University of Illinois System

Urbana-Champaign • Chicago • Springfield

AITS

Administrative Information Technology Services

FY17 ANNUAL REPORT

About This Report

Administrative Information Technology Services (AITS) provides enterprise business services and resources to help students, faculty, and staff of the University of Illinois System achieve excellence in teaching, research, learning, and administrative pursuits.

Through strategic planning and system-wide collaboration, we focus on efforts to empower our university community in their daily work with IT systems and services that function seamlessly and responsively. We formulate clear and measureable objectives for AITS in the form of our strategic plan, which includes the following strategic goals:

SAVE TIME: Improve and add services that increase productivity for faculty, students, and staff

IMPROVE SPEED TO SERVICE: Improve the time to delivery of AITS Services

COLLABORATE: Build and strengthen relationships throughout the System based on mutual trust

IMPROVE EASE OF USE: Improve the usability of AITS Services

DELIVER TARGETED AND PERVASIVE INFORMATION: Provide for strategic, wide-spread use of our data

This annual report highlights our key challenges and accomplishments during Fiscal Year 2017, and the projects and initiatives we are engaged with going forward. It represents a continuing effort to support transparency and reflects the continuous hard work by our employees to provide high-quality administrative services and technology infrastructure, complete projects that are prioritized by the universities with our governance process, and assist university units with data analytics and business intelligence tools.

AITS would like to thank all of our dedicated partners across the University of Illinois System whose daily contributions allow us—together—to meet our goals and deliver on our commitment to continuous improvement of our customer experiences.

BY THE NUMBERS

RELIABILITY

keeping systems available

99.9%

BANNER and EDW applications

SUPPORT

via chat, email, phone, self-service on-line resource

3,479,320

KnowledgeBase references in FY17

SECURITY

securing university data

OVER **10 million**

attacks blocked per day

SCALE

enterprise applications for the University of Illinois System

OVER **15 million**

total transactions enabled annually

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"On behalf of the Engage Illinois (HRSA GWEP grant) team, please accept our appreciation for the outstanding job your staff have done over the past year in the development and dissemination of our clinical mobile app, Dementia Guide Expert for Families. It was an enormous undertaking, but went smoothly and efficiently."

—VALERIE GRUSS AND MEMOONA HASNAIN
CO-DIRECTORS, ENGAGE ILLINOIS

Partnering with researchers at the University of Illinois at Chicago, AITS developed a mobile app that allows people to recognize early warning signs, enhance their ability to manage or self-manage the symptoms of dementia, and adopt behaviors to improve their health. Download the app through iTunes or Google Play.

Who We Serve

Students

Over 81,000 students are enrolled at the three University of Illinois System universities and regional campuses.

Students use AITS services as they:

- Register for classes
- Access transcripts
- Receive financial aid
- Check grades and class schedules
- View and manage accounts
- Pay tuition
- Apply for graduation
- Receive work study and student employment earnings
- Find food with Mobile Dining App

Faculty

Approximately 6,000 faculty are employed by the University of Illinois System. Faculty members are in fields including engineering, agriculture, law, veterinary medicine, the arts, business, liberal arts and sciences, and medicine and health sciences.

Faculty rely on AITS services to:

- Manage grants
- Access class rosters
- Hire staff
- Submit and receive reimbursements
- Manage benefits
- Record and change grades
- Receive employment earnings

Staff

Just over 27,000 professional, graduate and support staff members work together to achieve the research and learning missions of the University. AITS services support academic business offices at the University, which in turn, enables those offices to better serve their constituents.

AITS enables efficient:

- Accounting and financial reporting
- Online purchasing
- Grant management
- Student admissions, records and registration
- Human resource services and payroll services

55 **Total number of websites hosted by AITS SitePublish Services. Site #55 just went live for the University of Illinois Board of Trustees.**

Listing of all university websites hosted by AITS: https://web.uillinois.edu/sitepublish/about/websites

What We Do

System Applications

Support of vital business processes of the University by building and maintaining enterprise software applications for constituents of all three universities.

STUDENT SERVICES:
Financial Aid Processing | Registration & Records | Recruiting and Admissions

HR SERVICES:
Benefits | Payroll | Recruiting & Training

RESEARCH SERVICES: Research Administration Management

FINANCIAL SERVICES:
Accounts Payable/Receivable | Contract Management | eProcurement | General Ledger Management | Inventory Accounting | Travel Expense Reimbursement

PROFESSIONAL SERVICES:
Business Process Improvement | Data Visualization | Data Warehousing | Identity and Access Management | Mobile Application Consulting | Project Management | Records and Information Management | Security and Compliance Consulting | Workflow Development Consulting | Security Provisioning | Server and Storage Hosting | Quality Assurance | Web Services Consulting | Workstation Management

Business Processes

Provide analysis, training, tools, and methodology in business process improvement and project management in support of initiatives to improve customer service, free-up staff time, deliver services faster, and/or reduce cost.

