# Annual Progress Report for FY 13

## Administrative Information Technology Services

University of Illinois

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## Introduction

The goals and initiatives that guided Administrative Information Technology Services (AITS) efforts this past year are outlined in the AITS FY 13 – FY 16 Strategic Plan. Broadly stated, AITS focused its efforts to support the strategic directions of saving time, fostering ease of use, improving the speed of delivery of IT services, delivering targeted and pervasive information for users, and collaborating throughout the University. Many of the goals rely on collaboration with units throughout the University.

This report provides an overview of AITS and our progress made against our goals during the FY 13 term. It reflects the continuous hard work by our employees to provide high quality administrative services and technology infrastructure to support the mission of the University of Illinois.

Michael Alto

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## **Executive Summary**

Over the past year, AITS established a new strategic plan that brought to the forefront the following strategic directions:

- **Save Time** Pursue opportunities to improve and offer new services that increase productivity for faculty, students, and staff.
- Improve Ease of Use Improve the usability of AITS services.
- **Improve Speed to Service** Improve the time to delivery of AITS services.
- **Deliver Targeted and Pervasive Information** Provide a variety of tools and infrastructure tailored to meet the large spectrum of customers and information needs.
- **Collaborate** Build and strengthen relationships with people and organizations throughout the University based on mutual trust.

This new focus will allow us to better analyze our current services and to gather feedback on how we might continue to improve. This effort will allow us to more effectively address the increasing customer demand for services and allow us to prioritize future work that best meets the strategic objectives.

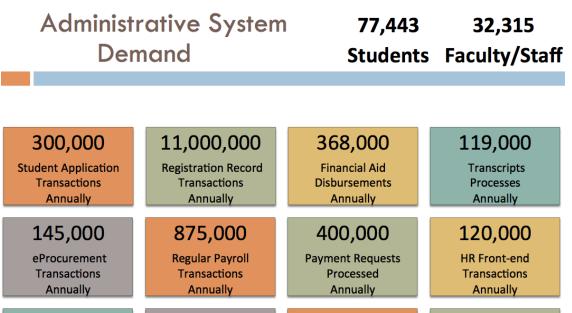
Our major accomplishments for FY 13 include:

- Banner self-service availability at 99.9% for the year
- Redesigned web site, architected to be more user-centric and easier to use
- Enhanced mobile capabilities via the implementation of a mobile framework for native and mobile web applications
- Increased training, tools, and engagements designed to enhance the business process improvement capabilities at the University
- Launched significant upgrade and improvement to the University's Business Intelligence tools
- Participated in the establishment of new shared services, including End Point Management and the SharePoint Shared Service
- Partnered with UIUC ATLAS to develop the FormBuilder enterprise registration application
- Partnered with the office of the Board of Trustees to digitize and automate distribution of meeting materials
- Implemented and improved video conference services for University Administration
- Closed 43,000 Service Desk cases for customers
- Completed 34 ITPC projects

## Mission, vision, and values

AITS' mission is to provide a wide range of administrative information technology solutions and services to the University community that are accessible, reliable, accurate, efficient, and responsive to customer needs. AITS collaboratively and proactively works to identify opportunities, manage risks, plan future initiatives, and solve problems while measuring and evaluating services to optimize them for the University community. AITS utilizes multi-campus customer-driven IT governance to select and prioritize the work it executes. The Information Technology Priorities Committee (ITPC), the UA IT Council, and the University Technology Management Team (UTMT) and many other groups provide guidance for AITS initiatives, services, and operations.

Administrative IT systems at the University are utilized in areas such as student services, finance, human resources, facilities, advancement, and research administration to support the mission activities of the enterprise. Information technology is utilized to create efficiencies in business processes through automation, and it is utilized to provide business intelligence services to help with data analysis and inform decision-making. AITS believes that it is important that administrative IT investments improve efficiency and effectiveness and are informed by the needs of faculty, staff, students, and alumni. The following image demonstrates some of this demand.



AITS customers can be categorized generally into two types. First, a number of AITS services provide self-service support the faculty, students, and staff at the University. Usually in the form of enterprise services, faculty and students utilize these tools to perform everyday activities. Students use Banner to register for classes, access grades, and pay tuition. Faculty access class rosters, collaborate with peers and students, and manage grants electronically. Second, AITS services

150

**Change Requests** 

Per Month

99.8%

FY 12 Banner

Availability

240,000

**Travel Expense** 

Reimbursements

Annually

240,000

**EDDIE Sessions** 

Annually

support academic and business offices at the University, which in turn, enable those offices to better serve their end users. Student services, financial, and human resource departments support payroll, purchasing, hiring, and student services with AITS providing the underlying IT infrastructure. By working together, all of these services provide business process automation in order to serve the information needs of the University in the most efficient manner possible, while reducing the administrative burden on customers so they have more capacity to dedicate to core mission activities and other priorities.

## **Strategic directions**



Save Time · Improve Ease of Use · Improve Speed to Service Deliver Targeted and Pervasive Information · Collaborate

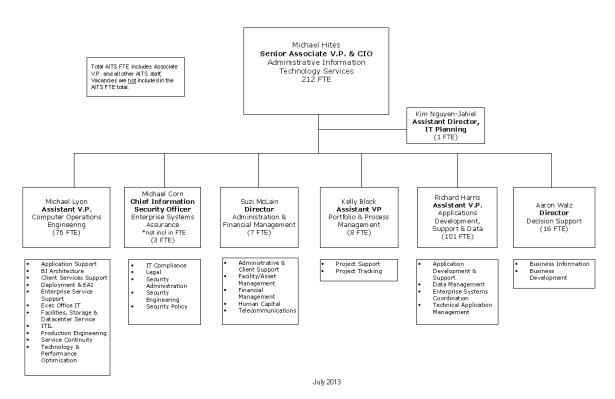
The AITS Strategic Directions have been developed to guide and prioritize actions toward making the use of administrative IT as simple and beneficial as possible for the customers. These directions focus efforts toward the following priorities:

- **Save Time** Pursue opportunities to improve and offer new services that increase productivity for faculty, students, and staff.
- Improve Ease of Use Improve the usability of AITS services.
- **Improve Speed to Service** Improve the time to delivery of AITS services.
- **Deliver Targeted and Pervasive Information** Provide a variety of tools and infrastructure tailored to meet the large spectrum of customers and information needs.
- **Collaborate** Build and strengthen relationships with people and organizations throughout the University based on mutual trust.

## **AITS organizational structure**

Administrative Information Technology Services (AITS) employs approximately 207 individuals and delivers information technology systems and services that support the University of Illinois's administrative processes across all campuses. AITS is a University-wide resource for administrative computing, applications support, applications development and data management.

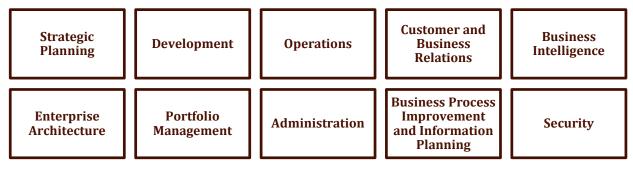




Note: For a full description of the departments please visit our About AITS website page at <u>http://www.aits.uillinois.edu/about a i t s/</u>

### **Core functions**

To accomplish its mission, AITS is organized around core functions that include:



AITS has developed expertise in these areas through operational management, that is, our managers and directors perform hands-on IT work in addition to their administrative responsibilities. In support of these core functions, AITS:

- Provides selection, implementation, and maintenance support for packaged and selfdeveloped applications at the University of Illinois
- Creates and maintains internal and external interfaces for University enterprise applications
- Provides data management, data center, and disaster recovery services for University enterprise applications
- Provides data center services, including disaster recovery, for hosted University applications
- Provides 7 day-a-week, 24 hour-a-day Service Desk/Operations support for University enterprise applications
- Facilitates University desktop and enterprise applications training with internal and external service providers
- Collaborates with other UA units and campus-based computing organizations on policies and standards that optimize and secure University information technology resources
- Provides primary support for the Ellucian Banner Enterprise Resource Planning (ERP) system. This system includes Student Administration, Student Financial Aid, Human Resources / Payroll and Finance modules, along with associated purchased applications, locally-developed components and custom vendor-developed components.
- Acts as the primary resource for business intelligence and data warehousing expertise within the University
- Facilitates University IT governance and provides IT project, program, and portfolio management training and consulting services
- Provides high quality, reliable, and timely data that enables good decision making
- Provides resources and support for enterprise level IT services being developed or provided by other IT units

## Standards and best practices

AITS practices are rooted in industry best practices and standards-based approaches that are utilized to ensure the quality and consistency of services. Some of these standards include:

