# Administrative Information Technology Services (AITS)

## Annual Progress Report - FY 2010

July 1, 2010

**UNIVERSITY OF ILLINOIS**

URBANA-CHAMPAIGN · CHICAGO · SPRINGFIELD

# AITS Annual Progress Report – FY 2010

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# Introduction

This report provides an overview of numerous initiatives and tasks that were completed by Administrative Information Technology Services (AITS) during the FY 10 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.

*Among the many accomplishments in FY 10 were:*

### Support the University of Illinois

AITS provides enterprise-level application services and information technology infrastructure for the University of Illinois.  In that capacity, AITS currently supports over 377 applications, 783 servers, 339TB of raw storage, 544TB of backup media, approximately 34,800 employees and 71,000 students across all three campuses.  In FY 10, AITS completed 39 projects, maintained Banner uptime at 99.2%, closed over 38,000 service desk tickets, and completed 31 weekend production rollouts.

### Migration of Enterprise AITS Services to Upgraded Hardware

AITS completed a major migration of AITS Enterprise Services to new more powerful, cost-effective and energy-efficient hardware in FY 10.  Additionally, AITS was able to combine the Banner 8 upgrade and the Banner hardware migration into one event, which significantly reduced deployment costs for both projects and eliminated the need for additional extended Banner outage.

### Major Banner ERP Upgrade

The University's ERP system, Banner, was upgraded to the next major release, version 8, in October 2009.  This included analyzing, modifying and testing internally developed applications and enterprise reports, running performance tests and functional and parallel testing, collaboration with SunGard to upgrade existing modifications, and synchronizing the ETL processes and the EDW.

### Reduction of SunGard Modification Maintenance Costs

AITS reduced the annual expediture for Banner modification maintenance costs by approximately $500,000 annually by employing a strategy to maintain these modifications internally.  The reduction in costs associated with this change will far outweigh the increased internal labor required for this support.


Comments, questions, and other feedback regarding this report are welcome at any time.


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# AITS Mission, Vision, and Values

## Mission and Vision

AITS supports the mission of the University, which is to "transform lives and serve society by educating, creating knowledge and putting knowledge to work on a large scale and with excellence". The following statements of mission, vision and values describe our purpose and guide our services to the University community.

### Mission statement
To be a source of competitive advantage and value for the University of Illinois by providing a wide range of information solutions and services to the University's campuses, operating units, and external stakeholders.

### Vision statement
We will be recognized and actively sought out as a strategic partner for the University of Illinois's campuses, operating units, and external stakeholders by providing a wide range of information solutions and services that are accessible, timely, accurate, and responsive to customer needs. Our diverse units will collaborate with each other, the campuses, other operating units, and external stakeholders to proactively identify opportunities and threats, mitigate risks, plan future initiatives, and solve problems. We will be known for our integrity and unyielding dedication to customer service.

## Values

Everything AITS does will be driven by a focus on results and the following values:

### People
People are our most important asset. We will recruit, develop, and retain highly skilled staff at all levels in our organization through a wide variety of professional development activities and opportunities. In everything we do, we strive to reinforce the value we place on people in our organization.

### Innovation
We reward innovation and creativity and support continuous learning through training and collaboration. We aspire to be an information technology leader and provide best practice technology solutions and services, balancing the critical need for operational stability with innovation and risk taking.

### Leadership
Using the resources available to us as individuals and as a department, we create ways for everyone to contribute to our objectives of anticipating customer needs, providing innovative, cost-effective and sustainable solutions, and delivering reliable systems and infrastructure.

### Transparency with Security
We will provide appropriate levels of both transparency and security in our activities. We recognize that these forces can be competing and we commit to balancing them when necessary. We will continually look for ways to enhance both, challenging old standards and common practices.

## Continuous Improvement

We demonstrate a continual effort to improve job-related knowledge, skills, and performance through both formal training and individual study with the overall intent of enhancing service to our customers. We identify and share lessons learned from both our successes and failures. We proactively seek and identify ways to improve personal and team performance.

## Safety

We will create and sustain a safe environment. This includes safety with regard to our stewardship of information and traditional elements of personal safety, as well as the ability to express ideas in a professional and appropriate manner, and in an environment of inclusivity.

## Accountability

We take responsibility for our individual works as well as the management and stewardship of the University information resources and other assets entrusted to our care.

## Integrity

We are forthcoming, truthful, ethical, and sincere in our words and actions. We keep our promises.

## Information

Information in all its forms is our currency and the source of underlying value we provide to the University. We view it as an asset to be verified, analyzed, disseminated, and protected appropriately. Information is built on a foundation of data but also includes context, interpretation, and focus. At its foundation, true information is organized around human roles, responsibilities and needs, not management of technology systems.

## Stewardship

We consider both the long-term well-being of the University and the short-term imperatives facing it in the decisions we make, the actions we take, and the advice we offer to other leaders across the University.

## Customer Satisfaction

We strive to provide the highest level of service possible to our customers based on their needs and our capabilities.
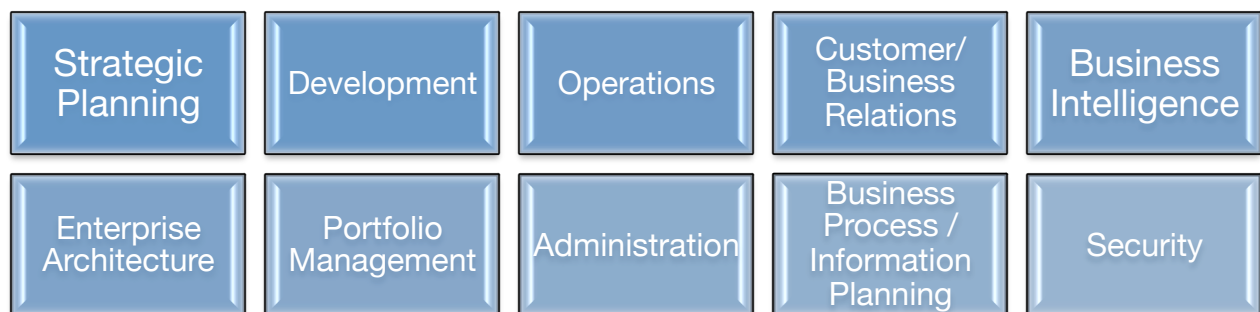
# AITS Organizational Structure

Administrative Information Technology Services (AITS) employs approximately 210 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.

AITS currently supports over 377 applications, 783 servers (in addition to 389 collocated), 339TB of raw storage, 544TB of backup media, approximately 34,800 employees and 71,000 students across all three campuses with their administrative information technology needs.

AITS's mission is to deliver appropriate, cost-effective information technology systems and services that support the administrative processes and strategic goals of the University and its various units; provide leadership on administrative information technology best-practices; and collaborate with the campus-based computing organizations on policies and standards that optimize and secure the University's administrative information technology resources.

