# 2020-2021 ANNUAL REPORT
OFFICE OF INFORMATION TECHNOLOGY

SOUTHERN ILLINOIS UNIVERSITY

A YEAR IN
REVIEW

308,317,040 Emails filtered to protect SIU

90,548,352
Emails Accepted
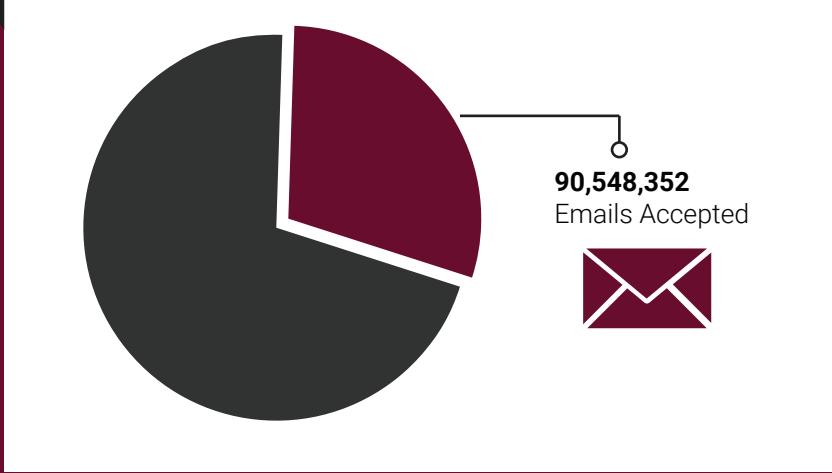
3,681,870
Calls into, out of,
and across campus

HELLO?

14,971
Incidents resolved

65,676
Pages printed
supporting students

~$1,250,000
Dollars saved
across OIT

613,471 Long-distance minutes used

~100,000 Calls through Microsoft Teams

31,257 Feet of CAT Network Cable installed

2,279
Software packages
distributed

TABLE OF
CONTENTS

COVID-19: A Catalyst for Change

Scott Bridges
Interim Assistant Provost and Chief Information Officer

I believe that FY 2020-21 is one of the most remarkable years that the Office of Information Technology (OIT) has or will ever encounter. I use the word remarkable because FY 2020-21 has been unusual in its requirements of the OIT. More importantly, the teams and individuals of the OIT met new and uncommon tasks head on with ingenuity, skill, and exceptional effort. We came together and pulled together. The net result: amazing achievements despite one of the most challenging set of circumstances that we as individuals, teams of coworkers, and an institution will face in our lifetimes. What we did in this unusual moment has, I believe, made us stronger. I also believe FY 2020-21 put new rules into play that will challenge us to think, plan, and work differently.

> *The teams and individuals of the OIT met new and uncommon tasks head on with ingenuity, skill, and exceptional effort.*

First and foremost, continuous planning and preparation for change, whether visionary, technological, security driven, or in response to emergency events, remains a critical and ongoing priority for OIT. Our attention to disaster preparedness, as well as process and policy development prior to FY 2020-21, allowed us to transition to remote work seamlessly and rapidly; nonetheless, the events of FY 2020-21 have now added another example that points out the critical importance of complete and current operational plans with "emergency" contingencies.

Technology Services, already working on consolidating services to elevate the "client experience," focused their efforts on the smooth and rapid transition to remote work with great success. Cross-utilization and resource-shifting became essential to OIT's ability to serve the campus. It was essential that SalukiTech continue to repair, receive, process, and distribute equipment throughout the pandemic, despite relocation of the SalukiTech Solution Center to Faner Hall when the library closed. Additionally, three of OIT's four CLC labs closed, which increased virtual support requests dramatically. Predictably, Technology Services was stretched further, as remote workers using "home technology tools" added to the virtual support load. The proactive shifting and sharing of staff to assist in answering SalukiTech support lines kept faculty, staff, and students working throughout FY 2020-21. Desktop Support worked as they were able under COVID guidelines to continue providing essential technology services on campus.

As we re-adjust to work on campus, we may still find gaps in service delivery; the lessons learned during FY 2020-21 will guide our efforts going forward. Technology Services continues to plan, prepare, and provide responsive service and support for academic and business needs.

This same shift to remote work challenged our cybersecurity efforts. Cyber criminals quickly learned to exploit the fear and chaos surrounding COVID; but, again, the OIT had been incrementally upping our cybersecurity defenses prior to COVID. Amazingly, we increased our cybersecurity efforts several times during FY 2020-21. Client Relations and Communications (CRC) offered comprehensive cybersecurity training to faculty and staff. The OIT Information Security Team analyzed and prevented more than 308M attempts to breach our email system, with Enterprise Systems and Networking Engineering elevating cybersecurity around systems and infrastructure. The combined efforts of all OIT units led to the implementation of a variety of cybersecurity enhancements. These enhancements include single sign-on and multi-factor authentication as well as the transition to Microsoft's email protection platform. After several years of effort, most Windows devices have been encrypted, with our current focus being on Apple devices; older machines that cannot be upgraded are being decommissioned.

> *Together, I believe we can forge powerful solutions, and work to unlock the extraordinary promise that resides within SIU.*

As always, three key OIT units: Enterprise Applications (EA), Enterprise Systems (Systems), and Network Engineering (Net Eng) worked diligently to maintain the reliability and stability of University systems and infrastructure. These areas form the technology backbone of all University academic and business capabilities. In FY 2020-21 EA played a key role in the implementation of Slate, a comprehensive platform for admissions and enrollment management that facilitates both student success and retention. In a joint effort, EA and Institutional Research transitioned the University to Microsoft's Power BI—a powerful data dashboard used to assimilate and analyze data—such as that displayed in the *SIU Fact Book*. Systems implemented Cohesity and PowerStore, respectively, as new backup and storage solutions; Systems also upgraded systems such as Cloud Archive to accommodate cloud resource integration—the future direction of technology. Net Eng implemented new Check Point firewalls to include an intrusion prevention system, which extends cybersecurity efforts to infrastructure and upgraded network systems, moving from Cisco to Extreme Networks.

With the assistance of all units, the OIT gained traction on the integration of Microsoft Teams as an all-encompassing tool for communication, collaboration, and secure file storage. As Teams gained recognition, Telecommunications (Telecom), CRC, Systems, and the Project Management Office (PMO) began bringing Teams Calling to the forefront. The OIT is now ready to disseminate Teams Calling across campus as the University's new calling system.

Additionally, the PMO has played a critical role in all OIT efforts, defining project parameters, maintaining project focus, and providing updates to be shared across OIT units, and with SIU administration. This has proven valuable in elevating the OIT as a partner with University leadership. During FY 2020-21, the CIO was invited to sit on the Chancellor's Cabinet. This is an important and critical step for SIU. In bringing input from the OIT into administrative conversations, the opportunity to leverage the power of technology to address business issues grows. Together, I believe we can forge powerful solutions, and work to unlock the extraordinary promise that resides within SIU.

As a final note, during this extraordinary year, I noticed that our continuous overarching concern, "budget" seemed to take a back seat to each day's most urgent needs and how we would solve them. Regardless, each OIT unit continues to manage costs and resources with the guidance and assistance of OIT Business Services. Time, money, and talent will always be less than what we would like, but continual communication, innovation, and planning will allow us to focus on and deliver what is important to SIU's success.
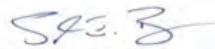
Scott Bridges
Interim Assistant Provost and Chief Information Officer

ABOUT OUR DEPARTMENT

WHAT WE DO

The Office of Information Technology (OIT) provides the technology resources and support for SIU students to complete their academic work and move toward their chosen careers. Similarly, the OIT maintains the applications, systems, and infrastructure needed for the University to conduct the business of higher education. And, the OIT built and maintains the University's most powerful computing system, BigDawg, a 38-node, high performance computing cluster (HPCC). BigDawg provides faculty and researchers with advanced computational power and contributes to the University's reputation as a notable research institution. The OIT is a cornerstone of the University's academic and business capabilities and success.

OUR VISION

The OIT's vision is to be an essential and valued technology partner for Southern Illinois University Carbondale.