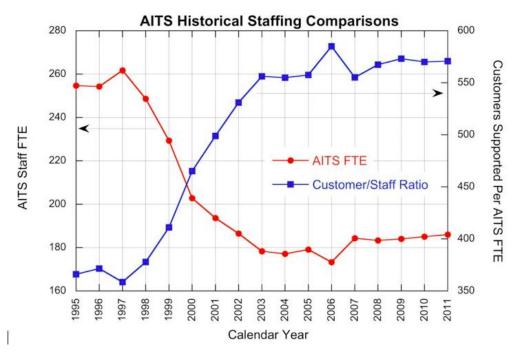
- **Software development**: Software development lifecycle based on standards from the Capability Maturity Model (CMM)
- **Service management:** Information Technology Service Management based on standards from the Information Technology Infrastructure Library (ITIL)
- **Financial management**: Financial management standards based on Generally Accepted Accounting Principles (GAAP)
- **IT governance**: IT governance practices as recommended by the EDUCAUSE Center for Applied Research (ECAR) and Gartner
- Security compliance: Security compliance based on Control Objectives for Information and

Related Technology (COBIT) and ISO/IEC 27001:2005 - Information technology -- Security techniques -- Information security management systems – Requirements (ISO 27001)

- **Data warehousing**: Information management and delivery approaches and best practices from The Data Warehouse Institute (TDWI) and Higher Education Data Warehousing (HEDW) organizations
- **Project, program, and portfolio management**: Project, program, and portfolio management based on standards from the Project Management Institute (PMI)
- **Business process improvement**: Business process improvement methodologies based on Lean and Six Sigma DMAIC

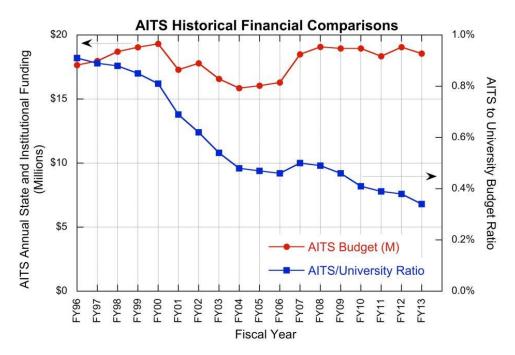
### **Finance and funding**

AITS continues to increase efficiency, as it has for the past 17 years. Since 1995, the number of employees and students supported per AITS staff member has consistently increased over time, while AITS staffing has declined and then remained relatively constant in the past decade. The chart below was created by subtracting out the historical mergers from the current AITS staffing counts to compare the data over time. This distinction is important because as other UA groups have merged with AITS over time, their Banner Organizational Code rolled into a single AITS Organizational Code. Consequently, if Banner reports are run for FTE over time, it may appear that AITS is growing rather than reflecting the consolidation of multiple groups.



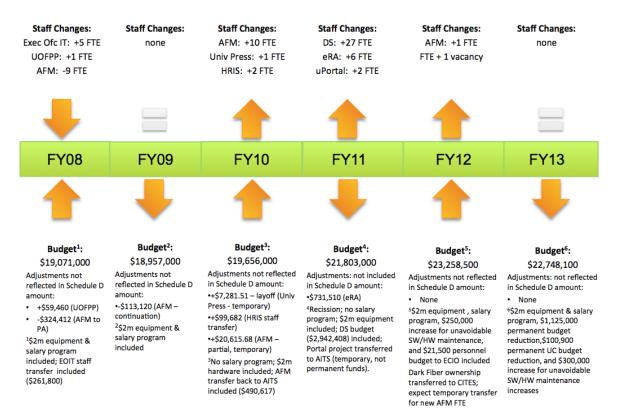
The historical AITS budget can also be compared in a similar fashion. By subtracting out the budgets for the merged departments over time, the following graph shows that the AITS budget also has remained relatively constant over time. Relative to industry trends, the Gartner group (an international IT research and analysis company) shows that prior to 2009, IT budgets increased about 5% each year to meet growing demands and increasing costs for suppliers and IT

maintenance contracts. Since 2009, the average increase is about 2-3%, according to Gartner. For comparison purposes, the AITS budget is shown below in both annual dollars and relative to the overall University budget.



Between FY12 and FY13, the AITS budget allocation was reduced by just over 2%. The majority of the AITS budget - approximately 95% - is dedicated to items such as personnel (71%), software-hardware maintenance (16%) and major IT purchases (8%) for all AITS budget sources, including self-supporting funds. The remaining percentage is allocated to discretionary items such as travel, training, tuition, office supplies, and parking. While the budget is aggregated into a single budget, the division heads manage aspects of discretionary (e.g., travel and training) budgets, and the technical contacts in each division associated with major IT contracts for purchases and software and hardware maintenance play a very active role in the purchase or renewal of software and hardware in respective areas of responsibility.

Below is a summary of AITS staffing and fiscal year budgets from FY08 through FY13 with the details of the groups that have merged with AITS over that period. While staffing did increase due to the mergers, the change was not due to the addition of new positions. Rather, the increases are the result of organizational changes that were recommended through discussions between departments in UA. Considering all factors that affect the budget (e.g., the budget associated with the various mergers, salary program, recurring software and hardware maintenance increase, rescission, permanent budget cuts), the AITS budget has remained relatively flat over this time period.



## AITS Staff and Budget Change Summary FY 08 – FY 13

As a result of these financial indicators, it has become increasingly more important to ensure IT assets, both human and physical, are provisioned to maximize value. AITS regularly conducts reviews and negotiates with vendors, where possible, to reduce acquisition and maintenance costs, and the IT and financial staff work closely to seek out opportunities to leverage collaboration and invest strategically to allow for greater agility and to add value to IT activities at the University. AITS will continue to employ disciplined, fact-based decision-making and further a culture of continuous improvement.

## **Strategic Plan for FY 13**

Planning is a continual and integral function at AITS. AITS utilizes the strategies and plans of campus and University Administration customers as well as trends in new and emerging technologies to guide the development of unit strategies and priorities for defining work. IT governance groups select and prioritize project work for AITS as well as target business processes for improvement through information technology services. Utilizing this guidance from customers, AITS develops strategic and operational plans to meet the administrative IT needs of faculty, students, and staff at the University. These plans require resources in the form of funding and human capital to meet these needs. A large share of the AITS budget is dedicated to maintaining enterprise administrative IT operations at the University in such areas as infrastructure, data storage, application support, security, and maintenance and support. AITS primarily relies on funding from the Information Technology Priorities Committee process for undertaking discretionary new services as directed by that customer-based IT governance process. Where there are other strategic initiatives that require incremental funding, this funding is subject to separate requests of the Academic Affairs Planning Committee and the Chief Financial Officer.

The AITS Strategic Plan outlines the information technology strategies and initiatives of Administrative Information Technology Services at the University of Illinois. It is designed to be a three-year IT plan that evolves with collaborative input alongside other strategic plans throughout the University. The planning process that produced this document utilized the University of Illinois IT Strategic Planning Process Framework developed in FY 12 as a primary input to planning. The complete AITS Strategic Plan is available on the AITS website.

The plan has been developed to outline the pursuit of goals and initiatives that support the strategic directions of saving time, fostering ease of use, improving the speed of delivery of IT services, delivering targeted and pervasive information for users, and collaborating throughout the University. Many of the goals rely on collaboration with units throughout the University.

The AITS strategic directions are broad statements indicating the specific strategic areas that AITS will focus on in supporting the University's mission and our responsibilities as an organization. In the pursuit of realizing these directions, the strategic objectives in the next section served as actionable broad and specific initiatives that AITS pursued in order to fulfill these stated strategic directions. AITS' strategic directions for FY 13 were:

#### Save time

# Pursue opportunities to improve and offer new services that increase productivity for faculty, students, and staff.

One of the foremost goals of employing information technology resources is to save time for users. When IT services allow people to perform tasks and processes more efficiently, it preserves time to dedicate to other valuable tasks. At the University, this means that students have more time to study and participate in student life activities. Faculty members have more time to teach and perform research. Staff members can better support faculty

and students when IT helps improve efficiency.

Preserving time through IT services takes many forms. Systems are implemented to reduce administrative overhead, and everyone should be able to efficiently access the services available with minimal searching and with a single electronic identity. It should be easier to interact with information of all forms throughout the University, and creation of knowledge should be automated as possible.

#### **Improve Ease of Use**

#### Improve the usability of AITS services.

Customers are increasingly interested in the availability of a portfolio of basic and expanded information technology services. All of the IT services that are deployed at the University should be designed and maintained with an emphasis on the user's perspective of being easy to use. When services are not easy to use, or too complex, there is a disconnect between users and providers of information technology, which usually results dissatisfied customers.

As AITS builds or purchases new services to meet user needs, IT ensures that these services have a number of key usability characteristics such as:

- Familiar, consistent, and understandable terminology
- Easy to read and navigate
- Easy to learn and become easy to use
- Information is easy to find
- Suitable performance and load times
- Clear path for support

As a general rule, if services cannot meet these criteria, it may not be in AITS' best interest to pursue them. In some instances, ensuring these criteria are met will make services more difficult or time consuming for IT units to maintain; however, the overriding concern is that it is better to constructively utilize the time of IT professionals if there is a net improvement in services for the end user and the University.

