



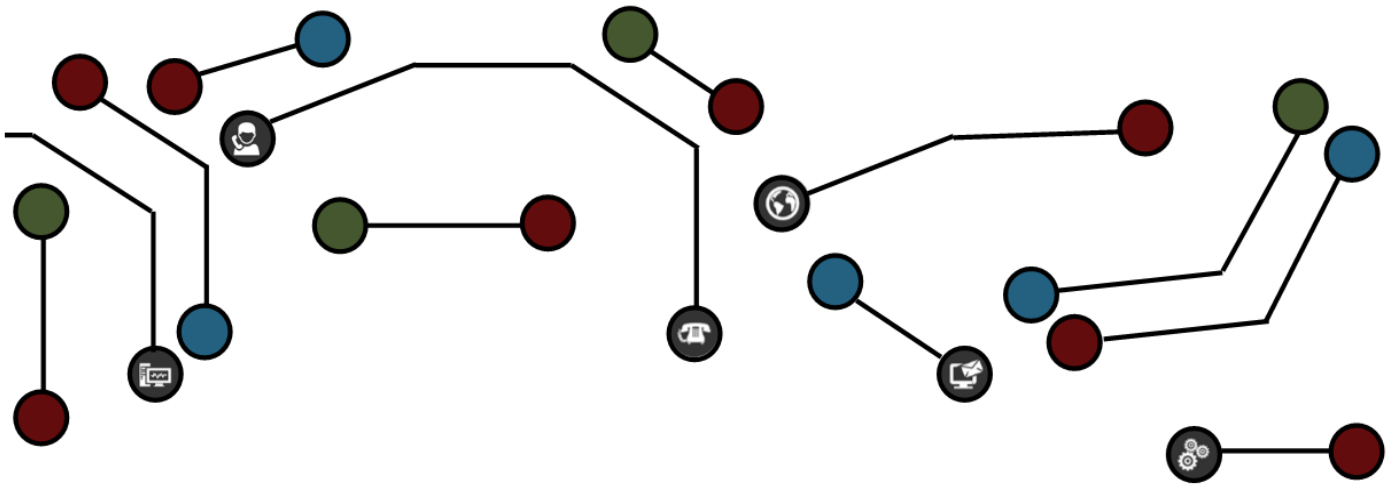
Office of Information Technology Annual Report

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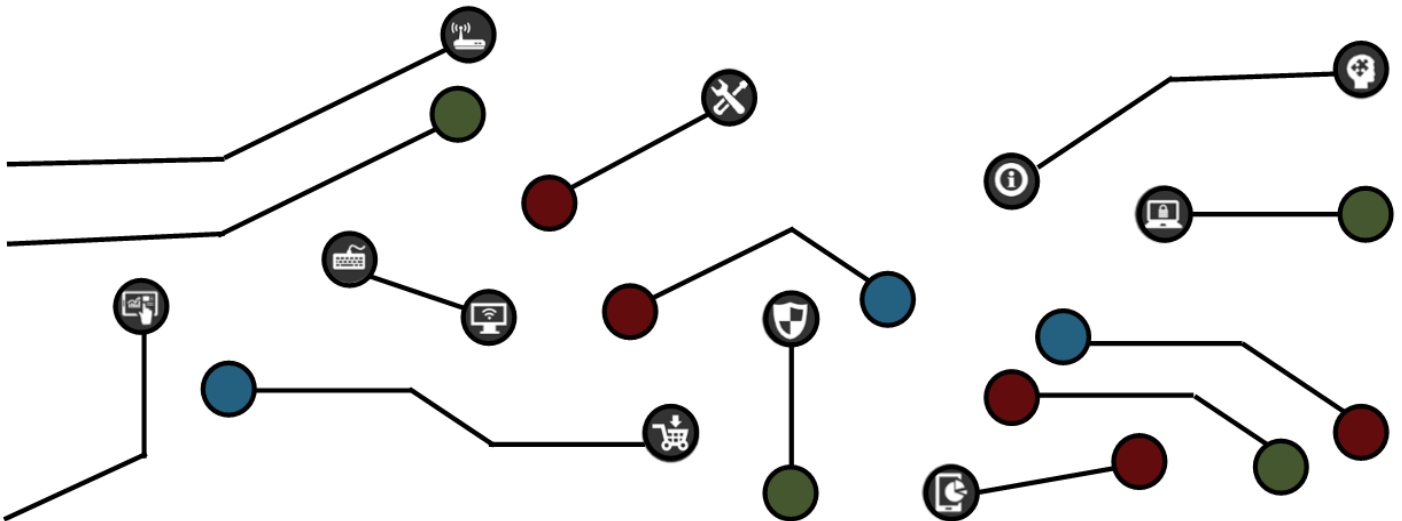


**SIU** SOUTHERN ILLINOIS UNIVERSITY  
CARBONDALE OFFICE OF  
INFORMATION TECHNOLOGY

# Annual Report



July 1st, 2017 - June 30th, 2018



# A Year in Review

## 2017-2018



# Contents

A YEAR OF ACCOMPLISHMENT	
Departmental Aspirations	
ABOUT THE OFFICE OF INFORMATION TECHNOLOGY .....	1
Our Vision .....	1
Our Mission.....	1
Our Values.....	1
Expectations for Our Team of Professionals .....	2
Our Full-Time Staff .....	3
Our Student Employees.....	3
Our 2017-18 Work in Numbers .....	4
Our Work in \$\$\$.....	5
Cost Reductions 2017-18.....	5
Our Work in Service .....	6
OIT TECHNOLOGY UNITS AND TEAMS.....	7
OIT Teams .....	7
Unit Descriptions and Annual Highlights.....	8
Administrative and Business Services .....	8
Client Relations and Communications.....	8
Enterprise Applications .....	9
Network Engineering .....	9
Enterprise Systems.....	10
Information Security .....	10
Project Management Office.....	11
Research Computing .....	11
Technology Services .....	12
Telecommunications .....	12
STRATEGIC GOALS AND PROGRESS .....	13
Goal 1: Support the University Mission .....	13
Goal 2: Enhance University Operations.....	14
Goal 3: Managing and Delivering Quality.....	14
Goal 4: Ensure Technology Infrastructure Integrity .....	15
Goal 5: Evaluating and Implementing Cost Saving Measures.....	16
Goal 6: Elevate the OIT Internal, Campus, and External Communications .....	17
Goal 7: Enhance Information Security.....	17
Goal 8: Improve Service Management.....	18
Goal 9: Maintain a Skilled Workforce .....	18
Goal 10: Identify and Provide Innovative Solutions.....	18
EMPLOYEES ARE OUR BEST RESOURCE .....	19
New Talent.....	19
Conferences / Workshops / Training attended .....	20
Conferences / Workshops / Training provided by the OIT.....	21
Presentations given by the OIT Staff.....	21
Professional Credentials and Honors .....	21
OIT Outreach.....	22
Degrees Earned by Student Employees.....	23
Our Graduates Go To Work at Great Employers.....	24
THE OIT ORGANIZATIONAL CHART.....	25



**The Office of Information Technology acts first to support the SIU University mission:**

*SIU embraces a unique tradition of access and opportunity, inclusive excellence, innovation in research and creativity, and outstanding teaching focused on nurturing student success.*

*April 10, 2018*

In 2017-18, we worked diligently to provide reliable technology tools, services, and infrastructure to elevate the University as a business entity and enhance the access, opportunity, and academic success promised in the University mission. In support of the University and our students, the OIT provided:

- Access to state-of-the-art labs and tools
- Supercomputing resources for research
- Secure digital environments
- Reliable technology infrastructure
- Robust administrative tools and systems
- Internet access to the world
- Wi-Fi access throughout the campus
- Secure data transfer and storage
- On-campus repair of technology devices
- Help by phone, email, portal, or in-person
- An on-campus technology store
- Professional project management resources
- Work opportunities for 146 students

# A YEAR OF ACCOMPLISHMENT

I am fortunate. Here at SIU, I have a spectacular team of professionals who come to work every day, regardless of the challenges, tasks, or circumstances, and work hard to make this University as successful as possible. As we begin another year, I want to take the time to share their work, capture their accomplishments, and give credit to the people who make up our Office of Information Technology teams.



As a lean organization, every contribution is important and everyone's efforts count. This may be cliché, but it is also true. We cannot afford to waste anyone's time or talent—so I greatly appreciate those people in our organization who have given their professional best. In the same breath, I hope I have made it clear to each of them that their efforts are valued, appreciated, and make a difference.

Despite the ongoing challenges, the OIT has done excellent work in the last 12 months. We have made exceptional strides forward, under challenging circumstances, and produced great results. Our work has sustained the University's technology systems and infrastructure, allowing them to operate in a business-as-usual way. This isn't dramatic, but being an efficient, effective, and reliable resource lends stability to the entire organization—and the OIT staff can and should take pride in that. Being one of the critical "utilities," like electricity and water, makes the OIT vital to the University.

However, we are more than a support and maintenance organization. The OIT has implemented software and systems to boost the University's ability to do business in better, faster, and less expensive ways. We have also provided innovative tools to help move the University forward and maintain its competitive edge. Our work directly supports the University's mission and our students' academic success.

Amazing examples of the Office of Information Technology's work include tools such as:

**BigDawg**, SIU's High-Performance Computing Cluster is really a shining star in the department, and for the University as a Tier 2 Research Institution. Our supercomputer is second-to-none in speed, and a recent upgrade gave SIU researchers even more access and processing capacity.

*"I believe in opportunity...creating it, taking hold of it, and giving it to others..."*

**Cherwell** is next on the horizon. We have gained incredible traction in our development of this tool. We assembled a Cherwell team and invested in Cherwell training—an investment which has paid off. We have had great results thus far and have a truly functional ITIL ticketing system on the horizon. Cherwell will provide the OIT (and at some point the entire campus), with the ability to take in and address requests and support issues with appropriate urgency while keeping customers up-to-date on progress.

**Degree Works** is an amazing software system that shows potential students what their degree programs will look like, how long they will take to complete, and what happens if they change their majors or their minds. What a strong recruiting tool! Current students can use Degree Works to get through a four-year major on time—saving them thousands of dollars in unexpected tuition costs, and propelling them into the job market faster.

**HireTouch** brings potential employees into the hiring process (on a self-service basis), and then moves them through the process efficiently. HireTouch greatly enhances SIU's behind-the-scenes efforts to create positions, evaluate potential candidates, and hire selected applicants. Everyone involved in the hiring process has access to all information about a position in real time.