Data and Analytics

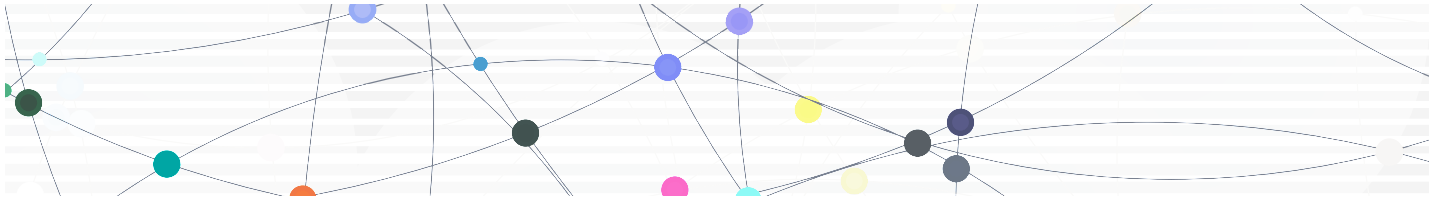
Scope, design, and deliver solutions to university business problems using a combination of data warehousing, business intelligence, and data visualization frameworks.

Customer Requests

Build and support new systems and functionality as requested by university constituents that are evaluated, selected, and prioritized by multi-campus customer-driven IT governance (Information Technology Priorities Committee (ITPC)).

Support 7x24x365

The AITS Service Desk provides support for clients/constituents and serves as a single point of contact for personalized help with administrative systems. Assistance is also provided through a self-service collaborative tool containing thousands of documents at answers.uillinois.edu.



OVER
18 million
SitePublish pageviews

OVER
3.6 million
uPortal sessions last year

Enterprise System Research Administration

myProposals (Kuali Coeus)

6,809
Proposals Submitted
3,104 Chicago | 99 Springfield | 3,606 Urbana-Champaign

4,171
Awards
1,237 Chicago | 27 Springfield | 2,907 Urbana-Champaign

Value, Efficiency and Outreach

70+
units directly engaged through participation in training and project work or by supporting the BPI Shared Service extended team

OVER 25
presentations were made by AITS staff members at local and national conferences such as EllucianLive, KB User Group, EDUCAUSE, SCUP, and NACUBU.

2,202 PARTICIPANTS TRAINED

- **282** participants in Web Intelligence, Finance/HR/Student Reporting
- **466** trained in Project Management Techniques (PM Key Concepts, RACI, Kanban, WBS)
- **1,454** participants in process improvement concepts, tools, and techniques since Fall 2011

2,638,555
data warehouse sessions

12,127,000
registration record transactions

874,300
regular payroll transactions

547,800
financial aid disbursements

109,400
transcripts processed

108,200
students registered

142,600
HR front-end transactions

157,600
eProcurement transactions

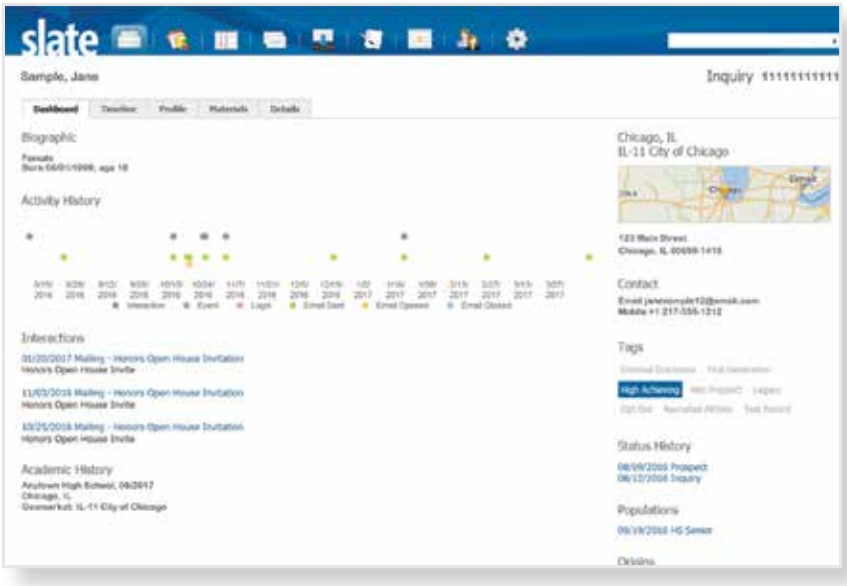
301,500
transactions on student applications

