS
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AUTOMATED DAILY REPORTS
Daily Detailed Data on Testing Operation

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(in collaboration with Arizona Health Sciences)

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Classroom Technology Services

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FLEXIBLE LEARNING OPTIONS
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Enabled virtual OSFA and SOS services to Students

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Allowed Students to Switch From Regular Grading to Pass/Fail

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FOLDING@HOME
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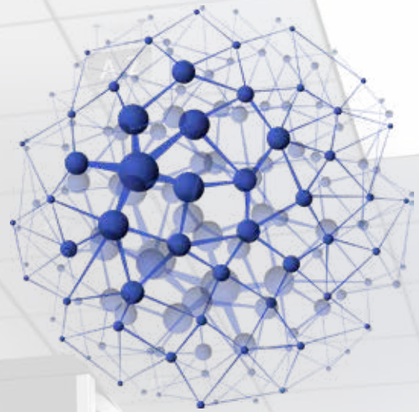
TECHNOLOGY FOR WORLD-CLASS RESEARCH

Research Technologies provides key research technology infrastructure and services to support Arizona's world class researchers.



"The HPC has enabled research that I would not have been able to accomplish otherwise. I simply would not have been able to process all the data required for my regional photometry analysis in a reasonable amount of time."

– Dathon Golish, PhD, Imaging Scientist, OSIRIS-REx Mission

INTRODUCING PUMA HIGH PERFORMANCE COMPUTING

The University of Arizona invests in computing infrastructure to empower the growing research community every 4 years. University research benefits from free computing resources in several ways; the most important is that new research faculty do not have to spend startup funds and critical time to set up servers to start their research. Major University projects and institutes also use Arizona's high performance computing (HPC) such as OSIRIS-REx, TERRA-REF, Event Horizon Telescope, iMicrobe, the Arizona Cosmology Lab, and the Cancer Center Bioinformatics Shared Resource (BISR).

UITS Research Computing consultants are available to support researchers at any point in their work: experimental design, handling large-scale data, analysis on Puma, statistical analysis, and data visualization.

Puma was purchased after an open Request for Proposals (RFP) process directed by the Research Computing Governance Committee as well as UITS Research Technologies. Twelve vendors responded and their bids were compared based on a structured decision matrix. Puma was stress-tested on Folding@home to support COVID-19 research before it was released to the UA research community.

| 23.6K |

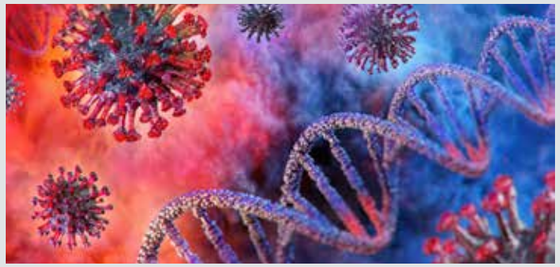
NUMBER OF AMD EPYC 7642 CORES IN PUMA

(2X THE SIZE OF OCELOTE AND 100X OF EL GATO)

THREE ARIZONA UNIVERSITIES TEAM UP TO IDENTIFY COVID PROTEIN FOLDING

Arizona's three public universities participated in the national Folding@home project, which relies on volunteers' idle computing power to run protein modeling computations that help researchers learn more about how to cure or treat certain diseases.

The project seeks to understand how proteins – large, complex molecules that play an important role in how our bodies operate – "fold" to perform their biological functions. This helps researchers understand diseases that result from protein "misfolding" and identify novel ways to develop new drug therapies. How proteins fold or misfold can help researchers understand what causes diseases like cancer, Alzheimer's disease and diabetes. This past year's focus was on providing insight into COVID-19.



Volunteers can track their contributions on the Folding@home website and combine their efforts as a team, receiving points for completing work assigned to them. The point system helps Folding@home determine which machines in the project are quick and reliable.

As of early July 2020, the team was ranked in the top 53 out of nearly 250,000 teams, surpassing other teams that include Hewlett Packard, Cisco Systems, Apple Inc. and Google, as well as many other universities, industry and national or international contributors. When the University of Arizona's PUMA came online, the team's ranking quickly jumped to 37.

MEMORY JOGGER ASSISTS CAMPUS COMMUNITY IN TRACING THEIR LOCATION

When members of the campus community are notified they have tested positive, they may need help remembering where on campus they have been. The Memory Jogger program was developed as an anonymous way to help them jog their memory!

Memory Jogger was created to complement other COVID tracing activities on campus, such as the COVID Watch anonymous exposure notification application, for students, faculty, and staff who have been informed they have tested positive for COVID-19.

Campus Wi-Fi data and Splunk monitoring capability feeds into a campus mapping tool where the COVID positive individual can access their own anonymized location data on the University campus map. It's all automated, and due to privacy considerations, the data report is generated unique to them so no one else can see the data.

UITS RESEARCH PARTICIPATES IN NATIONAL CONSORTIUM

UITS Research Technologies was extended an invitation in 2019 to sit a staff member on the project evaluation committee for the COVID-19 HPC Consortium, which is a part of the cloud-based, on-demand computing and data analysis resources within the national Extreme Science and Engineering Discovery Environment, known as XSEDE. The consortium is a unique private-public effort spearheaded by the White House Office of Science and Technology Policy, the U.S. Department of Energy, and IBM to to bring together federal government, industry, and academic leaders who are volunteering free compute time and resources on their world-class machines.

| $212M |

TOTAL EXPENDITURES BY HPC INVESTIGATORS

| 45.8% |

TOTAL SPONSORED RESEARCH EXPENDITURES BY INVESTIGATORS USING HPC SERVICES

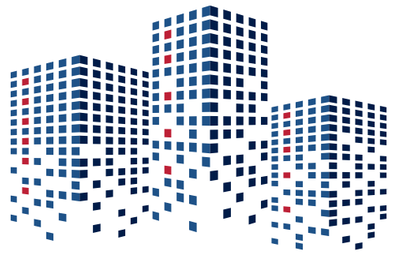
METRICS FY20

RESEARCH DATA CENTER USAGE

Principal Investigators (PIs) Using HPC Systems	426
Active Awards Using UPC Systems	1,481
Active Researchers Using HPC	926
Top 100 PIs Using HPC	80%

SUPERCOMPUTING CAPACITY

Total CPU Ocelote, El Gato and Puma Capacity	13.8K
Total Cores of All HPC Systems	37.3K
Faculty Compute Allocation	113K HRS/MO
Yearly Faculty Compute Hours Allocation	1.356M



SERVICES

- SUPERCOMPUTING (HPC)
- REGULATED RESEARCH ENVIRONMENT
- RESEARCH SUPPORT SERVICES
- UA VITAE

SUPPORTING STUDENT SUCCESS THROUGH TECHNOLOGY

Student and Academic Technologies partners with faculty, staff, and students to enable innovative instruction and student success.

“I am immensely grateful to all those who pitched in during a time of incredible disruption. The way our teams across multiple departments worked with a single purpose to provide top-notch support for instructors is one we should all reflect on with pride.”

– Lisa Elfring, PhD, Associate Vice Provost, Instruction and Assessment, Office of Instruction & Assessment

SUPPORTING FACULTY AS THEY MOVE INSTRUCTION ONLINE

When the gravity of the COVID-19 pandemic demanded a shift in instructional methods at the University of Arizona, it became clear that technology was going to be a critical part of sustaining the university's academic mission. 35 colleges and over 1,000 faculty made the transformation from the familiarity of leading instruction on campus to sharing a not-so-familiar classroom in an online environment.

The UITS Academic Technologies team collaborated with the Office of Digital Learning (ODL) and Office of Instruction & Assessment (OIA) to support faculty in shifting to online learning with D2L and other applications.

Once the remote learning decision was made, within 72 hours, a specialized website for online instruction resources and a special student learning website were created to assist in the transformation.

Although 93% of university faculty had at least one online D2L site prior to March 2020, transferring all curriculum and learning online was a monumental effort for many. A primary source of support for faculty quickly became the D2L support phone line. ODL and OIA staff pulled together to increase capacity from 6 people working 8 hours a day to daily 12-hour coverage, seven days a week.

UITS supported these efforts with developing websites and creating digital learning webinars on using Zoom, Virtual Computing Access Technology (VCAT), and other tools.

NEW STUDENT CENTER MADE FOR STUDENTS

UITS launched a modern, mobile responsive, and redesigned UAccess Student Center in FY20. The new platform made it easier for students to search and enroll in classes, monitor their financial aid, and manage personal information. Design of the new UAccess Student Center was guided through collaboration with students. It provided students with a more modern personalized, digital experience for their academic journey. UAccess Student and Trellis CRM teams collaborated with many campus partners on this important project including, Registrar's office, Bursar's office, Office of Scholarships and Financial Aid, and Academic Advising Resource Center.

DEGREE SEARCH REDESIGN TOPS WEBSITE VISITS

June marked the completion of a large-scale redesign to Degree Search, one of the University of Arizona's top visited academic planning websites. The enhanced web experience now allows students see details on all majors, options to filter by interest, view sample course plans, and even compare majors against other degree programs, giving them plenty of ways to explore and plan their academic career.