**SalukiNet** was updated to have a new, more modern look, and to function better on mobile devices. The new SalukiNet is an all-encompassing “portal” or access point for University-related services. Students, faculty, and staff use SalukiNet to find the online tools they need and use regularly. The portal consolidates and organizes these tools by the number of times the tool is used, by activities relevant to the University calendar, or as user favorites.

**Network Enhancements**, particularly a dramatic increase in band-width from 7.4 gigabits per second (Gbps) to 12 Gbps and upgrades of end-of-life equipment, have reduced costs as well as increased network reliability, availability, and speed. Although invisible, these enhancements greatly improve all aspects of University business and academic success.

**Proofpoint**, an email-vetting software immediately decreased incoming SPAM, Phishing, and email threats; this had been a tremendous issue in 2017-18. Since cyber threats only continue to increase in sophistication and numbers, we remain diligent. OIT cyber security efforts continue to divert threats and mitigate incidents.

**The Project Management Office (PMO)** has become a highly effective area of the OIT, and has managed all of the critical OIT projects implemented in 2017-18

**Client Relations and Communications (CRC)** is coming into its own as a valued resource. What people know about the OIT, the projects we are involved with, and our value to the University, is pushed forward by this new OIT unit.

- I want to move toward a more innovative and entrepreneurial workplace; I would like every member of our staff to feel a sense of ownership over the work they do.
- I would like to focus on customer service. This is a step we need to take to solidify the OIT as a business partner rather than a business support unit.
- We must continue our focus on security and reliability; both are critical to University business and academic success.

And, I would like to look beyond what is on the immediate horizon, to identify those tools and services that OIT customers will expect from us five years from now, especially those that they do not expect today.

*“I believe in opportunity...creating it, taking hold of it, and giving it to others. In times where resources are limited, opportunity is one of the greatest resources available to us. I would like to find a way to empower every employee in the OIT to look for opportunities, and then be part of the process to bring them forward—to create a plan and take a leading role in developing a new tool, an efficient procedure, or an innovative product. This is what makes a great workplace and gives meaning and challenge to daily work.”*

**Scott Bridges**

Interim Assistant Provost and Chief Information Officer  
[bridges@siu.edu](mailto:bridges@siu.edu)

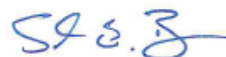
Each of these projects or efforts represents tremendous effort by the OIT development and implementation teams as well as all of the OIT units and people who support them.

As technology takes on an increasingly vital role within all organizations, the nature of the OIT is shifting from a support organization within the University to one of service and business partnership. In anticipation of the change to come, the OIT created two new units: the Project Management Office (PMO) and Client Relations and Communications.

The OIT is unique in its ability to look into the future and weave technology into the essential elements that make the University more competitive, more sustainable, and more attractive.

I look forward to working with every member of the OIT team as we move into 2018-19; I expect to be amazed, once again, by their accomplishments and the progress we make.

Scott Bridges,



Interim Assistant Provost and Chief Information Officer

# Departmental Aspirations

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**A Change in Our Industry...  
A Change in Our Thinking**

Over a very short period of time, the role of “technology” within organizations has changed. Once a support unit, the Office of Information Technology must now reinvent itself as an integral part of the University as a business partner, and as a service organization to our customers. Although many would say, “That is what we have been doing,” we think that we can improve our service levels and elevate the value of the OIT within Southern Illinois University Carbondale.

Departmental aspirations provide the overall and long-term focus for the department. All strategic and tactical goals are aimed toward and driven by our departmental aspirations.

## **Enhance Administrative Partnership**

Align the OIT with the mission and business purposes of the University, and focus decision makers on technology-centered tools that will propel the University forward and make it more competitive.

## **Embrace Collaborative Engagement**

Encourage collaborative and cooperative efforts internally and externally with a focus on enhancing internal and external team experiences.

## **Promote Staff Development**

Identify and develop critical skills among our professional staff and mentor the next generation of leaders.

## **Champion the Value of OIT**

Enhance the OIT value proposition to show the critical need for increased funding and the competitive edge to be gained.

## **Elevate Customer Service**

Set an expectation that the OIT will provide excellent “service” to all campus customers and work with all OIT teams to exceed service expectations.

## **Cultivate Entrepreneurial Thinking**

Initiate and support innovative thinking, individual responsibility, and professional accountability.

## **Drive Continuous Improvement**

Establish far-reaching goals, and aim toward those goals with expertise, effort, and enthusiasm.

# ABOUT THE OFFICE OF INFORMATION TECHNOLOGY

[The Office of Information and Technology](#) (OIT) provides leadership in technology innovation and service across campus. The OIT partners with administrative and academic units to ensure the University has the technology tools, services, and security needed to support the University's mission and its business as a competitive academic and research institution. The OIT also works to propel SIU toward a future where students, faculty, and staff have the technology tools and services they need to excel in their efforts.

University Mission

OIT Vision and Expertise

Collaborative Partnership

Academic Success



## Our Vision

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To be an essential and valued technology partner for Southern Illinois University Carbondale.

## Our Mission

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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 clients 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 and work with colleagues within 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

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- See employees as vital resources.
- Promote and value diversity.
- Encourage innovative thinking.
- Require the utmost in integrity and ethics.
- Encourage open communication.
- Encourage buy-in and require accountability for work efforts.
- Foster collaboration and mutual respect within the department and across the campus.
- Define guidelines, policies, procedures, and standards.
- Train employees to meet these efforts.
- Apply and use resources effectively.



# Expectations for Our Team of Professionals

Everyone who works in the Office of Information Technology is expected to bring their professional best to work every day. We then work under the OIT guiding principles, to aim our efforts at fulfilling the University mission and propelling student success. Our best efforts depend on five intrinsic steps to success (right).

We expect our leadership team, and the natural leaders among us, to establish our goals, provide motivation, and encourage team members to perform to their professional best. As we shift our focus to that of a department aimed at partnership with the University, and focused on service to our customers, we expect our leadership team to inform, mentor, support, and inspire their teams.



*In 2018-2019, we challenge our professionals to think about and work toward innovations that the University and our customers will expect five years from now, that they do not expect today.*

We expect our OIT professionals to bring a vast array of technical skill and expertise to their work at the University. Individually, our people are knowledgeable and dedicated. When joined in teams, they provide the University with the critical technology tools it needs to function as a business and as an academic institution. Our teams are efficient, innovative, and lean. As we shift our focus to that of a department aimed at a robust partnership with the University, we expect our teams to continue providing the high-level professional and technical expertise needed to increase the University’s competitive edge. In pursuit of our increased emphasis on customer service, we expect our teams and the individuals within those teams to embrace this new focus and work toward better and more frequent communication with internal and external customers.

We expect our student employees to provide the tools and services our clients need in a professional and courteous manner. As we become more focused on service excellence, our student employees will be expected to learn and meet the OIT customer service standards. As a department, it is our responsibility to explain and model professional behavior, especially with respect to customer service, and mentor our students to perform to these standards.

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*“It’s not enough to be a supervisor—the Network Engineering professional staff is encouraged to mentor our student employees. We train them on the technical aspects of the job, security practices, and internal processes...and help them understand the responsibilities of those tasks and the associated costs. We teach our students how to conduct themselves in the workplace, what it means to be a reliable part of a team, and how to deal with customers. We also encourage them to step outside their current skill set and tackle new tasks. Our goal is to prepare them for their next workplace after graduation.”*

**Michael Shelton**  
Deputy Director of Network Engineering  
[michael.shelton@siu.edu](mailto:michael.shelton@siu.edu)

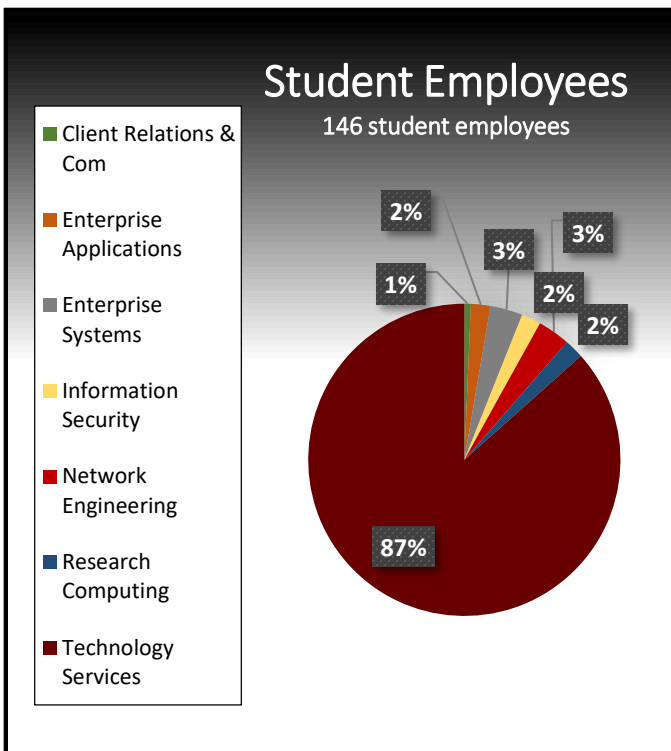
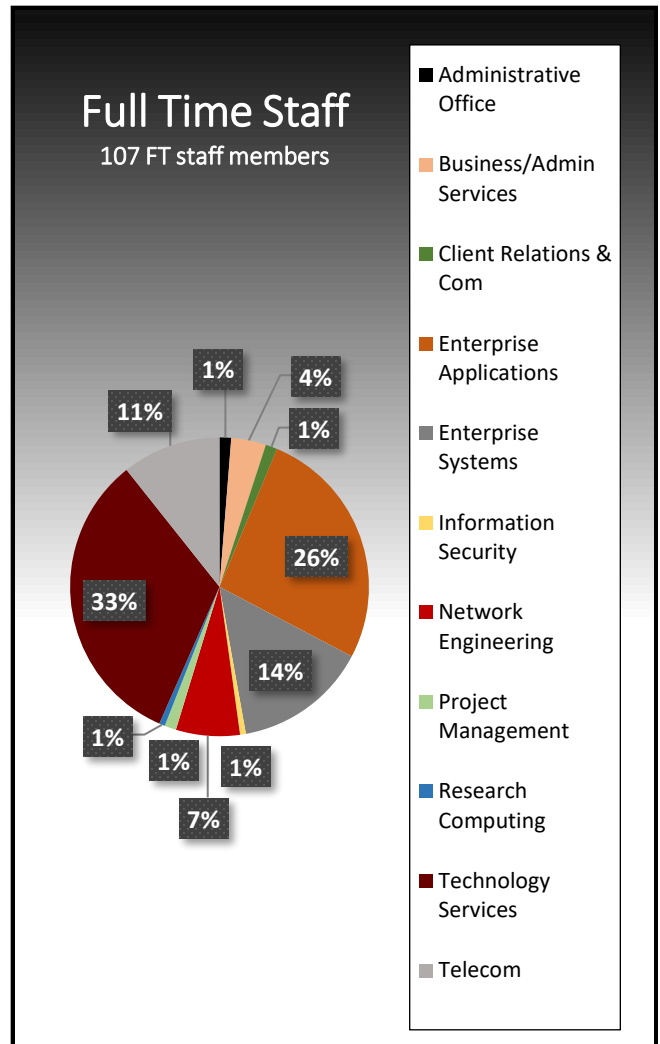


# Our Full-Time Staff

The OIT currently employs 107 full-time staff members, up from 102 in FY 2017. The OIT staff is extremely lean, with an FTE headcount that is 75% of the size of Public Doctoral Institutions with similar enrollment (Source: EDUCAUSE). This has long been the state of SIU's technology areas. Our current staff performs all essential technology services and manages to keep the University operating well. Our professional staff is distributed through 10 internal departments/units. During the majority of 2017-18, the OIT worked on filling 19 open professional positions.