OUR MISSION

To provide technology leadership and guidance to Southern Illinois University Carbondale in direct support of teaching, learning, research, and organizational needs. At our core, we offer university partners with perspectives and guidance on technology solutions, information security, and continuous improvement through technology. We also work daily to achieve high-quality, practical solutions through cost-effective design, development, and application of information technology. Fundamentally we challenge ourselves to provide excellent service, deliver professional results, and engage with colleagues on and beyond the campus to foster key partnerships. Strategically we work in support of the University mission and strive to be an essential contributor to the success of Southern Illinois University Carbondale.

OUR VALUES
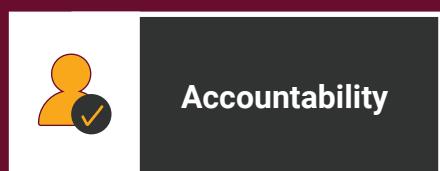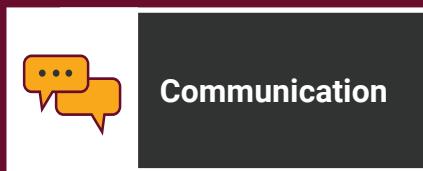
|		
Accountability	Communication	Adaptability
Diversity	Reliability	Ingenuity
Respect	Service	Teamwork
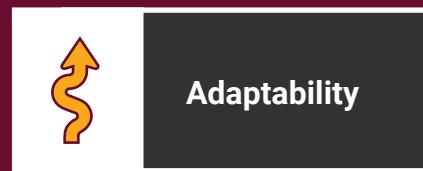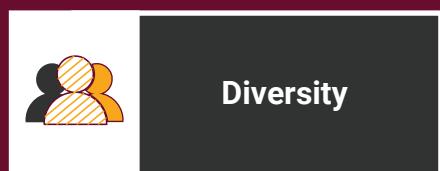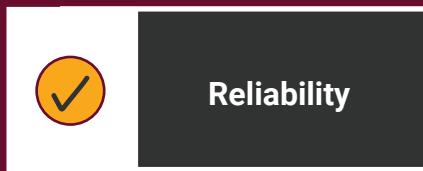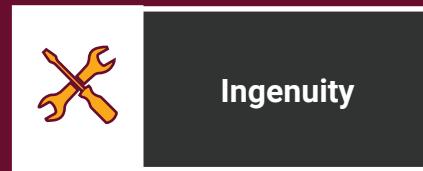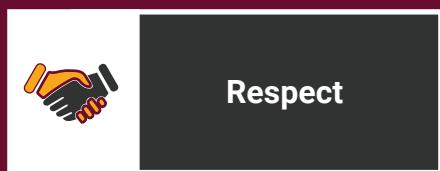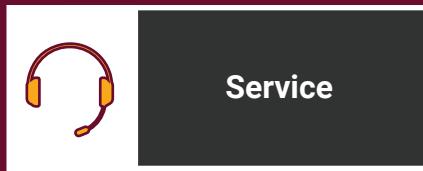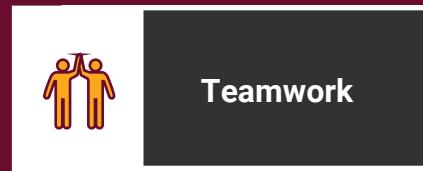
OUR WORK

OUR WORK IN EMPLOYEES

Full-Time Staff

The shift to remote work in FY 2020-21 challenged the OIT staff to work in new ways, collaborate remotely, and expand coverage where needed. This with a staff of just 103 FTEs, required that OIT stretch its resources and capabilities. Nonetheless, OIT professionals managed ongoing projects, absorbed new requests for service and support, and started several new projects.

Student Employees

Budgetary cutbacks compounded by COVID restrictions caused a dramatic drop in the number of OIT student employees. In past years, the OIT operated with a student support staff of more than triple that of the 43 undergraduate students and 11 graduate assistants employed in FY 2020-21. The disruption associated with the pandemic certainly affected our student employment numbers, but it is the ongoing decline in budgets that all but ensure the number of student employees will never return to pre-pandemic levels. This is particularly difficult considering how important student workers are to the OIT's day-to-day operations—filling gaps in areas such as Net Eng, Systems, Desktop and virtual support—as well as managing the operation and use of BigDawg, the University's HPCC. Furthermore, student employees provide the OIT with perspectives of our most important customers, their peers, other SIU students. The relationship is reciprocal: students provide the OIT with valuable insights and extra hands, and the OIT provides them with professional experience.

+5

-71
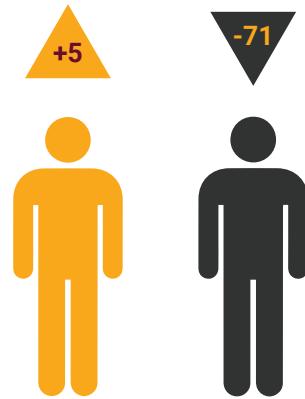
Full-time Staff: 103

Student Employees: 54

(Figure based on FY2019-FY2020)

OUR WORK IN DOLLARS

The OIT has faced annual budgetary declines since 2014, with a total loss of funding to date of more than $18M. This trend shows no sign of reversal. Nonetheless, the OIT remains diligent in ensuring that faculty and staff have the technology tools necessary to bring the finest learning experience to our students, and that students have the technology tools needed to fully engage in their academic pursuits. This continuing funding deficit forces the OIT to build for durability, be innovative, and make difficult-but-strategic choices.

Allocations for staff salaries are predictably down over this same time span. Again, this fiscal year, salary expenditures were approximately $1.2M less than in 2014, when the OIT was fully staffed. Difficulty in hiring highly qualified technology professionals, considering SIU's location and budget realities, has prompted the OIT to evaluate forward-thinking solutions such as remote work, cloud solutions, and a change in employee roles from "doers" who develop one-off solutions, to "integrators" who curate and maintain cloud-based solutions.

2014 → **2020**

OUR PEOPLE BRIDGE THE GAP

~9M	~14M	~15M	~14M	~13m	~12M	~1.5M
Focus	Inginuity	Durability	Accuracy	Reliability	Collaboration	Communication

A YEAR UNDER COVID

Almost a year into the COVID pandemic, what presented itself as a major disruption has now become an agent for permanent change. The OIT met each new development with a sense of determination, taking on additional responsibilities to meet new and immediate areas of demand.

With assistance from the OIT, the University has now endured a year of remote work and online/hybrid learning with no major disruption of service. The OIT has provided the technology tools, services, and support to accommodate on- and off-campus classes and conduct University business. This work has and continues to include responsive efforts to unexpected challenges, as well as the ongoing and anticipatory work necessary to propel the University forward. In fact, the OIT pushed major business, security, and academic projects through during the pandemic. Examples of these projects include the consolidation of support services under the SalukiTech brand; upgrades of business and enrollments systems; security enhancements including single sign-on, multifactor authentication (MFA), and security training; and back up, storage, and infrastructure enhancements.

Many of the changes made during this past year have now become part of the University's and OIT's new operational playbook. The OIT is ready to propose, implement, and support change as it comes, whether in response to additional and unexpected change, or as part of a return to the pre-pandemic status quo.