(annual transaction volumes)

FY17 Project Highlights

Student Customer Relationship Management System

All institutions of higher education are facing challenges in attracting and retaining students. This project implemented a single Customer Relationship Management (CRM) system for all three of the universities in the University of Illinois System. There was no one application used by all three universities, making analysis of the outcome of approaches difficult and unorganized. This system-wide sponsored project will help to improve our recruitment efforts, increase our ability to meet current expectations for personalized and consistent communication, and provide a direct cost savings to the University of approximately $165,000 per year.



Multi-Factor Authentication with Duo

With an increase in the number of phishing attacks and security compromise attempts, the introduction of a multi-factor authentication system for university systems with highly sensitive data was necessary to provide a more secure environment for the university's data assets. This system-wide project was co-sponsored with the Office of Business and Financial Services (OBFS) to help keep faculty, staff, and student's sensitive data more secure, lower the risk of compromise of personal information, and to mitigate expense and loss of institutional reputation.

New UI Verify Website

To counter increasing threats to account security and provide faculty, students and staff with an easy resource to manage their device for additional security beyond a password with 2-factor authentication (2FA), the UI Verify website was developed as an easy way to quickly manage devices and register authentication methods for university accounts. This process will allow the university community to register mobile devices, send a text message, or get a call to a landline to finish logging into an application. For more information about UI Verify, visit **verify.uillinois.edu**.

We now have

61,317 identities

enrolled in Duo across the University of Illinois System

Over the last year, NESSIE resources protected by Duo have been accessed

464,827 times

287,540 (62%)

of those successful access attempts came from a University network

177,287 (38%)

of those successful access attempts required a second factor to authenticate

This information was collected in the Duo Authentication log over the last year 7/7/16 to 7/7/17. Any authentications through the AITS NESSIE integration indicates a user hitting a Duo protected NESSIE resource.

UIC Division of Specialized Care for Children

AITS partnered with the UIC Division of Specialized Care for Children (DSCC) to create and deploy an individualized data warehouse containing six data marts, seven Business Objects universes, and four dashboards. This allows DSCC to quickly and easily gain insight to the children they serve, identify possible regions where more children could be served, and determine how much is spent per diagnosis. The Division of Specialized Care for Children is an essential piece of the public outreach mission, and with 12 regional offices serving the State of Illinois, this project will help DSCC staff gain quicker access to the data needed to serve families in Illinois.

Image by Dennis Lee, courtesy of Flashes of Hope

Data Visualization to Measure Impact

In collaboration with Public Relations, University Institutional Research Offices, Planning and Budgeting, Alumni Association, University Hospital, and Offices of Technology Management, many dashboards were released under uillinois.edu/data.

The dashboards were:

- Enrollment
- Enrollment & Alumni (by district)
- Innovation Transfer
- Graduation & Degrees Awarded
- Retention Rates

This project added functionality to the President's website by redesigning the Administrative Services page, adding additional interactive visualizations, and developing a report card that is integrated with key metrics throughout the website. The Report Card represents a summary of the University's data in the form of metrics, text, or visual data.

"We needed to integrate our information to gain a holistic picture of our operations and outcomes. AITS helped us talk through our specific needs, scoped out the project and recommended an ad-hoc query solution combined with powerful dashboard visualizations. Prepared with insightful information from our data warehouse and dashboards, we are making data-informed decisions that help our program put children and youth with special healthcare needs at the center of a seamless support system that improves the quality of their lives."

—KATIE SHAFFER, ASSOCIATE DIRECTOR OF PROGRAM SUPPORT AND ANALYTICS, UNIVERSITY OF ILLINOIS AT CHICAGO—SPECIALIZED CARE FOR CHILDREN

How We Do It

IT Governance

AITS participates in over 100 partner and customer committees to collaborate on academic, business, and information technology issues and solutions, and to help insure IT investments are prioritized and aligned against the university goals and strategies as broadly as possible.