## Core Functions

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

| | | | | |
|---|---|---|---|---|
| Strategic Planning | Development | Operations | Customer/ Business Relations | Business Intelligence |
| Enterprise Architecture | Portfolio Management | Administration | Business Process / Information Planning | Security |

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.  Among the major duties performed by these core functions:

AITS:
- Provides selection, implementation, and maintenance support for packaged and self-developed applications at the University of Illinois
- Creates and maintains internal and external interfaces for University enterprise applications
- Provides data management 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
- Provide primary support for the SunGard 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.

## 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)

### Financial Management
Financial management standards based on Generally Accepted Accounting Principles (GAAP)

### 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)

### Project Management
Project and portfolio management based on standards from the Project Management Institute (PMI)

### Service Management
Information Technology Service Management based on standards from the Information Technology Infrastructure Library (ITIL)
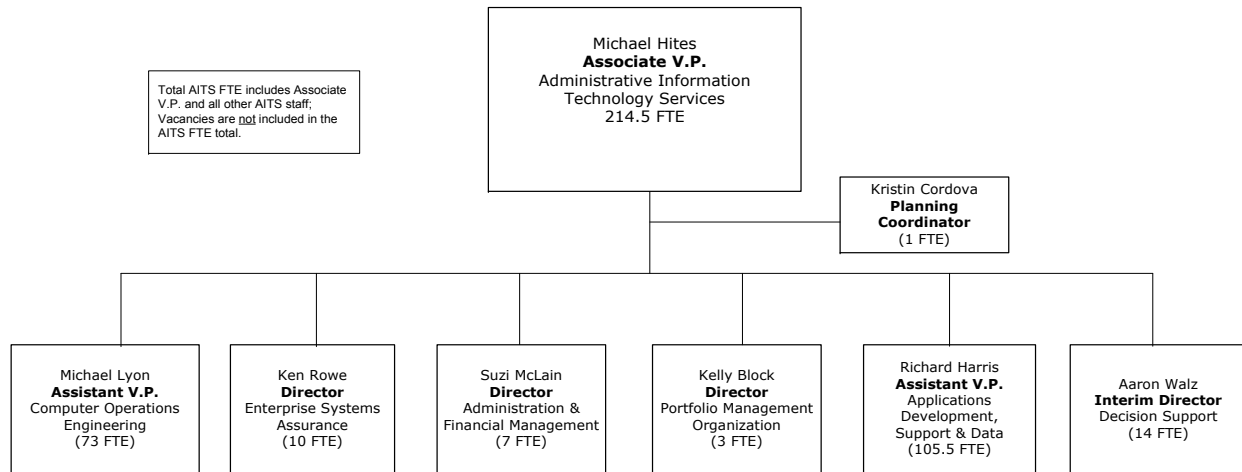
### IT Governance
IT Governance practices as recommended by the EDUCAUSE Center for Applied Research (ECAR) and Gartner

### Data Warehousing
Information management and delivery approaches and best practices from The Data Warehouse Institute (TDWI) and Higher Education Data Warehousing (HEDW) organizations

**ADMINISTRATIVE INFORMATION TECHNOLOGY SERVICES (AITS)**
**ORGANIZATIONAL STRUCTURE**

Total AITS FTE includes Associate V.P. and all other AITS staff; Vacancies are <u>not</u> included in the AITS FTE total.

Michael Hites
**Associate V.P.**
Administrative Information Technology Services
214.5 FTE

Kristin Cordova
**Planning Coordinator**
(1 FTE)

| Michael Lyon **Assistant V.P.** Computer Operations Engineering (73 FTE) | Ken Rowe **Director** Enterprise Systems Assurance (10 FTE) | Suzi McLain **Director** Administration & Financial Management (7 FTE) | Kelly Block **Director** Portfolio Management Organization (3 FTE) | Richard Harris **Assistant V.P.** Applications Development, Support & Data (105.5 FTE) | Aaron Walz **Interim Director** Decision Support (14 FTE) |

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

# Finance and Funding

While is it difficult to quantify the effects of funding over time, AITS has increased efficiency over the past 14 years. Between 1995 and 2008, the number of employees and students supported per AITS staff member increased from 370 to 580. Over that same period, funding has increased 7% while the funding per employee and student has decreased 4%. Also during this time, the Consumer Price Index (CPI) increased 46%. While this budgetary weakness has reduced agility, it has created significant efficiency in AITS.

Throughout the past 14 years, the state and institutional funding for AITS has remained relatively constant. The third component of funding, the self-supporting budget that is recovered from chargeback to other departments for services, has fluctuated considerably between zero and $5M, and is not shown in the graph (above). Over the past few years, the self-supporting funds have remained nearly constant at about $1M, and this is the intent for the future. The cost per supported person, that is the University's employees and students, has declined slightly since FY 96 in spite of a 46% increase in Consumer Price Index (CPI).

In contrast to the budget, the AITS staffing has continued to decline over the past decade, with the exception of an employment spike due to the UI Integrate project. This demonstrates that as the cost of technology components has continued to rise with the CPI over the years, for example hardware and software, AITS has offset these increases with staffing decreases. Specifically, maintenance costs have risen about 26% between FY 07 and FY 10. The end result is that AITS is much more efficient than it was 14 years ago; however, additional gains in efficiency will be increasing difficult to find.

# FY 10 Strategic Goals, Objectives and Results

## FY 10 Strategic Goals

The AITS strategic goals 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 goals, the strategic objectives in the next section serve as actionable broad and specific initiatives that AITS will pursue in order to fulfill these stated strategic goals. AITS's strategic goals for FY 10 were:

| | |
|---|---|
| Develop and expand our administrative IT system infrastructure to improve administrative business functions and facilitate access to enterprise data for our departmental partners. | Improve service delivery capabilities, enhance service delivery management, implement improved metrics to demonstrate results and promote organizational transparency, and create new and effective forums for customer communication. |
| Identify opportunities to implement best practices to ensure high value, cost effective administrative IT solutions for our customers. | Leverage talent and develop pools of synergy in order to increase workplace productivity and enhance its ability to deliver high quality solutions to address the administrative computing needs of the University of Illinois. |

# FY 10 Strategic Objectives

The AITS strategic objectives were created through discussions with our customers, and are refined by internal conversation within AITS.  Each objective 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.

## Use What We Own
Increase functionality of enterprise systems by specifically using more of Banner delivered functionality and eliminating as many costly modifications as possible.

## Information Management
Create a roadmap for the future state of obtaining, storing, validating, moving, using and disposing of data.

## Proactively Expose Banner Data
Provide consistent and straightforward methods for departmental applications and third-party applications to utilize authoritative Banner data.

## Equipment and Server Space
Determine the most efficient locations and configurations for primary and secondary (BCP) data centers.  Consolidate any applicable equipment, including by equipment of others throughout the University.

## Vendor Interaction
Leverage partnerships with our vendors to maximize benefit to the University and minimize costs.

## Security
Review, revise and ensure compliance with all AITS and University security policies and procedures.

## Measuring Progress
Document all relevant AITS metrics and provide regular updates and analysis of the metrics.

## Enterprise Architecture
Formally document the outcomes of the Enterprise Architecture Committee to provide assistance in collaborating with AITS to access enterprise data.