### **Improve Speed to Service**

#### Improve the time to delivery of AITS services.

In addition to ensuring services are easy to use, the time to deploy services needs to decrease. This multifaceted issue includes planning, purchasing, human resources, development, testing and risk assessment. Each of these components influences how long it takes to get service in the hands of those who need them. In addition to the internal processes, the state and federal governments also have compliance regulations that drive the speed to deployment. AITS must work creatively within given constraints with an eye toward accelerating deployment.

### **Deliver Targeted and Pervasive Information**

## Provide a variety of tools and infrastructure tailored to meet the large spectrum of customers and information needs.

AITS has different kinds of customers for the information provided, with a variety of different information needs. AITS needs to expand the toolset and infrastructure so that unit – and the other information providers who rely on us – can serve each of these needs using the right data and the most appropriate technology.

AITS needs to work aggressively to make information more pervasive across the community. AITS will do this by continuing to build out the Data Warehouse environment as the University's central repository for integrating and publishing data from enterprise systems, providing a comprehensive source for administrative data, as well as helping customers supplement enterprise data with local data. AITS will proactively identify information gaps and address them or advocate and partner with other information producers to get them addressed. AITS will also focus on improving adoption of information solutions.

#### **Collaborate**

## Build and strengthen relationships with people and organizations throughout the University based on mutual trust.

Collaboration is a foundational element of the everyday lives of the student, faculty, and staff of the University. All three of those groups collaborate amongst peers and others across the University and worldwide. The methods and tools for collaboration continue to grow as digital capabilities expand constantly. Information technology provided by the University must enable collaboration, while increasing the ease and efficiency of the collaboration, and not cause more work in order for people to collaborate.

Another important area of collaboration is the partnership between IT professionals, IT governance committees and processes, and the constituents that these groups serve. Close collaboration between these groups is essential to facilitating shared decision-making, prioritization of initiatives, improving the performance of IT, and the implementation of new and improved services. AITS must also collaborate actively with colleagues and vendors from outside of the University in order to more efficiently support vended services and provide leadership among peers in leading product development direction.

### Progress against strategic goals and initiatives

The AITS strategic goals were created through discussions with our customers, and are refined by internal conversation within AITS. We utilize our strategic directions as described earlier, to guide development of goals that support and align with these directions. Most organizations need to successfully accomplish many goals to achieve their mission. Some of the goals presented have not yet been prioritized or resourced and represent stretch goals that will be pursued as resources are available and other goals are satisfied.

Strategic goals have an outcome that is measurable and achievable within a specific time frame. One, which is subordinate to the mission, yet supports the overall business purpose by addressing an aspect of it. We utilize the SMART model for evaluating Strategic Goals as demonstrated below.

Each goal has a different priority, and the priority changes throughout the year depending on environmental factors such as funding, urgency, University needs, vendor partnerships and human resource availability. The strategic goals are pursued through our initiatives. Initiatives are operational in nature and achievable within an expected timeframe and available resources. There may be multiple initiatives for a strategic goal.

Each goal has a different priority, and the priority changes throughout the year depending on environmental factors such as funding, urgency, University needs, vendor partnerships and human resource availability. Below is a summary of goals and significant initiatives AITS pursued in FY 13. These goals are organized broadly into the following areas:

- Information Security and Privacy
- Administration
- Infrastructure
- IT Human Resources
- Institutional Data and Information
- Collaboration and Communication
- Financial Stewardship
- IT Governance

### **Information Security and Privacy**

Information in all its forms is our currency and the source of underlying value we provide to the University. There is a significant value associated with our intellectual assets and institutional data that require substantial measures to protect. Safeguarding university information, assets, and stakeholders allows the University to concentrate on mission activities and operations. These efforts include improving the overall security and privacy of information at the University, appropriately balancing risk with safeguards, and ensuring security and privacy measures are appropriately supported, funded and implemented within the University.

#### Protect University Administration user platforms

- Deploy automated system patching of workstations and mobile devices Reduce the latency of system and application patches being deployed to users' computers through the deployment of IBM Tivoli Endpoint Management (TEM) and Microsoft SCCM. *Security best practices for monitoring and managing workstations were created during the spring 2013 semester and finalized in July 2013. These will be implemented during the fall of 2013.*
- Improve virus Detection and repair tracking Improve tracking of repairs for viruses found on workstations and mobile platforms as well as develop graduated procedures for restricting systems with repeat infections. *In partnership with the Urbana campus, software has been acquired that will provide for a policy based evaluation of a data breach for each compromised workstation. Further operational processes are being developed that will improve tracking for system compromise events and permit reporting of metrics for system compromises. AITS anticipates this being completed and measurable by late spring 2014.*

#### Protect University Administration computing infrastructure

- Upgrade Intrusion Detection System / Intrusion Prevention Systems (IDS/IPSs) for AITS Data Centers Deployment and joint management of Juniper IDS capability at both HAB and RRB data centers. This will replace the current Tipping Point IDS/IPSs that filter user connections to the data centers. *AITS is working with CITES to design a solution. Expected completion date is FY14 Q4.*
- Improve vulnerability scanning of data center systems Participate in the NCSA pilot of Qualsys scanning to augment the existing Nessus scanning capability. Evaluate the vulnerability mitigation tracking capability to determine long-term viability. *AITS has purchased a vulnerability scanning system. Full process implementation is anticipated to be complete by December 2013.*
- Implement multi-factor authentication services Pilot the use of multi-factor authentication for system administration and other trusted functions. Coordinate with IAM project on more general use of multi-factor for larger user populations. *AITS is currently evaluating a system purchased by the Urbana campus, in partnership with NCSA, UIC, and UIS.*
- Implement perimeter and internal log monitoring Examine efficacy of current VPN log monitoring and potential to extend to other external services. Develop strategy for implementing Security Event Monitoring capabilities to support data analysis and investigation. *AITS is in the process of piloting VPN log monitoring which leverages a large logging*

and analysis infrastructure developed by the Urbana campus. This pilot will be complete in early fall 2013 as a precursor to an expansion into the next item.

• Improve log retention and analysis – Analyze current system audit logs and determine the appropriate log retention periods and storage requirements. *This work has begun and will continue throughout the current fiscal year.* 

# Implement the risk management program for information security and privacy including appropriate mitigation plans.

- Collaborate on data classification Collaborate with UTMT Security Working Group on review of the new data classification guidelines with data owners across the University to publish a single data classification standard across the University. *Some progress has been made on this project but it is highly resource constrained. AITS expects to revisit this work in the FY 14 Q2.*
- Sensitive Data Discovery / Management Identify high-risk users of sensitive information in University Administration and deploy data discovery and management capability on user platforms to aid users in managing their sensitive data. *In partnership with the Urbana campus, AITS will purchase client licenses for a sensitive data discovery and management system. AITS is actively planning a pilot in two or three areas of high risk.*
- Perform security risk assessment of Enterprise systems Starting with Banner, identify current security posture in relation to privacy and data integrity controls. Controls will be benchmarked against industry leading practice related to COBIT, IAPP, and applicable regulatory guidelines. Gap remediation will be identified in relation to ROI. [FY 13 Banner, EDW] *A risk assessment methodology is being developed and will be completed and piloted on several University of Illinois risk centers by January 2014.*
- Implement encryption / signing certificates Work with UTMT SWG to implement common certificate deployment that can be used in email and applications for encrypting or signing functions. Initial deployment will be to Contract Management system in early FY 13. *Deployment beyond the initial pilot system has been pended due to a lack for resources.*

#### Improve compliance capabilities.

- Develop comprehensive compliance program Identify all applicable IT policies and regulations and map against existing controls, identify control gaps, and develop mitigation plans for compliance. In FY 13 focus is on FERPA and SSN concerns. In FY 14 focus is on HIPAA concerns. Implement ongoing compliance monitoring Develop and track compliance checkpoints for security and other identified compliance areas. *While compliance activities continue, a comprehensive compliance program has been put on hold pending additional resources.*
- Improve audit compliance capabilities Based on lessons-learned from internal and external audits, improve controls to more effectively support audits. *In FY 14, AITS will investigate methods for automating and monitoring security accesses in order to improve our audit compliance.*
- Support University Payment Card Industry (PCI) compliance provide security engineering support to Merchant Card office to convert compliance activities into sustainable processes.

As of June 2013, the responsibility for this activity has been moved to campus central IT units.