Enterprise Tools

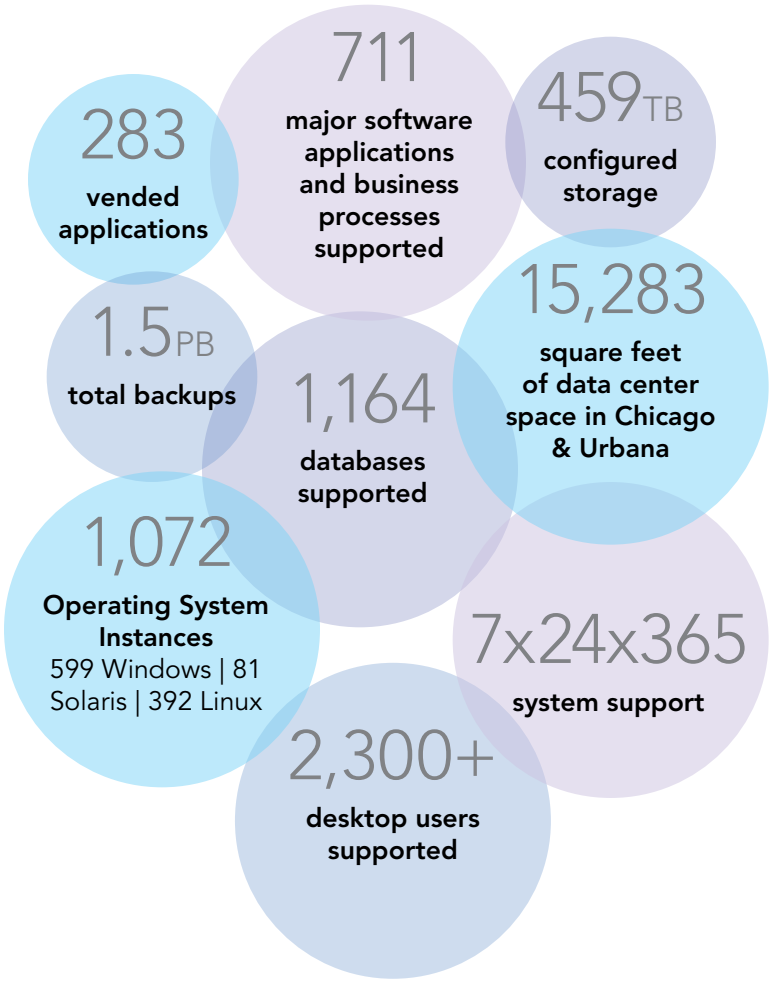
AITS supportst and provides resources and provisioning of tools for enterprise level IT services being developed or provided by other IT units. AITS provides IT projects, program, and portfolio management training and consulting services.

Strategic Planning

Everything AITS does is driven by a focus on successful results and the following values: Leadership, Stewardship, Customer Satisfaction, People, Integrity, and Learning.

Enterprise Administrative Computing Infrastructure

The University of Illinois System requires a foundational infrastructure of reliable information technology resources on which other systems and services depend. These infrastructure services must maintain a superior level of performance and reliability in order to support the mission of the University while being cost-effective, scalable, and accommodating to changing needs and technologies.



Services

Co-location Services
hosting hardware for other organizations

System Health Monitoring
Application | Server | ORCA | Systems | Network

Security
Data and Physical Protection | Vulnerability Scanning | Attack Monitoring/Remediation

Backup/Disaster Recovery

In April 2017, AITS successfully completed our most complicated hardware replacement ever. The new hardware is faster and allowed for encryption which makes our data even more secure. The project was a successful collaboration across all of AITS, as well as with our clients, and took over 6,000 hours to complete.

- 173 databases migrated
- 46+ Terabytes of data moved
- 12 machines consolidated into 8
- Migration and encryption process tested over 200 times
- 30,000+ Banner objects encrypted with zero errors

What It Costs

The projects that AITS works on support cost reduction and labor efficiencies that are distributed throughout the universities, colleges, and departments of the University of Illinois System.

Over the past few years, AITS, which has expenditures of $28 million, has cut expenses by $2 million, revised our strategic plan, developed a sustainable activity based costing (ABC) model, and integrated all of these aspects into our portfolio and project management office (PPMO).

ABC is being utilized as a well-defined, repeatable, and transparent tool to provide improved information about the true cost of our services, and in turn, we are using this to determine the most efficient sourcing for strategic planning.

With ABC, we have been able to identify that 91% of the cost AITS incurs are in support of enterprise systems at the University of Illinois System.