As we reflect on FY 2020-21, **WE ARE PROUD THAT WE**

- Provided ongoing support for faculty, staff, and students on campus or remotely without any major disruption of service.
- Encouraged faculty and staff to transition to Microsoft Teams to enhance remote work capabilities.
- Gained traction on Teams Calling to advance the idea of a unified communication system on campus and avoid communication disruptions (due to system failure) in the future.
- Consolidated technology services: desktop support, virtual help, and labs under the SalukiTech brand.
- Made Virtual Desktop (VDI) access widely available for those with specific software or computer classroom needs.
- Upgraded critical systems and infrastructure, including the installation of essential copper and fiber cables, firewalls, access points and network switches.
- Upgraded enterprise-wide, remote site storage and backup capacity of critical SIU servers and data.
- Made comprehensive cybersecurity training available to all faculty and staff.
- Implemented single sign-on and multi-factor authentication and required a move to modern email systems to elevate cybersecurity defenses.
- Designed and installed fiber and copper cabling in critical areas of campus.
- Delivered required software and submitted software renewals to allow faculty, staff, and students to continue work/studies remotely and without interruption.
- Kept BigDawg (SIU's High Performance Computing Cluster) operating, allowing researchers to log 4,061,837 CPU hours in FY 2020-21.
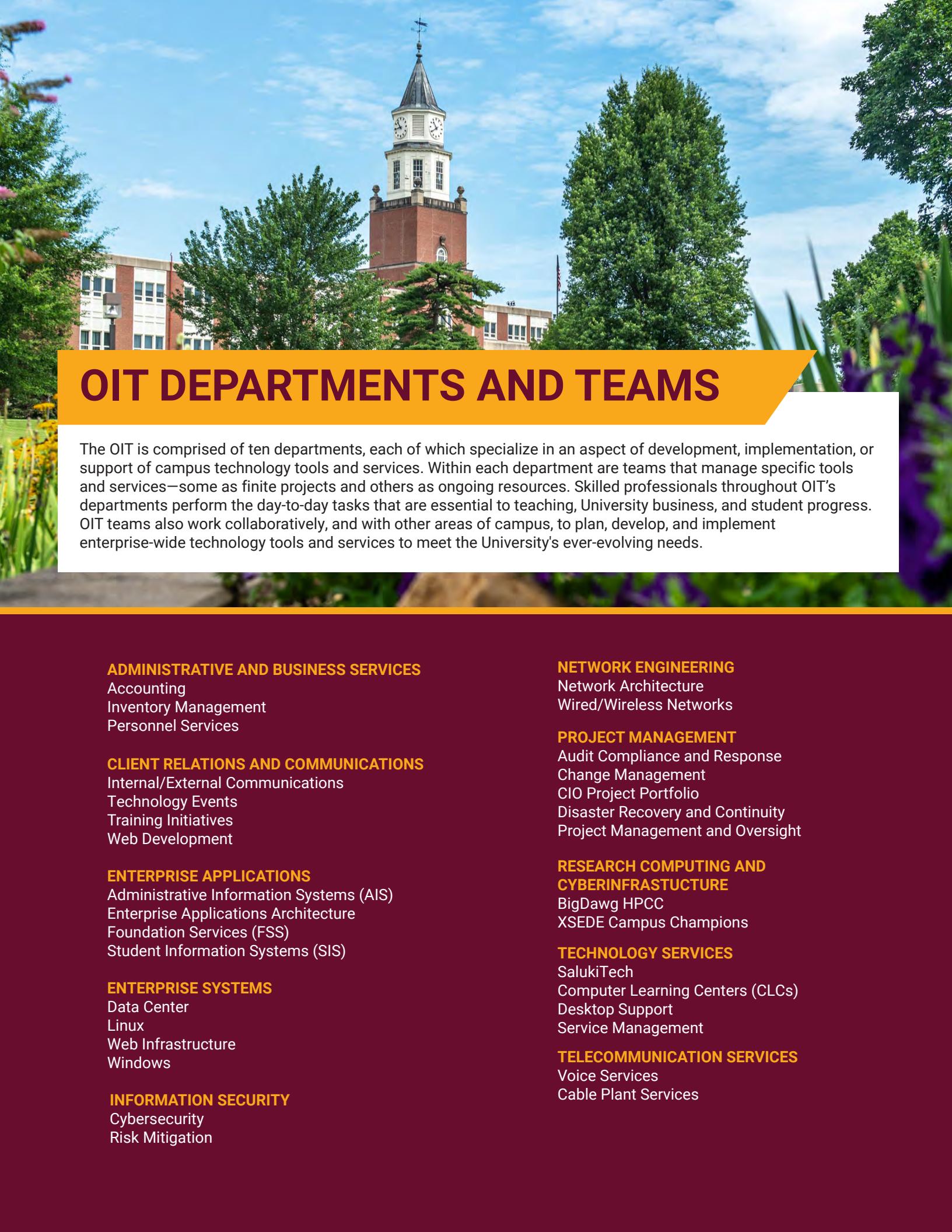
OIT DEPARTMENTS AND TEAMS

The OIT is comprised of ten departments, each of which specialize in an aspect of development, implementation, or support of campus technology tools and services. Within each department are teams that manage specific tools and services—some as finite projects and others as ongoing resources. Skilled professionals throughout OIT's departments perform the day-to-day tasks that are essential to teaching, University business, and student progress. OIT teams also work collaboratively, and with other areas of campus, to plan, develop, and implement enterprise-wide technology tools and services to meet the University's ever-evolving needs.

ADMINISTRATIVE AND BUSINESS SERVICES
Accounting
Inventory Management
Personnel Services

CLIENT RELATIONS AND COMMUNICATIONS
Internal/External Communications
Technology Events
Training Initiatives
Web Development

ENTERPRISE APPLICATIONS
Administrative Information Systems (AIS)
Enterprise Applications Architecture
Foundation Services (FSS)
Student Information Systems (SIS)

ENTERPRISE SYSTEMS
Data Center
Linux
Web Infrastructure
Windows

INFORMATION SECURITY
Cybersecurity
Risk Mitigation

NETWORK ENGINEERING
Network Architecture
Wired/Wireless Networks

PROJECT MANAGEMENT
Audit Compliance and Response
Change Management
CIO Project Portfolio
Disaster Recovery and Continuity
Project Management and Oversight

RESEARCH COMPUTING AND CYBERINFRASTUCTURE
BigDawg HPCC
XSEDE Campus Champions

TECHNOLOGY SERVICES
SalukiTech
Computer Learning Centers (CLCs)
Desktop Support
Service Management

TELECOMMUNICATION SERVICES
Voice Services
Cable Plant Services

OIT DEPARTMENTS AND TEAMS

ADMINISTRATIVE BUSINESS SERVICES (BUSINESS SERVICES)

During the pandemic, Administrative and Business Services (Business Services) kept the business aspects of OIT functional, despite the challenges brought about by our employees being dispersed and working remotely. Per their charge, Business Services kept all OIT financial, accounting, record-keeping, and budgeting efforts functioning smoothly and efficiently, while the campus worked remotely. Business Services supported individual areas within the OIT that allowed each business unit to focus on providing service to the University as an organization, and to the faculty, staff, and students whose work depends on reliable technology tools. This unit also manages and provides the CIO with a clear overview of the departmental budget.

DEPARTMENTAL HIGHLIGHTS

Moved to the top of the "essential employees" list at the onset of the pandemic, as faculty and staff requested laptops and peripherals for remote work and online teaching. Set up "curbside pick-up" to manage contactless distribution.

Developed a new procurement process that ensures rapid and efficient distribution of all SIU computers as well as the opportunity to encrypt and inventory assets before they are released for use.

Procured 100 Dell laptops, as part of the SalukiCares program, to distribute to students at the onset of the pandemic.

Used individual departments to do annual inventory and locate "missing" computers to maintain SIU data security.

Negotiated ~$172K in savings on Dell orders for all departments on SIU Carbondale and Springfield campuses.

> When campus closed, we found ourselves on the essential employees list, trying to purchase laptops for faculty and staff shifting to remote work and online teaching. Out of necessity, we changed the computer requisition and distribution process. This process has since evolved into a new procurement process that allows us to order, tag, image, encrypt, and update all campus devices prior to distribution to the department and/or user. We are now taking this one step further and attend to all end-user needs so the device is ready to go when it is delivered. This process is a huge step toward ensuring an exceptional customer experience and meeting cybersecurity standards. And, BTW, getting where we are today required cross-departmental collaboration between the SalukiTech Service Center, Desktop Support, and IT Business Services—this collaborative effort continues today.
>
> **Shannon Newman, Manager**
> **OIT Business Services**

OIT DEPARTMENTS AND TEAMS

CLIENT RELATIONS AND COMMUNICATIONS (CRC)

As COVID drove the campus community to work remotely, the need for timely and continuous communication became critical in keeping the campus aware of technology efforts and initiatives. Client Relations and Communications (CRC) led communication efforts for the OIT—distributing information from the department to the campus and to the community. An early challenge was developing and offering tools and training on Microsoft Teams. This planned initiative was moved forward to help faculty and staff transition to remote work—providing a secure tool for meetings, communication, and file storage/sharing. The CRC also became an integral part of the effort to implement Teams Calling. During the pandemic, those individuals and departments who transitioned to Teams Calling were able to use this "unified communication system" for calling and live video meetings. Teams Calling will eventually replace the University's dated calling system. The CRC also developed and offered comprehensive cybersecurity training to all SIU faculty and staff.