## Identity Management and Login Credentials
Unify identity management into a single logical and effective infrastructure.

## Management-level Processes
Review and revise management and operational policies within AITS. Document unwritten policies and procedures within AITS.

## People
Preserve employment to the highest extent possible.  Discussions related to the reallocation or reduction of staff should focus on impact analysis for services provided by AITS.

## Emergency Preparedness
Ensure the BCP plan is effective and is practiced regularly. Create a short checklist for emergencies.

## AITS Progress Report
Refine and complete the 2009 progress report, ensuring that the report is relevant to the University.

## PCI Compliance
Review and revise PCI-related policy and assist the University with compliance for PCI policies and procedures.

## Production Level Services

Document and publicize our most robust and standards-based processes at the AITS website.

## Get Students Involved

Provide opportunities for students to assist AITS through direct involvement or through college faculty.

## Document Management

Create University standards for document imaging, storage, use, retention and disposal. This is a specific subcategory of Information Management.

## IT@Illinois

Participate in and contribute to the Urbana campus's initiative.

## VSL Consolidation

Create options for consolidation of vacation-sick leave reporting, relying more heavily on Banner.

## Communication and Expectation Management

Complete and publish a communication plan including publications, media, schedule and constituents served.

## IT Governance

Extend the governance model for ITPC to include the entire spectrum of customers from faculty end users to administrative department executives and all points in between.

## Policy Ownership

Ensure that every policy relevant to AITS has a champion and a caretaker.

## HR Front-end

Review and document the HRFE process and integrate lessons learned into AITS policies and procedures.

## Use Clarity to Study AITS

Use Clarity data to analyze contribution of workload throughout AITS to assist in the planning process.

## AITS History

Document the past 30+ years of AITS history.

## Position Control

Determine IT consequences for HR reporting, policies and procedures resulting from an increasing interest in position control.

## Differentiate AITS and ITPC

Create clearer distinction between the work performed by AITS as internal projects and maintenance and those projects specified by the ITPC process.

## Green IT

Create our statement of environmental sustainability.

# FY 10 Results

In this section, we look specifically at how AITS executed in fulfilling the FY 10 strategic objectives. It should be noted that the objectives differ in their scope and nature. Some of the objectives will be ongoing pursuits, such as Green IT, where the organization will incrementally progress over time, but will never be complete in this area as this is a perpetual objective. Other objectives are more finite and can be addressed as deliverables or initiatives are satisfactorily completed, such as the HR Front-end objective. Another stipulation is that most of the objectives will roll over fiscal years and incremental initiatives and progress will be pursued and reported upon year to year. Later in this report, there is a detailed look at the continuing and new initiatives for the next fiscal year, which will continue to support new organization strategic objectives. Below is a detailed review of the activities in FY 10 that support our strategic objectives.

## Use What We Own

*Increase functionality of enterprise systems by specifically using more of Banner delivered functionality and eliminating as many costly modifications as possible.*

**Banner 8 Upgrade:** The University's ERP system, Banner, was upgraded to the next major release, version 8, in October 2009. This included:

- Converting the Banner database to an international character set as part of the Banner 8 upgrade
- Analyzing, modifying and testing internally developed applications and enterprise reports
- Running performance tests and functional and parallel testing
- Collaboration with SunGard to upgrade existing modifications
- Synchronizing the ETL processes and the EDW

An aditional subsequent upgrade to stay current with International ACH functionality was completed in April 2010. This included the analysis and implementation efforts associated with the upgrades to Banner General, Finance and HR/Payroll.

**Race/Ethnicity Standards:** New federal regulations required a change to how race and ethnicity data is captured for students and employees. The University transitioned from the previous single-valued combined field to the new fields. This involved changes to Student applications for admissions as well as to the employee hiring systems. The data in Banner was converted from the old field to the new fields. Current students and employees have been able to verify their converted values and provide an update using the new values. Work will continue into FY 11 as AITS continues to modify the Enterprise Data Warehouse (EDW) and Business Intelligence tools to accommodate these changes.

**Reduce SunGard Modification Maintenance Costs:** As AITS reviewed the SunGard modification maintenance agreement for FY 11, it was determined that AITS could save approximately $700,000 annually by taking on the maintenance of the modifications. It was determined that AITS would take on the maintenance for all but four of the SunGard modifications, reducing our annual cost for SunGard modifications to less than $35,000 annually.

**Increase our Level of Involvement with SGHE:** AITS continues to be actively involved with SunGard HE's customer liaison programs. In FY 11, AITS will have membership on the Pillar advisory board for senior IT management, the Large School Consortium Leadership Council, and their Community Source program with members on the Board of Directors, Technical and Functional committees. AITS is also taking a large role in developing a joint Web for Proxy modification with several other schools as part of the Student Community Source project. AITS continues to lead presentations at SunGard conferences and receives positive feedback from the attendees at those presentations.

**FTE Headcount Analysis:** In FY 10, AITS created a prototype that will allow decision makers at all levels the ability to analyze trends in headcount and FTE at the University. The prototype has resulted in an ITPC project that will be executed in FY 11.


## Enterprise Architecture

*Formally document the outcomes of the Enterprise Architecture Committee to provide assistance in collaborating with AITS to access enterprise data.*

**Enterprise Architecture Committee (EAC):** The Enterprise Architecture Committee's role is to assist in the development, articulation and adoption of the IT Enterprise Architecture framework and processes. The purpose of the architecture framework is to direct or guide architecture initiatives, ensure that organizational performance aligns with the strategic intent of the business, ensure IT resources are engaged to reflect priorities, and architecture-related risks are managed appropriately. The EAC will continue to formally document outcomes and provide assistance in collaboration in FY 11.

Some notable accomplishments for the EAC in FY 10 include:

- Reviewed dozens of projects/technologies, provided over 40 architecture decisions/recommendations, and identified the top 12 IT architecture projects.
- Continued the work with the ITPC process. The EAC works closely with Portfolio Management Office (PMO) to trigger architecture review of all ITPC projects before they are presented to the ITPC committees. The EAC reviewed multiple ITPC projects in FY 10.
- Developed the EAC dashboard in Clarity to track EAC projects and to improve the review process of the ITPC projects.
- Created sub-committees to further investigate technologies and provided strategic recommendations.
- Created a draft of technical content to be included in RFPs posted for IT-related projects. (Examples of RFP technical language might include specifications of support for a preferred database, standard server or disc configuration, availability of software technical support, compliance with standards such as disability accessibility, or security safeguards provided by the vendor). This language will be made available to all UA or campus units wishing to incorporate technical language in RFPs, in order to solicit vendor responses that conform to University Administration technical standards.
- Developed a full inventory of all enterprise systems and a map of the enterprise services. The core enterprise architecture services managed by AITS include but not limited to Business Applications, Application Development, Enterprise Information Architecture, Productivity/Collaborative tools, Cloud IT, Security, and Social Networking.