SUPPORT OF CORE PROCESSES

AITS FY2016 Activity Based Costing

Number	Line of Business	FTE Cost	Non Labor Costs	Total Cost
1	Business Process Improvement	$310,787	$56	$310,843
2	Collaboration tools	$56,048	$0	$56,048
3	Compliance	$295,004	$20,951	$315,956
4	Database Customer Services (Consulting)	$339,963	$0	$339,963
5	Customer Training	$64,959	$1,230	$66,188
6	Data Visualization	$309,618	$0	$309,618
7	Centralized Desktop Support	$1,409,788	$91,115	$1,500,902
8	Enterprise System Support	$2,741,668	$543,703	$3,285,370
9	Enterprise System Research Administration	$1,023,878	$1,187,060	$2,210,938
10	Enterprise System Finance Applications	$1,617,382	$1,164,059	$2,781,441
11	Enterprise System HR Applications	$2,557,654	$1,108,360	$3,666,014
12	Enterprise System Student Applications	$2,287,510	$1,189,549	$3,477,059
13	Enterprise System Capital Programs	$408,056	$119,909	$527,965
14	Enterprise System Mobile Applications	$220,928	$45,205	$266,133
15	Identity and Access Management	$1,572,513	$1,691,907	$3,264,420
16	Mobile Applications (Consulting)	$182,369	$0	$182,369
17	Enterprise Data and Reports	$2,122,934	$718,470	$2,841,405
18	Records and Information Management System	$46,822	$0	$46,822
19	Security	$130,737	$0	$130,737
20	Enterprise Class Storage/Backup Services	$222,984	$76,650	$299,633
21	Server Support Services (Maint & Consulting)	$24,050	$76,650	$100,700
22	Workflow Development (Consulting)	$225,543	$0	$225,543
23	Application System Support	$251,130	$0	$251,130
24	Security Provisioning	$247,448	$0	$247,448
25	Data Center Management / Co Location Services	$222,353	$144,760	$367,112
26	UI Ready (Kuali)	$125,071	$104,756	$229,827
27	Video Bridge Conferencing (Consulting)	$136,881	$127,111	$263,992
28	Web Services (Consulting)	$12,494	$0	$12,494
29	Projects and Portfolio Management (Consulting)	$205,999	$0	$205,999
30	Web Services Infrastructure	$17,270	$0	$17,270
31	Enterprise Integrations	$181,066	$0	$181,066
	TOTAL	$19,570,907	$8,411,498	$27,982,405

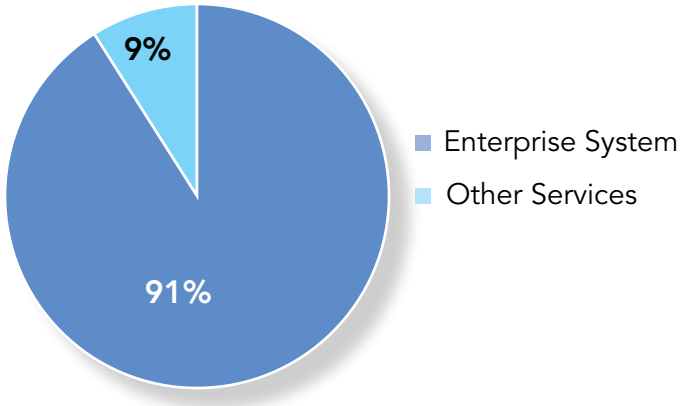
CUSTOMER RESOURCE UTILIZATION

UIUC **42%**

UIS **9%**

UIC **33%**

System Office **16%**



AITS streamlines operations to utilize resources in the most efficient manner while providing the highest quality services to customers.

Who We Are

AITS employees have a clear sense of organizational purpose, and together provide a culture of growth and development where excellent performance is the goal and expectation for everyone. The AITS Recognition Program is designed to recognize and reward employee behavior that demonstrates AITS' values and helps grow a culture of excellence.

Peer-to-Peer Recognition

61 "High Fives & Fist Bumps" were sent between AITS staff members to recognize those who positively impact their colleagues and the workplace.

Every day in AITS, our employees display countless acts of awesomeness that positively impact customers and colleagues. High Fives & Fist Bumps is our peer-to-peer recognition program, created to recognize employees for their day-to-day efforts that contribute in a special way to getting the job done and improving the work environment in AITS. We encourage all employees to catch their colleagues in acts of excellence, big or small, that demonstrate our values in action and positively impact customers, teams, the department, the university, and/or the community. It's quick, immediate feedback that celebrates stellar customer service, office swagger, and positive mojo - whatever improves the workplace experience. Every day is a great day to give and get high fives and fist bumps!

Informal Recognition

20 "Happy Customer" comments from customers and university peers were submitted in FY17.