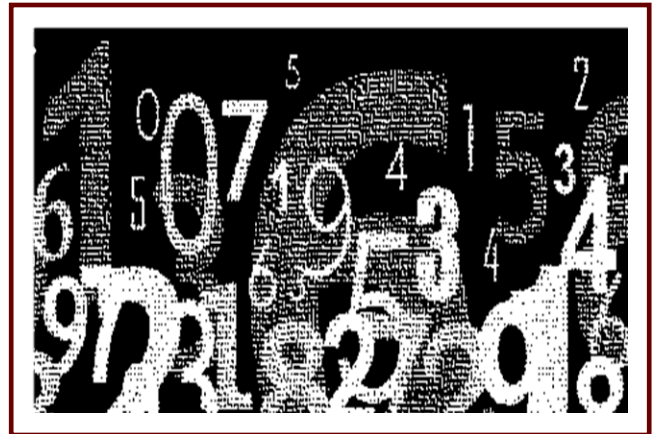
# Our Student Employees

Student employees are invaluable to the OIT. They provide important technology services to the entire SIU campus, and are heavily involved with student technology initiatives. The OIT relies on student workers and employs one-third more student employees than our peer institutions. They are a direct connection to our most important client base, SIU students. The OIT employed approximately 146 employees and graduate assistants in FY 2018.



# Our 2017-18 Work in Numbers

- 10,000,000~ phone calls coming into, out of, and across campus
- 7,640,400 malicious emails filtered to protect SIU users
- 750,000~ employee, student, and alumni records managed
- 626,613 pages printed supporting students
- 250,000~ jobs run on BigDog—SIU’s supercomputer
- 69,350 student hours in the Computer Learning Centers
- 67,000 feet of cat 6 network cable installed
- 45,625 gigabytes (Gbps) of data analyzed to detect security issues
- 45,534 calls auto-routed through the voice response unit
- 26,785 long-distance telephone minutes
- 19,000~ calls received in the SalukiTech Call Center
- 11,466 incidents resolved by the SalukiTech Call Center
- 4,116 students visited the Computer Learning Centers
- 2,000~ students/staff assisted at the Service Center window
- 1,558 computers turned in for service at the Service Center
- 1,516 software packages distributed
- 800 terabytes (TB) of data reduced to 118 TB using “deduplication,” extending valuable storage resources eightfold
- 550~ pounds of personal tech trash recycled at our first Recycling Day
- 270 off-campus users granted secure network access through VPN
- 146~ students and graduates assistants employed throughout the OIT
- 100 researchers used BigDog non-stop in 2017
- 82 TB of redundant, off-site storage ensures business continuity and emergency data recovery
- 2 TB of administrative and student data are stored in OIT information systems
- 1/3 of a petabyte (333,000,000,000,000 bytes) of critical University data stored on our Compellant storage area network (SAN)



## *When is 1/3 a spectacularly large number?*

*The Office of Information Technology stores approximately one-third (1/3) of a petabyte of critical University data on the Compellant SAN—our primary storage network. We have approximately 25% more storage space available on Compellant to accommodate future needs.*

## How big is that byte?

### Gigabyte (GB)

1 billion bytes of information

Approximately 200,000 trees made into paper and printed

### Terabyte (TB)

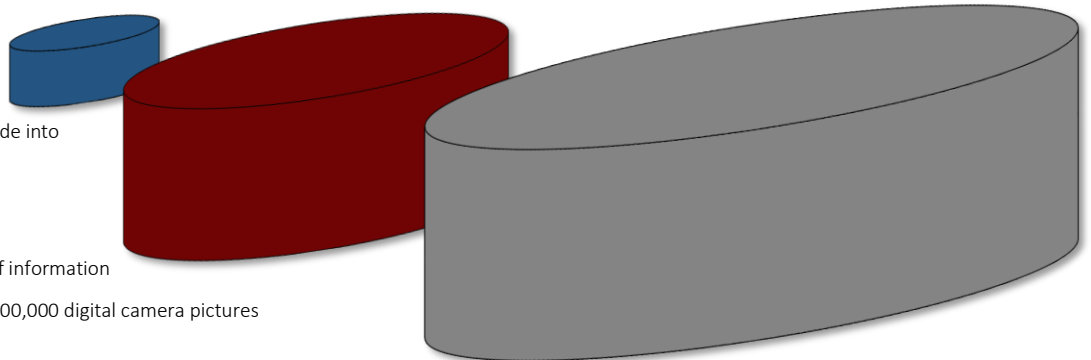
1 trillion bytes of information

Approximately 500,000 digital camera pictures

### Petabyte (PB)

Over 1 quadrillion bytes of information

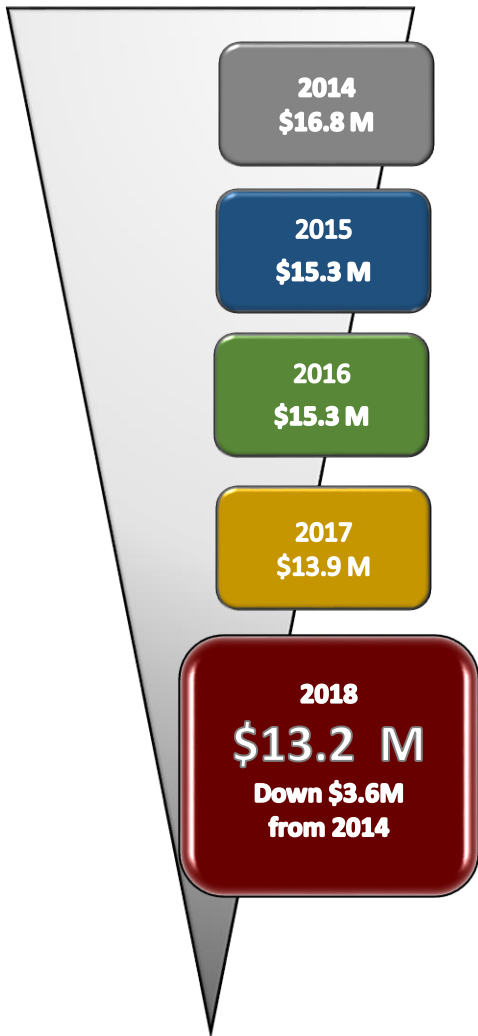
Information stored on more than 1.5 million CD-ROM discs



# Our Work in \$\$\$

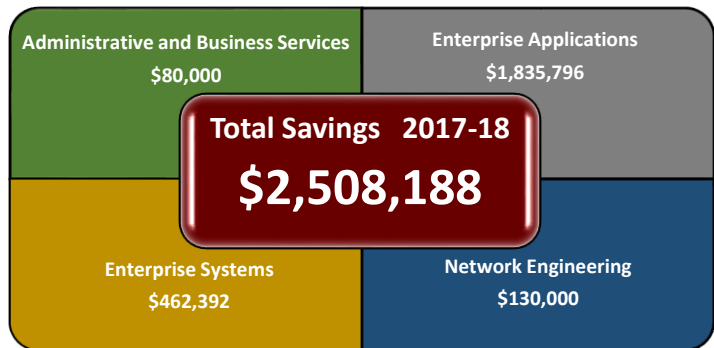
In fiscal year 2018, the annual budget for the OIT was \$13.2 M. This represents a \$3.6M reduction over the last five years (with FY 14 at \$16.8 M). To meet the OIT’s basic business responsibilities, and continue support to the University mission, the OIT executive staff and teams developed creative ways to increase productivity, reduce costs, and maintain service. A critical component of the OIT’s cost-saving efforts comes from a team who have worked both harder and smarter.