- Generated, sponsored, and assisted in the implementation of various enterprise-wide projects. The goals of these projects are to improve the overall Administrative IT infrastructure, reduce cost, and ensure that the administrative systems are current and compliant with various regulations and rules. The EAC sponsored 11 enterprise wide projects, some of which will continue into FY 11.

## Information Management

*Create a roadmap for the future state of obtaining, storing, validating, moving, using and disposing of data.*

**DS Archive Log Mode:**  In FY 10, AITS increased the EDW up time by moving to archive log mode to support hot backups so that the database does not need to come down for the daily backup.  Along with this change, AITS also created hot standby databases in Urbana to recreate test databases and serve as another layer of protection for this Enterprise-level service.

**Partition/Archive/Purge Banner Data:**  An internal project is in progress with the focus to Archive/Purge Banner data to save storage space and improve performance. Due to additional higher priority projects, this project has been delayed and work will resume in FY 11.

**REPTPROD Alternative Implementation**:  In FY 10, a project to re-architect REPTPROD to serve multiple needs determined by a needs analysis study began with the evaluation of several different technologies to accomplish the goals.  During FY 10, we upgraded the storage and servers that currently host REPTPROD and made improvements to the recreate process.  This so significantly reduced the nightly recreate window, from 6.5 hours to 2 hours, that we have postponed work on this initiative.  Another major factor in the postponement is that the replacement architecture will likely require the purchase of more software in the $100,000 range.  Given the fiscal climate and an objective to "use what we own" AITS believed it prudent to delay until the fiscal conditions improve.

**Configuration Management Database and Change Management Implementation:**  In FY 10, AITS worked to revamp their Change Control process by working with CA to implement the CA Unicenter Change Management software for Change Orders and Incidents.  In addition to Change Management, AITS began the implementation of a Configuration Management Database (CMDB).  The CMDB will allow AITS to map out and document the current services they provide to the University including services such as Banner.  Both products are part of the Unicenter suite of tools and will be implemented to the Unicenter Service Desk application that was implemented in FY 10.

**Knowledge Center:** The DS Knowledge Center is a repository of technical information related to the Decision Support products and environment.  The initial production release includes information about EDW tables, ETL mappings, BO Universe products, user security and query usage. This will provide easy access to information needed by production support staff in conducting impact analysis when there are production problems and for maintenance activities. It will also provide customer support staff with access to consolidated information about customers, including what security access they currently have. This helps our staff provide improved customer service.

**Expense Trends Analysis:** In FY 10, AITS built and deployed an On-Line Analytical Processing (OLAP) Cube to support enhanced expense trends analysis. It provides decision makers and analysts with an easy to use interface for slicing and dicing their expense data on the fly, providing much better support for analysis and trending as well as eliminating (or at least reducing) the need to involve technical staff in creating a series of ad-hoc reports or queries. It will also help ensure that answers provided are more consistent and reproducible by providing a single data set to support expense analysis.

**Consolidated Faculty Analysis Product Enhancement:** AITS created an analysis tool for the project participants that addresses their need for easily accessible faculty data and supports their faculty analysis and decision-making.

**ITPC-0191 Financial Aid Census:** AITS created a Business Intelligence (BI) solution for the Financial Aid Offices and Institutional Reporting that addresses their need for static, reproducible data to be used for internal and external reporting.

**Product Planning for New Projects:** AITS began the mapping of information needs and proposed solutions for Pay Employees and Track Spending business processes.

**Identifying and Exploring Customer Information Needs:** AITS conducted analysis to determine the information needs for the following areas, working with potential customers and, in some cases, creating prototypes: course demand forecasting, enrollment analysis, purchasing analysis, grants dashboard, college-level economic model, capital programs data integration, college-level performance management for online programs. We are also actively collaborating on the iReport project. A number of these efforts have resulted in ITPC templates being submitted.


## Proactively Expose Banner Data

*Provide consistent and straightforward methods for departmental applications and third‑party applications to utilize authoritative Banner data.*

**Adjustment Notification Application (ANA):** In September of 2009, the ongoing project was stopped at the request of the project sponsor due to concerns about whether the technical strategy was appropriate for addressing the business needs. OBFS and AITS met to readdress the business requirements and reassess the potential technical approaches. After several discussions, it was agreed to restart the project by integrating the previous work that has been done for current pay period adjustments with Banner and leveraging the existing HR Front-end infrastructure (look and feel, and security modules.) This revamped project is still going through the ITPC process.

**FABWeb Application:** AITS is working with OBFS to integrate Banner data with FABWeb. FABWeb will be used by both departmental staff that handle fixed assets as well as by Property Accounting Office staff. FABWeb utilizes messaging to query from Banner for display in FABWeb and to send updates made in FABWeb to Banner. The first release was migrated in November 2009. We will work on the final integration release in FY 11.

**Service Desk Manager (SDM):** AITS integrated Banner data with CA Unicenter Service Desk (USD) in FY 09. Additional enhancements were added in FY 10 including the re-platforming of the

Unicenter Service Desk (USD) tool and upgrading to Service Desk Manager (SDM) version r12.1. We will continue to make improvements the production system in FY 11.

**Pull General Education (Gen Ed) Data from BANNER:** The completion of the Gen Ed project allows DARwin to directly use Banner data for the audit of general education requirements. It is no longer necessary to maintain duplicate data in Darwin, thereby reducing the time required of college office DARwin encoders, the opportunity for data entry error, and the additional records that need to be added to limited-size tables.

**Vendor Database Project:** AITS worked with UOFPP to develop a centralized vendor registration application that allows vendors to register with the University for creation and execution of capital construction contracts and programs. The vendor application centrally maintains vendor contact and legal information which is then integrated with other applications such as PRZM, FCPWeb, and Upside. This integration eliminates duplicate and inaccurate data that was separately maintained by each application. A new authentication system was also created called Vendor Authentication System (VAS) which was built upon the EAS repository and allows individuals external to the University to create IDs for authentication to university applications. Previously, authentication credentials were maintained by each application for external users and there was no central mechanism like EAS to centrally maintain credentials for these users. Additional integrations and enhancements will be made in FY 11.

**Data/Information Architecture:** AITS continues to evolve the information we present regarding enterprise data. The goal is to maintain an accurate representation of the data that is available, determine how clients can access that data, determine what business events are related to the data, increase the awareness of the availability of this data, and provide streamlined methods to expose new data and/or services on that data.

**Direct Deposit Enrollment Changes:** AITS worked with USFSCO to establish a direct deposit enrollment page within the UI-Integrate Self-Service account billing section allowing students to enroll in direct deposit, or update their enrollment, within the self-service module in real-time and view the current real-time enrollment data.

**Single Use Accounts:** AITS worked with University Payables, and OBFS BIS to implement Single Use Accounts (SUA), a charge card-based payment mechanism from JP Morgan. AITS developed an integration that interfaces Banner with JP Morgan.