DEPARTMENTAL HIGHLIGHTS

Produced multiple large-scale Teams meetings for internal OIT communications.

Created (with all OIT units) documentation to inform the faculty and staff about technology support/services for remote work.

Developed processes and procedures for the Teams Calling implementation and continue to manage the schedule, staff, and communications for the Teams Calling roll-out.

Provided Teams and Teams Calling coaching as part of the Teams Calling roll-out.

Produced the fourth OIT Annual Report.

During COVID, the communication between our team members was tested. Working remotely, you don't see people regularly, so communication isn't a natural part of the day. And…there is a higher likelihood of emails or chats being missed or misunderstood. Our team made a concentrated effort to schedule regular Teams meeting times and to pick up the phone and call each other for clarification, collaboration, or to check in on one and other. Although COVID kept us apart, our efforts brought our team closer together—a practice that continues today.

Jennifer St. Louis, Branding and Media Specialist
Client Relations and Communications

OIT DEPARTMENTS AND TEAMS

ENTERPRISE APPLICATIONS (EA)

Although COVID disrupted all aspects of work, Enterprise Applications teams managed to push major IT projects forward. Based on the infrastructure and security requirements associated with high-end development and data storage, as well as the collaborative nature of much of the teams' work, it was debatable whether the OIT could maintain productivity levels while working remotely. EA dispelled this assumption immediately, producing results equal to or better than pre-pandemic efforts. EA managed and maintained the computer systems that run the business of SIU, particularly those used for administrative, student, and Foundation/Alumni Association work, which kept the University functional during this time of extreme disruption.

EA also integrates enterprise-wide applications with departments that function independently of the OIT, such as Athletics, Department of Public Safety, Enrollment Management (Admissions, Bursar, Registrar, and Financial Aid), Accounting, Human Resources, Asset Management, Procurement, Office of Special Projects, Student Health, and the Rec Center. This work continues in full force.

DEPARTMENTAL HIGHLIGHTS

Supported Admission's implementation of Slate, a comprehensive platform for admissions and enrollment management that facilitates both student success and retention as well as alumni/donor engagement.

Enhanced the Administrative and Student Information Systems (AIS and SIS respectively), with patches and updates, extensions to "out of the box" functions such as the Online Performance Evaluation toolset, and added integrations for Athletics, College of Business and Analytics, Admissions, and other areas.

Completed implementation of the SIU Foundation CRM tool, BlackBaud Raiser's Edge.

Assisted with the Foundation's Unit4 (accounting system) migration to the cloud.

Transitioned the University to Power BI—a powerful data dashboard used to assimilate and analyze data such as that displayed in the SIU Fact Book.

Negotiated savings of more than ~$100K on multiple contracts and licensing agreements.

> We proved that we work effectively and efficiently…without concern for location. Remote work actually enhanced our efforts. Our directors and project managers became more purposeful and strategic in their efforts, working with staff to lay out expectations, providing clear instructions, and communicating regularly. Previously, there was a more casual approach, that of walking into an office and taking care of things as needed. Remote work has forced (or enabled) our managers to become intentional, proactive, and purposeful as supervisors and mentors.
>
> **John Ahrens, Director**
> **Enterprise Applications**

OIT DEPARTMENTS AND TEAMS

ENTERPRISE SYSTEMS (SYSTEMS)

Enterprise Systems (Systems) manages the technology hubs of the University and keeps SIU business, office productivity, and communication systems functional and secure. Being critical to University business and operations, it was essential that Systems remain functional and reliable during the COVID disruption. Early on, Systems employees were included among essential workers and were present on campus (under COVID restrictions) to monitor, maintain, and manage the SIU data centers. During FY 2020-21, Systems enhanced storage and backup capabilities, and played a major role in preventing cybersecurity breaches during the chaos surrounding the pandemic. Systems was also instrumental in acquiring the upgraded licensing for Teams Calling—a critical prerequisite for the calling component associated with Teams.

Systems manages operating systems and hardware as well as data and backup storage for hundreds of University servers and systems, both on and off campus. This includes central storage, as well as the public and private cloud systems that support critical software infrastructure servers. A variety of applications, systems, and services (managed by various SIU units) are built on top of these servers.

DEPARTMENTAL HIGHLIGHTS

Worked on Phase II of the Identity and Access Management (IAM) re-architecture. Allowed transition of single sign-on and multi-factor authentication, thereby enhancing security around critical SIUC information.

Completed implementation of Cohesity, which provides remote backup and cloud-based archives of critical SIUC business servers and data. Cohesity is essential for recovery from ransomware attacks.

Negotiated a 30% discount on new A5 Microsoft licensing, which equates to a system-wide, first year savings of approximately $259K (~$170K between SIUC/Med and ~$88K for SIUE).

Upgraded the Microsoft tenant (SIU's Microsoft access). This is a critical step in implementing Teams Calling, and subsequently securing SIU's aging phone infrastructure.

Began the initial stages of a campus-wide transition of more than 4,500 phone lines to Teams Calling, in partnership with Telecom, CRC, Technology Services, and Net Eng.

Moved the entire "virtual" server production and test environments from the Hyper-V VM Server to VMware to expand reliability, supportability, and third-party software compatibility.

> When reflecting on our efforts during this past year, I wouldn't single out a particular individual or project. I have been impressed with the way the team responded after being forced to work remotely. We leveraged Microsoft Teams as a communication and collaboration tool to help the team stay cohesive and respond to customer needs. We responded with a multitude of timely efforts that supported continual workflow within our team and OIT. It may not have been perfect, but it was productive, worthy, and effective.

Jerry Richards, Director
Enterprise Systems

OIT DEPARTMENTS AND TEAMS

INFORMATION SECURITY (SECURITY)

Cybersecurity defenses are essential to protect the campus community as well as the University's assets and reputation. Chaos, uncertainty, and fear around the COVID crisis, as well as a shift to remote work, created an environment in which the opportunity for cyberattacks increased dramatically. Information Security (Security) worked diligently to monitor and reduce cybersecurity threats to the University and the campus community. With the combined efforts of other OIT units, the Security team worked proactively to mitigate security risks. This large-scale effort included implementation of single sign-on and multi-factor authentication, network upgrades, a move to cloud solutions, continuation of JAMF encryption, and removal of outdated machines and software. The Security team continues to increase security efforts because cyber threats are ever-changing and relentless. A single successful cyberattack can cost the University time, money, and standing as an institution.

DEPARTMENTAL HIGHLIGHTS

Deployed security-related tools including the Identity and Access Management system (IAM), single sign-on, multi-factor authentication, and transitioned those using Legacy email methods to trusted email clients.

Implemented SecureWorks to monitor potential security threats in or out of the campus network. Automated the workflow for detecting, tracking, and remediating vulnerabilities on campus systems.

Implemented Security Awareness Training. Distributed a 12-module training assignment to faculty and staff.

Upgraded email defense systems to Microsoft Defender from Proofpoint, a projected savings of $95K annually.

Transitioned the enterprise firewall and intrusion prevention/detection systems to Check Point with the leadership of Net Eng.

Managed the re-architecture of Splunk, OIT's predictive analysis platform, to gather, assimilate, and analyze real-time data to anticipate cybersecurity threats.

Managed the re-architecture of Spirion (Identity Finder) to enhance the system's ability to find and quarantine sensitive data until it can be removed from devices or remediated.

"

Cyber criminals use extreme circumstances to exploit fear and chaos; throughout 2020-21 we observed cyber activity leveraging the global pandemic to attempt to disrupt SIU operations. I'm proud of our Information Security team; they did a great job in keeping a watchful eye on SIU's security needs and securing University assets and systems. People continue to be the most vulnerable link in the security chain; the application of cutting-edge security methods and education has and continues to keep this campus safe from cyber threats.