ZOOM USE SOARS DURING PANDEMIC

At the onset of the COVID-19 pandemic, Zoom quickly became a household name as people across the globe migrated to the online video and audio-conferencing platform for remote teaching, learning, and work.

UITS already had an established enterprise-wide Zoom service for campus and was able to quicky shift resources to support the expansion of Zoom use to more than 60,000 faculty, staff, and students.

UITS Classroom Technology Services teamed up to make sure all 240 centrally scheduled classrooms met the needs for remote learning and assisted departments with setting up their classrooms and specialized Zoom rooms.

494%

INCREASE IN CAMPUS ZOOM SESSIONS DURING FY20

DIGITAL CHANGE OF SCHEDULE FORM SUPPORTS STUDENT SUCCESS

In spring 2020, the University of Arizona established a temporary pass-fail grading policy, allowing students to elect a pass/fail grade instead of a letter-grade for their courses. The Office of the Registrar with support from the UAccess Student team, helped implement the policy, while Trellis worked with the Office of the Registrar to launch a digital Change of Schedule/Late Change Petition Form that gave students an option to withdraw from courses online. The new digital change of schedule form was convenient for students to complete and submit, creating a more efficient review and approval process with a faster turnaround time.

FY20 METRICS

D2L LEARNING MANAGEMENT SYSTEM (Version 20.20.10.24951)

Unique users	71.1K
Total Logins	18.6M

UACCESS STUDENT (Version 9.2)

(9.2 PUM 18 Oracle DB Version 19.0.0.0)

Financial Aid Disbursed *(19-20 Academic Year)*	$695M
Distinct Enrollment Requests	834.7K
Total Modifications to System	928

PANOPTO (Version 8.0.1)

Panopto Instructor Lecture Capture Views and Downloads	2.5M

ZOOM (Version 5.4.1)

Number of Sessions	480.4K
Number of Participants *(includes regular and HIPAA BAA sessions)*	3.0M

2.5M

PANOPTO INSTRUCTOR LECTURE CAPTURE VIEWS AND DOWNLOADS IN FY20

SERVICES

- UACCESS STUDENT
- CLASSROOM & LAB TECHNOLOGIES
- INSTRUCTIONAL TECHNOLOGIES
- ARIZONA MOBILE APP
- TRELLIS CRM

EXPANDING STUDENT AND FACULTY RELATIONSHIPS WITH TRELLIS

TRANSFORMING PERSONALIZED DIGITAL EXPERIENCES

Trellis, the University's constituent relationship management program, is connecting our University like never before. Since the program officially kicked off in January of 2019, the Trellis team has worked directly with the students, staff, and faculty to create a suite of applications that help streamline and personalize interactions between constituents. Thanks to the support of many strategic partners, leaders, and divisions across the University, Trellis launched several applications in just eight months.

CENTRALIZED MARKETING PLATFORM IGNITED BY COVID-19

When faculty and staff were suddenly faced with changes brought about by COVID-19, the vast variety of communication platforms used on campus became a challenge for important timely and consistent messaging. Communications from Campus Health Services, the Provost Office, and even critical University-wide operational updates from President Robbins, needed a single source for current student and employee recipients.

Trellis, in partnership with Marketing & Brand Management, pivoted to implement Trellis Marketing for University senior leadership. As a result, the University was able to streamline its email strategy so the right messages with consistent tone and brand reached key stakeholders.

Because Trellis Marketing is integrated smoothly with the rest of the University of Arizona's Constituent Relationship Management (CRM) system, the data is updated nightly and the platform provides robust analytics and reporting capabilities.

Additional campus units will be onboarded in Trellis Marketing in FY21.

NEW PLATFORMS SUPPORT STUDENT ACADEMIC SUCCESS

Trellis Advise is a new user-friendly scheduling and communications platform that allows advisers to manage their academic appointments and advising notes. Students are empowered to view their adviser's availability and book appointments.

The Trellis team partnered with the Advising Resource Center and the advising community to understand how to best support students in their academic journey. Additionally, students provided feedback on their academic advising interactions which helped the Trellis team develop a more consistent scheduling experience.

48.3K

TOTAL APPOINTMENTS SCHEDULED

Trellis Progress was built and developed in partnership with the Student Success & Retention Innovation (SSRI) team and allows instructors to provide both positive and constructive feedback on course performance and attendance. This feedback is also shared with student support staff (e.g., academic advisors) to ensure timely support for students and guide them to academic resources.

Learn more about Trellis CRM at trellis.arizona.edu

TRELLIS WINS HIGHER EDUCATION SUMMIT AWARD

The University of Arizona's Trellis CRM program was announced the winner of this year's Salesforce Higher Ed Summit Award for"Excellence in Student Success." The University was nominated in February 2020 as one of three finalists in the country. This was the University's first nomination and win, in its first year as a startup program.

TRELLIS SOCIAL

This past year, Trellis Social launched as a powerful social media management tool that enabled University social media managers to share content across channels more effectively. By using a single tool, marketers generate quality content to larger, more engaged audiences and can monitor their campaigns for real-time performance analysis, including social listening. With the onset of the COVID-19 pandemic, Trellis Social facilitated easier and more consistent messaging on health and safety, mental health resources, and COVID-19 health updates across UArizona channels.

432K

SOCIAL POSTS PUBLISHED

FY20 TRELLIS METRICS

TRELLIS CRM

Total Active Users	571

APPOINTMENT MANAGEMENT

Appointments Scheduled	48.3K

CASE MANAGEMENT

Cases Created	44.6K

TRELLIS SOCIAL

Total Active Users	261
Social Posts Published	432.1K

TRELLIS MARKETING CLOUD

Total Active Users	37
Recipients (All Users)	2.5M
Average Open Rate	46.7%

SERVICE DESK CASES

Total # of Service Desk Cases	851

869

TOTAL ACTIVE USERS IN TRELLIS CRM, MARKETING AND SOCIAL

SERVICES

- APPOINTMENT MANAGEMENT
- CASE MANAGEMENT
- ONLINE FORMS & REFERRALS
- MARKETING TECHNOLOGIES
- SOCIAL MEDIA MANAGEMENT
- EARLY PROGRESS REPORTS

LEVERAGING TECHNOLOGY & ADMINISTRATIVE EFFICIENCIES

Administrative Technologies creates and implements innovative technology solutions used to operate and manage the business of the University of Arizona.

UACCESS EMPLOYEE DELIVERS INCLUSION AND DIVERSITY REPORTING CAPABILITIES

This year employees were introduced to new features that provided flexibility in allowing them to specify their preferred self-identified gender and pronoun. Also included was an option for disability self-identification. While these are important options of choice for individuals, thesse features will also provide expanded reporting in support of the university's mission of diversity and inclusion. Another important upgrade included new configuration and customization to Open Enrollment as new benefit plans were contracted for 2021 triggering a full positive enrollment process.

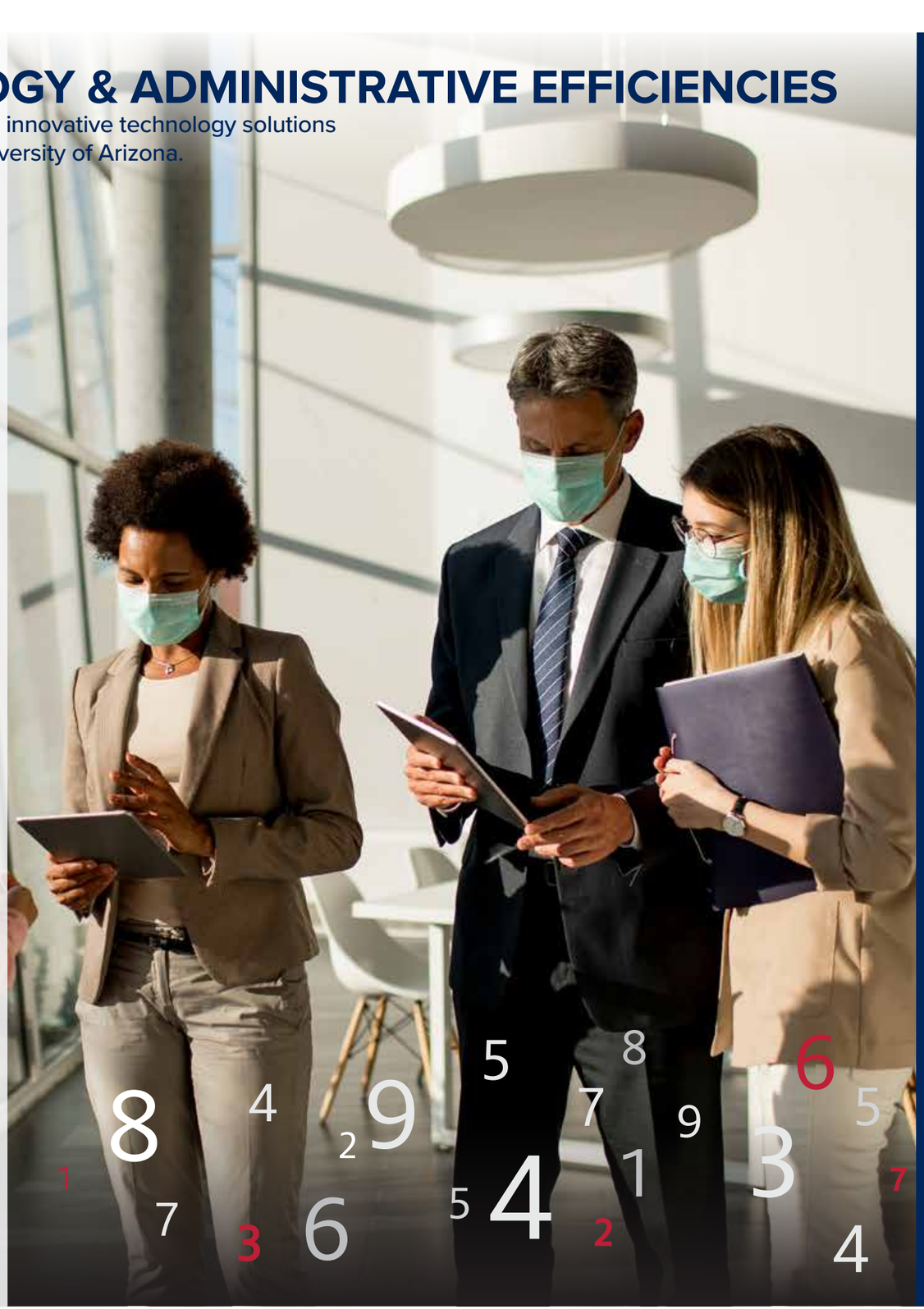
UCAP DRIVES LARGEST RECONFIGURATION IN 10 YEARS