## Equipment and Server Space

*Determine the most efficient locations and configurations for primary and secondary (BCP) data centers. Consolidate any applicable equipment, including by equipment of others throughout the University.*

**Linux Virtualization:** AITS is increasingly converting to server virtualization to supply services on the Linux platform in order to more efficiently utilize our hardware resources. Virtualization has become the standard platform for AITS Linux environments. In pursuit of embracing a fully virtualized environment, support has been expanded beyond Red Hat Enterprise Linux 5 (RHEL5) so that additional applications can take advantage of virtual machine technology in cases where RHEL5 is not a certified platform for particular software products. Further progress has been

made at the Enterprise Architecture Committee and within Computer Operations Engineering to embrace virtual machines in our production environment which can be challenging as certain software vendors don't provide direct certification.  This effort will remain in progress and as a priority until such time as physical hardware has been retired from the data center.

**Proofpoint Email Filtering:**  AITS upgraded the UA Unsolicited Email filter from Proofpoint version 5.x to version 6.0.  This involved the replacement of server hardware, phasing out Dell's first generation of blade hardware for more efficient and more powerful units from the M-series product line.  The new servers utilize the 64-bit version of Red Hat Enterprise Linux 5, which allows Proofpoint to utilize more memory and ultimately provide higher performance which was desired for analyzing complex email messages bearing numerous or large attachments.

**Windows Virtualization:**  AITS is increasingly converting to server virtualization to supply services on the Windows platform in order to more efficiently utilize our hardware resources.  Microsoft Hyper-V is now the prevalent platform for new Windows server deployments.  Over the past year several additional hypervisors have been deployed in production and non-production.  This effort will remain in progress and as a priority until such time as physical hardware has been retired from the data center.

**Exchange Email Clustering:**  AITS migrated three University Administration's Microsoft Exchange implementation to new hardware that provides resiliency in the case of a data center outage. Customers of AITS Email services can now take advantage of higher performance provided by the 64-bit cluster architecture, as well as the enhanced availability provided by a geographically redundant service that spans multiple cities via AITS's data centers.  This effort is now successful and complete, and AITS will look forward to a migration to the jointly-operated AITS/CITES solution for Exchange 2010.

**AN Firewall Upgrade:**  The two Administrative Network (AN) firewall clusters (HAB and RRB) planned for upgrade to Red Hat Enterprise Linux 5 (RHEL5) has been rolled into the Administrative Network upgrade to be performed in FY 11.

**Workstation Firewall Upgrades:**  Workstation locations that utilize Red Hat Enterprise Linux 3 (RHEL3) firewalls were replaced by RHEL5 firewalls using a transparent implementation rather than a routing implementation. Also, additional network design in FY 11 will enable the utilization of a single firewall in a centralized location, which requires fewer support resources and provides faster response times for addressing any problems that arise.

**DMX Migration:**  AITS saved over $500,000 by migrating off of the aging HAB and RRB EMC DMX1000s to the newer EMC CX4960s equipment instead of procuring replacement arrays. Enterprise production environments such as Banner and DS were migrated. The HAB DMX1000 has been turned off and will be traded during future procurement activity.  The RRB DMX1000 has been configured for CITES to offsite Oracle standbys for business continuity planning purposes.

**Move Enterprise AITS Services to Upgraded Hardware:** The implementation of the new hardware and migration off of the existing hardware was completed in FY 10.  This included re-alignment of some of our environments so that only the most business critical environments (Banner/EDW) are on the large M9000 to save hardware costs.  Other less business critical environments that don't need to perform at the highest level will be moved to middle range servers,

which are less expensive than the larger servers. This project was completed in 11 months starting in July 2009 and completed in May 2010. Using AITS Deployment and rollout methodology we were able to complete this project on time while minimizing system outages and down time. Additionally, the Deployment team was able to combine the Banner 8 upgrade and the Banner hardware migration into one event, which significantly reduced deployment costs for both projects and eliminated the need for additional extended Banner outage.

**Moved All DS Applications to New Web Server:** AITS implemented a new web server in order to provide more reliable, faster performance for delivery of information solutions and applications. The old DS web server was beyond its life expectancy and was vulnerable to failure. This also included updates to existing applications to ensure compatibility with the new versions of software infrastructure.

## People
*Preserve employment to the highest extent possible. Discussions related to the reallocation or reduction of staff should focus on impact analysis for services provided by AITS.*

**ADSD Career Path:** The ADS department has implemented technical and managerial career paths for employees to grow and progress based upon their personal goals and objectives. The positions range from both entry level positions through advanced, senior, coordinator, and assistant director positions. Each position has a defined job description and position activities which builds upon the skills and competencies of the previous positions. Similar career paths are being developed for data modelers and quality assurance testers.

**Telecommuting:** Many employees across the organization are working from home on a regular or intermittent basis, many for a day or more a week. This saves on commuting time and expenses and also increases employee satisfaction. Indications from managers are that in general, employees are as productive or more productive from home as in the office.

**Human Capital Initiative:** AFM drafted a human capital plan template that provides a starting point to guide AITS in addressing current and future human capital challenges by ensuring the right people with the right skills are in the right roles (at the right time). As we implement the decisions related to the future departmental proposals, the human capital plan will be updated.

**Social Committee:** Successful FY 10 social committee-sponsored events included a summer picnic, provision of meals to the Banner upgrade team, holiday gift-wrapping, a Deck-the-Halls contest, Secret Snowman, a holiday potluck, a spring egg hunt, a pancake breakfast, the SMILES fund-raiser, and a bake sale.

**Multi-Organization Transition:** In FY 10, since DS now also reports to Michael Hites, AFM has worked closely with AITS and DS leadership to assist in transition planning and aligning common activities/approaches across the two organizations. AFM completed transition of the administrative staff under centralized leadership in June of 2010.

## AITS Progress Report
*Refine and complete the 2009 progress report, ensuring that the report is relevant to the*

*University.*

This 2010 AITS Progress Report was completed to highlight AITS strategy, accomplishments and plans for the next year.  The AITS Progress Report is now a standard recurring deliverable for AITS.

## Identity Management and Login Credentials
*Unify identity management into a single logical and effective infrastructure.*

**EAS Authentication - CAS:**  AITS implemented EAS authentication for Course Applicability System (CAS).

**Identity and Access Management (IAM):**  The University Technology Management Team (UTMT) has begun the process of reviewing the Identity Management issues at the University of Illinois.  The objective of this project is to identify current issues with identity management, review and modify existing policies, document requirements, and come up with recommendations for improving identity management at the University of Illinois.  The assigned project team is examining the following six areas of identity management: Identity Affiliations, Governance, Proofing and Provisioning, Authentication, Authorization, and Intelligence.  AITS and the UA EAC are taking a significant role in this initiative. In FY 10, the IAM team provided multiple educational sessions regarding Identity and Access Management issues. The team also used Urbana focus groups to gather business and functional requirements. The plan for FY 11 is submit two ITPC templates to address the University affiliations tracking problem and to complete a full IAM technical solution analysis.

## Vendor Interaction
*Leverage partnerships with our vendors to maximize benefit to the University and minimize costs.*

**FY 10 Consulting Contract Renegotiation:**  AITS was able to consolidate consulting contracts that expired in FY 10 with existing FY 10 contracts while renegotiating rates.  This negotion allowed the University to broaden the spectrum of consultants available to the university while reducing the rates on nearly every position.  The position rate reduction was as much as 27% with an average of 4.3% per position reduction.