Scott Bridges, Interim Assistant Provost and Chief Information Officer
Office of Information Technology

OIT DEPARTMENTS AND TEAMS

NETWORK ENGINEERING (NET)

Network Engineering (Net Eng) manages the campus data network, which includes the planning, implementation, and maintenance of campus networks and technology infrastructure. Despite the exodus from campus, critical network systems and components needed ongoing attention and maintenance. Working under COVID protocols, Net Eng continued essential work, behind the scenes as always, to keep the campus infrastructure functional and faculty, staff, and students connected to the campus from remote locations. Net Eng ensured that students, faculty, and staff had access to a stable, reliable, and secure system to connect with each other and the world beyond SIU.

Net Eng provides the secure infrastructure needed to support the academic and administrative functions of the University at the most fundamental level. This unit also implements, maintains, and supports wired and wireless networks. Net Eng professionals consult with other campus units, internal and external, that have an interest in the University network.

DEPARTMENTAL HIGHLIGHTS

Converted from long-time vendors Cisco and Ruckus to Extreme Networks to realize almost $200,000 in savings (included in the total below).

Completed multiple small- and medium-scale data network projects for campus departments to stabilize or improve system reliability.

Upgraded the Wham and McLafferty Data Center firewalls and audited all system firewalls to maintain security in critical areas and prevent unauthorized network access.

Completed Faner Hall's wired and wireless network to provide better service and more reliable connectivity.

Reduced operating costs by $794,000 by re-negotiating contracts, onboarding new tools, and changing vendors.

> COVID made me aware that there is a closeness and appreciation for people that diminishes in the absence of regular interaction. I believe a return to campus will re-invigorate relationships between team members. However, during COVID we also learned that remote work has a variety of advantages for both employee and employers. Employees enjoy working from the more relaxed environment of their home. Employers gain from employees being more productive.
>
> **Michael Shelton, Director**
> **Network Engineering**

OIT DEPARTMENTS AND TEAMS

PROJECT MANAGEMENT OFFICE (PMO)

Remote work during COVID accentuated the Project Management Office's (PMO) value to the OIT and University. In FY 2020-21 the PMO managed critical communications and collaborative efforts via virtual Teams meetings. Lacking direct interaction with people and the nuances in-person communication allows, the PMO kept OIT teams and SIU constituents informed, working collaboratively, and moving forward. Under the PMO's guidance, the OIT advanced adoption efforts on Teams and Teams Calling; moved critical administrative system projects (Slate and Oracle) forward; and contributed to the implementation of a new ticket tracking system, Cireson. The PMO was also essential in driving cross-departmental efforts such as the installation of several security measures: the new identity management system, single sign-on, and multi-factor authentication.

The PMO works internally with OIT departments to help all teams manage resources and people better. The PMO helps OIT team members understand their individual roles and responsibilities within a project, communicate within and across departmental lines, and work toward agreed upon project results and completion dates. On large implementations, the PMO plays a similar role between the OIT, other University departments, and campus constituents. Information about top-priority OIT projects is consolidated by the PMO in the CIO Project Portfolio.

DEPARTMENTAL HIGHLIGHTS

Managed the CIO and Chancellor Cabinet portfolio of projects, which includes OIT's critical and high-priority projects, as well as dozens of projects in each of the OIT units.

Led the next phase of the Slate implementation, an important Customer Relationship Management (CRM) tool that supports admissions and recruiting processes, increases staff efficiency, and improves the admis-sions experience for students.

Led the implementations of Identity and Access Management (IAM), single-sign-on, and multi-factor authentication (MFA) as well as the campus conversion from Legacy email methods to trusted email clients. Continue to support residual efforts on these projects.

Continued efforts to update and/or expand OIT policy and standards, with an emphasis on cybersecurity.

Continued the OIT state audit compliance effort for the annual audit cycles. Coordinated with both internal OIT units and staff as well as various external University departments and areas.

> For the PMO, having to work remotely wasn't as dramatic for us as for some units. We have been running projects and engaging with vendors remotely for years using the virtual collaboration tools of the time, today being primarily MS Teams. The only thing that truly changed for us was where we physically sat. However, what really hurt us was not being able to lock ourselves in a room with project teams and hash out problems when the virtual world failed us. That was the true challenge.
>
> **Brian Skouby. Associate Director**
> **Project Management Office**

OIT DEPARTMENTS AND TEAMS

RESEARCH COMPUTING AND CYBERINFRASTRUCTURE (RCC)

Research Computing and Cyberinfrastructure (Research Computing) built and maintains the University's high performance computing cluster, BigDawg. This exceptional tool is available to SIU researchers and students whose work requires extreme computational speed and power. High performance computing clusters (HPCCs) like BigDawg enable new discoveries, drive innovation, and allow new insights into existing scientific challenges.

BigDawg is an invaluable asset to the University in its quest for continuous ranking among research universities. At SIU, the HPCC, BigDawg, is available without cost or restriction to researchers, as well as to SIU faculty and supervised students. This is highly unusual as most universities with HPCCs control time on their systems and judge the value of projects before granting access to what is an expensive and limited resource. BigDawg is included in XSEDE's list of university-based HPCCs. The Research Computing staff includes computer science and engineering experts in computational computing.

DEPARTMENTAL HIGHLIGHTS

Provided the computing power that allows SIU researchers, faculty, and students the ability to process, store, and analyze massive amounts of data.

Contributed to SIU's standing as one of just 135 institutions classified as R2: Doctoral Universities – High research activity in the Carnegie Classification of Institutions of Higher Education.

Facilitated researchers in utilizing BigDawg's phenomenal computing power. With 828 CPU cores spread over BigDawg's 38 nodes, researchers ran projects that consumed 4,061,837 CPU/processing hours. This massive amount of computing power allows projects that may have taken a week to run in as little as a few hours.

Averaged 56% system utilization during FY 2020-21.

"

During the COVID-19 pandemic, most researchers were not able to access their on-campus computers and had to use their personal computers at home. They used BigDawg instead, due to the limited computing power of personal computers—especially when compared to the computational power of a high-performance cluster like BigDawg. The pandemic also pushed users toward Microsoft Teams, which helped us interact with them easily.

Majid Memari, Ph.D. Candidate and Research Assistant
Research Computing and Cyberinfrastructure

OIT DEPARTMENTS AND TEAMS

TECHNOLOGY SERVICES

As "THE" technology resource for SIU faculty, staff, and students, Technology Services was deeply entrenched in the COVID response from day one. With the impending leave-campus-order, the Technology Services professionals went to work creating a plan, identifying resources, and developing processes to transition, support, and serve the entire campus community while working remotely. The initial effort was round-the-clock, with solutions being developed just hours behind the ideas being brainstormed. The effort involved all members of Technology Services including the SalukiTech Solution Center Team, Desktop Support, and the Computer Learning Center (CLC) Lab staffs. Technology Services' goal: to provide the tools, resources, services, and support to allow SIU to function as an academic institution with minimal disruption. From the onset of the pandemic, and through the stages of renewal yet to come, Technology Services has served the University's technology needs.

Technology Services supports students, faculty, and staff through the Solution Center, Desktop Support, and hardware provisioning operations of SalukiTech. This unit is currently on a journey to improve service delivery by standardizing and automating routine efforts, allowing for more attention to specialized, high-value technology-enabled outcomes. This effort is essential as SIUC continues to have shrinking resources available to maintain operations.

DEPARTMENTAL HIGHLIGHTS

Worked in collaboration with other University teams to support the campus while working and teaching remotely.

Implemented a new IT Service Management tool (went live in early 2021). This new tool will reduce OIT's annual ITSM tool costs by 73% (starting in the second year), provide better self-service options for customers, and provide a better, more integrated platform for automating repetitive tasks.

Continued the campus-wide effort to encrypt data stored on devices to protect sensitive information.

Provided self-service and customer support during the rollout of MFA and modern authentication.

Realized ~$9,000 in costs savings through the automation of processes.

Realized approximately 62.6 business days in reduced effort using automations.