The UAccess Employee team had the largest reconfiguration of the employee workforce system since its implementation 10 years ago due to the University Career Architecture Program (UCAP) initiative.

UCAP was huge for University Human Resources and employees. It was also an epic reconfiguration of the UAccess system's pay groups and code values that impact recordkeeping, payroll cycles, the payroll calendar, and benefits calculations. The whole project took many months as the team coordinated with HR to implement a new set of job codes, positions, and job records in the reconfigured UAccess Employee system.

NEW LEARNING MANAGEMENT SYSTEM FOR EMPLOYEES

Another months-long project to redesign the way University employees receive professional development and certification training included project management and systems development by UITS Administrative Technologies. The new Employee Development Growth & Engagement (EDGE) Learning Management System is due to go live in November 2020.



NEW CONTRACT MANAGEMENT SYSTEM BRINGS EFFICIENCY AND TRANSPARENCY

UITS Administrative Technologies staff provided leadership in researching and procuring a new contract management system this past year. In fulfillment of the University's Strategic Initiative 5.2A4, the team brought together a diverse workgroup of stakeholders from across campus to review a new document management system for executed contract storage and retrieval. Throughout the year, the workgroup established governance for areas such as common indexing and security configuration. The team developed an implementation process and established a document & index migration for the new tool. Training began over the summer and went live in September with the first four offices.

FY20 METRICS

UACCESS RESEARCH (Kuali Coeus 5.2.1 with Kuali Rice 2.3.9)

Active Awards	2.2K

UACCESS FINANCIALS (Kuali Version 7 2019-10-31 with Rice 2.7.0)

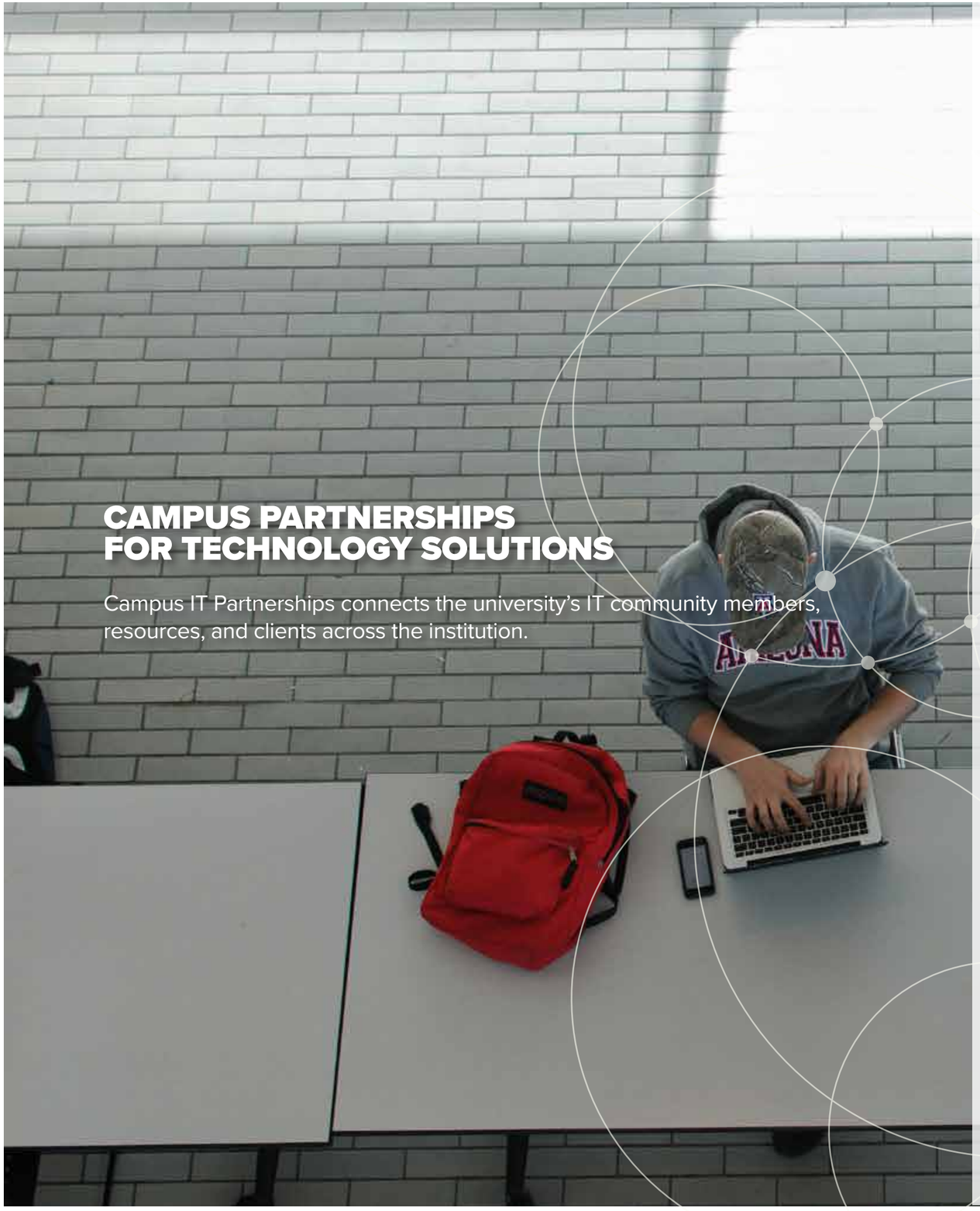
P Card Transactions	198K
Avg. Monthly Travel Reimbursements Processed	1.7K per month
Accounts	21.2K

UACCESS EMPLOYEE (Version 9.2.035 Peoplesoft HCM People Tools 8.57.16)

Total Payroll Amount Processed	$1.03B
Average Daily Unique Visitors (Business Days Only)	3.8K
Average Number of Paychecks Proccessed Each Pay Period	20K

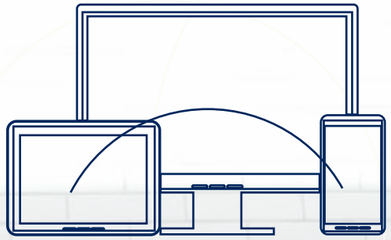
SERVICES

- UACCESS FINANCIALS
- UACCESS EMPLOYEE + UACCESS LEARNING
- UACCESS RESEARCH



CAMPUS PARTNERSHIPS FOR TECHNOLOGY SOLUTIONS

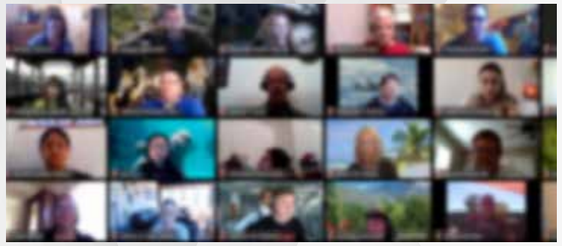
Campus IT Partnerships connects the university's IT community members, resources, and clients across the institution.



"The Continuity meetings have given IT units a platform to seek assistance and provide help between units. It's also connected IT staff who may not meet otherwise, creating a more tight-knit community."

– Michael Resnick, Director, Information Technology, Campus Health Services

DAILY IT LEADERSHIP MEETING SUPPORTS ONLINE TRANSFORMATION



Finding ways for teams to stay connected while working remotely had challenges, but the University of Arizona's IT Community continued their mutual support for colleges and departments across campus through a daily Zoom continuity meeting.

Campus IT Partnerships previously held monthly campus IT directors' meetings where information was distributed and discussed across colleges and divisions. With the shift of campus staff working remotely, the once monthly face-to-face meetings moved online to Zoom and transformed into daily campus continuity coordination for topics related to technology and more.