Customer feedback provides AITS with insights it can use to improve its services and overall customer experience, and we actively seek it out in multiple ways. Often times, we're fortunate enough to receive unsolicited feedback from customers who want to show appreciation for help they're received from AITS. We take great pride in this feedback - so much so that the premium, front and center spot on the landing page of AITS' intranet is dedicated to "Happy Customers"- and we share details with all employees to reinforce the positive behaviors that demonstrate AITS' values and contribute to a positive customer experience.

"I want to reiterate how impressed I am with the President's new website. It looks great! I can't imagine it was easy pulling everything together in such a short amount of time. Kudos to the team that worked on it. The new design is simple and clean, and it is immediately clear how the University creates a positive impact."

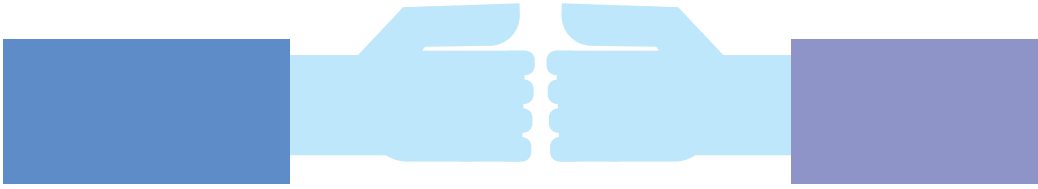
—KRISTY KUZMUK, SENIOR DIRECTOR OF OPERATIONS
VICE PRESIDENT FOR ECONOMIC DEVELOPMENT
AND INNOVATION

"Key Concepts Project Management class was great. You struck just the right balance between introductory level material coupled with a certain degree of existing knowledge. Thank you again for imparting a little of your most extensive knowledge!"

—JULIA BASS
SENIOR I-CARD TECHNICAL SUPPORT SPECIALIST

"Thanks to you and your teams for troubleshooting recent connectivity issues between our mission critical Buffalo Grove satellite lab and our systems hosted by AITS. This is just the level of service that I have come to expect from AITS during a crisis and reaffirms our decision to partner with AITS."

—CRAIG FLOWERS
VETERINARY MEDICINE COMPUTING SERVICES



High Fives and Fist Bumps!

Formal Recognition

AITS EXCELLENCE AWARD

In our second year for the Excellence Awards, we received 31 nominations submitted by customers and colleagues demonstrating how the employees exceeded expectations, led by example, identified opportunities, provided exceptional customer service, or helped implement an innovative solution.

SPOTLIGHT ON SUZANNE MOSS—2016 WINNER

Suzanne received three nominations.

"Suzanne brings a unique mix of technical and functional skills along with a personality that makes people really like her. Suzanne was able to bridge the gap between function and buy-in so that people could contribute where needed to reach the desired goal. Suzanne's facilitation was outstanding and provided the group with the ability to make decisions and move forward. Her open mindedness was a key to making sure that all voices were heard and considered. She had to be bold in approaching organizations that were not excited about the effort and get them to participate in the project, and she was the key driver to bringing all of the groups together."

External Employee Recognition

The Distinguished Employee Leadership and Team Award (DELTA) annually recognizes employees and teams within the System Offices for their exceptional accomplishments and service to the University.

AITS had three DELTA award winners in 2017 *{excerpts from their nominations provided below.}*