• Implement security awareness training for UA – Collaborate with UTMT SWG on the purchase and deployment of compliance training capability for University Administration. Training will cover general security awareness as well as specific concerns for University compliance. *Security awareness training has been held for AITS. Training for additional UA units will be done during FY 14.* 

# Provide security engineering assistance on University Administration projects to add value or reduce risk.

- Improve security processes in the SDLC Review security activities defined in the SDLC to streamline project security activities. Measure completion of security milestones as part of normal project management activities. *In FY 13, AITS began a review of SDLC security processes. AITS expects to complete revisions in FY 14.*
- Participate in project security reviews As defined in SDLC, participate in planned security reviews on projects as well as on ad hoc basis as needed. *AITS will implement improvements to the current security review process with the goal to ensure complete, systematic coverage of projects early in their lifecycle.*
- Perform mobile computing security analysis As mobile application development and deployment progresses, investigate and develop guidelines for securely implementing mobile applications. *AITS is in the process of developing guidelines for securely implementing mobile applications. A roll out plan will be complete by FY 14 Q2, and these guidelines will be in place and being used by FY 15.*

# Improve our compliance with all applicable laws and regulations regarding information security and privacy for e-Discovery.

- Improve FOIA processes Assist the University Relations office in improving the execution of Freedom of Information Act requests. Analyze major workflows requirements and identify solutions to save time and effort. *AITS expects to begin work on this in FY 14.*
- Review Litigation Hold and eDiscovery processes Coordinate with UTMT SWG to develop common understanding of how each campus and UA processes requests from the University Counsel offices. *AITS expects to begin work on this in FY 14.*

### Administration

Administrative IT systems are utilized in areas such as student services, finance, human resources, facilities, advancement, and research administration to support the mission activities of the enterprise. It is important that our administrative IT investments improve efficiency and effectiveness and are informed by faculty, staff, students and alumni.

Provide excellent customer support to all users at the University in multiple forms and avenues to enable them to utilize information technology resources as easily as possible to accomplish their goals.

• Measure relevant performance metrics for customer service. The AITS Metrics set is currently being revised to improve customer focus. Complimentary to this will be strategic plan performance reporting for AITS. These metrics will be in place and collected in FY 14.

- Implement improvements to the customer relationship management function for central IT organizations. The CRM group meets on a recurring basis with CRM colleagues at ACCC, CITES and ITS. The CRM group will develop with the cross-department team a plan for focusing the group's coordinating role and best practice exchange. The CRM group presented an overview of their group and focus at the spring 2013 AITS Quarterly Business Meeting.
- Provide IT advocacy liaisons to all University Administrative major functions. The IT advocacy program has been established and is in operating mode. IT Advocates meet quarterly with each unit's representative to discuss any IT issues or needs that may be satisfied by AITS services and personnel. In FY 14, the program will seek to engage partners to identify their functional priorities and strategize how AITS services can be deployed to help support those priorities.

Promote and support collaboration and community source initiatives to leverage tools we've already built and provide a more robust environment where systems and people can more easily work together and communicate.

- Reduce application redundancy and leverage the development work of others across the enterprise. Applications developed by edge units can be leveraged by other departments and colleges across the campus and university instead of being repeatedly redeveloped or purchased. A model needs to be developed which will address issues such as funding, technical support, application hosting, accessibility, application governance, user support, etc. *Initial discussions have begun. Scoping of this work will be complete in FY 14. Once a list of short and long term objectives are created and vetted with Campus IT representatives, AITS will determine whether an ITPC proposal should be created to expand the focus of the work.*
- Create and deploy a service to provide a web services registry as well as a common repository for applications, enterprise message objects, and community source development initiatives. *The initial effort is complete. AITS will advertise and publicize this service in FY 14.*
- Develop data integration services including community data definition and integration standards. *The original driver of this initiative was to build a data delivery service that houses common information used by other applications. AITS will pursue this effort in FY 14.*

## Improve business processes at all levels of the University to ensure that the front-end process is efficient.

- Enhance business process improvement capabilities at the University. BPI work demand at UIC continues to grow. The request for incremental UIC resources has been presented to the Academic Affairs Planning Committee, which includes the UIC provost. Next steps include the review of critical strategic plan items (including this one) with the IT Governance committees for prioritization.
- Provide a suite of tools and services available for managing both human and business process management workflows. A suite of tools and services is currently available and being used for several projects. In FY 14 and FY 15, AITS will improve this service by providing documentation and expanding functionality.
- Provide broad availability of project management tools and training. Project management methodology and tools are available university-wide at: <a href="http://www.cio.uillinois.edu/cms/one.aspx?portalId=996270&pageId=1076624">http://www.cio.uillinois.edu/cms/one.aspx?portalId=996270&pageId=1076624</a>. A shared methodology for project management has been developed between central IT groups for all campuses and UA. Training is being developed based on this methodology for rollout in FY 14. Ad hoc requests for PM consulting are addressed on an ongoing basis.
- Assist UIC integrate with the Class Connect online course evaluation system with Banner. *This effort is under re-evaluation.*

Administrative systems will be designed with easier contemporary standards for ease of use to improve user experience and minimize the training burden on the university.

- Determine standards for ease of use for IT services. *This initiative will be pursued in FY 14 and FY 15.*
- Implement ease of use standards in a consistent way. *This initiative will be pursued in FY 14 and FY 15.*
- Staff increased maintenance and support load from implementing new user requested applications and services including HR Front-end, iBuy, PARIS, Nelnet, Upside, Common Application (UIC), TEM. Provide resources to counter decreased headcount available for user requested new software applications and services. This is due to a combination of budget reductions, below-industry average growth in IT spending to demand, and increased mandatory projects related to regulatory compliance. (Team 2) *This initiative will be pursued in FY 14 and FY 15.*

#### Eliminate unnecessarily redundant systems.

- Continue/Improve Application Review Process (ARP)- Inventory IT systems to identify areas for further analysis related to system or service collaboration or redundancy. Perform analyses and prepare recommendations for reducing redundant systems. *The coordinators of the ARP are auditing the current process and determining areas of improvement for the ARP committee to review and approve. Biweekly meetings are being held to review items such as application category, process improvement, attribute information, and committee involvement.*
- Create an action plan to reduce or consolidate redundant systems and services. *This initiative will begin in January 2014.*

## Improve IT service procurement in order to make it easier for departments and users to obtain the services they need.

- Analyze licensing agreements for IT services utilized broadly across the university and evaluate them for cost effectiveness and feasibility for enterprise licensing. *This was discussed with University Sourcing, and they have taken responsibility for this activity. AITS will continue to support these as needed.*
- Collaborate with the State of Illinois CIO office towards improving IT procurement practices. *AITS executives serve as liaisons with purchasing in regards to this initiative. AITS will continue to support these as needed.*

#### Improve IT systems and services that support research administration.

- Implement a set of Research Management and Administration systems and integrations to eliminate redundant systems and share data. These systems would focus to increase administrative productivity, reduce faculty workload and provide data for better analytics and additional positive exposure for research outcomes. *A solution has been selected and AITS will contribute technical and project management staff to the successful outcome of the multi-year Research Administration implementation project.*
- Expand the implementation of research collaboration services such as Digital Measures and Harvard Profiles. *This initiative will be pursued in FY 14 and FY 15.*

Implement improvements to service desk functionality to provide customer service in the most efficient manner for the user.

- Implement the upgrade of service desk software to the most current version enhancing functionality and support. *This initiative was completed during Quarter 4 of FY13.*
- Develop and implement a front-end for the service desk product to improve user selfservice functionality. This project is approved to begin January 2014. Other efforts for an external knowledgebase are being discussed and may fit the solution for this initiative. Further analysis of these efforts will be done over the next few months to determine if the direction of the initiative needs to change. External knowledgebase is being piloted by the Service Desk steering team.

#### Improve where feasible the sharing of data between university and affiliated organizations.

- Participate with the University of Illinois Foundation and Alumni Association on the Advanced Technology Upgrade Initiative. *The main RFP process has been completed and AITS involvement will continue during the pre-implementation and implementation projects. Status meetings have been setup to see where AITS resources can assist the AI project.*
- Implement improvements to Board of Trustees public communication channels. *This initiative will be investigated in FY 15.*
- Implement a tool to digitize BOT meeting materials and archives. This tool was implemented in FY 13. The service was requested to be renewed for FY 14. The Secretary of Board of Trustees (BOT) will convey feedback/issues as they continue to use the new functionality.

#### Infrastructure

The University 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. The University will strive to provide a reliable world class high-performance network infrastructure to all campus buildings that allows for all users to access needed resources. The infrastructure should support the needs of both wired and wireless users for faculty, staff, students and guests.

#### Provide reliable, high performance network services.

- Provide seamless wireless access for University Administration constituents including infrastructure, usability, customer service, and printing. *AITS has provided funds to a pool for the wireless infrastructure. AITS is implementing this service within some of its own locations and is currently waiting for this initiative to become a priority at the other campuses.*
- Understand and strategize replacement of the M9000 in 2015. The vendor has agreed to support the M9000 through FY 17. Currently, AITS is performing research and assembling scenarios with the goal of providing services that are faster, but cost less.

#### Provide comprehensive Identity and Access Management architecture and services for the University to provide a cornerstone solution to manage the creation, maintenance, and use of digital identities.