> Our team is now better prepared to shift responsibilities and resources quickly and seamlessly. Everyone on the team can handle phone, chat, or email support as needed, based on the number of incoming requests. We created a single channel for incoming requests and have set up desktop support staff to join call queues during peak periods. Support efforts are now managed by the first-available technician, rather than waiting on the person assigned to a given area. We have now proven these changes work better than pre-COVID processes.
>
> **Wil Clark, Director**
> **Technology Services**

OIT DEPARTMENTS AND TEAMS

TELECOMMUNICATIONS (TELECOM)

Telecommunications (Telecom) holds responsibility for "voice services" for the SIU Carbondale campus. In FY 2020-21, Telecom, in joint efforts with other OIT units, gained traction on the installation of Teams Calling, part of the "unified communications system" available from Microsoft. Teams Calling had been successfully prototyped in FY 2019-20 and was ready for deployment when the pandemic hit. During the pandemic, Teams Calling proved to be an excellent tool for virtual meetings; collaborative work; and secure file access, sharing, and storage.

Team Calling extends the capability of the basic Teams platform and allows users to make local and long-distance calls outside the current phone system. As more of the campus transitions to Teams Calling, OIT will replace SIU's aging phone system and embrace this modern communications system. The campus-wide transition to Teams Calling is among the OIT's strategic plans. It will allow for a reduction in phone costs and replacement of aging infrastructure such as the phone switch and air core cable

Telecom works diligently to maintain the campus voice system and cable plant. Its top goal is ensuring excellent customer service.

DEPARTMENTAL HIGHLIGHTS

Began the initial stages of a campus-wide transition of more than 4,500 phone lines to Teams Calling, in partnership with CRC, Systems, Technology Services, and Net Eng.

Installed 400 wireless access points to improve network access and reliability across campus.

Installed copper and fiberglass cable upgrades at Touch of Nature/Little Grassy Lodge, the Head Start Building, and Rehn and Schneider Halls.

Upgraded Mae Smith, Schneider, Neely, and Thompson Point Residence Hall fire alarms to fiber cable.

Rewired the Medical Resource Center.

Although we had planned to implement Team Voice across campus for the past several years, we hadn't gained traction until the pandemic made "virtual meetings" a necessary part of our work and for months, our only interaction with other team members. That generated interest in this new tool in people and departments across campus. This made us all very aware that change would be necessary and ongoing during the COVID pandemic. People have been more willing now to embrace this new tool because it has proven its worth. Although we hope we aren't under the same pressure to adopt new tools in the future, we now see that having a reason to change the way we work, has propelled our willingness to change going forward and we think that is a good thing.

Joint thoughts from those working on the Teams Calling Implementation

STRATEGIC GOALS AND PROGRESS

With another year coming to a close, so too, do many of our projects. In FY 2020-21, we pursued a wide variety of goals and overcame several unforeseen challenges. We also continued to persevere despite budgetary constraints through innovation, collaboration, and as always—our determination. We made a concentrated effort to work collaboratively on a variety of projects and reinforced the idea that when we work together, we can accomplish great things.The following section shows major goals and accomplishments during FY 2020-21. While many of these goals were met, several others remain works in progress or are recurring.

GOAL 1: SUPPORT THE UNIVERSITY MISSION

Institutional Success Through Technology ONGOING EFFORT
Advanced the University's mission and institutional success by providing strategic guidance at the administrative level as well as technology tools, services, and support to the University's 11,000+ students in their academic pursuits, and to more than 4,400 faculty and staff in their teaching, research, and business efforts.

Research Support ONGOING EFFORT
Provided access to SIU's high performance computing cluster, BigDawg, to more than 100 faculty/researchers and students to support computationally heavy research.

Mentorship and Student Inclusion ONGOING EFFORT
Employed 43 students and 11 graduate assistants. Created opportunities for these students to learn work habits, build IT-centric skills, and gain professional experience in many areas including enterprise application development, systems administration, network engineering, high-performance computing, and cybersecurity management. Brainstormed with associated academic areas to develop two-year student internships and on-the-job learning opportunities.

Administrative Partnership ONGOING EFFORT
During FY 2020-21, the CIO became a member of the Chancellor's Cabinet. This change allows a more equal and timely exchange of forward-thinking ideas, anticipated needs, and technology-based solutions. Held regular sessions throughout the year with academic "Technology Partners," to understand and accommodate needs and concerns with technology-based solutions.

STRATEGIC GOALS AND PROGRESS

GOAL 2:	ENHANCE UNIVERSITY OPERATIONS

Teams Calling Implementation 40% ONGOING EFFORT

Moved from a successful proof-of-concept implementation of Teams Calling, to process development for mass deployment. Have currently completed more than 400 successful transitions for early adopters. Poised to push forward on campus-wide deployment in the new fiscal year with an anticipated transition rate of 70-100 lines per week. Initial implementations are planned for areas of the campus that rely on aging infrastructure and are vulnerable to communication system failure. Campus-wide implementation of Teams Calling will provide a unified communications and collaboration tool (with chat, conferencing, calling, meetings, secure file sharing and storage) for the entire University.

Identity Management Transition 100%

Completed Identity and Access Management (IAM) Phase I and Phase II for the entire campus. This effort provides faculty, staff, and students with enhanced self-service options to correct ID issues, without assistance, 24/7/365. This project also allowed SIU to implement multi-factor authentication (MFA) an essential tool needed to safeguard SIU email and system access.

Slate Implementation (Phase II) ONGOING EFFORT

Continued to assist Admissions with further Slate implementation phases. This Customer Relationship Management (CRM) tool, since implementation in 2019, has greatly enhanced Admission processes and increased staff efficiency. The tool has proven valuable in recruiting students and improved recruiting pipeline visibility.

Implemented Power Bi ONGOING EFFORT

Transitioned the University from Tableau to Microsoft's Power BI—a powerful tool used to assimilate and analyze data such as that displayed in the SIU Fact Book and used in executive reports. Information can be viewed in an onscreen dashboard or in easy-to-read reports.

Technology Procurement Process Enhancement 60%

Developed a new procurement process that ensures rapid and efficient distribution of all SIU computers and peripherals. This new process was developed as a safe alternative to deploy equipment during the first few months of COVID and has been made more efficient over this past year. This process provides OIT with an opportunity to encrypt and inventory assets before they are released for use, which enhances security and inventory control, while streamlining the user experience. Going forward, this process will be used to prepare and distribute the ~1,500 devices purchased each year.

SIU Enterprise Resource Planning Systems ONGOING EFFORT

Continue to manage, upgrade, and customize the major software packages used by SIU to run the University's business processes, including the SIU Administrative Information System (AIS) and the Carbondale Student Information System (SIS). Also implemented the SIU Foundation's Unit4 Business World (accounting tool) and Blackbaud Raiser's Edge (customer relationship management tool) successfully. Completed over 150 tickets to meet user needs and keep enterprise applications performing optimally.

STRATEGIC GOALS AND PROGRESS

GOAL 2: SUPPORT THE UNIVERSITY MISSION (CONT.)

Microsoft Teams Calling Training ▣▬▬▬▬▬▬▬▬ 10%

Provided Microsoft Teams Calling training and coaching for units transitioning to Teams Calling. More than 400 individuals have voluntarily transitioned to Teams Calling and benefited from day-of coaching and after-transition reinforcement of processes. Reconfigured the training format to on demand "coaching" as users adopted Teams Calling while working remotely. Developed a comprehensive Teams Calling guide. The effort continues as additional areas of the University transition to Teams Calling. Teams Calling also provides a gateway to offer training across Microsoft Team's entire "unified communications" suite.

GOAL 3: MANAGE AND DELIVER QUALITY

Project Portfolio Management ▣▬▬▬▬▬▬▬▬● ONGOING EFFORT

Enhanced and managed the CIO Project Portfolio, which has now evolved into a document to be shared with the Chancellor's Cabinet. The project portfolio provides a bird's eye view of critical and high-level OIT initiatives to the CIO. With this knowledge "in hand," the CIO can reference and review important work with Administration. The portfolio is also used to keep OIT staff informed, accountable, and moving forward. The portfolio typically shows 30-40 critical- and high-level projects at any one time, with approximately 102 projects on the PMO's radar in FY 2020-21.