## OIT Budgets 2014-2018



## Cost Reductions 2017-18

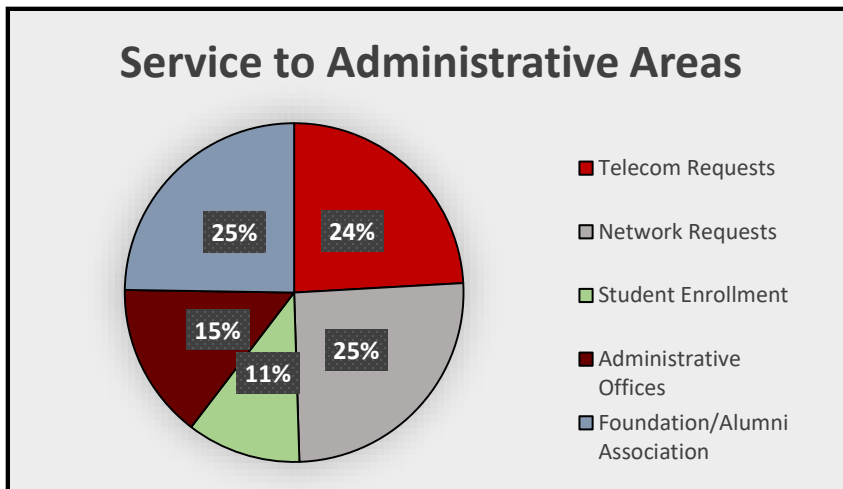
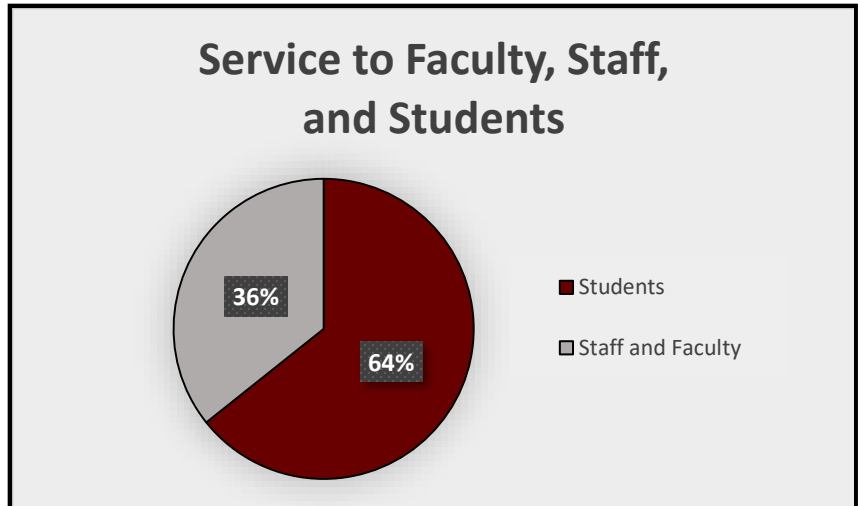
To meet ongoing budget reductions, while retaining critical staff and services, the OIT teams reevaluated vendor contracts and aggressively renegotiated lower costs and/or better terms. This stringent look at costs, adjustments to services, and aggressive negotiations with vendors has allowed the OIT to maintain the integrity of the technology resources provided to the campus. Staffing gaps, aging infrastructure, and the speed of technology obsolescence are real concerns at current funding levels. The OIT staff is doing a remarkable job of maintaining services and service quality, but our resources are stretched thin and the availability and quality of technology services is both an ongoing challenge and real concern.



# Our Work in Service

Through **Technology Services**, the OIT provides the individuals who teach, conduct research, work, and study on campus with the technology services, tools, and support they need to get their work done. Technology support for individuals is provided through SalukiTech, comprised of the Call Center, Service Center, Computer Learning Centers and the Computer Store.

Whereas SalukiTech often assists individuals with personal technology needs and repair, our Desktop Support Team services University equipment and departmental requests.



The OIT provides service to administrative areas through several departments—each providing specific tools or services.

**Enterprise Applications, Enterprise Systems, Networking, and Telecommunications** all provide services to support, enhance, or elevate University business.

- The shift to digitally focused business needs and customer expectations increases demand on IT organizations. The OIT has long provided sufficient and appropriate support to the University and this last year’s successes support this. Nonetheless, our role cannot remain one of supporting operational needs. The OIT must focus future efforts on driving outcomes that are closely tied to and enhance the University’s key business goals. We must formulate ways to respond quicker, anticipate future needs, and offer value-added service.*

# OIT TECHNOLOGY UNITS AND TEAMS

The OIT is comprised of 10 key areas, each having task- and project-specific teams:

- Administration and Business Services
- Client Relations and Communications
- Enterprise Applications
- Enterprise Systems
- Information Security
- Network Engineering
- Project Management
- Research Computing and Cyberinfrastructure
- Technology Services
- Telecommunications

## OIT Teams

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Within each unit, the OIT has developed teams that manage specific tools and services—some as finite projects and others as ongoing resources. Members of each team work within one of the OIT’s units (listed above) to perform the day-to-day tasks that are essential to University business or our students’ progress. In addition to their daily responsibilities, team members take on roles within a team to work on efforts that address the University’s ever-evolving needs.

### Administrative and Business Services Teams

Accounting  
Inventory Management  
Personnel Services

### Client Relations and Communications Teams

Events  
Internal/External Communications  
New Student Orientation  
Web Development

### Enterprise Applications Teams

Administrative Systems (AIS)  
Enterprise and Applications Architecture  
Foundation Services (FSS)  
SalukiNet  
Student Information Systems (SIS)

### Enterprise Systems Teams

Data Center  
Linux  
Web Infrastructure  
Windows

### Information Security Teams

Cyber Security  
Risk Mitigation

### Network Engineering Teams

Linux Systems Administration  
Network Architecture  
Wired Networks  
Wireless Networks

### Project Management Teams

Change Management  
CIO Project Portfolio  
Disaster Recovery and Continuity  
Project Management and Oversight

### Research Computing and Cyberinfrastructure Teams

BigDawg HPC  
XSEDE Campus Champions

### Technology Services Teams

Call Center  
Computer Learning Centers (Labs)  
Computer Store  
Desktop Support  
Service Center  
Service Management and Monitoring

TEAMS

# Unit Descriptions and Annual Highlights

## Administrative and Business Services

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Leveraged departmental purchasing power and technology know-how to save \$80K on Dell products alone.

[Administrative and Business Services](#) (Business Services) manages all financial accounting, record-keeping, and budgeting for the OIT in the most efficient way possible. Business Services supports individual areas within the OIT to allow 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 centralized approach allows Business Services to provide the CIO with a clear overview of the departmental budget.

### *ABS Highlights 2017-18*

- Adopted a new Access-based purchase order and invoice tracking system that reduces the time and effort needed to manage the OIT's purchasing information.
- Participated in the beta-testing, and subsequently adopted HireTouch, the University's state-of-the-art employee onboarding system. Now a campus-wide system, HireTouch allows all departments and people involved in the hiring process to follow a position from job description to the hiring of the selected candidate. All the OIT candidates for 2017-2018 have entered and moved through the hiring process via HireTouch.
- Handled all technology-related, pre-purchase support for the Carbondale and Springfield campuses as well as ongoing advising about technology trends. Our knowledge and ability to leverage purchasing power created a savings of \$80K in 2017-18 on our \$1.6M~ in computer and peripheral orders from Dell alone.

## Client Relations and Communications

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[Client Relations and Communications](#) (CRC) helps the OIT tell its best story. We lead communication efforts about the OIT initiatives to prepare the campus community for technology change. We provide the information and tools needed to foster technology adoption with a degree of confidence and comfort. We share the OIT's successes with campus and external constituents. Our ad-hoc team is a collection of creative and talented OIT evangelists who are determined to elevate the OIT as a University partner and an essential resource for academic excellence.

Initiated strategic communications efforts to create awareness of OIT initiatives on campus.

### *CRC Highlights 2017-18*

- Transitioned from "communications-focused" to a more comprehensive focus on client service.
- Built ad-hoc teams of creative professionals to work on specific projects and produce exceptional results.
- Reworked the OIT department website.
- Reworked the Institutional Research website.
- Presented Security Day and Security Month Events to educate the OIT and University staff.
- Developed the first OIT Annual Report.

## Enterprise Applications

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[Enterprise Applications](#) (EA) manages and maintains the computer systems that run the “business” of SIU, particularly those for administrative, student, and Foundation/Alumni Association needs. We spend hours learning the business of our customers, providing professional guidance and service, and offering support when problems arise. We integrate the applications we manage with departments that function independently of the OIT, such as the Department of Public Safety, Office of Special Projects, Student Health and the Rec Center. We are also responsible for integrating applications within the OIT such as Enterprise Systems, Technology, Network and Telecom, and Administrative and Business Systems. Our staff includes application developers, SQL developers, configuration specialists, business analysts, project coordinators, and database administrators.

**Negotiated \$1 M~ in savings on new and existing contracts.**

### *EA Highlights 2017-18*

- Assessed SIU time accounting and payroll procedures.
- Conducted a proof-of-concept trial to show the ease of use and effectiveness of Tableau analytic software.
- Installed HireTouch onboarding software to streamline job posting and applicant hiring.
- Automated procedures for tracking grants to ensure grant money is managed as mandated.
- Integrated Radius with Banner to accurately represent student recruiting processes and outcomes.
- Initiated the Banner 9 upgrade and installation of the new Banner Student software.
- Initiated the Advance upgrade, which included acquiring system support and enhancing performance.

## Network Engineering

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[Network Engineering](#) provides a stable, reliable, and robust data network communications infrastructure to SIU students, faculty, and staff. Our staff supports all of the academic and administrative functions of the University at the most fundamental level; Network Engineering provides the secure infrastructure that connects all technology tools and devices across campus and to the world. We implement, maintain, and support wired and wireless networks. Our professionals consult with other campus units, internal and external, that have an interest in the University network.

### *Network Engineering Highlights 2017-18*

- Managed network access and security for the 2017 Eclipse.
- Increased network speeds and reliability by replacing older network topologies including T1, LRE, and DSL connections with newer options.
- Removed many end-of-life hardware devices and replaced those that have security vulnerabilities.
- Increased Internet bandwidth from 7.4 gigabits per second to 12 gigabits per second, while lowering costs, for an annual savings of \$9,000~.

TEAMS



## Enterprise Systems

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Increased system security and dramatically reduced nuisance emails by implementing Proofpoint.

The University requires enterprise-level computing services and systems to operate, grow, and excel. [Enterprise Systems](#) (Systems) manages the hardware, data and backup storage, and operating systems 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. Enterprise Systems' work keeps SIU business, office productivity, and communication systems functional and secure. A variety of applications, systems, and services (managed by various SIU units) are built on top of these

servers. Our staff includes system administrators, system operators, and technical support specialists with expertise in server hardware, as well as Windows and Linux operating systems.

### *Enterprise System Highlights 2017-18*

- Implemented Data Loss Prevention (DLP) in Office 365 to monitor sensitive data transfer.
- Deployed the Proofpoint email security system to protect campus users from scam and phishing email.
- Installed and configured the Virtual Desktop Infrastructure (VDI) in preparation for deployment to the CLC labs.
- Converted 300+ SIU sites to SSL encryption to protect University assets and sensitive data.
- Moved BigDog, SIU's High Performance Computing Cluster from Rocks to OHPC. This reduced security vulnerabilities, while increasing system access and computational power to SIU researchers.
- Tested a Disaster Recovery solution in Microsoft Azure that prevents loss in service of e-mail, OneDrive, and other "cloud" services if the SIU network/systems experience critical failure.
- Built a common software, patch, and reporting tool for the SIU Carbondale campus called Microsoft System Center Configuration Manager (SCCM).
- Leveraged Microsoft Power Bi to produce useful, timely, and enhanced SCCM reporting.
- Increased resiliency, reliability, and performance of critical business functions by moving the Administrative, Human Resources, and Student Information Systems from existing servers to a common virtual environment in VMware.