**Contract Renewal:**  AFM has continued its development of effective relationships with vendors to assist in helping them understand the University's renewal process.  This has enhanced the department's ability to meet deadlines to ensure maintenance/support contracts are completed in a timely manner and in place for the fiscal year.

## Differentiate AITS and ITPC
*Create clearer distinction between the work performed by AITS as internal projects and maintenance and those projects specified by the ITPC process.*

**Internal Project Tracking:**  A new process was developed in FY 09 with the PMO and AITS Management Group to solicit, evaluate, select and prioritize internal projects.  This process is now fully operational.  The following internal projects were completed in FY 10:

AITS-0001 UA Web Content Management System (WCMS)
AITS-0005 Hardware Replacement Project
AITS-0016 Banner Rapid Failover
AITS-0021 Update Rational Robot, Rational Performance Tester, & Virtual Testers
AITS-0024 SSN-Compliance
AITS-0031 Google Web Toolkit Investigation
AITS-0032 Java 1.6.0_14 Upgrade
AITS-0041 Application Build Environments
AITS-0043 Toolkit for OpenEAI
AITS-0044 Migrate CVS to Subversion
AITS-0046 Kuali Initiative
AITS-0047 Broker Upgrade to 7.5.2
AITS-0047 Password Validation/Password Change Services 1.x
AITS-0048 Service Desk 120 Day Project
AITS-0048 USD - Unicenter Service Desk Reports

## Measuring Progress

*Document all relevant AITS metrics and provide regular updates and analysis of the metrics.*

**Measuring Progress:**  Metrics for all areas have been identified and subsets have been centralized in a Metrics Library on the AITS intranet and in a published report.  These metrics continue to evolve over time.  A subset of these metrics is published in the AITS Progress Report.

## Emergency Preparedness

*Ensure the BCP plan is effective and is practiced regularly. Create a short checklist for emergencies.*

**Incident Management:**  AITS continues to coordinate incidents utilizing the process in place that includes updates to users during critical incidents, an executive summary, and follow-up information on what caused the incident and how it was resolved and what we were doing going forward to prevent this from happening in the future.

**Emergency Preparedness:**  AFM is drafting fire and tornado preparedness plans for all AITS sites.  In FY 10, AFM purchased AEDs (Automatic External Defibrillator) and sponsored AED and fire safety and extinguisher training.

**HAB Fire Suppression System:**  AITS installed a Fire Suppression System for the two data centers located within HAB at UIUC.  This system not only provides alarms that will alert the department and building of a fire, but also suppresses the actual fire without damaging hardware and infrastructure equipment.

**HAB UPS System and Power Upgrade:**  In FY 10, AITS installed a new APC (MGE) 162kva/150kw UPS system in HAB room 49 to protect server and disk hardware during a power outage.  The UIUC electricians installed a new 480V/300A electrical circuit from a different substation in HAB that feeds this new UPS located in 49 HAB.  In turn this new UPS now supplies

power to four new 208v/225a electrical panels for the protected power in 49 HAB data center.  In addition, four 208v/150a unprotect panels were installed that are fed from a different substation in HAB for redundancy. The servers and disks are load balanced across the two substation feeds. All the new panels (both protected and unprotect) have hardware and software for power metering for the branch electrical circuits coming out of them.  The power upgrade in 49 HAB allows AITS to install new technology and additional hardware along with taking advantage of the free space in room 49. Power monitoring software allows us to manage and track the power consumption in 49 HAB.

**BCP Testing:**  In FY 10, the annual BCP was conducted for the Banner environment.  This year introduced significant forward progress in terms of the scope of the test.  The actual production Banner environment was brought down in Chicago and the environment was subsequently failed over to Urbana and brought up for administrative forms and job submission testing.  This was a big step forward in actually performing the same steps in a true BCP situation.  The planned test for next year will look to increase the scope of the Banner related services failed over to Urbana and tested.

AITS also implemented logical standby databases for DSPROD01 and DSSTAG01 for high availability and recoverability:  Previously the time required to recover the EDW environment was 24-30 hours of effort.  By enabling logical standby, the recovery time is now less than 1 hour.  In addition this technology has enabled quicker refresh builds of development and test environments which reduce downtime for development efforts.

## Communication and Expectation Management
*Complete and publish a communication plan including publications, media, schedule and constituents served.*

**AITS Comprehensive Communication Plan:** The new customer relations group in AITS will continue efforts to complete and publish a comprehensive communication plan for the organization.

## Production Level Services
*Document and publicize our most robust and standards-based processes at the AITS website.*

**AITS Websites:**  The AITS website was replatformed to the Intrafinity SitePublish WCMS. Further efforts in this area include the planning for a major redesign of the AITS website.

**Deployed new version of Training Calendar and Class Management:** The DS Training Calendar and Class Management application was redesigned and delivered in conjunction with the Knowledge Center.  Integration with the Knowledge Center improves the quality of information provided to the customers.

## Security
*Review, revise and ensure compliance with all AITS and University security policies and procedures.*

**Vulnerability Fixes:**  Application Development has completed an initial effort to enhance our web applications and frameworks to perform additional filtering and security functions to eliminate vulnerabilities.  Over 65 internal applications were updated to utilize enhanced security functionality and eliminate vulnerabilities as identified by vulnerability scans.  Vulnerability scans have also been performed on vended product solutions and AITS has performed scans for applications supported by other university departments.   AITS developed applications now receive regular vulnerability scans and follow a standard process to resolve any vulnerabilities identified.

**External Client Performance Tests:**  Performance tests generally involve the use of test applications that are able to mimic multiple real life users.  In this category, other UA or University of Illinois departments are the clients and have applications or hardware that needs to perform at certain levels to meet client expectations or SLA agreements.  The primary purpose of these tests is to evaluate performance from the user's perspective and ensure that users will receive timely responses that are acceptable to the user.  Additionally, the performance test can check the accuracy of server responses, and can test technical performance (memory usage, wait times, etc.) under high loads.  These tests can be as simple as quantifying the performance enhancement or degradation associated with adding a database index to evaluating new servers or software that are being considered as adding value to the University.  QA has conducted tests to evaluate applications and hardware like uPortal and WebStore.

**BANNER Security Group/Profile/Class Review:**  AITS created new review policies and procedures for BANNER Security Group/Profile/Class review.  AITS Security Administration, with OBFS Finance Security, facilitated the actual review of the BANNER Finance Profile/Class/Form relationships that established BANNER Finance Profile ownership. BANNER Student and BANNER HR/Pay reviews remained to be completed.

**BANNER 8 Security Enhancements:**  AITS Security Administration will create new processes to support the BANNER 8 security enhancements. No new processes to support Banner 8 Security Enhancements were created this year because of the dependency on completion of the Group/Profile/Class review that was not completed until the end of FY 10.  This initiative will continue in FY 11.