• Implement the Identity and Access Management Project. The goal of this project is to implement an IAM solution to address the University of Illinois need to manage Identity and

Access issues. Components of the implementation will include:

- Single sign-on
- Provisioning
- Authorizations
- Affiliation
- Business Intelligence
- Authentication
- Federation

AITS is providing resources and actively managing this project under ITPC-0375.

## Provide mobile strategy that meets the vision of the infrastructure and overall strategic plan.

- Implement a mobile framework for native and mobile web applications. *AITS implemented a mobile framework in FY 13 and successfully launched an application using that framework. A web page documenting this framework is available at:* <u>http://web.uillinois.edu/aits mobile application strategy</u>
- Develop and implement mobile business intelligence services. This initiative will be pursued in FY 14 and FY 15. The infrastructure to support mobile business intelligence services is under construction and mobile reports have been deployed in a test environment.

# Provide unified communications services (email/calendar/voice) to the University Administration community.

- Support unified communications (UC) hardware and infrastructure. The work for this initiative is mostly complete. AITS is finishing the remaining work of migrating file servers to the U of I domain in FY 15. In addition, additional training and migration assistance will be provided in FY 14 and FY 15.
- Continue support of UC implementation across University Administration. *AITS'* role to assist with the migration of the infrastructure is complete. Additional effort in FY 14 includes defining additional policy and procedures for providing services to UA staff at other campus and handling special cases.

#### **IT Human Resources**

People are the University's most important asset. Those that support information technology provide front-line support to students, faculty and staff and are responsible for the day-to-day IT operations at the University. They are also responsible for fulfilling the strategic goals and initiatives as outlined in this plan. Our staff is invested in the mission of the University and AITS's success. To that end, they proactively network with their colleagues to exchange ideas/methodologies and leverage expertise. AITS's human resource plan will balance successful achievement of organizational goals with the development of employees.

In FY14, AITS will create the initial draft of a human capital plan that links to both unit strategic plans and the university human capital plan. AITS' plan will outline objectives, performance measures, and timelines associated with the program goals and planned phases of the multi-year human capital planning project. In FY13, human capital goals were defined and planning phases identified. The strategic initiatives enumerated in the IT Human Resources section of this document have all been categorized (employee development, partnering, organization, social), defined by the coordination team, and initial next steps identified for future implementation. All will all be assessed, prioritized, and addressed in AITS' overarching human capital plan. Where there is specific progress to report, it is noted with the initiative. An initiative to seek employee feedback will begin in Q2 FY14, and results will be incorporated for prioritization with the initiatives below.

#### AITS Human Capital Goals

- 1. Recruit, hire, develop, and retain a diverse, highly skilled workforce capable of enabling AITS to carry out its mission.
- 2. Implement a performance management system that links to organizational goals and effectively helps AITS plan, monitor, develop, and reward employee performance.
- 3. Ensure leaders and managers effectively manage people, maintain continuity of leadership (succession), and provide a means to share critical knowledge (knowledge management).

The human capital plan will be implemented in phases over time (beginning in FY13). The phases of the plan are:

- PHASE I: Planning strategic alignment/plan development (Q4 FY13 Q2 FY14)
- PHASE II: Solicit employee feedback and develop implementation plan (Q2 FY14 Q4 FY14)
- PHASE III: Implementation/Accountability/Evaluation/Feedback (ongoing, beginning in FY13)

#### AITS will create and sustain a culture of responsiveness and mobility.

- Redeploy resources whenever and wherever there's priority work that needs doing. *A* mechanism currently exists for determining capacity beyond projects in AITS, but future discussions will be held with Leadership Team to identify whether we should change how we're doing capacity planning and associated resource deployment to improve our agility in deploying resources to meet needs.
- Create responsiveness and mobility through integrated people management practices. *Put* strategies in place to effectively source, manage, and develop employees to meet the needs of the organization quickly, even in the face of rapid change. In FY14, leadership team will continue discussions regarding where needs are anticipated, and employee feedback data will be used to better understand and identify where cross training exists and what training is needed. A plan will be developed over time to provide cross training opportunities and to plan for succession to reduce single points of failure where they can be anticipated.

## Provide appropriate professional development to staff to expand technical skillsets and leadership qualities.

- Provide opportunities for ongoing skills development and enhancement. A Lynda.com marketing campaign will be kicked off in Q1 FY14. An employee opinion initiative will be kicked off in Q2 FY14, and input regarding professional development will be sought.
- Provide leadership training opportunities for IT professionals. *AITS has committed to providing leadership training opportunities for IT professionals. In FY13, employees were nominated and selected for such programs as ITLP, ITLW, and a manager development pilot.*
- Assess IT professional satisfaction and develop actions based on feedback. *The initial pilot group of the employee feedback initiative will kick off late in Q1 FY14, and the goal is to reach out to 75-100 employees by the end of Q2 FY14 (calendar year end).*
- Explore an employee exchange program including intercampus assignments to improve our understanding of campus/college culture/dynamics/politics. *Employee exchange programs are already in place in AITS (e.g., IAM project reallocation of both internal AITS staff and CITES staff; DS employee loaned to Human Capital initiative). The program will continue to be developed over the next*

fiscal year based upon needs and employee/leadership feedback.

- Provide support to employees furthering academic pursuits:
  - Partial financial support for self-supporting programs. *AITS has provided ongoing tuition assistance to employees participating in self-supporting programs.*
  - Flexible work schedules to attend or teach classes. *AITS employees are encouraged to further their education, and many employees received advanced degrees in the past fiscal year. Additionally, AITS has staff members who are teaching classes*
  - $\circ \quad \text{Assignments related to field of study.}$
- Develop and offer a professional development course for all employees to improve our understanding of campus/college structure/culture/dynamics/politics/IT governance. *AITS will explore this further with employee feedback initiative and prioritize according; if identified as a priority, the implementation team will conduct a gap analysis to identify what already exists and what is desired, and work with ER/HR to develop a new course.*

# AITS encourages a working environment in which staff are fully invested in the mission of the University and success of AITS, setting the tone for high morale.

- Provide frequent communication with staff. *AITS* holds quarterly business meetings, an annual face-to-face meeting, management group meetings and leadership team meetings for which agendas are published. Responsibilities of the management and leadership teams have been documented and communication (and posted on SharePoint). PMO provides periodic information regarding in-flight priorities. Further activities in this area for FY14include seeking feedback from employees regarding communication and evaluating what types of information are shared at various levels of the organization and identifying areas for increased communication.
- Provide challenging & meaningful work and provide opportunities for advancement. *AITS* provides opportunities for its employees to engage in challenging and meaningful work. In FY13, AITS committed to using the recently developed online University Administration performance appraisal form for performance management and goal/professional development tool. In FY14, AITS will continue utilizing this tool and take action to implement employee development goals. Additionally, AITS will review employee feedback and prioritize actions to take in this area.
- Promote health and well-being through demonstrated commitment to work life alignment. *AITS allows for telecommuting, flexible work schedules, and casual dress. In FY14, AITS will review employee feedback to continue to define the desired culture of AITS.*
- Provide a clear vision and regular, balanced feedback. *AITS is making use of the new University Administration electronic performance appraisal system, and AITS has committed to providing more collaborative and continuous feedback. In FY13, guidelines documents for both employees and supervisors to improve the performance appraisal experience were created and distributed, employees were encouraged to attend the UA-sponsored training, the forms associated with the annual performance appraisal process were posted to SharePoint.*
- Social committee: Plan activities that will bring staff together for fun. *AITS has an active social committee that regularly plans and hosts staff activities.* FY13 activities included such activities as summer picnic, bake sales, holiday luncheon, Halloween dress-up contest and chili cook-off, and spring egg hunt. Social committee also purchased a microwave for staff use. Also in FY13, a member of the coordination team attended a social committee meeting to encourage the committee to: (1) seek volunteers from outside the committee to assist with events, (2) communicate how employees are added to the social distribution list, and (3) define volunteer commitment timeframe.
- Compensation review against University / market salary data, identify beyond-pay methods

to incentivize employees, and strive to be named by our employees as a GREAT place to work. The employee feedback initiative will begin in Q2 FY14, with recognition and beyond-pay incentives included as feedback areas. Glassdoor, an online jobs and career community where people share information and opinions about their places of employment just put out a report providing its third annual list of the Top 25 Universities to Work For. The University of Illinois at Urbana-Champaign ranks 21, with a rating of 4.1 out of 5.0 (University of Illinois Chicago received a 3.6/5.0 rating).

- Provide leadership training opportunities. *AITS has committed to providing leadership training opportunities for IT professionals. In FY13, employees were nominated and selected for such programs as ITLP, ITLW, and a manager development pilot. Information regarding other leadership training needs will be explored as part of the employee feedback initiative occurring in FY14.*
- Provide access to mentoring and coaching. While mentoring and coaching is widely used throughout AITS, there isn't currently a formal program. To encourage the practice and provide enhanced access, the implementation team will work with the management team to make employees aware of available mentoring and coaching opportunities.
- Provide all AITS staff with opportunities for skills development and enhancement. Lynda.com is a university-procured training solution available for all staff use, and it offers a variety of quality training courses that employees can take at their convenience to build skills. Additionally, in FY13/14 AITS has incorporated professional development as a specific goal area in the performance appraisal/feedback process.
- Maintain a commitment to employees' safety. The working group defined safety as including physical, emotional well-being, and a healthy lifestyle. In FY13, Building Emergency Action Plans (BEAPs) were completed for AITS facilities, and periodic tests will be conducted. In Q2 FY14, AITS will convene a working group to develop and communicate AITS' plan for the smoke-free campus initiative.