## Information Security

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[Information Security](#) (Security) is a critical University resource. We work to reduce cyber risks across campus—those that have the potential to affect our institutional systems as well as those affecting our students, faculty, and staff. We study Internet threats on a daily basis and apply our experience and knowledge to protect and defend the University's electronic information resources. Our professional staff are technology experts who are trained and certified in various types of security management. Our staff also includes a number of student employees and graduate assistants pursuing degrees in SIU's Computer Science (CS), Electrical and Computer Engineering (ECE), and Information Systems Technology (IST) departments.



### *Information Security Highlights 2017-18*

- Reduced the footprint of unprotected, sensitive data on campus by more than 75% using Spirion data scanning.
- Transitioned the SIU Foundation to MoveIT for the secure transfer of sensitive data.
- Installed a new vulnerability scanning solution to monitor all systems in the Wham Data Center.
- Installed DUO to increase network access security and to allow for future two-factor authentication.
- Deployed Bitlocker drive encryption for all the OIT computers and for laptop devices across campus.
- Analyzed 125 GB of system data daily using SPLUNK.

## Project Management Office

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The [Project Management Office](#) (PMO) provides project management leadership, direction, and mentoring for all areas of the OIT. The PMO also supports projects in other departments and academic areas of the University when requested, or when large-scale projects have extensive or complex technology components. Our staff is comprised of project management professionals, project coordinators, project and communication specialists, and education and multi-media specialists.

Managed business-critical University initiatives for on-time delivery.

### PMO Highlights 2017-18

Managed all high-level campus projects with substantial technology components from design to operational system including:

- Managed the VMWare ERP project, SIU's infrastructure for the student and administrative information systems.
- Managed the Degree Works project, SIU's degree vetting system.
- Managed the HireTouch project, SIU's self-serve, hiring system.
- Managed the SSC-Campus Implementation project, SIU's Enrollment Management predictive analytic and communication tool.

## Research Computing

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Research Computing and Cyberinfrastructure (Research Computing) assists SIU researchers whose work requires extreme computational speed and power. This power was provided to researchers via SIU's supercomputer BigDog (now replaced with BigDawg). Access to this high-performance computing cluster (HPCC), without cost or restriction, is highly unusual; SIU faculty and students simply request access, and, after training, run their research projects. Our staff helps researchers understand BigDawg's uses and capacity and assists them in getting on the system. Our staff includes computer science and engineering experts in computational computing. As XSEDE Campus Champions, we work with staff at other national research centers to advance high performance computing.

### Research Computing Highlights 2017-18

- Planned and transitioned the BigDog HPC cluster to a more robust and secure system. The new BigDawg cluster has experienced maximum use since placed in service.
- Created the SIU Science Gateway, a graphical user interface for the new BigDawg cluster. Developed by Graduate Assistant, Sai Susheel Sunkara, the Gateway runs jobs with the MaSuRCA DNA assembler and can be expanded to other software.

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*"The future of computing is at SIU with the BigDawg cluster, which reduces complex computational jobs from days to hours. With science-driven high performance computing, BigDawg facilitates research in physics, engineering, plant biology, and multiple other disciplines at Carbondale on a par with the major national universities."*

**Chet Langin**

HPCC/Research Computing Manager

[clangin@siu.edu](mailto:clangin@siu.edu)

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TEAMS

## Technology Services

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Improved the IT Service Management system to provide better self-service and operational data.

[Technology Services](#) provides customer service and support for University administration, faculty and staff, future/current/past students, retirees, and guests. We also provide support for centralized areas that rely on the OIT for technology resources. Our goal is providing value added service to the campus community: appropriate technology tools, responsive support, and outstanding service. We have the largest and most diverse group of employees among the OIT divisions. Our team includes professionals with various technology skills, experience, and expertise and students with diverse backgrounds, interests, and majors.

### Technology Services Highlights 2017-18

- Acquired a new Director of Technology Services in 2017, Wil Clark.
- Created strategic work groups to acquire specific skills sets, take on specific tasks, and produce results.
- Initiated SalukiTech 2.0, a comprehensive examination and evaluation of SalukiTech's services to include the Call Center, Service Center, Computer Store, and Computer Learning Centers.
- Working to build the virtual machines and appropriate applications to implement VDI in the CLC labs.
- Initiated the service management program to train and focus team efforts on service delivery, performance, and improvement.

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*"I spent my graduate career at SIU working for the Office of Information Technology, mostly in SalukiTech. I completed my MS and PhD, and now lead the SalukiTech Call Center team and am the Team Coordinator for Client Relations and Communications. Taking on more and greater responsibility has allowed me to apply my skills in new and different ways to get the job done. Above all, I am focused, and focus our teams on the SalukiTech mission, '...to provide outstanding service and to create happy customers.'"*

**Abby Razer**  
SalukiTech Team Lead and  
Team Coordinator for Client Services and Communications  
[arazer@siu.edu](mailto:arazer@siu.edu)

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## Telecommunications

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[Telecommunications](#) (Telecom) works to keep the campus connected by phone. To maintain reliable and high-quality service, telecom works diligently to maintain the campus infrastructure for telecommunication services.

### Telecom Highlights 2017-18

- Implemented Calero invoice management software to make invoice management easier and to ensure accurate billing.
- Reduced the number off-campus PRIs (phone circuits for off-campus local and long distance calling), saving the University approximately \$42,600 annually.
- Replaced the last off-campus metro-Ethernet circuit with a fiber circuit and increased connectivity speed from 8mbps to 100mbps.
- Upgraded off-campus locations to a fiber optic connection to the main campus and converted to VoIP. Sites included: Touch of Nature, Southern Illinois Airport, EDC, Carterville Campus, Boat Dock, and the Wildlife Annex. This upgrade is expected to produce \$22,000 in annual savings for the University.

# STRATEGIC GOALS AND PROGRESS

This 2017-18 fiscal year was full of challenges, many created by budgetary uncertainty. Nonetheless, our teams and our vendors created solutions that met the University's needs and expectations, despite the challenges. The following section shows our major goals and accomplishments during 2017-18. Many of our goals were met, while some remain works in progress.

Current efforts are listed in the CIO Project Portfolio. The project portfolio represents the highest-priority projects for the department. All efforts coordinated around and are focused on portfolio projects first.

## Goal 1: Support the University Mission

### Degree Works ◀100%

Implemented Degree Works, a tool designed to keep students on track for graduation in four years. Degree Works provides students with the information they need to understand their college career path, plan for and schedule classes, and run "what-if" scenarios to see how changes in their major affects their graduation date. Degree Works also provides advisors with a tool to enhance their work with students.

### Research Support ◀100%/Ongoing

Upgraded SIU's High-Performance Computing Cluster BigDog (now BigDawg), to provide greater access and power to computationally heavy research in Agriculture, Business, Chemistry, Computer Science, Curriculum and Instruction, Electrical and Computer Engineering, Fisheries, Forestry, Geography, Geology, Mechanical Engineering, Microbiology, Neurology, Physics, Physiology, Plant and Soil Science, Plant Biology, Political Science, Quantum Methods, Wildlife, and Zoology.

### Mentorship and Student Inclusion ◀100%/Annual effort

Hired approximately 146 student employees and graduate assistants. Created opportunities for these students to learn work habits, build IT-centric skills, and gain professional experience. The OIT units also collaborate with other areas of the University to support student success. In 2017-18, we facilitated several year-long senior projects for Computer Science majors and regularly participated in career development activities with Career Services.



PROGRESS

## Goal 2: Enhance University Operations

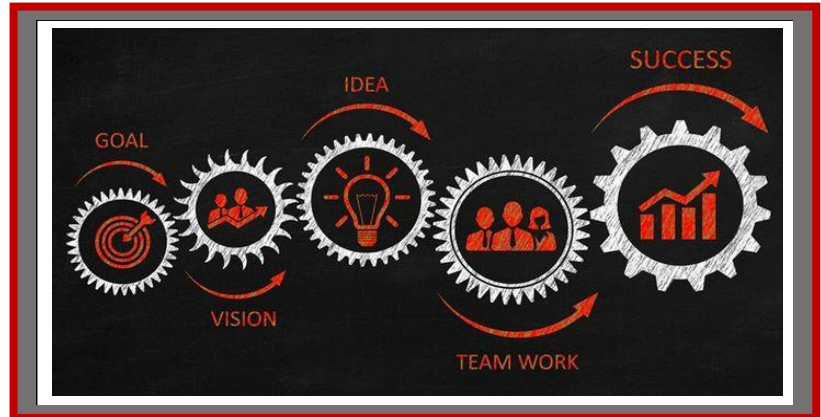
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### Radius by Campus Management ◀100%

Completed migration to a new version of our Customer Relationship Management (CRM) system, including a new application for admission.

### Tableau Proof of Concept (PoC) ◀100%

Completed the proof of concept for Tableau, a business intelligence and visualization tool that converts raw data into valuable information. Tableau allows users to see trends in retention, graduation, donations, applications processed, and budgetary accuracy, giving decision makers the ability to make better decisions. The OIT is negotiating purchase options for the SIU system.



### Foundation Centralization ◀100%

Completed the transition of IT support from the Foundation to the OIT with great success. Foundation and Alumni Association IT operations are now located in the OIT. Centralization of this unit reduced the backlog of report requests and problem fixes.

### Technology Refresh Initiative ◀20%

Continue work with the administration to reinstitute campus-wide desktop replacement as part of the Basic Technology Fee (BTF). This is one of the most common questions to the OIT. Technology throughout the department and the OIT data center(s) is a secondary part of this initiative.

### HireTouch Project ◀100%

Initiated, managed, and closed HireTouch project, a comprehensive onboarding tool that provides access to job opportunities from inception of the job to the hiring of a candidate. HireTouch allows all people involved in the hiring process—department personnel, business office staff, HR, and candidates—access to appropriate information and status of the position.

## Goal 3: Managing and Delivering Quality

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### PMO CIO Portfolio Development ◀100%

Created the CIO Portfolio, a comprehensive, living list of all the OIT involvement and efforts that meet “project” status. The list indicates current project status to keep the OIT staff accountable and moving forward and to provide the CIO and constituents real-time information on projects.

### Project Management Efforts ◀Ongoing

Implemented project management as a concept, and are now learning to lead projects to meet the timelines, manage stated scopes, and deliver results. Accountability at all levels is a key focus.

### PMO Standards Training ◀Ongoing

Provided multiple educational sessions to educate staff of the practices and standards used to keep formal projects on-time, within scope, and aligned with client expectations.