What makes this series of meetings work in a time when everyone has little time to sit in meetings? "It's about information sharing," explains Executive Director of Campus IT Partnerships, Tom Bourgeois, "We created a space where anyone can surface a problem, collaborate with those who understand what options may exist to solve it and get a solution."

Relationships among the university's IT community turned this Zoom continuity meeting into a highly successful organic problem-solving channel.

"The fact is, you don't know who's got a piece of the puzzle that you turn out to need...but the meeting puts relationships to work in a way that they wouldn't otherwise be called upon to work."

- Thomas Bourgeois, Executive Director of Campus IT Partnerships

COLLABORATION FOR A SAFER SOLUTION

The University of Arizona's Student Aid for Field Epidemiology Response (SAFER) has historically had a group of five staff, focused on call center response for Arizona's poison control hotline. But with the emerging COVID-19 pandemic, SAFER staff were enlisted to help county health officials support contact tracing of cases to identify anyone who might have come in close contact with an infected person. The original five staff members quickly rose to over 35 student volunteers on the front line.

UITS IT Service Management reached out to the SAFER Coordinator with a solution. UITS provided strategic support to transfer SAFER to a Cherwell ticketing system and AWS call center. As experienced call center staff, UITS was able to offer guidance in training the new volunteers.

The version of Cherwell UITS was using was not HIPAA compliant, however. Becoming HIPAA compliant was only the first of many hours of collaboration and development needed to create a ticketing system that would meet the needs of the SAFER team. The University's HIPAA Compliance Officer and application vendor joined the UITS working group to make it happen in record time.

"UITS development of the COVID-19 dashboard and roll-out of other technology has been no small feat. Their team has been indispensable in moving our call center online and providing solutions to the challenges we faced."

- Dr. Erika Austhof, Epidemiologist

CAMPUS WEB SERVICES SUPPORTING A PANDEMIC

This past year, Campus Web Services focused on expanding the UArizona brand across individual websites and when the COVID pandemic surfaced, they built out new websites at amazing speed. Perhaps never in the history of the University's communications have website technologies been more critical than this past year. Faculty, students, staff and our local community, state and the nation looked to University of Arizona's website for critical information.

Most of the COVID-19 specific information was made available on a new Arizona.edu/COVID-19 website. This and many pages were quickly developed with end-user support extended by the Campus Web Services team. A web resource for faculty, remote-teaching.arizona.edu, was created over a short weekend, providing many resources in one location for using Zoom and shifting learning and proctoring to online. Another critical website, remote-learning.arizona.edu, was created to focus on informing and supporting remote learning for students.

Throughout the spring and summer, the Campus Web Services team provided critical communications channels for multiple colleges and departments.

Worth noting, are new sites for Arizona Global, Tech Launch Arizona, Faculty Governance, Wellcheck Arizona, and College of Science. The Campus Web Services team also provided training for 30 website editors across campus, resulting in a reduction of 32% in support requests for UA Sites.

1.2K

WEB SERVICE REQUESTS

FY20 METRICS

CAMPUS WEB SERVICES

Websites Supported	530
Websites Launched in 2020	63
Total Service Requests	1.2K
Campus Websites That Have Adopted Quickstart	+300

24/7 IT SUPPORT CENTER

Chat Increase Over Last Year	22.9%
Total Technical Support Requests	117.6K
Non-Technical Support Requests	40.9K

16 WEEKS

DAILY IT CONTINUITY MEETINGS

March 16 - June 30, 2020

SERVICES

- CAMPUS OUTREACH
- CAMPUS WEB SERVICES
- 24/7 IT SUPPORT CENTER
- DESKTOP SUPPORT (FEE-BASED)
- SOFTWARE
  - EMAIL
  - WINDOWS/OFFICE
  - ADOBE
  - BOX
  - ACTIVE DIRECTORY
  - ZOOM

TECHNOLOGY TRANSFORMING TEACHING AND LEARNING

3D IMMERSIVE ENVIRONMENT ENHANCES LEADERSHIP EDUCATION IN HEALTHCARE

The College of Nursing is taking a new approach to online learning by using virtual reality and video game like applications to teach students about real life healthcare scenarios. In FY20, the College's IT department helped to launch two new "gamified" simulations in support of their teaching and service mission, specifically for the Master of Science in Clinical Systems Leadership (MSN) online program. The simulations are a huge step forward in the effort to develop a simulated healthcare system, Desert Regional Healthcare Alliance (DRHA), for leadership education.

As part of the Healing Environments and Practices course taught by Dr. Cheryl Lacasse, Clinical Professor of Nursing and Director of Teaching and Learning Practice and Evaluation, nursing students engage in a 3D virtual setting, similar to a video game, allowing them to "walk in" to a hospital room and change various aspects of the care environment. A Veterans Affairs Clinic scenario allowed students to enter a virtual clinic as an administrator and make choices to handle a crisis situation involving a disgruntled patient. The user must traverse the clinic, interact with other clinic administrators, and decide on a plan of action to deal with the crisis.

Applications Architect David Celaya-Gonzalez, and student worker and undergraduate computer science major Cullen Bates, used the Unity platform to complete initial development of the simulations in spring 2020. According to Celaya-Gonzalez, "Building these simulated environments definitely requires a blend of technology and art. Strong programming skills are required as well as a digital artist with an interest in online gaming to create 3D models and animate them."

Bates created web versions of the 3D applications instead of native apps so that they could be experienced easily in a web browser. After further refinement, the applications were made available for download on the Windows and Mac platforms for summer 2020.

Dr. Cheryl Lacasse initiated grant funding for this work from the Center for University Education Scholarship (CUES), a private endowment managed by the Office of Provost, that supports teaching innovation. In the future, she would like to make the virtual healthcare system more accessible for broader use across College of Nursing and interdisciplinary health-related programs by encouraging continued development of leadership simulations.

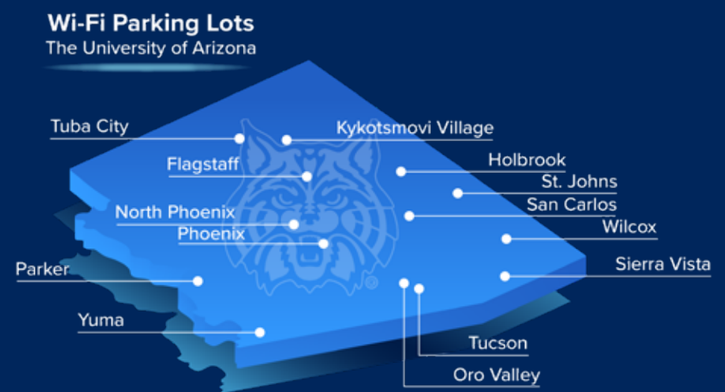
Learn more about this story go to nursing.arizona.edu/cues-apps

COLLABORATION WITH COLLEGE OF AGRICULTURE AND LIFE SCIENCES KEEP STUDENTS CONNECTED

When students learned they would be finishing the semester remotely, it became clear that some didn't have the internet connection they needed. As part of the University's land-grant mission, several programs connect with communities from counties and tribal lands across the state. But in many rural areas, broadband internet and cellular service can be hard to find. Even in urban areas, economically disadvantaged families or areas can lack access.

UITS leaders partnered with the College of Agriculture and Life Sciences and quickly organized teams, including members of telecommunications services, estimating and engineering, network technicians and warehouse, and network operations, to implement internet hotspots.

In all, 13 sites outside of Pima County are now listed with the 12 campus parking lot sites on the newly created remote UAWiFi hotspots webpage, nine of which were are sites updated in spring 2020.



The Cooperative Extension offices in each Arizona county were identified for creating wi-fi hotspots for students to use. By parking in nearby lots, students could access the wi-fi from their cars, ensuring social distancing.

The UITS Technology leadership has worked on issues of internet connectivity with partners around the state for years. In addition to being one of three state universities, UITS is home to the Sun Corridor Network, Arizona's 100Gbps education and research network.

13 *New!*

REMOTE WI-FI HOTSPOTS
OUTSIDE PIMA COUNTY

12 *New!*

REMOTE WI-FI HOTSPOTS
PARKING LOTS AROUND CAMPUS

FOUNDATIONAL TECHNOLOGIES BUILDING FOR THE FUTURE

Foundational Technologies builds the infrastructure upon which the campus technology services are provided.

“We were able to move forward with innovative practices using machine data, such as wireless access points, to inform leadership about population density around campus.”

– Lanita Collette, Deputy Chief Information Officer and Chief Information Security Officer

USING MACHINE LEARNING TO INFORM DECISION MAKING

Collaboration was critical to the work between University leaders, researchers, and IT professionals during the COVID-19 pandemic as they leveraged machine data to make the best-informed decisions possible for the campus community.

Since the University of Arizona had already established a mature information security practice before COVID-19, UITS was able to quickly expand the Splunk monitoring system to assist with strategic big data needs.

Splunk analyzes time-based interactions, thus providing insight into human behavior, such as how faculty, staff, and students are using IT systems either remotely or on campus. Because protecting individual privacy is a critical element in data security, the ISO team worked closely with the University privacy governance council to anonymize the data sets.