**University Administration (UA) Privileged Access Review:** AITS Enterprise Systems Assurance (ESA) provided University Administration departments, listings of privileged access rights for staff.  Additionally, AITS ESA provided University Administration departments, Banner session information to identify the staff that had not logged into Banner during the last 13 months. AITS departments submitted add, change, and removal requests for staff access through this review process.

**Installation of Computrace on All Laptops:**  In FY 10, Computrace was installed on all departmental laptops.  This provides more robust security in the instance where a laptop is lost or stolen.  Three laptops stolen last December and all three of them have been located and two of them have been returned to us.  The third one is in a foreign country at this time, so unless it returns to the states it will not be recovered.  However, all three were brand-new and contained no data on them when they were stolen.

**Java Plug-In Enhancement:**  In March 2010, a new AITS Client Java Plug-In policy

communication was pushed out to all end users to introduce support for end users installing and maintaining the latest secure versions of the Java Plug-In on user workstations.  This is a big step in maintaining a secure computing environment and safeguarding enterprise systems and data.

**Unit Security Contact (USC) Program:**  AITS Enterprise Systems Assurance (ESA) updated the USC Program to include annual mandatory role/responsibilities training and user access reviews.  The first formal review by the USCs will be initiated by AITS ESA in early FY 11. As recommended by an internal audit by University Audits, this training will help the more than 700 USCs to understand their responsibilities.

**Unit Security Contact (USC) Portal ITPC Project:**  AITS Enterprise Systems Assurance (ESA) initiated an ITPC project proposal to replace the current Security Application (SecApp) program used to submit security access requests for enterprise IT systems.  AITS ESA conducted presentations and requirements gathering session, prepared ITPC templates and worked through the ITPC process. The project was approved and is scheduled to start in FY 11 with a 13 month completion-after-start-date schedule. Successful completion of this project will allow AITS ESA to continue to manage security for more enterprise systems within the same staffing levels.

**EAS Enhancements:**  EAS 3.0 was implemented in December 2009 which included changes to be in compliance with the University of Illinois Strong Password Policy.  Additional enhancements will be made in FY 11.

**Password Validation Service (PVS):**  This service was implemented in conjunction with EAS 3.0 enhancements and Vendor projects. The PVS implements the full implementation of University of Illinois Strong Password Policy and supports multiple services.

**Enterprise ID Validation Service:** This service was implemented in conjunction with EAS 3.0 enhancements. This new service will check all university repositories to see if a Net ID has already been claimed.

**Major Update to DS Security Application:** The new release includes fixes and enhancements to requests submitted for the last two years.


## Get Students Involved
*Provide opportunities for students to assist AITS through direct involvement or through college faculty.*

**Mellon-funded Graduate Assistants:**  The Integration Competency Center (ICC) hired two graduate assistants with the $50,000 award from Andrew W. Mellon Foundation.  All funds were expended.  The graduate assistants developed an Email Service and ApiPointToPointProducer.

**ESA Student Internship:**  In support of Network Firewall Auditing, validation rules are being created to look for inconsistencies and errors in firewall rule sets.  A student intern working with advanced network security software to model firewalls and develop an initial set of validation rules. The project exposed this student to leading-edge security technology and the opportunity to work with experts in this area.

## Green IT
*Create our statement of environmental sustainability.*

**Energy Savings:** In FY 10 AITS undertook the upgrade of their Enterprise Sun 15K servers to Enterprise Sun M9000 servers. AITS collapsed the workload that was running on three Enterprise Sun 15ks onto two Enterprise Sun M9000s. This upgrade provided six times the computing power for the Enterprise while using 40% of the power. In addition to the computing power gains and use of less power and HVAC load, the Enterprise also gained a more robust development environment for both Banner and EDW, a real sized BCP environment for the production Banner and EDW databases and a more robust Banner quality assurance environment.

**Remote Desktop Services Project:** In FY 10 AITS has begun working on a proof of concept to provide a Remote Desktop Service that would provide the typical administrative banner user access to applications used day to day to conduct business. This emergent project was initiated in the spring of 2010 to cut down on the overall cost of Desktop services provided by AITS. The goal is to provide a cheaper, less labor intensive, more energy efficient, and more secure desktop environment for UA (and in the future non-UA) departments that performs as well or better than current workstations/laptops. The research and development part of the project has shifted into a pilot program that currently has 150 UA users that have asked for and been granted access to the new service. Our production capacity goal is 500 concurrent users with expansion up to 4,000 if needed. This RDS service would allow campus and administrative units to determine if they would like to use a thin client device to make the connection, saving in capital expense and energy cost. A formal service will be offered in FY 11.

**Virtualization of Servers Running Microsoft Windows:** In an effort to cut down on overall server costs we have leveraged Microsoft virtual machine technology to virtualize 70 Windows servers. This virtualization cuts down on server hardware costs as better utilization of the hardware is reached and thus reduces the supporting power consumption, cooling costs and physical space of the server environment.


## IT Governance
*Extend the governance model for ITPC to include the entire spectrum of customers from faculty end users to administrative department executives and all points in between.*

**Improved IT Governance Communication:** In FY 10, further steps were taken to facilitate improved it governance communication including:
  o  The Second Annual ITPC Summit was held in 2010 and included University leaders from across the campuses to meet and discuss administrative IT at UI.
  o  The ITPC governance model was be the subject of presentations at EDUCAUSE 2009, SCUP 2009 North Central Regional Conference, and the Committee on Institutional Cooperation TechForum 2009.

**IT Governance at UI:** Several committees and task forces over the past year have been discussing ideas and plans to reduce IT cost throughout the enterprise. An integral part of controlling IT costs is an IT governance model to facilitate IT strategy and the decision making

process for allocating IT resources.  AITS continues to be a proponent of formalized and active IT governance and participates in these efforts whenever possible.

**Establish new UTMT BI/PM Subcommittee:**  In 2009, a new subcommittee of the University Technology Management Team was created to focus on Business Intelligence (BI) and Performance Management (PM). As described in its Charter, two of the key responsibilities for this BI/PM Subcommittee are: a) gathering input and developing high-level Business Intelligence strategy, and b) providing a framework for how BI projects should be evaluated and prioritized. In FY 10 the committee was formed and began meeting formally. The committee has been meeting monthly and is in the final stages of formalizing its dual strategic advisory and governance role.

**UIC OBFS Advisory Reporting Subcommittee:**  Provide leadership and expertise to identify financial reporting gaps, define appropriate solutions, and collaborate with OBFS on standard report development. AITS also developed a package of basic reports for business managers to provide overall financial view across fund types. AITS will continue working on a basic grants report for principal investigators.

## VSL Consolidation
*Create options for consolidation of vacation-sick leave reporting, relying more heavily on Banner*

**VSL Application:**  The Vacation and Sick Leave application has been transitioned from Decision Support to ADS for support and enhancement.  A major release was implemented in FY 10 which made significant changes to the application to bring it in line with enterprise application standards. These changes were necessary to position the application for further expansion of use to the enterprise.  Two other releases are currently underway which will add functionality for the central HR users which will increase efficiency and reduce manual back-end data fixes.  Future releases are being planned to integrate the VSL application with Banner and add multi-unit capability to support enterprise-wide adoption.