#### AITS will provide an environment that facilitates communication and collaboration.

- Encourage exchange of information at all levels of the organization. *Implementation of additional communication mechanisms including the weekly Sentinel, in-flight priorities, AITS newsletter, and a public website overhaul, occurred in FY13.*
- Encourage cross department/unit/campus IT collaboration/encourage IT professionals to participate in networking opportunities. *AITS employees are encouraged to participate in networking opportunities such as:* 
  - ITPF IT Professionals Forum
  - IT Caffeine Break
  - o IT Alliance
  - Midwest EDUCAUSE, MS Tech, EDUCAUSE, SCUP, CIC, HEDW, TDWI, etc.

AITS employees participate in logistics planning for many of these opportunities, and all staff are encouraged to collaborate with their peers and submit presentations and/or poster sessions in their areas of expertise.

- Perform an analysis of AITS internal processes with a goal of proposing and implementing improvements. Analysis should focus on areas such as:
  - o Internal communication
  - Duplication of effort
  - Different priorities
  - Different processes

- Educating on what we do and collaborate on common practices and processes
- Recognizing areas of overlap
- o Improve workflows and business process analysis

The BPI team surveyed internal process topics in Q1 FY 14. Targeted projects will be selected in Q2 FY 14, and execution will begin in Q3 FY 14.

Continuously align human resources around ongoing/emerging work and strategic priorities.

- Assess organizational structure against organizational priorities. Shift employees to where they're needed when they're needed. *In FY13, changes were made to key Leadership Team positions and projects in AITS to ensure resources are aligned where needed to meet organizational priorities.*
- Clearly and consistently communicate priorities and objectives to staff to focus on identifying resource imbalances and making informed trade-off decisions between goals/initiatives. In FY13, additional communication mechanisms (stated previously in this section) were implemented. AITS conducts periodic review/discussion of resource imbalances, priorities, and goals/initiatives occur at the leadership and management team levels.
- Match people with interests so they can grow in the department. *Efforts to gather additional information in this area will begin in FY14 with the employee feedback initiative.*
- Make continuous alignment an organizational competency. In FY14, AITS will begin building our capabilities in this area and continuing practices that are moving us forward in a positive direction. Achieving continuous alignment as an organizational competency will be an ongoing initiative.

### Institutional Data and Information

There are a number of different types of administrative data at the University. These data and information must be organized, formatted, and stored in a manner that makes them accessible where needed via the appropriate services or interfaces required to make them useful for different purposes. Decision makers and other information consumers at all levels of the University will have timely access to consistent, reliable, information that is relevant for their operations, analysis, and management needs. AITS both supports these needs directly, and provides infrastructure to enable information producers in other offices to produce their own information solutions. Wherever possible, we work in partnership with other central offices to provide information consumers with a seamless set of products and services to meet their information needs.

# Continuously improve operational excellence in Business Intelligence and Data Warehousing.

- On an annual basis, perform a high-level assessment of each of our core ongoing operational processes. *In FY 13, AITS completed the first BI/DW operations assessment. Plans for FY 14 include another assessment of core operations related to Business Intelligence and Data Warehousing.*
- For each fiscal year, identify one to three operational processes to focus on, and specific improvement goals for each. *As a result of the FY 13 assessment, three areas were identified and are being addressed:* 
  - Security provisioning processes
  - Communications

#### • BI/DW development lifecycle

- For FY 13, revamp our communications approach to meet the greater demands expected for our Business Objects upgrade and report conversion. *During FY13, AITS prepared for and provided increased communications with departments for the Business Objects upgrade and conversion projects.*
- Deliver targeted and pervasive information by operationalizing new BI technologies ourselves, and making them available to other information producers. *In FY 13 AITS created prototypes for several dashboard solutions. In addition, an effort was started to create a dashboard for the Office of Capital Programs, which will be completed in FY 14. Also, continued work on the Business Objects 4.0 upgrade program focusing on standard report conversion and training and supporting customers with their ad hoc reports.*
- Establish the needed technical infrastructure for the following new BI technologies (in priority order): Web Intelligence, Crystal Reports, Dashboard Designer, Tableau, Mobile deployment of reports and dashboards, Explorer, and Voyager. *The work for this initiative is being managed through the Next Generation Business Intelligence Project (ITPC-0433). In addition, AITS purchased the necessary infrastructure for a Business Intelligence Dashboard service.*
- Assess deployed technologies for ongoing scalability and address as needed. *AITS expects to begin work on this initiative in FY 15.*
- Determine and establish support models for new technologies and expanding existing services (e.g. local Business Objects Universes). *The work for this initiative is being managed through the Next Generation Business Intelligence Project (ITPC-0433). Part of this project will include determining and establishing a support model as well as investigating an expansion of existing services.*
- Assist customers in converting Desktop Intelligence reports to Web Intelligence (or other tools as appropriate). *This work will be will be submitted as an ITPC project request in FY 14.*
- Build internal expertise in administering and using the tools. The work for this initiative is being managed through the Business Objects XI 4 upgrade program. Part of this program will include conducting research and development into new tools and working through the initial configuration and setup.

## Make the Data Warehouse environment a more comprehensive source of administrative data by extending it to include Local and Institutional Data.

- Continue to extend the Data Warehouse environment by including data from other enterprise systems (via ITPC projects). *AITS completed the following data acquisition projects during FY13:* 
  - ITPC-0403 PRMS Data Acquisition
  - o ITPC-0405 Archibus
  - o ITPC-0411 Unicenter Data Acquisition
  - o ITPC-0425 Institutional Data Collections Infrastructure and Pilot
- Complete the Institutional Data Collections project and work with partners to identify additional data sets to publish, using Institutional Standard Answers as the driver where appropriate. In FY 13, AITS completed a project for UIS. This project was the first to publish a customer's local dataset in warehouse environment. Currently, there is a finance distribution project in the discovery phase, which will set the standards for future projects.

Improve the ease of use, understandability, and appropriate use of enterprise data by overhauling the Data Warehouse metadata.

- Assess our current metadata and identify goals for improving understandability and ease of use. A taskforce has selected a pilot system for assessing customer needs and determining the best approach for improving understandability and ease of use. Work will continue throughout FY 14.
- Determine approach for helping information consumers and producers identify the best way to get data for a given need. A taskforce has selected a pilot system for assessing customer needs and determining the best approach for improving understandability and ease of use. Work will continue throughout FY 14.

#### Support Institutional Standard Answers (Targeted, Pervasive, Collaborative).

- Promote the idea of addressing standard reports more systematically with customers, partners, and stakeholders to build buy-in and establish what challenges need to be addressed. The Business Intelligence and Performance Management subcommittee created a standard report recommendation to guide the future of standard reports at the University. The finance area initiated the finance reports review ITPC project (ITPC-0443) to undertake a more in-depth review of all finance reports to identify gaps and overlaps within the reports. AITS expects to make progress on this initiative in FY 14 and FY 15.
- Establish support structures, both technology and organizational, to enable a more systematic approach. *AITS has started initial discussions on this topic and work will begin in FY 14.*

#### Establish a common BI Delivery infrastructure.

- Conduct R&D to determine how to deliver AITS information solutions through the new 4.0 version of Business Objects InfoView. *This initiative is in progress. Further research and development will take place as part of the analysis project for the Business Objects 4.x upgrade.*
- As needed, conduct R&D and determine how to deliver information solutions that use AITSprovided tools and infrastructure through the central portal(s). *This initiative is in progress with two upcoming activities: a finance dashboard interface for an ITPC project, and a dashboard for the Principal Investigator Portal for the Kuali Coeus project.*

#### **Collaboration and Communication Services**

Students, faculty, and staff communicate in increasingly rich and sophisticated ways in order to collaborate with one another, to expand the reach and impact of our efforts, and to promote the University and its programs. As the pace of change grows and through a new kind of relationship with IT, the University will be able to leverage the interest and excitement of students, faculty and staff in making use of the latest technologies.

#### Offer scholarly support services for administrative data as it relates to faculty.

• Analyze the effectiveness of the Harvard Profiles tool and evaluate the ability to leverage for other purposes/disciplines. *As the Urbana campus has chosen another solution, AITS will work with the original sponsor and be prepared to respond to additional requests.* 

Provide business relationship/development management services to improve relations with constituents. (CRM).