Splunk gave UITS technicians the ability to look at population density that could be measured using campus wireless access points. This was particularly instrumental for the University's campus reentry efforts and data-driven decision making.

When the University moved to remote locations in March 2020, UITS began monitoring its most commonly used systems to determine IT service usage across the globe. The data showed active users and performance metrics for D2L, Zoom, Virtual Private Network (VPN), remote Wi-Fi site connections, and many other important systems needed for remote work and learning. Through this identification and monitoring of systems, UITS was able to expand services where needed, such as increased VPN connections.

View this story and more at annualreport.it.arizona.edu/2020

EXPANDING UNIVERSITY ANTIBODY TESTING ACROSS ARIZONA

The University of Arizona's College of Medicine faculty researchers were among the first in the country to establish a reliable COVID-19 antibody test in spring 2020. UITS technicians were given a role in the Test-Trace-Treat initiative to provide technical support for expanding testing across the campus, county, and state.

The University of Arizona's testing initiative started in coordination with the Pima County Health Department and was soon expanded to five medical clinics in Maricopa County. UITS teams also ramped up locally as they were called upon to set up 220 laptops, 120 label printers, and 40 bar code scanners for the campus antibody testing process.

In total, the project included 33 testing sites across Arizona. WNC staff traded off working 12- to 14-hour days, paired with a field technician every day, delivering and installing site hardware across Arizona. They logged over 2,000 miles in a week.

Making the testing initiative an immediate success included collaborative effort between the College of Medicine (Tucson), College of Nursing, and additional help from University Libraries and the College of Social & Behavioral Sciences.

"It was the perfect example of how things can really be efficient, effective, and successful when everyone gets together with a plan. We just coordinate and get it done."

- Gabe Quiroz, director of enterprise business analysts for WNC

CLOUD CONTACT CENTER IMPROVES REMOTE WORK CAPABILITIES

As campus shifted to a fully remote workforce, there was suddenly a need to modify how departments handled inbound calls such as technical support, athletics ticket sales or registering for a COVID-19 antibody test. Historically, telecommunications technology required staff to be on campus to answer calls, which became challenge in the new remote environment.

The 24/7 Support Center, which operates a campus call center, had already been testing a new Amazon Connect platform for nearly a year and planned to offer it as a new service in 2020. The cloud-based call center system not only had the ability to support a fully remote workforce, but could also be expanded to accommodate others who needed to use it. The timeline was accelerated overnight to begin deploying Amazon Connect to campus units so their staff could receive calls remotely on their computer or cell phone throughout the day.

UITS telecommunications, network, service management, and workgroup and network consulting teams partnered to onboard 28 campus groups in the new call center solution. Key to to establishing these centers was speed and scale. UITS launched call centers for many campus groups in less than 48 hours, with the capability of taking calls from hundreds of thousands of callers.

CONTACT CENTER CALLS

(March 20 - June 30, 2020)

38.2K

NUMBER OF CALLS TO CAMPUS UNITS

30K

CALLS TO UITS 24/7 SUPPORT CENTER

CREATING A CULTURE OF SECURITY AWARENESS

The Information Security Office provides policies, tools, and processes to protect the information resources of the University of Arizona, using a shared responsibility model.

SECURITY RISK ASSESSMENTS FOSTER SHARED RESPONSIBILITY

The Information Security Office (ISO), collaborates with campus units to conduct annual risk assessments requiring annual inventories and security plans. It is part of the shared responsibility model campus units participate in to reduce, mitigate, or transfer known information security risks.

The Risk Management process has four main steps: Data Collection, Risk Assessment, Risk Analysis, and Security Planning. Each step plays a critical role in thoroughly understanding risks at the university.

In FY20, a new UASecure Information Security Risk Management platform was built to manage the process. Over 174 security plans were completed by campus units in FY20. The ISO and Campus IT Partnerships worked in collaboration with Information Security Risk Managers to develop a current "risk state" and a prioritized risk-informed approach to improving their department's security posture.

The first ever CyberSecurity Fair was hosted by ISO during National CyberSecurity Awareness month, October 2020.

2.6M
PHISHING & SPAM EMAILS BLOCKED DAILY

splunk> BOSS OF THE SOC

Congratulations to ISO's Splunk team for their **3rd Place win** in the 2020 Global Cybersecurity Challenge

Learn more about the Information Security Office at security.ariona.edu

FINDING ANSWERS TO REMOTE WORK QUESTIONS

The Information Security Office (ISO) has implemented a variety of tools and systems to help improve the level of sophistication in the university's IT operations and campus networks. The focus has been on vulnerability scanning, patching, log monitoring, configuration management, web app development, and systematic communication and collaboration within the UA's IT community.

One of the tools ISO has implemented is Spunk, a software for searching and analyzing machine-generated big data. This software has helped to strengthen the threat detection and analytics capabilities of our Security Operations Center to protect university data and employees from information security vulnerabilities.

FY20 METRICS

FIREWALL (BORDER) BLOCKS
Intra-Campus Firewall Blocks (per day) 313M

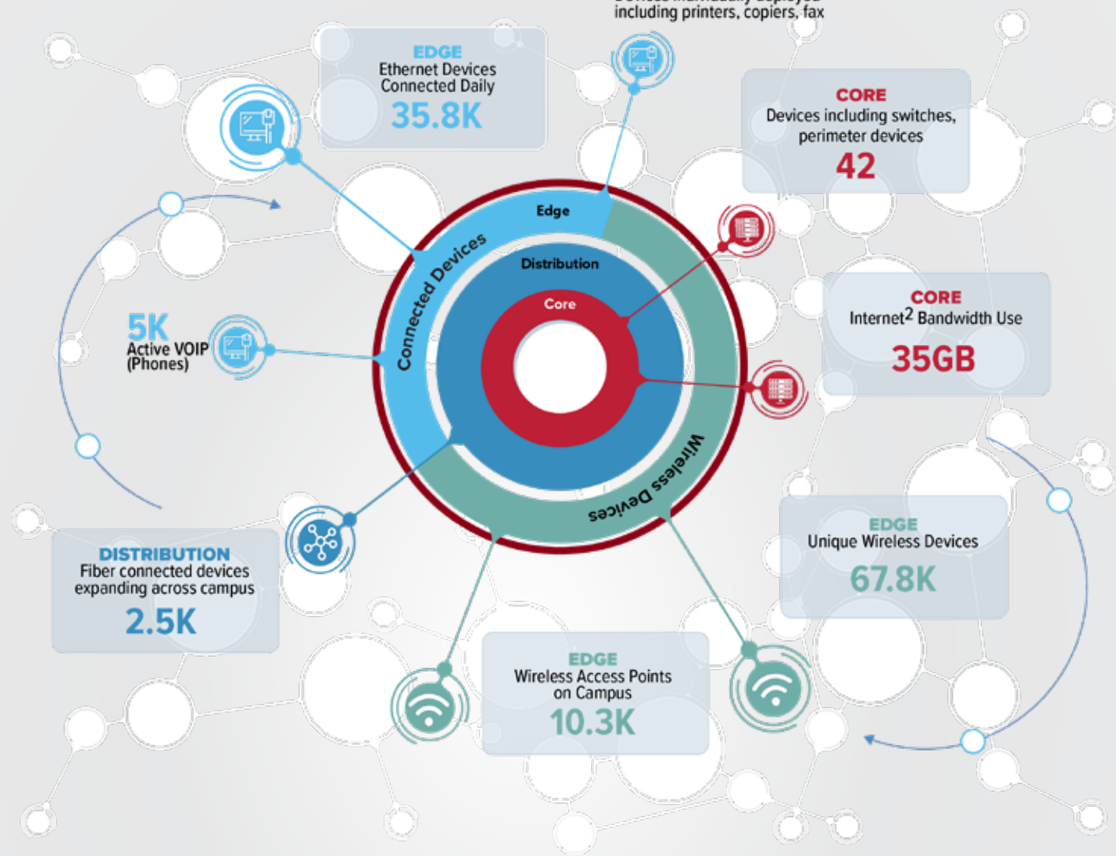
SECURITY MONITORING
Log Aggregation 207TB

EMAIL SECURITY APPLIANCE
Phishing and Spam Emails Blocked (per day) 2.6M

RISK MANAGEMENT
RCU Completed FY20 Plans 86%

SERVICES
- COMPLIANCE SERVICES
- SECURITY ARCHITECTURE
- INCIDENT RESPONSE /SECURITY OPERATIONS
- TRAINING
- SECURITY MONITORING