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*“As technology professionals, we aim for outstanding results. The Project Management Office helps OIT maintain that focus, to get the job done on time and as expected. This is critically important as we transition to an organization focused on providing value. We have to have quality standards, and a way to manage our efforts to those standards.”*

**Brian Skouby**

Associate Director, Project Management Office  
[bskouby@siu.edu](mailto:bskouby@siu.edu)

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## Goal 4: Ensure Technology Infrastructure Integrity

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### VoIP - Telephone Switch Replacement ◀20%

Planning replacement of the existing phone switch that is growing old; it is increasingly difficult to find parts for this switch and the skill set necessary to support it. A disaster involving this phone switch would leave SIUC without voice services for weeks, and likely months. The proposed solution is to convert to VoIP, which is a server-based solution that is smaller, more common, and flexible.

### Data Center Utilization ◀40%

Promoting 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 3 data center. This cost-saving opportunity provides reliable onsite monitoring and off-site backup of equipment in a climate controlled and virtually secure environment. Enterprise Systems assisted the Student Center, Core Institute, SAH Clinical Dental Center and Dental Hygiene Clinic, and Development and Alumni Relations (DAR) to transition to Data Center resources in 2017-18.

### Air Core Cable Replacement ◀20%

Replacing 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 32 years old. The most efficient and cost effective replacement plan is to convert to VoIP first and then replace the air core cable. A consultant is finalizing a report that details the specific materials needed and estimates the labor costs to replace the air core cable.

### Fiber Expansion ◀20%

Planning expansion of optic fiber cabling for voice and data network connectivity to several buildings on campus. These locations need to have fiber installed before they can be converted to VoIP.

### Hardware Device Removal/Replacement ◀80%

Removing or replacing many end-of-life hardware devices to improve performance and reduce security vulnerabilities.

### RezNet Wi-Fi Upgrades ◀100%

Upgraded the Wi-Fi network in the residence halls, an initiative driven by the Housing Department.

### Edge Network Upgrade ◀60%

Planning and designing the "edge network"—the data network components used to keep SIU Carbondale connected to the Internet.

### Wi-Fi Upgrades ◀100%

Upgraded campus Wi-Fi to replace many end-of-life wireless access points to increase system reliability. Hardware has been ordered and shipped.

### ISP Move ◀25%

Moving one of three Internet service providers from the Student Center to McLafferty Road. This move locates one service provider at an independent site to ensure business continuity if service from any one of our three providers is disrupted on a short- or long-term basis.

### Virtual Desktop Infrastructure (VDI) ◀50%

Pursuing VDI with the goal of restructuring lab (centralized and departmental) use across campus. Purchased VDI infrastructure and licenses to replace 200 physical workstations in our CLCs and the AIS/SIS lab in the Northwest Annex. Infrastructure installation and configuration are complete and the team is working to build the virtual machines with the appropriate applications to support the labs.

PROGRESS

## Goal 5: Evaluating and Implementing Cost Saving Measures

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### Administrative and Business Reductions ◀Ongoing

Installed Calero software to monitor invoices for inaccuracies. Savings: continuous and varied.

### Enterprise Applications Cost Reductions ◀Ongoing

Negotiated immediate and multi-year savings on new and existing contracts. Savings: \$1 M~.

### Infrastructure Cost Reductions ◀Ongoing

- Increased internet bandwidth from 7.4 gigabits per second to 12 gigabits per second, while lowering costs, Savings: \$9,000~.
- Reduced the number of phone circuits for off-campus local and long distance calling. Savings: \$42,600 annually.
- Upgraded off-campus locations to a fiber optic connection. Savings: \$22,000 annually.

### University-wide Savings ◀Ongoing

Leveraged OIT purchasing power to negotiate University purchases from Dell. Savings: \$125.7 K.



*“Although we saved the University over \$125K on Dell purchases alone in 2017-18, there is no metric for the true value of the services we provide the University; both to the Carbondale and Springfield campuses (and, sometimes, the Edwardsville campus). All technology purchases, including computers, printers, toner, cameras, and more go through Administrative and Business Services. I get hundreds of requests from users, LAN Admins, and both centralized and decentralized IT professionals asking for technology quotes, configuration recommendations, and technology solutions. Based on my knowledge of technology vendors, contracts, and industry trends, I can advise people on the best time, and/or item(s), to buy. We make sure our faculty and staff understand what they need and when to buy it. We can even handle the transaction. This is my job, but I work hard to create value for our customers.”*

**Shannon Newman**  
Administrative and Business Services  
[newman@siu.edu](mailto:newman@siu.edu)

*“The OIT is transitioning into a service role, and a collaborative partnership in the decision making processes here. In just the last three years, we have saved the University over \$3M by lowering operating expenses and negotiating new and existing contracts. We constantly evaluate needs, possibilities, and technology strategies to recommend viable and long-lasting solutions. We act in the best interest of the University; we come to the table to listen, advise, and shape positive outcomes. Our ultimate goal is to serve the SIU mission, bringing opportunities to our partners and to the University.”*

**John Ahrens**  
Director of Enterprise Applications  
[john.ahrens@siu.edu](mailto:john.ahrens@siu.edu)



## Goal 6: Elevate the OIT Internal, Campus, and External Communications

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### OIT Website Redesign ◀100%

Redesigned the structure and content for the OIT website to engage end-users and provide them with the most direct path to the information they need.

### OIT Roadmap ◀10%

Developing a forward-looking plan to identify and define strategic goals for the OIT that are aimed toward future customer expectations, make use of advanced technology, and are aligned with and in service to the University mission.

### OIT Annual Report ◀100%

Developed the first Annual Report to provide a comprehensive overview of the OIT's efforts and accomplishments during the preceding year.

### OIT Security Awareness Month ◀100%/Annual event

Completed a month of educational activities and learning sessions to promote cyber security to faculty, staff, and SIU students. This event is scheduled for October of each year and has been successful for the past four years.

### OIT Brand Development ◀5%

Working to define and develop the OIT brand that represents professionalism in our efforts and quality in our service to individual customers and the University.

## Goal 7: Enhance Information Security

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### Data Loss Prevention (DLP) ◀100%

Implemented a DLP process to detect emails that include sensitive information (e.g., SSNs, bank accounts, credit cards, etc.) and notify users to use alternative tools such as MoveIT.

### Desk and Laptop Encryption ◀75%

Installed Microsoft Bitlocker Administration and Monitoring (MBAM) software to encrypt desktops in centralized areas. Decentralized areas are using MBAM to encrypt laptops. The OIT is planning to encrypt all devices in the near future.

### Proofpoint Installation ◀100%

Reduced our phishing risk by more than 90% by installing Proofpoint to filter internal email sent across campus.

### SCCM for Microsoft Clients ◀100%

Met the mandate to bring all campus units into Active Directory and to adopt Microsoft System Center Configuration Manager (SCCM) for Microsoft clients. SCCM allows the OIT to inventory software across campus. Departments may choose to leverage SCCM for patching.

### Information Security Policy Development ◀75%/Ongoing

Increasing information security throughout the OIT in software, hardware, systems, and networks. Promoting security awareness across campus. Developing the necessary framework to systematically mitigate risks posed to informational assets of the University.

PROGRESS



## Goal 8: Improve Service Management

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### Establish an IT Service Management (ITSM) Program ◀15%

Recognized the need for improved service management processes. Selected the Information Technology Infrastructure Library (ITIL) as our ITSM framework. Began an internal effort to train Technology Services members on ITIL concepts with an ultimate goal of implementing ITIL processes across the OIT.

### ITSM Tool Enhancements ◀70%

Began efforts to improve the ticketing and knowledge management system. This effort involved reassignment of several skilled OIT professionals, specific training for Cherwell, and lengthy work sessions with Cherwell experts.

## Goal 9: Maintain a Skilled Workforce

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### Staff Optimization ◀75%

Bringing staff levels up to optimum levels for performance with an emphasis on filling expertise gaps.

### Professional Training ◀30%

Purchased Pluralsight on-line training to establish and enhance new skills for the OIT staff.

### OIT Hiring Plan ◀50%

Working diligently to attract, hire, and retain qualified technology experts. The OIT plans to implement its strategic hiring plan in an effort to reach appropriate staffing levels, elevate salaries, and engage and retain current staff.

## Goal 10: Identify and Provide Innovative Solutions

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### Voice over Internet Protocol (VOIP) ◀20%

Planning and working toward replacement of the University's aging phone system. We enlisted a consultant to help determine cabling costs, talked to vendors about VOIP solutions, and talked with other schools, including SIUE, about their solutions. We are looking for approval from the Administration and hope to lay the groundwork to start phone system replacement in 2019.

### Virtual Desktop Infrastructure (VDI) ◀50%

Pursuing VDI with the goal of restructuring lab (centralized and departmental) use across campus. Purchased VDI infrastructure and licenses to replace 200 physical workstations in our CLCs and the AIS/SIS lab in the Northwest Annex. Infrastructure installation and configuration is complete. The team is working to build the virtual machines with the appropriate applications to support the labs.

### Single-Sourcing ERP System ◀50%

Find a single solution to replace the two current ERPs, the student and administrative information systems. Annual costs and resource expenditures are tremendous and cannot be sustained in the long-term.

### Two Factor Authentication (2FA) ◀20%

★ A must-do initiative ★

Commissioned a working group to determine how best to roll out 2FA to the campus. Two Factor Authentication is a best practice security measure that will assist us with compromised accounts (mostly students) and address audit concerns.

### Identity and Access Management (IAM) ◀10%

Evaluating vendors to procure a new Identity and Access Management solution. The RFP was made public in spring 2018. The OIT is currently evaluating vendor responses, and will recommend a product/vendor to University Administration and the Board of Trustees in September 2018.

### Microsoft Office 365 Teams ◀50%

Researching, vetting, and implementing Microsoft O365 Teams as a suitable solution for collaborative work and scholastic efforts on campus. Enterprise Systems implemented controls for new Team sites and has trained the OIT staff on Team functionality to prototype the app. The OIT is pushing all staff to organize workgroups and manage communication within these workgroup.