Application of Project Management Principals Efforts ▣▬▬▬▬▬▬▬● ONGOING EFFORT

Applied project management to critical, large-scale OIT projects such as the single sign-on and multi-factor authentication cybersecurity enhancements, encryption efforts, the Administrative Information System (AIS) and Self-Service Banner upgrades, the Slate admission systems upgrade, and the Teams Calling conversion. The PMO focuses efforts and teams to meet timelines, manage stated scopes, and deliver results. Accountability at all levels is a key focus.

Customer Service Enhancements ▣▬▬▬▬▬▬▬ 60%

Reimagined technology support as a single point of contact service. Branded all "support" outlets as the SalukiTech Solution Center which is devoted to providing timely, efficient, and reliable customer service. The Solution Center fielded ~15,000 customer requests via phone, chat, email, support ticket, or in-person to provide answers to faculty, staff, and student technology issues.

Customer Communication Enhancement ▣▬▬▬▬▬▬▬ 60%

Created a templatized communications process for managing OIT-to-client communications during projects. This effort was first developed in conjunction with the Information Security Training outreach campaign and has been enhanced during the Teams Calling project. For these two efforts alone, the OIT has sent an estimated 3,500 emails with information for project coordinators and end-users. This approach allows the OIT to standardize, schedule, and send communications regarding key project elements, updates, and opportunities to all clients over the entire life of a project. The "template bank" is growing and will be applied across all projects, to both improve communication and save countless hours spent on outreach efforts.

STRATEGIC GOALS AND PROGRESS

GOAL 4:	ENSURE TECHNOLOGY INFRASTRUCTURE INTEGRITY

VoIP Installation—Teams Calling project 60%

Prototyped and began implementation of VoIP as the University "phone" system using the Microsoft Teams Calling platform. This move provides the OIT with the appropriate tool to replace SIU's aging phone technology and avert catastrophic failure of the campus phone system. The OIT has ~400 successful conversions to date and estimates a conversion rate of 70-100 lines per week when the implementation moves full speed ahead.

Data Center Utilization 70%

Continued promotion of the virtualization of server infrastructure to the Wham Secure Data Center. The OIT offers all departments/units on campus the opportunity to use the OIT equipment or to move their own technology equipment to our Tier III data center. This cost-saving opportunity provides reliable onsite monitoring and off-site backup of equipment in a climate controlled and virtually secure environment.

Air Core Cable Replacement 5%

Continued the replacement of the air core cable used by all campus voice services users. Lifespan for the air core is approximately 20 years—SIU's air core is 33 years old. The most efficient and cost-effective replacement plan is to convert to Teams Calling and then replace the air core cable.

Edge and Core Network Upgrade 90%

Continued upgrades to "The Edge," where the campus networks connect to the internet. These core networks are used by everyone on campus. Using EDUCAUSE numbers, students bring 6.9 devices to campus; combining this number with an additional two devices per each SIU employee, we estimate that the SIU network supports approximately 85,000 SIU-owned and personal devices. The network is a critical piece of infrastructure and upgrades are essential. Upgrades are a multi-year process to improve security and reduce costs.

Virtual Desktop Infrastructure (VDI) ONGOING EFFORT

Implemented VDI with the goal of restructuring lab (centralized and departmental) use across campus. Replaced physical workstations in our CLCs. Leveraged VDI to provide students with remote access to lab software during the fully remote semesters.

STRATEGIC GOALS AND PROGRESS

GOAL 5: EVALUATE AND IMPLEMENT COST-SAVING MEASURES

Cross-unit Savings ANNUAL EFFORT

Cut OIT costs significantly with strategic cost-cutting efforts, re-negotiation of contracts, and alignment with new vendors. All areas contributed to cost-cutting measures including Business Services, Enterprise Applications, Enterprise Systems, Information Security, Network Engineering, Technology Services, and Telecommunications. The OIT has provided all necessary tools and maintained service reliability despite cost-cutting measures. This has always been a core tenet of OIT; however, declining budgets affect the OIT's ability to plan around, add, and leverage advanced technologies when they first become available. Despite budgetary restrictions, the OIT maintains cutting-edge cybersecurity tools.

> **Technology Services ~$9K** achieved through automating processes.
>
> **Enterprise Applications ~$100K** achieved through renegotiation of contracts with multiple vendors.
>
> **Enterprise Systems ~$259K** saved system-wide in renegotiated Microsoft licensing.
>
> **Network Engineering ~$794K** achieved through renegotiated contracts, and both vendor and equipment changes, specifically Cisco to Extreme Networks.
>
> **Information Security ~$95K** saved by changing vendors for the cybersecurity defense platform from Proofpoint to Microsoft Defender.

Estimated savings for FY 2020-21 over $1.25 M.

GOAL 6: ELEVATE OIT COMMUNICATIONS

Tech Partners Outreach ONGOING EFFORT

Continued to engage with a coalition of "Technology Partners" that includes faculty, staff, and students who bring technology needs, wants, and issues to the table for discussion and return information from these discussions to their respective constituents.

Annual Report 100% ANNUAL EFFORT

Developed and published the fourth Office of Information Technology Annual Report to provide a comprehensive overview of the OIT's efforts and accomplishments during FY 2020-21.

Comprehensive Communication Efforts 100% ANNUAL EFFORT

Promoted the visibility and value of OIT projects. Provided comprehensive communication for critical OIT initiatives to administration, campus constituents, faculty, and staff. Enhanced communication between internal teams and external colleagues.

Microsoft Teams and Teams Calling Adoption 25%

Prepared user campaigns for Microsoft Teams (the platform) and Teams Calling (a tool within the Teams platform) in preparation for a push for campus-wide adoption. Provided PR sessions on the benefits of Teams and Teams Calling. Continued to provide Teams training, which has evolved into coaching and stand-by support as areas of campus transition to Teams Calling. The OIT now offers supplemental training on the Teams platform once a campus unit transitions to Teams Calling for phone service.

STRATEGIC GOALS AND PROGRESS

GOAL 7: ENHANCE INFORMATION SECURITY

Critical Security Upgrades 100% COMPLETE
Gained traction and systematically implemented essential security safeguards including single sign-on and multi-factor authentication (MFA), then transitioned users of legacy email methods to trusted email clients. Each of these incremental steps is a security best practice and lays the groundwork for additional security-related upgrades and enhancements.

Desktop and Laptop Encryption ONGOING EFFORT
Continued JAMF, an ongoing effort to encrypt desktop and laptop on MacOS and Linux machines in FY 2020-21. Initiated a new device procurement and delivery process in response to the COVID exit from campus, which allows OIT to procure, distribute, image, and encrypt all new devices before they are distributed to campus. This control over the procurement/distribution process enhances device security and helps control inventory.

Information Security Policy Development ONGOING EFFORT
Updated policies around information security throughout the OIT. Policies address software, hardware, systems, networks, digital information, resources, and digital assets. Developed the necessary framework to systematically mitigate risks posed to informational assets of the University.

Migrated to Microsoft Security 100%
Transitioned from the Proofpoint security platform to Microsoft Defender for Office 365 to substantially reduce costs while maintaining cybersecurity defenses. Savings are estimated at ~$95K annually.

Cybersecurity Awareness Training 100% ANNUAL EFFORT
Developed customized cybersecurity awareness training and delivered it virtually from June through October 2020. The training was offered to all faculty and staff on a voluntary basis. More than 1,000 faculty and staff members successfully completed this comprehensive training.

Added to the Information Security Team 100%
Added a talented new information architect to the OIT Information Security Team. Additional staffing increases the number of FTEs devoted to the OIT's cybersecurity efforts, increases scrutiny on OIT systems and accounts, and allows for more rapid deployment of cybersecurity enhancements.

GOAL 8: IMPROVE SERVICE MANAGEMENT

ITSM Tool Implementation ONGOING EFFORT
Implemented Cireson, a new IT Service Management (ITSM) tool. This new system provides the campus community a new, user-friendly Self-Service Portal for requesting technology assistance or resources from SalukiTech and provides technicians detailed dashboards for managing workloads. This new system will continue to be enhanced, adding new forms, toolsets, and features.

Establish an IT Service Management (ITSM) Program 50%
Continued efforts to incorporate the Information Technology Infrastructure Library (ITIL) as our service management (ITSM) framework. Continued the internal effort to identify ITIL concepts that seem most important to the OIT and applicable within the current institutional culture.