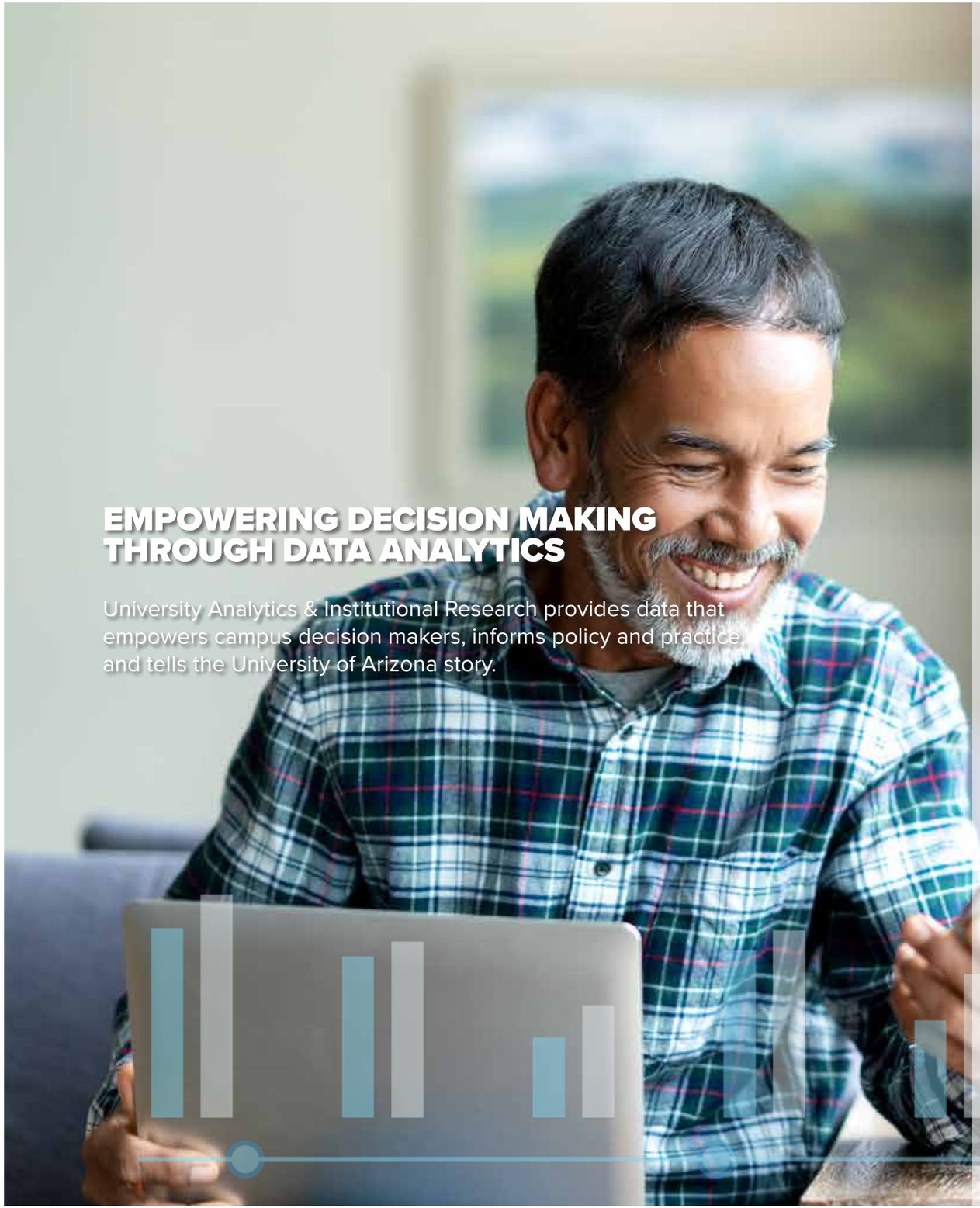
THE UNIVERSITY OF ARIZONA NETWORK MODEL



The foundation of information technology at the University of Arizona continues to be the campus network. It's the backbone for all wired and wireless internet connectivity on the main campus in Tucson and at distance locations across Arizona. From moving huge research data sets, supporting thousands of Zoom connections, and streaming television in residence halls, there are more demands on the campus network than ever before.

The University's connection to **Internet2** through **Arizona's Sun Corridor Research and Education Network** provides a massive 35 gigabytes of connectivity to campus on an average day, supporting a variety of digital devices and computers. **In 2018, the University of Arizona was recognized by PCMagazine as having the 4th fastest campus wi-fi network in the United States.**

In FY20, the strength of the network infrastructure was further validated when the National Science Foundation awarded the University a $26 million grant to establish and lead the **Center for Quantum Networks.** CQN aims to lay the foundations of the quantum internet by connecting quantum computers, data centers, and gadgets with quantum bits. The CQN team will be researching quantum materials and devices, quantum and classical processing required at a network node, and quantum network protocols and architectures. Much of this work will be done on the University's network infrastructure in support of this NSF funded endeavor.



EMPOWERING DECISION MAKING THROUGH DATA ANALYTICS

University Analytics & Institutional Research provides data that empowers campus decision makers, informs policy and practice, and tells the University of Arizona story.

“ The model and the related visualization tools were critical to being able to assess near-peer equity questions in all our academic units accurately and efficiently.”

— Liesl Folks, Senior Vice President for Academic Affairs and Provost

PREDICTIVE MODELING IN SUPPORT OF PAY EQUITY

Throughout the 2019-2020 academic year, University Analytics and Institutional Research (UAIR), provided major data support for a new faculty pay equity analysis. This analysis was designed to help deliver on the university's commitment to pay comparable salaries for comparable work, regardless of gender, race and ethnicity. Facilitated by the Office of the Provost, the work resulted in total adjustments of $885,659, an approximate 0.5% increase in total salary, for tenure and tenure-eligible faculty.

UAIR provided the data, consultation, and predictive modeling to advance this project. Team members were also integral in performing the near-peer comparisons that evaluate similar qualifications and subsequent pay among faculty to determine discrepancies. To expand on the inclusivity of the analysis overall, UAIR explored best practices from intersectional methodologies in predictive modeling.

In keeping with the department's increased efforts to expand data accessibility, UAIR used the interactive data visualization software, known as Tableau, to produce documentation of this information. The final deliverable was designed to help leadership see and interact with faculty data in new ways to make data-informed decisions easier.

"Now that the UAIR team has done this all-important foundational work, we will be able to apply the model to this and other employee groups periodically in order to ensure that problems with equity are surfaced quickly and addressed appropriately."

- Liesl Folks, Senior Vice President for Academic Affairs and Provost

PROMOTING DATA-INFORMED DECISION MAKING ON CAMPUS

As part of UAIR's efforts to promote data-informed decision making on campus, a new Data Exploration Series was developed. The series introduces users to the resources available to them to explore institutional data at the University. In FY20 UAIR provided in-depth data literacy presentations and guides focusing on various data sources and tools.

The first in-person workshop presented insights on student data to administrators, faculty, and staff. In response to the COVID-19 pandemic, UAIR pivoted to an online format for presentations. Over 100 campus employees joined in on the June 2020 webinar that focused on retention, graduation, and curricular flow of data. Webinars are recorded and made available on the UAIR website. UAIR will to continue expanding data literacy opportunities to include additional presentations and interactive resources.

NEW PLANNING TOOLS HELP PREDICT NET TUITION REVENUE

As the COVID-19 pandemic made fundamental changes to higher education in March, campus leadership needed guidance on predicting future net tuition revenue (NTR) and its potential impact on the University's ability to continue its mission.

UAIR developed an NTR data dashboard to provide leadership with current projections as well as a "What-if Tool" to plan for various NTR scenarios. The project required the development of a complex predictive modeling system rooted in data science. The approach evaluated various student attributes and behaviors to predict whether current and prospective students would return to the University in the fall. UAIR's Executive Director Ravneet Chadha provided additional guidance by serving as the chair of the NTR Steering Committee, which consisted of department heads, vice presidents and professors from across campus.

NEW DASHBOARDS HELP TRACK FURLOUGH PROGRAM

When the University of Arizona developed a furlough based salary program in response to the COVID-19 budget constraints, UAIR was called upon for data analysis and reporting support. Dedicating two full-time team members for the fourth quarter of the fiscal year, UAIR developed multiple dashboards to help supervisors and campus leaders plan and track the new furlough program.

Learn more about UAIR online at uair.arizona.edu

FY20 METRICS

UACCESS ANALYTICS (ORACLE BUSINESS INTELLIGENCE ENTERPRISE EDITION 12c)

Active Users	4,974
Active Subject Areas	189
Reports Run	8.8M
Nightly ETL Jobs	13.5K
Active Dashboard Pages	4.6K
Queries Run Daily	31.6K

EXTERNAL REPORTING

Total Surveys	138

45,918

TOTAL STUDENTS FALL 2019 CENSUS INCLUDING 35,801 UNDERGRADUATES AND 10,117 GRADUATE STUDENTS

31.6K

ANALYTICS QUERIES RUN EACH DAY

SERVICES

- EMPLOYEE DATA
- STUDENT DATA
- FINANCIAL DATA
- BUDGET DATA
- RESEARCH DATA
- SPACE DATA
- WEBSITE/INTERACTIVE FACT BOOK
- EXTERNAL REPORTING
- MANAGERIAL REPORTING (Strategic Initiative 5.2A3 Data Warehouse)

IT BENCHMARKING & STRATEGIC PLANNING

UITS 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 is used 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 FY20, UArizona's IT expenditure was 6.2%, which was the smallest expenditure compared to higher education peers in all other benchmark categories.

INFORMATION TECHNOLOGY AT ARIZONA

The University of Arizona's IT community is comprised of 782.1 professionals across central and distributed job functions that support college, institutional, auxiliary, and enterprise-wide services. The annual expenditure in FY20 for IT across the university was $100.9 M.