# EMPLOYEES ARE OUR BEST RESOURCE

## New Talent

### Joined the OIT in 2017

Afton James

IT Manager/Administrative Coordinator - Enterprise Apps/Foundation Support Services

Brandon Byars

IT Technical Associate - Enterprise Apps/Foundation Support Services

Dawn Moake

Applications Analyst - Enterprise Apps/Foundation Support Services

Derrick Wright

ERP Project Coordinator-SIS - Enterprise Apps/SIS

Ellen Jahn

IT Technical Associate - Enterprise Apps/AIS Technical Team

Jeff Johnson

Associate Director - Enterprise Apps/Foundation Support Services

Rodney Emery

IT Technical Associate - Campus Wide Printing Services

Samuel Ramirez

IT Technical Associate - Enterprise Apps/AIS Technical Team

Stephen Jones

IT Technical Associate - Enterprise Systems/Windows Team

Tom Whittington

IT Manager/Administrative Coordinator - Enterprise Apps/Foundation Support Services

Tugiyanto

IT Technical Associate - Desktop Support/College of Agricultural Sciences

Wil Clark

Director of Technology Services

### Joined the OIT in 2018

Amanda Rosene

IT Technical Associate - Technology Services/Application Development

Eric Evans

IT Technical Associate - Desktop Support/College of Liberal Arts

Grant Bredar

IT Technical Associate - Desktop Support/Foundation

Jeff Squibb

IT Technical Associate - Security/Security Analyst

D. Scott Frisch

IT Manager/Administrative Coordinator - Desktop Support/School of Architecture

Thomas Underwood

IT Technical Associate - Desktop Support/Recreational Sports and Services

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*“My favorite thing is to help solve problems. I am in a great place because my job challenges me, and the AIS team, to come up with new ideas and solutions every day. I do important work that is fun. Let’s develop solutions together.”*

**Ellen Jahn**

Information Technology Associate

[ellen.jahn@siu.edu](mailto:ellen.jahn@siu.edu)

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PEOPLE

## Conferences / Workshops / Training Attended

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### **Agricultural Data Integration Event**

Chet Langin (externally funded)

### **Alliance 2018/ HEUG Conference**

Adam Stallman  
Arun Subramanian  
Ellen Jahn  
Michelle Richerson

### **Apple Customer Service Training**

All First-year Service Center Employees

### **Asbestos Removal (small scale)**

Telecommunications Service Tech Team

### **Cascade / CMS Training**

Abby Razer  
Linda Hubbs  
Troy Wiseman

### **Charting the Course for IT Service Management Workshop**

Wil Clark

### **Cherwell Knowledge Management Training**

Abby Razer  
Janet Douglas  
Rodney Emery

### **Cherwell System Administration Training**

Amanda Rosene  
Ben Anderson

### **Cisco ICND1 and 2**

Michael Woodside  
Morgan Malott

### **Cisco CCNP Routing and Switching**

Anton Castelli  
Morgan Malott

### **Cisco Deploying ASA VPN Solutions**

Anton Castelli  
Michael Woodside

### **Dell Certified Repair Technician Training**

Campus Wide Printing Services Team  
All Service Center Technicians

### **2017 Educause**

Brian Skouby  
Jerry Richards  
John Ahrens  
Scott Bridges  
Wil Clark

### **2018 Ellucian Live**

Amy Eaton  
Dawn Moake  
Jeff Johnson  
Mary Wallace  
Rickey Kondoudis  
Treina Basham

### **Red Hat Enterprise Linux 7**

Anton Castelli  
Michael Woodside

### **Extreme Connect Conference / Training**

Morgan Malott  
Troy Wiseman

### **IBHE Meeting**

Scott Bridges

### **IL Association of Institutional Research**

Christine Blackburn  
Rhonda Hooper  
Teal Shackleton

### **iPATHE**

Brian Skouby  
Jerry Richards  
John Ahrens  
Scott Bridges  
Wil Clark

### **Live2Lead Conference**

Abby Razer

### **LCI Workshop on High Performance Computing**

Chet Langin

### **LockpathLPRS**

Greg Pangrazio

### **Microsoft Ignite**

Derek McNelly  
James Campanella  
Jerry Richards  
Richard Smith  
Steven Aldridge  
Steven Jones  
Taylor Reed

### **Practice and Experience in Applied Research Computing Conference (PEARC17)**

Chet Langin

### **Project Management Professional (PMP) Certification**

Brian Skouby

### **Red Hat Ansible Software Training**

Anton Castelli  
Greg Pangrazio  
Troy Wiseman

### **SPLUNK**

Greg Pangrazio

### **Supercomputing 2017 Conference-- Understanding Risk in Shared CyberEcosystems**

Chet Langin (grant awarded to attend)

### **ThotCon**

Greg Pangrazio

### **Verizon IR Breach Training**

Greg Pangrazio

## Conferences / Workshops / Training Provided by the OIT

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### BigDawg 101 Training

Chet Langin  
Introductory HPCC sessions for SIUC faculty, researchers, and students.

### Degree Works Training

Arden Lockwood  
Brian Skouby  
Training sessions for staff and advisors.

### HireTouch Training

Arden Lockwood  
Brian Skouby  
Training for various departments prior to implementation.

### Staff to Student Mentoring

Communications Staff  
Network Engineering Staff  
Technology Services Staff

### 2017 Security Day Mini-Conference

OIT Security Team  
A half-day session for the OIT staff surrounding security topics.

### 2017 Security Month Training

Abby Razer  
Bill Bruns, Student Center  
Jimmy Brown  
Richard Smith  
A month of sessions for SIUC staff and students surrounding security topics.

### SIU Cybersecurity Day 2017 Student Event

Assisted with programming for this days of security activities for students.

## Presentations Given by the OIT Staff

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### BigDawg 101 Intro

Chet Langin

### 2017 IT Pro Forum

Linda Hubbs

### 2018 IT Pro Forum

Linda Hubbs

### Practice and Experience in Applied Research Computing Conference (PEARC17)

Chet Langin  
Presented on the experience of promoting the BigDog HPCC cluster.

### 2017 Security Day

Scott Bridges  
Security Day Facilitator

### 2017 Security Awareness Sessions

Richard Smith  
*"Cyber Security 101"*

Prabha Manda and Abby Razer  
*"Securing the Saluki- Cyber Awareness"*

Bill Bruns (Student Center)  
*"Protect Your Rights, Reputation, and Legacy"*

Jimmy Brown  
*"Trouble by Another Name"*

## Professional Credentials and Honors

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### CRISC, GCIA, GCIH, GPPA, GPEN, GSEC

Greg Pangrazio  
Certified to handle the unique challenges of IT and enterprise risk management including intrusion prevention, incident management, perimeter protection analyst.

### Ekahau Survey Engineer (ECSE) (ECSE)

Anton Castelli  
Greg Pangrazio  
Morgan Malott  
Troy Wiseman  
Michael Woodside  
All received ECSE Survey Engineer certification.

### XSEDE Campus Champion Fellow

Chet Langin  
A year-long contract to assist Tennessee State University (TSU) and the Pittsburgh Supercomputing Center (PSC) with a metagenomics project to assemble DNA sequences.

### Project Management Institute Training

Brian Skouby  
Project Management Professional (PMP)<sup>®</sup>  
Certification from PMI awarded

### XSEDE Campus Champion

Chet Langin  
Manages meetings with HPC researchers the Midwest region to achieve cooperation in computational research methods.

## OIT Outreach

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### Computer Advisory Board

Jerry Richards  
Linda Hubbs  
Michael Shelton  
Scott Bridges

### Career Services Speed Interviewing

Abby Razer  
Chet Langin  
John Ahrens  
Linda Hubbs  
Wil Clark

### City of Carbondale Collaborative Technology Initiatives

Linda Hubbs

### Community College Joint Sessions

John A. Logan CC  
Rend Lake CC  
Shawnee CC  
SIU OIT Directors

### CS Senior Project Sponsorship

Linda Hubbs

### EmpowHer Young Women's Leadership Conference

Linda Hubbs

### Green Fund Grant / Printer Efficiency and Waste Initiative

Ben Anderson  
Linda Hubbs

### Hometown Connect

Derek McNelly

### New Student Orientation

Abby Razer  
Beth Dallas  
Jennifer St. Louis  
Rodney Emery

### SIUC BERT Volunteer

Steve Moss

### Technology Spring Cleaning Day

Adrian Vesili  
Beth Dallas  
Caitlyn Kleber  
Chandler Foss  
Jennifer St. Louis  
Kinga Wojdak

### XSEDE Campus Champion Mentor

Chet Langin

### XSEDE Campus Champions

Alexander Sommers  
Majid Memari



### *XSEDEing expectations*

Our SIU XSEDECC Campus Champions—graduate assistants Majid Memari (L) and Alexander Sommers—examine two of the NVIDIA Tesla K40m GPU accelerators in the new BigDawg high-performance computing cluster.

Combined, the two GPU accelerators, roughly each the size of a paperback book, have 5,760 cores. Compare that to a normal quad-core desktop! The team's mission is promoting the use of supercomputing resources across their respective campuses.

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*“So many people in the Office of Information Technology contribute time and energy outside their work commitments to benefit our students, the campus, our community, or the field of technology. I think it keeps us in touch with people, which is critical if we want them to value the work we do and the tools we create to benefit to them.”*

**Olinda Hubbs**

Client Relations and Communications

[olindahubbs@siu.edu](mailto:olindahubbs@siu.edu)

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## Degrees Earned by Student Employees

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### 2017 Graduates

#### Spring 2017

##### SalukiTech Call Center

Ben Phifer - BS Journalism  
George Mabley - BS Computer Science  
Shamaya Brown - BS Communication Disorders & Sciences  
Shantesia Jordan - BA Theater

##### SalukiTech Service Center

Daryl Kuissi - BS Electrical & Computer Engineering  
DeRontae Taylor-Craig - BS Information Systems Technologies  
Isis Handford - BS Information Systems Technologies  
Jackson Jones - BS Computer Science  
Lakshmi Prabha Vaddadi - MS Computer Science  
Riken Patel - BS Information Systems Technologies  
Sam Loo - BS Information Systems Technologies  
Tim Brown - BS Information Systems Technologies

#### Fall 2017

##### Campus-wide Printing Services (CWPS) / Software Licensing

Kenneth Brewer - BS Automotive Technology

##### SalukiTech Service Center

Abdul Ghaffar - MS Electrical & Computer Engineering  
Harshitha Girish - MS Electrical & Computer Engineering  
Jake Reed - BS Computer Science  
Jesus Gutierrez - BS Information Systems Technologies  
Nolan McConnell - BS Computer Science  
Venkata Vishnu Varma - MS Electrical & Computer Engineering  
Veronica Kleber - BS Engineering Technology