STRATEGIC GOALS AND PROGRESS

GOAL 9:	BUILD A SKILLED AND DIVERSE WORKFORCE

Staff Optimization ▭▬▬▬▬● ONGOING EFFORT

Increased staff to back fill positions with a goal of reaching optimal levels for performance; in FY 2020-21, the OIT started the year 16 FTEs short of our highest recent staffing level of 130 FTEs in 2016. The number of FTEs continues to decline despite aggressive efforts to hire when positions can be filled. This was exceptionally challenging during the pandemic; five new employees were added to the OIT staff, with eight OIT employees shifting to fill critical, vacant positions. Several of these new employees joined OIT without ever meeting their colleagues face-to-face. Remote work options at other institutions opened the doors for many talented people to leave the OIT—the pandemic made it clear that technology skills are both transferable and portable. The OIT's current hiring emphasis is filling expertise gaps that exist and working toward a more diverse workforce.

Professional Development ▭▬▬▬▬● ONGOING EFFORT

Encouraged training during the downtime created by the COVID disruption. Pluralsight, the OIT's on-demand training tool, was available; the staff logged almost 500 hours of technology and management training in the three months following the exodus from campus in March 2020. Staff logged an additional 450 hours of training in the remaining months of FY 2020-21. Many employees took advantage of free conferences, workshops, and training offered virtually during the pandemic; the entire Enterprise Systems team became certified in Microsoft Azure fundamentals. Two staff members completed their bachelor's degrees from SIU.

OIT Hiring Plan ▭▬▬▬● ONGOING EFFORT

Worked diligently to attract, hire, and retain qualified technology experts. The OIT has developed and is on the verge of implementing its strategic hiring plan to reach appropriate staffing levels, elevate salaries, and retain current staff. Part of this plan includes an intentional push to attract and hire people from underrepresented groups. Additionally, the OIT started investigating remote work options as a method of expanding the candidate pool when hiring.

Strategic Personnel Planning ●▬▬▬ 5%

Recognized the need for redundancy in critical skill sets across the department and within projects. Now identifying at-risk skills sets and positions. Work at all levels to strategically fill potential skills gaps. Effort includes vetting within the hiring process to identify important tangential skills within applicant skills sets. Cross-training skills within and between teams to create redundancy in key staff and/or project positions.

STRATEGIC GOALS AND PROGRESS

GOAL 10:	IDENTIFY AND PROVIDE INNOVATIVE SOLUTIONS

Shift Down and Left Initiative ONGOING EFFORT

Pushed ahead with this initiative as part of efforts to install concepts surrounding IT Service Management. The gist of the SDLI is addressing service issues earlier, when the cost to correct them is lower, and sharing knowledge and self-service access with those who need it. All is done with the mindset of improving the client experience. Efforts include consolidating various support channels under SalukiTech; empowering customers to access and use technology and associated learning tools (such as the expanded SalukiTech Knowledge Base); and automating technology workflows to support self-service options like software requests, password resets, and name changes. The SDLI presents a huge opportunity for OIT to streamline service efforts and reduce support costs while increasing technology adoption and user satisfaction.

Enhanced Technology Procurement ONGOING EFFORT

Procured and distributed technology equipment to meet teaching and business needs of faculty and staff, respectively, and to maintain accessible technology tools for student use. Deployed ~1,200 devices across the campus including laptops, desktops, tablets, ThinClients, and ZeroClients as well as ~1,800 peripheral devices including monitors, docking stations, printers, webcams, keyboards/mouses, and cables. Developed an assembly-line deployment method to encrypt, image, and provide contact-less pick up of new devices. All computers are now ordered through the OIT and tagged, imaged, bound to Active Directory, encrypted, and updated prior to distribution to users.

Wi-Fi Installation Strategy ONGOING EFFORT

Built on prototype of a best practices trend—mounting wireless access points (Wi-Fi) in the offices that use the Wi-Fi service (as opposed to installing ceiling-mounted devices in hallways). This innovative approach locates devices closer to users and avoids signal disruption by building materials such as metal, water, and plaster/ceramic. This results in far more reliable Wi-Fi access, as demonstrated in the prototype. Installing wireless access points in this way will be the standard moving forward.

Advancing Automation ONGOING EFFORT

Escalated efforts to automate processes in all areas and to enhance all projects. Automation comes with the innovative application of advancing technology, and the OIT staff has incorporated automated processes to increase efficiency and consistency, while reducing costs. In FY 2020-21, 1,847 automated activities in Technology Services alone saved what has been conservatively estimated to be 62.6 business days, the equivalent of ~$9K in labor costs. Reduced staff and SIU's growing technology demands will continue to push OIT efforts to develop automated processes.

Standardized Project Communications 50%

Created and prototyped a project communication process and "templatized" standard emails and instructional information to help improve communication on projects. The process sets touch points for specific communication and establishes a schedule for distribution of information to project stakeholders. Managed communication helps elevate the OIT's client service reputation and keeps clients informed about project expectations, progress, action points, delays, and changes.

OUR EMPLOYEES

EMPLOYEES WHO JOINED OIT

In FY 2020-21, the OIT welcomed several new employees as well as a number of talented employees from other areas of the University. These additions to the OIT team brought new skills and talents to the department as well as to their respective teams. OIT has benefited from their knowledge and expertise and appreciates their perspectives as new employees and/or employees coming from other areas.

JUAN BARBOZA
Service Desk Associate II
SalukiTech Solution Center

NATHAN BLACK
LAN Administrator
Desktop Support

REBECCA FARMER
IT Manager/Administrative Coordinator
Student Information Systems

TOM HARBERT
Communication Information Specialist
Desktop Support

AUSTIN STALLMAN
Technology Support Associate
Foundation Support Services

THOMAS UNDERWOOD
Desktop Support Associate III
Desktop Support

EMPLOYEES IN NEW POSITIONS

Several OIT employees moved into new roles within the department. Moving between roles requires that an employee's skills and expertise be compared with other interested candidates. These talented individuals' professionalism and expertise propelled them forward into their new positions. These employees have and continue to contribute to OIT efforts in their new roles.

BEN ANDERSON
ITSM Tool Manager
Technology Services

ERIC EVANS
ITSM Tool Developer I
Technology Services

ELLEN JAHN
Project Coordinator
Administrative Information Systems

RICHARD SMITH
Security Architect
Information Security

RECENT GRADUATES

OIT is particularly proud of each student who worked as part of the OIT team during their college years, and is now entering the next phase of their professional journey. Their efforts are particularly impressive since they have been navigating both their academic and work efforts during the pandemic, which has required an unparalleled amount of diligence and determination. Good luck graduates!

BLAINE CALLONI
Biological Science, BS

NICHOLAS ESSLINGER
TV and Digital Media Radio, BS

ADITYA GADIGE
Computer Science, MS

JAYLEN GALLOWAY
Information Systems Technology, BS

JACOB HOWARD
Information Systems Technology, BS

LEXIE MARTINEZ
Computer Science, BS

LOGAN MOSES
Information Systems Technology, BS

JACUELINE RIGSBY
Computer Science, BS

DONNA ST. AMOUR
Computer Science, BS

JENNIFER ST. LOUIS
Journalism, BS

KYLE WEISE
Information Systems Technology, BS

ALEX SHENGE
Information Systems Technology, BS

ORGANZATIONAL CHART

INTERIM ASSISTANT PROVOST AND CHIEF INFORMATION OFFICER
Scott Bridges

ADMINISTRATIVE AID
Stacey Vinson

BUSINESS SERVICES
Laurie Holley, Manager

CLIENT RELATIONS AND COMMUNICATIONS
Olinda Hubbs, Associate Director

ENTERPRISE APPLICATIONS
John Ahrens, Director

ENTERPRISE APPLICATIONS
Jerry Richards, Director

Network Engineering and Telecommunications
Michael Shelton, Deputy Director

PROJECT MANAGEMENT
Brian Skouby, Associate Director

RESEARCH COMPUTING
TBD

TECHNOLOGY SERVICES
Wil Clark, Director