UNIVERSITY INFORMATION TECHNOLOGY SERVICES

University Information Technology Services operates and manages central IT services for University of Arizona faculty, staff and students. Within the division, there are 291.4 total IT FTEs represented in UCAP IT job families. The annual expenditure in FY20 for UITS was $77.6 M.

HIGHER EDUCATION IT BENCHMARKING

	UARIZONA	ABOR PEERS	PUBLIC AAU	PUBLIC LAND GRANT INSTITUTIONS	PUBLIC MD-GRANTING INSTITUTIONS	USNWR PUBLIC 2021 TOP 50
FACULTY FTE[1]	2.8K	3.9K	3.3K	1.8K	2.2K	2.8K
STUDENT FTE[2]	39.3K	43.9K	36.2K	22.3K	22.4K	33.3K
RESEARCH EXPENDITURES[3] (IN THE THOUSANDS)	$687.1M	$899.2M	$702.3	$305.7M	$371.7M	$579.1M
TOTAL EXPENDITURES[4] (NET OF HOSPITAL)	$2,060.7M	$3,070.2M	$2,371.8M	$1,115.7M	$1,369.9M	2,023.7M
IT FTE[5]	714.3	1,175.2	922.8	618.3	655.9	891.8
IT EXPENDITURES[5]	$128.1M	$203.6M	$166.7M	$109.8M	$120.1M	$155.3M
IT STAFF PER 1,000 STUDENTS	18.19	26.78	25.49	27.77	29.27	26.81
IT EXP AS % OF TOTAL	**6.2%**	**6.6%**	**7.0%**	**9.8%**	**8.8%**	**7.7%**

Sources:
[1] Integrated Postsecondary Education Data System (IPeDS) - Spring 2019 Human Resources Component
[2] IPEDS - Spring 2019, Fall Enrollment Component
[3] NSF Higher Education Research and Development Survey FY18
[4] IPEDS Spring 2019, Finance Component
[5] Educause Core Data Service Survey FY19

UNIVERSITY IT WORKFORCE & EXPENDITURES

IT WORKFORCE FTE

	UITS	PROVOST	HEALTH	CFO	AUXILIARY	RII	GRAND TOTAL
START FY2020	267.8	253.6	98.2	60.3	32.7	19.3	731.8
HIRES/TRANSFERS IN	52.0	50.3	26.8	21.0	0.25	10.0	160.4
ATTRITION	28.4	43.23	17.0	11.0	3.5	7.0	110.1
END FY2020	291.4	260.7	108.0	70.3	29.5	22.3	782.1
TURNOVER RATE	10.6%	17.0%	17.3%	18.3%	10.7%	36.4%	15.0%
% SALARY INCREASE ON STARTING FTE COUNT	34.0%	43.8%	32.6%	56.4%	82.5%	26.0%	40.4%
% PROMOTION ON STARTING FTE COUNT	10.5%	7.1%	12.2%	8.3%	9.2%	5.2%	9.0%
AVERAGE % OF MIDPOINT	91.4%	84.8%	88.1%	85.2%	78.7%	86.4%	87.5%
SUPERVISOR (COUNT)	54	137	59	36	14	19	319
IT STAFF/SUPERVISOR RATIO	5.4	1.9	1.8	2.0	2.1	1.2	2.5

CAMPUS IT BY JOB FAMILY

IT SUPPORT	67.5	73.9	47.0	15.5	11.0	8.0	222.9
IT INFRASTRUCTURE	33.0	53.1	11.6	9.0	8.5	3.0	118.2
IT NETWORK	30.0	3.0	0.4			1.0	34.4
IT SECURITY	12.0			1.0			13.0
IT PROJECT MGMT	27.0	3.0	2.0		1.0		33.0
IT APPLICATIONS	72.4	51.2	19.0	29.0	2.0	5.0	178.6
IT WEB DEV	7.0	32.8	5.2	5.0	6.0	4.0	60.0
IT INSTRUCTIONAL TECH	11.0	20.0	11.5				42.5
IT ANALYSIS	31.5	23.8	11.3	10.8	1.0	1.3	79.5
GRAND TOTAL	**291.4**	**260.8**	**108.0**	**70.3**	**29.5**	**22.3**	**782.1**

Source: UAccess Employee
HCM Census Data
All Active Employees

PERSONNEL & EXPENDITURES - IT JOB FAMILY GROUPS

	UITS	PROVOST	HEALTH	CFO	AUXILIARY	RII	GRAND TOTAL
SALARY	$19,008,273	$15,942,055	$9,873,833	$4,490,999	$1,605,882	$1,784,749	$52,705,790
ERE	6,441,631	5,380,760	2,181,848	1,414,205	534,767	467,717	16,420,927
SOFTWARE ETC.	16,772,069	5,129,857	3,179,428	2,474,194	1,713,663	698,617	29,967,828
IT EQUIPMENT	275,207	738,126	422,701	155,598	155,054	95,567	1,842,253
TOTAL	**$42,497,180**	**$27,190,798**	**$15,657,810**	**$8,534,996**	**$4,009,366**	**$3,046,650**	**$100,936,798**

Source: UAccess Financials
Payroll Expenditure Listing (PEL) with SET
G-MF Income/Expense - Productions
All Funds Reconciliation Transfers

UITS FY20 WORKFORCE & EXPENDITURES

UITS WORKFORCE ANALYSIS

	UITS ADMIN	STUDENT & ACAD TECH	RESEARCH & DISCOVERY TECH	ADMIN TECH	UAIR	INFORMATION SECURITY OFFICE	INFRASTR & FOUNDATIONAL TECH	CAMPUS IT PARTNERSHIPS + IT SUPPORT	UITS TOTAL
START FY20, ALL	20.8	59.5	13.2	31.0	32.0	12.0	82.0	52.4	302.8
HIRES/TRANSFERS IN	6.5	12.9	5.0	0.0	15.5	2.0	6.0	11.0	58.9
ATTRITION	4.5	5.0	1.8	1.0	7.0	2.0	4.0	7.9	33.1
END FY20, ALL	22.8	67.4	16.5	30.0	40.5	12.0	84.0	55.5	328.6
END FY20, IT	0.0	64.4	9.0	30.0	37.5	12.0	83.0	55.5	291.4
TURNOVER RATE	21.7%	8.4%	13.2%	3.2%	21.9%	16.7%	4.9%	15.0%	10.9%
% SALARY INCREASE ON STARTING FTE COUNT	38.6%	33.6%	22.7%	35.5%	34.4%	25.0%	42.7%	22.9%	33.7%
% PROMOTION ON STARTING FTE COUNT	9.6%	5.0%	0.0%	6.5%	21.9%	16.7%	4.9%	17.2%	9.6%
AVERAGE % OF MIDPOINT	80.5%	84.8%	106.0%	95.5%	86.5%	87.5%	99.2%	87.2%	91.4%
SUPERVISOR (COUNT)	5.0	11.0	3.0	5.0	7.0	3.5	16.5	9.0	60
IT STAFF/SUPERVISOR RATIO		5.9	4.5	6.0	5.4	3.4	5.0	6.2	5.4
STAFF/SUPERVISOR RATIO	4.6	6.1	5.5	6.0	5.8	3.4	5.1	6.2	5.5

UITS IT FTE BY JOB FAMILY

IT SUPPORT	9.0	1.0		2.0	1.0	17.0	36.5	67.5
IT INFRASTRUCTURE	2.0	5.0		2.0		21.0	3.0	33.0
IT NETWORK						30.0		30.0
IT SECURITY		1.0	1.0		9.0		2.0	12.0
IT PROJECT MGMT	5.0	1.0	1.0	1.0	2.0	11.0	6.0	27.0
IT APPLICATIONS	36.4	1.0	28.0	1.0		4.0	2.0	72.4
IT WEB DEV	1.0						6.0	7.0
IT INSTRUCTIONAL TECH	11.0							11.0
IT ANALYSIS				31.5				31.5
GRAND TOTAL	**64.4**	**9.0**	**30.0**	**37.5**	**12.0**	**83.0**	**55.5**	**291.4**

Source: UAccess Employee
HCM Census Data
All Active Employees

10.9%

EMPLOYEE TURNOVER RATE

The turnover rate is the number of employees that have left the department divided by the total number of employees in the department. For FY20, UITS had 33.1 of employees leave the organization out of 328.6 leading to a turnover rate of 10.9%. Based on that turnover rate, the average employee in UITS works for UITS for 9.2 years.

91.4%

PERCENT OF MARKET MEDIAN

The formula commonly used to assess the competitiveness of an employee's pay level is the employee's current salary divided by the midpoint. The midpoint is defined by the Division of HR for each University Staff Career Architecture paygrade. For the UITS analysis, the average total compensation of all UITS employees was compared to the midpoint for each paygrade. The totals were aggregated together for an average annual compensation rate that is 91.4% of midpoint.