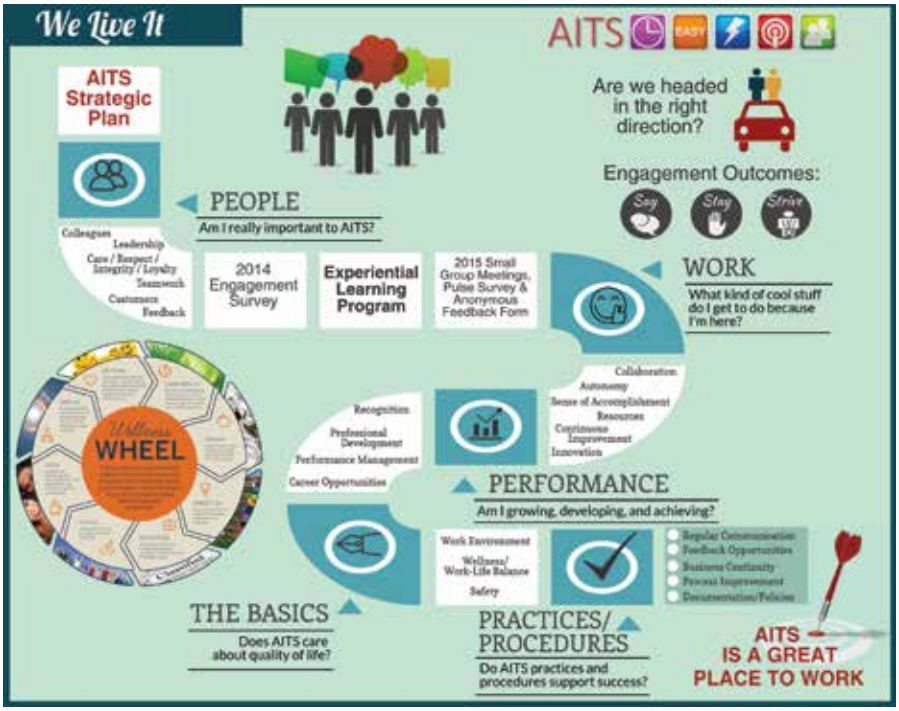
RUSSELL CHALFANT

"Russ has been one of the driving forces implementing the University's Affordable Care Act (ACA) systems. Not only did Russ reach a very complete understanding of the regulations, but he was able to design, develop, and implement a system following those regulations."

MICHELE UNSER

"Over the past two years, Michele has demonstrated her excellent analytical, project management, and customer service skills by taking the lead role in two major projects related to classroom and event scheduling. Both projects were implemented on-time with great success and have provided university clients with enhanced functionality and improved operating efficiency."

Engagement Roadmap



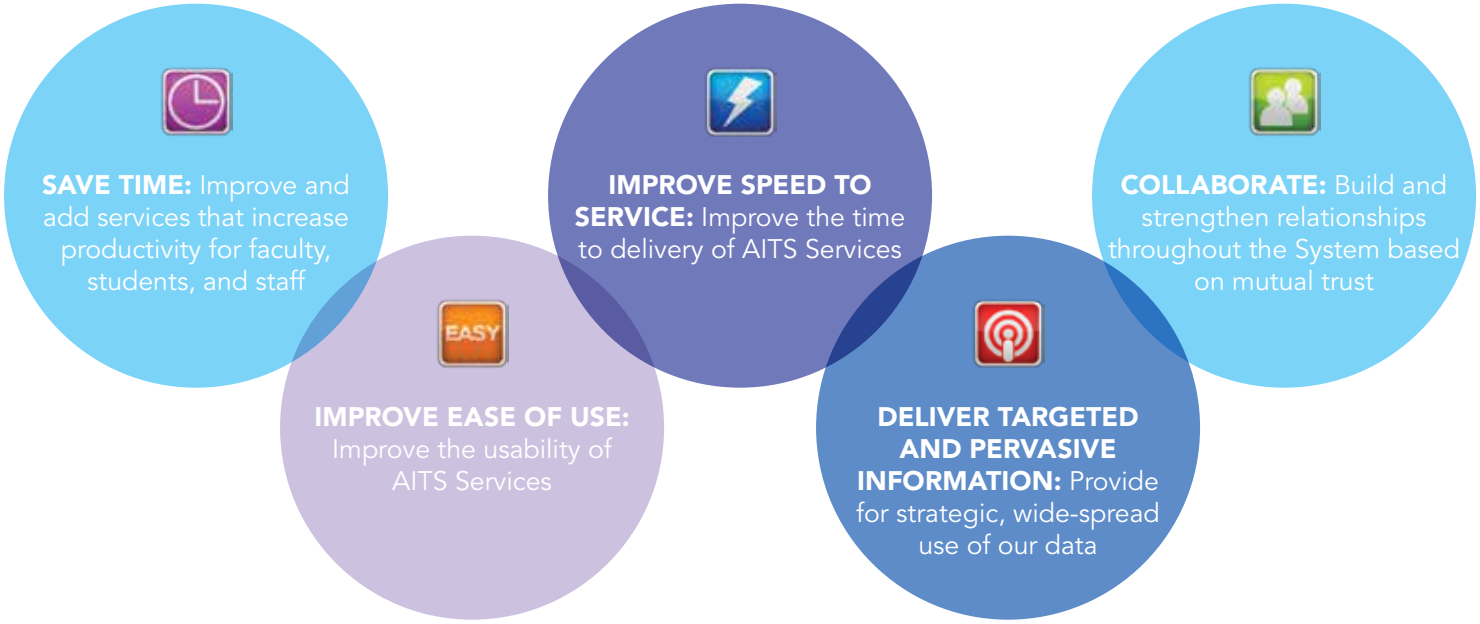
Recognition is one aspect of our engagement roadmap.