- Implement the IT Advocate program to better coordinate and serve constituent needs. The IT advocacy program has been established and is in operating mode. IT Advocates meet quarterly with each unit's representative to discuss any IT issues or needs that may be satisfied by AITS services and personnel. In FY 14, the program will seek to engage partners to identify their functional priorities and strategize how AITS services can be deployed to help support those priorities.
- Complete and publish a communication plan including publications, media, schedule and constituents served. *AITS will develop this communication plan in FY 14.*
- Recreate the AITS website to provide a one-stop shopping for services, standards, processes, pricing, policies, news, assistance, and contacts both internally and externally. *A new website project is in progress with a target completion date of September 2013.*
- Partner with the University of Illinois Foundation and University of Illinois Alumni Association to ensure advancement systems are well integrated with other systems at the University. The main RFP process has been completed and AITS involvement will continue during the pre-implementation and implementation projects. Status meetings have been set up to see where AITS resources can assist the AI project.
- Actively solicit performance feedback from constituents and transparently address areas of concern. *AITS will develop a plan for this in Q2 FY 14.*
- Provide improved training to new employees, faculty and students regarding the IT services available and support pathways. *A new AITS public website, scheduled for implementation Q1 FY14, will provide support pathways for training and IT services information to employees, faculty, and students.*

#### Offer effective online collaboration environments for a wide variety of purposes.

- Implement the SharePoint Shared Service. The service for this initiative was implemented in FY 13. AITS will develop an additional service support policy and procedure for long term maintenance. In addition, training plans and an OLA will be created in FY 14. AITS is currently investigating options for providing the additional resources needed to complete the final phase of the service implementation.
- Provide a collaboration space for cross-organization development work. In FY 13, AITS participated with various campus departments and colleges through collaborations such as Community Source, Web@Illinois, and Core Services for ARR. A common initiative from all of these efforts is the need to build a web services registry as well as a common repository for applications, messages, and community source development initiatives. AITS intends to provide hosting services in support of these efforts.
- Support enterprise-level efforts towards common collaboration platforms. *Work for this initiative has not been assigned and further details will be determined in conjunction with the collaboration space efforts mentioned above*
- Implement the Gartner iPad application. *The main goal of this initiative has been completed.*
- Implement video conferencing services that will be broadly available to University Administration. The main goal of this initiative has been completed. Additional training and improvements to documentation will be provided in FY 14. Further details will be determined in upcoming months.
- Improve video conferencing in the president's conference rooms. *This initiative has been*

#### completed.

Collaborate with other IT groups across the university to provided new and improved services.

- Develop a new systems status page for managing communications regarding system status. *The work for this initiative is in progress. Version 1 of the systems status page is available, and future versions are planned for FY 14.*
- Continue Kuali implementation for business continuity/disaster recovery services. The work for this initiative is in progress and is a multi-campus effort. UA's and UIC's business continuity plan are already stored in this software, UIUC is in progress and UIS has begun the process. A quarterly meeting is held to keep everyone updated on statuses and on the product.
- Implement an endpoint management solution to maintain traditional desktops. *The work for this initiative is in progress. SCCM will be used to manage Dell assets while IBM Endpoint Management (IEM) will be used to manage the Macintosh assets. As of July 2013, 85% of UA Dell desktops are being managed by SCCM.*
- Provide infrastructure for virtual desktop and thin clients. This initiative has been implemented and has been operational for two years. AITS is researching target applications that will increase subscription. Additional policy and procedure development tasks will be assigned in upcoming months.
- Expand deployment of the RightFax solution to expand its reach to University of Illinois business units wishing to move away from existing faxing machines and required telecommunications. *AITS has completed their part of this initiative and CITES has taken over supporting the service. During FY 13, over 60,000 faxes have been sent through this service.*
- Implement a training management system to be utilized for training and tracking staff, students, and faculty for job-related development and certification purposes. *An ITPC analysis project has been approved and is scheduled to begin in the near future. This analysis will specify a system that will decrease the number of applications providing this service from 6 down to 1.*
- Provide infrastructure for systems that allow the public to interact with University resources (Camp Registration System). *AITS will respond to requests for use of this system as well as investigate options to expand its use.*
- Provide Shared Data Center Services across all three campuses. *This initiative is in progress. AITS participates on the Urbana Shared Services operational committee as well as provides funding.*
- Analyze and develop a support and ownership model for all shared services. Where new resources are required for AITS, identify the source of new resources or the associated tradeoff with current services. *AITS will develop support templates based on shared service implementations over the past several years that can be applied in future situations. Initial drafts will be completed in Q2 FY 14.*
- Implement a solution or an interface to integrate Banner with various learning management systems. This integration is used to simplify the management of class registration and grades between the various systems. *A learning management system project, ITPC-0353 LMS Banner Integration, has been submitted and was approved. Ellucian has not implemented the Grade Import functionality in their Integration package at this time. As this is required functionality, the campuses have decided to wait until it is available before proceeding with the project.*
- Provide enterprise Quality Assurance services for software development organizations. Departments could leverage enterprise class tools and experienced resources to provide

independent Quality Assurance practices such as vulnerability scans, load and performance testing, usability testing, accessibility testing, and automated functional and regression testing. *This initiative is in progress. Metrics for assessing and improving this service will be defined and implemented in FY 14.* 

- Implement a portal to simplify access to various applications (internal and external). This portal will provide:
  - o Organization of the most common links and applications used at the University
  - Personalization based on roles and affiliations
  - Customization abilities for end users
  - Decentralized control of content authoring and targeted announcements
  - uPortal has been implemented, and is being used by UIC. Luminis implementation is in progress.
- Maximize the utilization of our existing space. *AITS will establish a review/implementation team and work will begin in FY 14.*
- Implement and support the disclosure portal. This initiative is being addressed as part of the Research Support Services project. The disclosure portal is scheduled for the first phase of this project.

## **Financial Stewardship**

The University needs to realize the most value for its IT investment. Information technology is utilized to create efficiencies in business processes by automating operational functions. IT is also utilized to provide business intelligence to help us analyze performance and inform decision-making. An important aspect of utilizing IT is determining how we fund IT and understand how we spend our IT dollars.

#### Examine and improve the funding model for AITS.

- Use existing tools to better understand AITS spending. *AITS formed an implementation team which develops and shares monthly reports with the details of AITS budget and spending. In addition, this information is communicated during the AITS business meetings.*
- Utilize IT portfolio management to better understand, allocate, and report on IT resource usage and project and service performance. *AITS will investigate Clarity PPM features in Q2 FY 14. A complete implementation plan will be available in Q3 FY 14.*

#### Utilize our IT in the most energy-efficient manner to minimize energy costs when possible. Leverage IT services to facilitate energy conservation in other operations.

- Implement End Point management solutions to remotely manage end user power consumption when possible. *The work for this initiative is in progress. SCCM will be used to manage Dell assets while IBM Endpoint Management (IEM) will be used to manage the Macintosh assets. As of July 2013, 85% of UA Dell desktops are being managed by SCCM.*
- Pursue paperless initiatives via process improvement, workflow applications, and alternate print elimination strategies. *AITS will perform an audit of past projects and amend the review process to highlight those that will reduce paper use.*
- Consolidate data centers where appropriate to reduce space and power consumption. *AITS actively looks for opportunities to consolidate data centers.*
- Implement thin client services to allow for utilization of lower power desktop machines for

users while providing for all required functionality. *This initiative has been implemented and is in its evaluation stage. Additional policy and procedure work will be assigned in upcoming months.* 

## Look for opportunities where outsourcing or insourcing reduces cost, reduces risk, increases customer services/satisfaction.

- Implement enterprise level cloud solutions that anyone at the University can utilize. *Work for this initiative has not been started. Detailed tasks will be assigned in the upcoming months.*
- Analyze opportunities to utilize virtual servers / infrastructure / SAAS / platform as a service. This initiative has been implemented as a process within the AITS Server teams. Servers are vetted a year in advance from their end of life date.
- Improve vulnerability scanning of data center systems Participate in the NCSA pilot of Qualys scanning to augment the existing Nessus scanning capability. Evaluate the vulnerability mitigation tracking capability to determine long-term viability. *A new vulnerability scanning system has been purchased. AITS expects to implement this system in FY 14.*
- Partner with other organizations to investigate offering shared services to the university community that are cost-effective. *AITS continually looks for opportunities to collaborate with campuses and colleges on shared services and will continue to do so on an ongoing basis.*

#### **IT Governance**

It's vital that IT investment choices be guided by stakeholders, support enterprise strategies, and ensure the most important items receive the highest priority. IT governance (ITG) promotes the intelligent use of resources, providing a shared, rational, and transparent framework for the selection and prioritization of IT investments. ITG processes exist at all university campuses and within university administration. These processes will continue to evolve and leverage one another in order to influence IT strategy and resource investment at the University. Effective ITG processes will help foster a positive and trusted partnership with the institution's stakeholders to collaborate on achieving the institution's strategic plan through the use of IT resources. A core tenet of ITG is the transparency it can bring. It will provide a process to coordinate with the institution's stakeholders to prioritize efforts most likely to achieve the desired benefit and tactically deliver value through the effective and efficient allocation of resources towards those efforts

#### Participate in IT governance processes that support the University.

- On an ongoing basis, provide to all IT governance committees an overview of what AITS is doing including ITPC Status and the AITS Strategic Plan. *The AITS Monthly Status artifact was implemented in May 2013 and is archived on the AITS and CIO websites. Recurring communication has begun.*
- Participate on the University Technology Management Team and its subcommittees including the Security, Business Intelligence/ Performance Management, and Common Architectural Vision committees. *AITS actively participates in UTMT and all subcommittees. Current AITS committee members include Michael Hites (UTMT), Amin Kassem (CAV), Aaron Walz (BI/PM), Mike Corn (Security).*
- Continue participation with the UIC IT Governance committees. *AITS actively participates in the UIC IT Governance process and all subcommittees. Current AITS committee members include IT*

Governance Council: Michael Hites; Administration Committee: Kelly Block, Dick Harris, Michael Hites, Jeanie Thomas, Aaron Walz; Infrastructure and Security Committee: Chris Barton, Michael Hites; Education Committee: Michael Hites; Research Committee: Michael Hites.