UITS FUNDING SOURCES & USES

REVENUES

CARRY FORWARD IN $9,470,941

	UITS ADMIN	STUDENT & ACAD TECH	RESEARCH & DISCOVERY TECH	ADMIN TECH	UAIR	INFORMATION SECURITY	INFRA & FOUNDATIONAL TECH	CAMPUS IT PARTNERSHIP & IT SUPPORT	TOTAL
INSTITUTIONAL	$7,189,122	3,259,405	2,365,477	5,105,422	4,046,236	3,820,405	5,117,314	4,654,238	35,557,620
SERVICE CENTER	1,420	105,502	46,807		143,998		4,661,483	1,254,181	6,213,390
STRATEGIC	61,691			1,391,885				10,178	1,463,753
STUDENT	3,262,043	4,607,556					1,511,423	2,118,888	11,499,910
TRIF			850,000			78,238			928,238
TRANSFERS IN		10,412,255		200,000	3,254,000	449,993	6,327,570		20,643,818
REVENUE SUBTOTAL	**10,514,276**	**18,384,718**	**3,262,284**	**6,697,307**	**7,444,234**	**4,348,636**	**17,617,790**	**8,037,485**	**76,306,729**

EXPENDITURES

PERSONNEL IT	-	5,140,642	627,176	2,303,610	2,757,100	1,426,784	5,851,755	3,322,090	21,426,158
PERSONNEL NON-IT	1,597,635	83,017	777,939	-	236,770	-	124,567	81,540	2,901,467
ERE	491,146	1,496,005	431,472	723,334	970,459	445,137	1,856,965	1,003,592	7,418,110
OP EX SOFTWARE	374,212	4,577,718	346,568	2,006,089	287,610	2,465,781	4,564,446	1,982,022	16,604,447
CAP EX IT	-	-	44,127	-	-	-	231,080	-	275,207
GENERAL EXPENSES	690,312	9,437,821	766,374	1,460,707	202,794	336,650	5,187,764	376,871	18,459,292
CAPITAL	15,082	699,668	3,509,348	-	-	-	664,924	-	4,889,023
TRANSFERS OUT	1,071,288	-	-	-	-	-	234,551	-	1,305,839
STRATEGIC REDUCTION	-	1,863,703	-	-	2,522,205	-	-	-	4,385,908
EXPENSE SUBTOTAL	**4,239,675**	**23,298,574**	**6,503,004**	**6,493,741**	**6,976,938**	**4,671,352**	**18,7116,051**	**6,766,116**	**77,665,450**
REVENUE MINUS EXPENSE	**6,274,601**	**(4,913,856)**	**(3,240,720)**	**203,567**	**467,296**	**(322,716)**	**(1,089,561)**	**1,271,369**	**(1,358,721)**

Source: UAccess Financials
Payroll Expenditure Listing (PEL) with SET
G-MF Income/Expense - Productions
All Funds Reconciliation Transfers

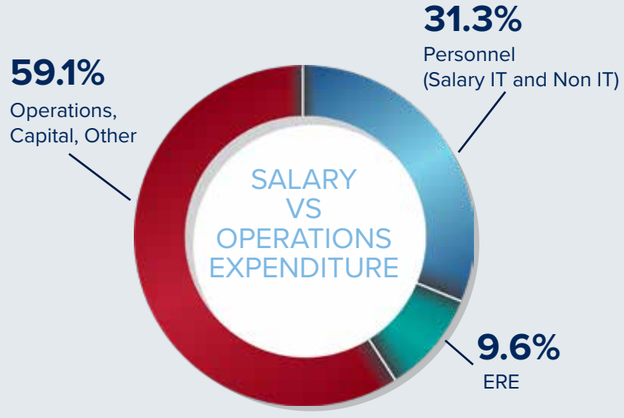
CARRY FORWARD OUT $8,112,220

$7.8M

END OF LIFE NETWORK EQUIPMENT

DEFERRED MAINTENANCE COSTS

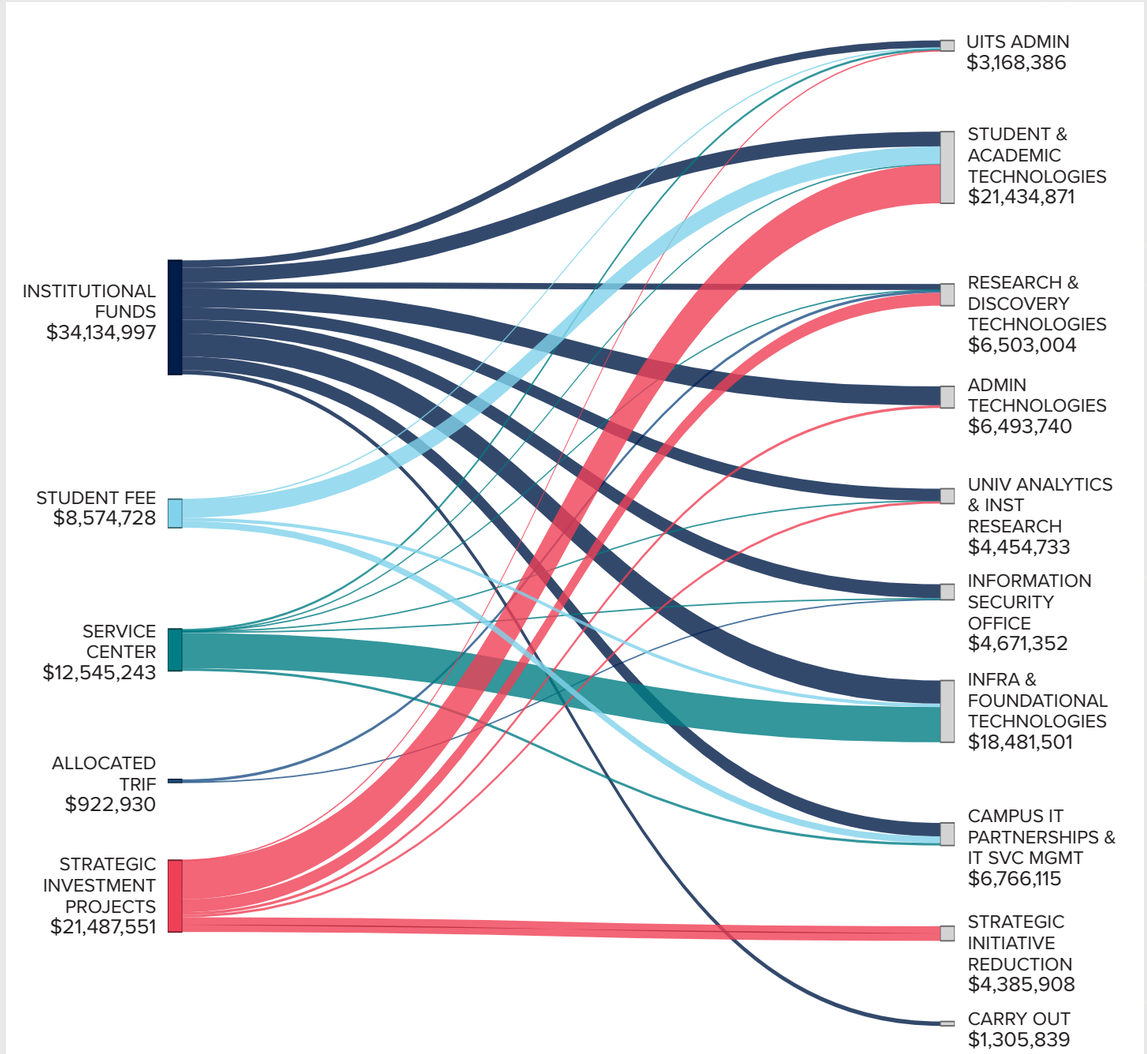
The university has accumulated deferred network infrastructure maintenance due to the lack of increase in the FTE fee since 2008. The replacement cost of the network equipment currently deployed on campus is $29 Million, $7.8 million of which is end of life and needs to be refreshed.



UITS is unlike the many other organizations at the University. Only 40% of UITS expenditures is used to support employee salary and wages.

UITS FY20 EXPENDITURES BY SOURCE

University Information Technology Services (UITS) manages an annual budget of approximately $77.6 million to provide a portfolio of IT services to the university community that support the teaching, learning and research mission. The graphic below illustrates UITS expenditures by fund source for FY20. UITS is committed to transparency and accountability, and works to ensure that limited resources are allocated to the highest strategic priorities of the university.



UITS EXECUTIVE LEADERSHIP TEAM

BARRY BRUMMUND
Chief Information Officer

LAURA BRACAMONTE
Executive Assistant to the CIO

THOMAS BOURGEOIS
Executive Director, Campus IT Partnerships

MARISELA CELAYA
Director, Human Resources & Organizational Development; Chair, Senior Leadership Team

RAVNEET CHADHA
Executive Director, University Analytics & Institutional Research

LANITA COLLETTE
Deputy CIO / Chief Information Security Officer

JEREMY FRUMKIN
Executive Director, Research Technologies

SUSAN LEGG
Director, IT Service Management

DEREK MASSETH
Chief Technology Officer

SUSAN RICHARDS
Executive Director, Finance and Administration

TIMOTHY SCHWAB
Executive Director, Administrative Technologies

KELLY SOUTH
Senior Director, Communications & Marketing

DARCY VAN PATTEN
Executive Director, Student & Academic Technologies /

THIS FY20 IT ANNUAL REPORT WAS DESIGNED AND PRODUCED BY THE UITS COMMUNICATIONS & MARKETING TEAM

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