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*“I worked as a Hardware Supervisor in the SalukiTech Service Center from my sophomore year through graduate school. Working at the service center helped me develop a never give up attitude. My experience there allowed me to develop my personal motto: As long as it does not break the fundamental laws of science, anything is possible, you just have to figure out how to make it happen.”*

#### Daryl Premkumar

Product Development Specialist - ELASTEC  
[darylpremkumar@siu.edu](mailto:darylpremkumar@siu.edu)

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### 2018 Graduates

#### Spring 2018

##### Campus-wide Printing Services (CWPS) / Software Licensing

Alvro Maldonado - BS English Education  
(Student Teaching Fall 2018)  
Kevin Schwartz – BA Computer Science

##### Enterprise Systems

Angela Scott - BS Computer Science  
Jacob Nicholson - BS Information Systems Technologies  
Justin Smith - BS Information Systems Technologies  
Paul Coen - BS Computer Science

##### Network Engineering and Telecom

John Nolan - BS Information Systems Technologies  
Luke Mackey - BS Information Systems Technologies  
Mahesh Ravi - MS Computer Science  
Mark Blume - BS Information Systems Technologies  
Raja Arani - MS Computer Science  
Shane Mueller - BS Information Systems Technologies  
Taha Khan - BS Information Systems Technologies  
Thomas Birch - BS Information Systems Technologies  
Trenton Taylor - BS Information Systems Technologies

##### SalukiTech Call Center

Alexander Keene - BS Computer Engineering  
Brittany Richmond - MS Education  
Charan Penchala - MS Computer Science

##### SalukiTech Service Center

Alexander Goldstein - BS Mechanical Engineering  
Brendan Keller - BS Electrical Engineering  
Christian Garcia - BS Computer Science  
Christopher Hanusiak - BS Computer Science  
Daryl Premkumar - MS Mechanical Engineering  
Ganesh Koripalli - BS Computer Science  
Jimmy Howell - BS Computer Science  
Khye Heurman - BS Computer Science  
Lance Calicutt - BS Information Systems Technologies  
Mohammed Abdulkadir - BS Computer Science  
Poojitha Machanapally - MS Computer Science  
Tommie Williams - BS Health Informatics  
Trent McKay - BS Business Management  
Yaozong (Jacob) Shen - BS Computer Science

## Our Graduates Go To Work for Great Employers

### Campus-wide Printing Services (CWPS) / Software Licensing

Alvro Maldonado - BS English Ed  
Student Teaching Fall 2018

### Enterprise Systems

Angela Scott – BS CS  
**Barnes-Jewish Hospital**  
Systems Analyst



Paul Coen – BS CS  
**NASA Langley Research Center**  
Internship, then SIU Graduate School



### Network Engineering

Mark Blume - BS IST Reliaquest



Shane Mueller - BS IST Meraki/Cisco



### Network Engineering (cont.)

Thomas Birch - BS IST **Cerner**  
Trenton Taylor - BS IST **Cerner**



### SalukiTech Service Center Service Center

Alexander Goldstein - BS ME  
Pursuing opportunities in Mechanical Design  
Engineering

Brendan Keller - BS EE **AMEREN**  
Electrical Project Engineer



Christian Garcia - BS CS **BOEING**  
Programmer Analyst



Christopher Hanusiak - BS CS  
Pursuing opportunities in System Administration

Daryl Premkumar - MS ME **ELASTEC**  
Product Development Specialist



### SalukiTech Service Center (cont.)

Ganesh Koripalli - BS CS **United Airlines**  
Portfolio Strategy & Planning for Business Management



Jimmy Howell - BS CS **Caresource**  
Client Systems Analyst



Khye Heuerman - BS CS **Boeing**  
Systems Integration Design Specialist

Lance Calicutt - BS IST **Emerson Electric**  
Help Desk Associate



Mohammed Abdulkadir - BS CS  
Graduate School UIC

Poojitha Machanapally - MS CS  
Pursuing opportunities in JAVA Development

Tommie Williams - BS Health Informatics  
Graduate School SIU

Trent McKay - BS Business Management  
SalukiTech Service Center Service Center

Yaozong (Jacob) Shen - BS CS  
Graduate School UIC



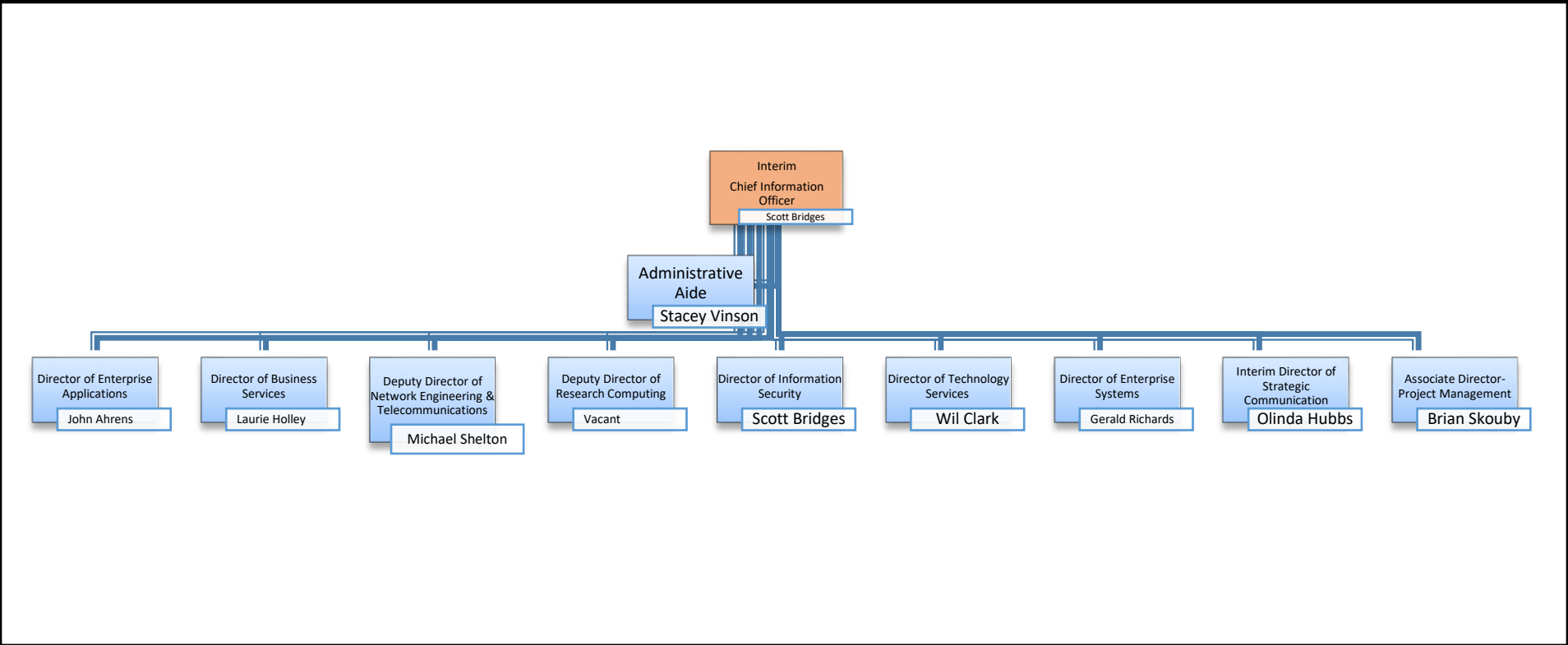
*“Working in OIT Information Security for the past 5 years has taught me the importance of technology and how it is interwoven into our everyday lives. Since starting as a freshman at SIU, I’ve grown so much personally and professionally. Everyone has been welcoming and willing to mentor me, which has helped me to get the work skills I need to be successful in my career.”*

**Xzavier Lee**

OIT Technical Associate

[xl.sec@siu.edu](mailto:xl.sec@siu.edu)

# THE OIT ORGANIZATIONAL CHART







Produced by:



Client Relations and Communications

Olinda Hubbs  
Abby Razer

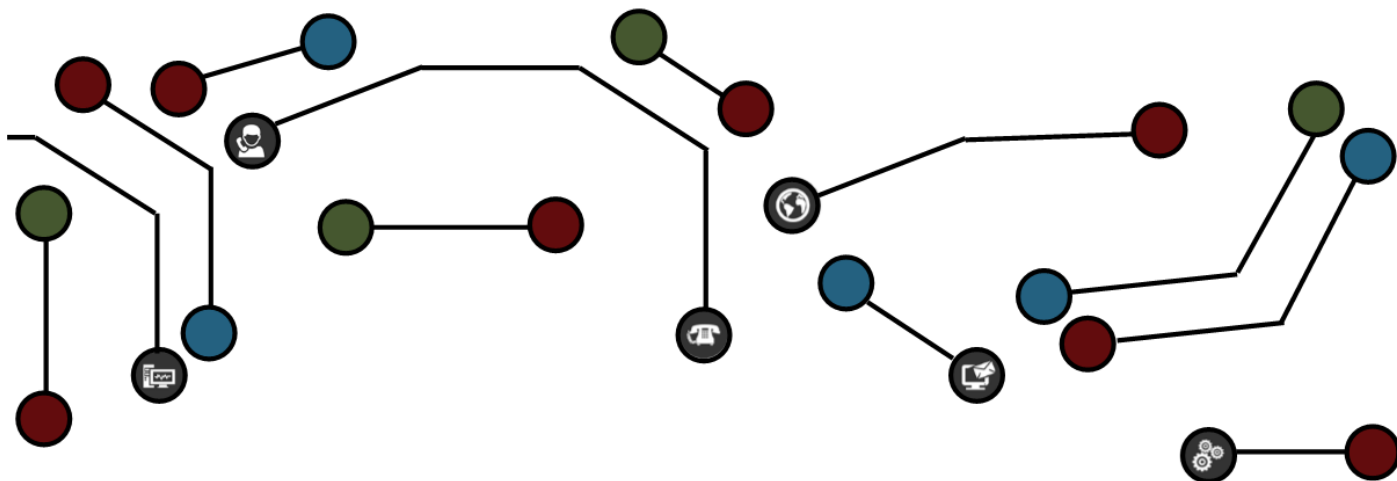
Rodney Emery  
Jennifer St. Louis

Special acknowledgement goes to Jennifer St. Louis, our talented Client Relations Specialist (majoring in Journalism) for her outstanding original graphics.

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Stacey Vinson  
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**SIU** SOUTHERN ILLINOIS UNIVERSITY  
CARBONDALE OFFICE OF  
INFORMATION TECHNOLOGY

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and innovation in 2019.*