- Continue participation with the UIS IT Governance committees. *AITS participates on an as needed or as requested basis with UIS IT Governance and maintains ongoing relationships with members of the UIS IT Governance community.*
- Continue participation with the UIUC IT Governance committees. *AITS actively participates in the UIUC IT Governance process. Current AITS committee members include IT Governance Executive Committee: Michael Hites.*
- Work with the UA IT Council on an ongoing basis to collaborate with our UA partners. *AITS actively participates in the UA IT Council. The council meets quarterly and is chaired by Susan Flanagin.*
- Evolve the UA IT Governance processes to ensure that all project work has a defined path for review, approval, and resourcing. *AITS PMO will perform this analysis in FY 14 and implement improvements if necessary.*

#### Refine the strategic IT planning process for AITS.

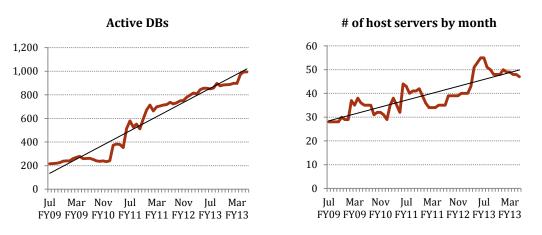
- Utilize the University of Illinois Strategic IT Planning Framework to develop a new strategic plan for AITS. *The strategic plan is complete.*
- Develop and implement a plan for tracking progress towards the AITS strategic plan. Development of a standard process for tracking progress is in development and expected to be complete in the first quarter of FY 14.

## **Performance Metrics**

AITS has been collecting various performance measures and metrics for many years. In FY 09, AITS bolstered comprehensive metric generation and collection across the organization and a standalone AITS Metrics Report is available separately. This section of the progress report highlights selected representative items from that report. The complete FY 13 AITS Metrics Report is available on the AITS website.

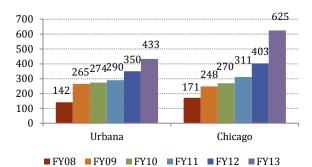
**Customer Feedback for Production Support and Work Requests:** ADSD consistently receives customer satisfaction scores between Good and Excellent in monthly surveys of our customers.

Active Databases and Database Servers: Active databases supported by AITS ADSD Data Management increased from 856 databases in FY 12 to 994 databases in FY 13. The number of host servers decreased from 55 database servers in FY 12 to 47 in FY 13. This decrease in host servers is indicative of cost saving measures by setting up Database Clusters. The number of databases continues to grow as we take on more and more Microsoft SQL Server support from other departments. The number of databases per DBA now stands at 142; two years ago it was 89. We have taken on more databases and did not replace a staff member that retired. We continue to do more with less by automating our processes and cross-training.



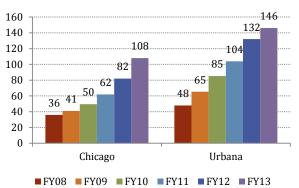
**Quantity of Data**: The volume of production and development environment data stored in AITS maintained databases increased from 33.6 TB in FY 12 to 53.2 TB in FY 13. The increase is due to the number of concurrent projects that required full-sized copies of the Banner and EDW databases which continue to grow annually. However by utilizing SNAP technology we are still only consuming half that amount in actual disk space.

**Allocated Storage Capacity**: Total Backup and Vaulted Storage increased from 753 TB (combined storage at both locations) in FY 12 to 1,058 TB in FY 13. Allocated Configured Storage Capacity increased from 214 TB in FY 12 to 254 TB in FY 13.



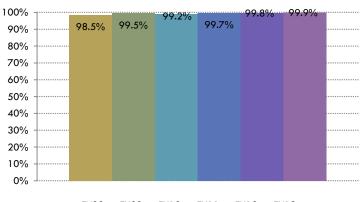
Backup storage by data center by fiscal year in TBs

Allocated configured capacity in TBs



**Security Service Desk Tickets Closed:** The volume of security service desk tickets closed by AITS Security Administration decreased from 2,373 tickets closed in FY 12 to 1,698 tickets closed in FY 13. The high levels of tickets in FY 12 were due to changes to access for UIC iBuy users and the implementation of TEM.

**Availability of Banner Self-Service:** This availability measurement includes Banner Self Service and the systems and services upon which it depends, such as: apps.uillinois.edu site, EAS, brokers, Banner database, the network, the campus backbone, and application servers. Total availability for FY 13 was 98.89%. Availability excluding planned outages was 99.9%, meaning that unplanned unavailability of these systems was 9.8 hours for the year. These 9.8 hours include issues such as power outages, system outages, and infrastructure problems.

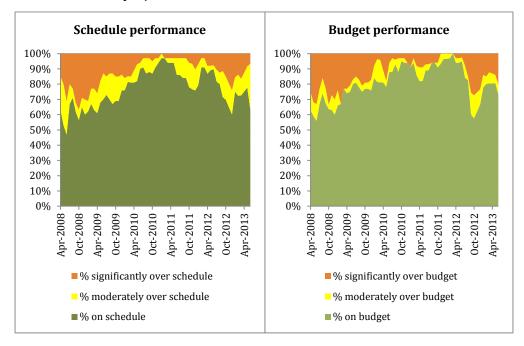


Banner Self Service availability by fiscal year excluding planned outages

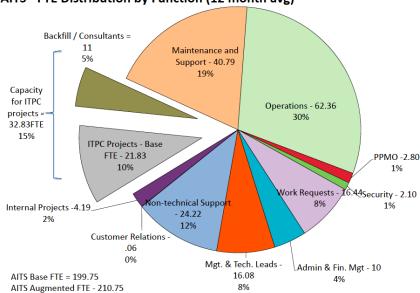
■ FY08 ■ FY09 ■ FY10 ■ FY11 ■ FY12 ■ FY13

**Total Change Requests (CRs) Submitted:** The volume of CRs submitted for deployment increased slightly from 1,769 requests in FY 12 to 1,850 requests in FY 13.

**Project Performance**: Project performance against budget and schedule improved over FY 12 averages for AITS-led ITPC projects.



**Projected AITS Project Capacity for FY 14**: The following chart provides an overview of AITS discretionary project resource availability for the coming fiscal year. AITS' approximate base capacity for projects is 21.83 FTE. AITS's approximate augmented capacity for projects (capacity including backfill and contractors) is 32.83 FTE. These figures are as of July 1, 2013.



AITS - FTE Distribution by Function (12 month avg)

## **Additional Information**

#### Websites

Detailed information is available on AITS and its services and interactions at the University on several convenient websites:

AITS: <u>www.aits.uillinois.edu</u>

AITS Reports including Annual Progress Report, Strategic Plan, and Annual Metrics Report: http://www.aits.uillinois.edu/reference library/aits organizational reports and presentations/

ITPC: <u>www.itpc.uillinois.edu</u>

UTMT: <u>www.utmt.uillinois.edu</u>

UA CIO: www.cio.uillinois.edu

## **IT Service Catalog**

For a full description of the following services that AITS provides, please visit our IT Service Catalog <u>http://www.aits.uillinois.edu/services</u>

- Application Development
- Application Support
- Authentication and Authorization Services
- Backup Management
- Business Process Improvement Shared
  Services
- Change Management Service
- Database Services
- Desktop Support
- Directory Services
- Distributed Hosting
- Document Management
- Email and Calendaring
- Enterprise Application Integration

- Enterprise Batch Scheduling
- Firewall Service
- Information Security Consulting and Support
- IT Portfolio Management
- Release Management
- Remote Access and VPN
- Risk Management and Business Continuity Services
- Service Desk Management
- Source Code Version Control
- Storage Management
- System Monitoring and Metrics Collection
- Web Content Management System (WCMS)