BRENT WEST

"Brent has innate project management skills and takes the lead toward finding a practical solution to the long-term management of email messages considered to have archival value. He was instrumental in helping the Illinois State Archives acquire email messages from the Office of the Governor. This achievement allows us to support national research related to text analysis. Brent also took the lead in preparing and submitting a national grant that was awarded to us in June 2016, and he is also a co-Principal Investigator (PI) for it."

"Connect the dots between individual roles and the goals of the organization. When people see that connection, they get a lot of energy out of work. They feel the importance, dignity, and meaning in their job." - **Ken Blanchard, www.kenblanchard.com**

AITS Strategic Plan FY16–FY18



The AITS Strategic Plan outlines the information technology strategies and initiatives of Administrative Information Technology Services. It is designed to be a three-year IT plan that evolves with collaborative input alongside other strategic plans throughout the University of Illinois System.

On an ongoing basis, progress towards achieving the goals and initiatives in the strategic plan is measured using an online dashboard tool, which promotes shared ownership and tracking responsibilities, as well as easy access to produce reports for easy distribution.

To pursue these strategic directions, AITS developed and managed to a set of specific initiatives. For a complete accounting of these initiatives and our progress towards them, please see the AITS Strategic Plan page on the AITS website at www.aits.uillinois.edu.

Strategic Goals & Initiatives Achieved

In FY17, AITS standardized our customer feedback process with the following results:

JUNE 2017 NET PROMOTER SCORE

AITS Customer Support Survey **78** exceeding the global NPS "excellent" standard of 50

AITS Application Satisfaction Survey **55** nearly double the industry average for software & applications

SUMMARY OF AITS CURRENT PROGRESS TOWARDS STRATEGIC GOALS AS OF JUNE 30, 2017

Progress	Critical	Off Target	Waiting on Someone	Not Started	Deferred	On Target	Achieved
Goal		1			1	36	2
Team 1		5			1	13	13
Team 2		2			5	9	2
Team 3						20	
Team 4						20	
Team 5		3			5	23	1
Team 6		5			2	12	4

Looking Forward

University of Illinois System IT Realignment Efforts

Outcomes from the UI System Offices Realignment Efforts will bring 25 IT professionals to AITS on July 1, 2017. System Office IT units will continue to study and collaborate to bring about efficiencies over the next fiscal year. Welcome aboard to the new AITS employees!

Focus on Strategic Workforce Planning

In FY17, AITS had a net decrease of 23 FTE. AITS is fortunate to have high-demand customer requests that provide interesting work for our employees; however, the fiscal climate and constrained hiring guidelines take their toll over time, and the associated resource challenges are difficult to overcome. Many areas have been impacted by reduced resources. On the bright side, the remaining AITS employees are very committed individuals, and they have stepped up to do their best to help AITS deliver on its promises and honor its service level agreements where possible. AITS leadership will continue with its regular, ongoing strategic workforce planning discussions to align available resources and skillsets with priorities to ensure services continue to be implemented effectively and deliver optimized value. We are pursuing creative solutions that provide additional resource flexibility, while at the same time meeting employee development goals and furthering organizational goals.

UIllinois Dashboards & Data

We have different kinds of customers for the information we provide, with a variety of different information needs. As such, AITS will continue to expand our toolset with the development of dashboards that make it easier for university stakeholders to interact with information of all forms throughout the university. Easier, direct access to the data needed to compile and create comprehensive student and university data reports is a significant advancement in the delivery of consumer data.

www.uillinois.edu/data

Smart State

AITS is an engaged participant in a partnership between the State of Illinois Department of Innovation & Technology (State) and The Board of Trustees of the University of Illinois (System) to establish an ongoing cooperative relationship between the State and the System to develop Illinois as a premier "Smart State" in the nation. This initiative was established to integrate digital tools to make it easier for citizens and businesses to:

- Work with government
- Reduce digital barriers to improve efficiencies of the state
- Drive economic growth
- Promote innovation

MORE INFORMATION

www.aits.uillinois.edu
AITS website for AITS services, help resources, and organizational information

www.uillinois.edu/cio
System Office CIO website for shared services, business process improvement, IT governance information, records and information management, and portfolio and project management.

WANT TO GET INVOLVED?

AITS believes it is important for the system's IT community to be engaged, responsive, and aligned with the needs of faculty, students, and staff, which is why we welcome and encourage the sharing of ideas and technology resources. If you would like to get involved and have ideas for a new project, process improvement initiative, or enterprise service, or would like to provide talent or financial resources for an existing or future project, let us know!