## Position Control
*Determine IT consequences for HR reporting, policies and procedures resulting from an increasing interest in position control.*

AITS has worked with HR and Accounting to determine the feasibility of using the position control functionality with Banner and the conclusion is unchanged from that reached during the project; the Banner approach is too rigid and inflexible to meet the needs of the University.  As a consequence, a team within OBFS is performing high-level requirements analysis for position control functionality that would be both beneficial for position budget control and that would also be flexible enough to work in our environment.  AITS anticipates it will become more actively involved if and when the OBFS team decides to propose the project as a candidate ITPC template.

## IT@Illinois
*Participate in and contribute to the Urbana campus's initiative.*

**IT@Illinois:**  AITS has supported the Urbana campus IT@Illinois initiative since its inception and continues to participate as opportunities present themselves.

**Red2 Auction Service:**  AITS worked with the Graduate School of Library and Information Sciences and Red2 Auction Service on a pilot project for a campus auction service.  AITS provided technical expertise and integration with EAS for a Red2 cloud service for auction hosting.  The auction service went live in August 2009.

**Project K - Kuali Rice Workflow Evaluation:**  AITS participated with CITES to explore the use of Kuali Rice Workflow as a stand-alone solution for course curriculum review and approval process.  A solution was formally adopted and implemented by CITES for the UIUC campus. Future efforts may include the integration of the workflow with Banner and evaluation of Kuali as an enterprise wide solution.

**edu1world.org Collaboration:**  AITS collaborated with an external vendor to evaluate and evolve a process by which ideas can be communicated and collaborated on, evaluated and incubated within a community, prioritized, inventoried and implemented. AITS has learned a lot about the usefullness of the collaboration software due to the active participation of the same vendor hosting the SunGard Higher Education collaboration site. A future decision to make a proposal for a University collaboration site will be based upon the collaboration needs that emerge from the AITS efforts to create a community source internal development community.


## Document Management

*Create University standards for document imaging, storage, use, retention and disposal. This is a specific subcategory of Information Management.*

**Create University-wide Document Management Policies and Procedures:**  This project will continue in FY 11 with the UA Enterprise Architecture Committee  to create standard document management policies and procedures for publication to the University community.  This is also being discussed with the University Archivist.

**Upside Implementation:**  AITS partnered with the University Office of Capital Programs to implement Upside contract management system which is used to generate all contracts and agreements with professional services and construction firms.  The implementation of the new system replaced the old Contract Document System.  University contracts and agreement templates were created in the Upside product along with all of the custom review and approval workflows.  The implementation allows for standard language and attachments to be generated in the contracts with automated review and approval steps to be executed with reduced administrative and legal counsel involvement.  The Upside implementation at the University of Illinois is considered one of the most complex implementations of the Upside product and the University of Illinois has been invited to present the case study at the international Upside User's Conference.

**SharePoint and Document Management:** The Documentation Library has been created in tandem with the Artifact Documentation Storage Policy.  Migration from CVS and file shares has begun and is being administered by AFM.  Complete migration will be achieved within FY 11.  AFM continues to act as the administrator for all AITS SharePoint sites.  Training was completed by the

AFM group for those individuals interested in training.  Additional SharePoint training will be offered to individual AITS employees during FY 11.  The external collaboration site has been created in SharePoint, but still remains in the testing phase.  It will go live in FY 11.

## Use Clarity to Study AITS
*Use Clarity data to analyze contribution of workload throughout AITS to assist in the planning process*

**Clarity Enhancements:**  Clarity enhancements for FY 10 include:
- o   Enhanced capabilities with ad hoc reporting
- o   New graphical portlet package
- o   Tracking of project strategic alignment to UI strategic initiatives
- o   Tracking of project management lifecycle deliverables

## PCI Compliance
*Review and revise PCI-related policy and assist the University with compliance for PCI policies and procedures.*

**AITS – PCI compliance:**  In early March of 2010, AITS in conjunction with Nelnet Business Systems was one of the first adopters of the SunGard Banner PCI Web Services in a production environment.  The result of this effort allowed us to eliminate the need to collect credit card information within our data center and offload this processing to a PCI third party vendor.  As such, the University of Illinois business systems supported by AITS can be deemed PCI compliant. The final version of the AITS SAQ A questionnaire was submitted to OBFS Merchant Card Services, which is in charge of managing the overarching University of Illinois PCI compliance effort.

In addition, AITS still maintains an active leadership role in the PCI compliance project in regards to Change Management, Vulnerability and Penetration testing as well as overall PCI security policy and architecture guidance across the University.

## Management-level Processes
*Review and revise management and operational policies within AITS. Document unwritten policies and procedures within AITS.*

**Software Engineering Process Group (SEPG) SDLC Development:**  The review, documention, and implementation of a formal Software Development Life Cycle (SDLC) is an ongoing and continuous process.  The SEPG reviewed experiences with complex software development projects such as HRFE and held focus groups to review the SDLC and lessons learned and as a result, has released SDLC 2.0.  The SEPG will conduct training and rollout of SDLC 2.0 to AITS staff members during the Fall of 2010.  These efforts follow the model described by the CMMI standards.

**Application Build/Versioning:**  A number of build and deployment tools were reviewed by AITS and Hudson was chosen as the tool to automate the build process for AITS developed Java applications.   The automation of the builds also utilizes a central build server which ensures

consistent and standard builds upon a comon JDK.  The bundling process within Hudson and SVN creates packages for all development artifacts by product which eliminates issues of matching source to deployed objects.    AITS Java applications have been migrated to the Hudson process for builds and deployment into development and test and the initiative will continue on to utilize Hudson for production deployments as well.

**Performance Management:**  AFM has made some progress in reviewing UA and DS' competencies and is working toward a common set of competencies for AITS which build on these.  In FY 11, a job task analysis will be conducted to develop a competency inventory by role, and continued strides toward a competency-based performance appraisal instrument which incorporates objective criteria for job performance and which focuses on communication, accountability, and development.  In FY 10, two AFM staff members worked together to develop a succession planning/career development program they plan to introduce to AITS in FY 11.  These same two staff members achieved their Master Human Capital Strategist designation from the Human Capital Institute, a recognized credential for strategic knowledge in talent management.

**Service Level Agreements (SLAs):**  In FY 10, AFM fully assumed the role of SLA contact and increased the level of customer service through better alignment of the AITS service descriptions (on the web) with SLA and billing practices.

**Business & Financial Policies and Procedures:**  AFM continued the timely and accurate processing of financial and business transactions and conduct of business activities as regulated by the Business and Financial Policies and Procedures, Campus Administrative Manual, etc.  As part of the merger, a review of the administrative/business responsibilities was conducted, and talent and resources were leveraged to contain costs and provide service efficiently and effectively, and we'll continue to fine-tune to best meet the organization's needs.

**Project Management Lifecycle:**  The project management lifecycle process has been completely documented and is in operation.  In FY 10, PMLC training was provided to the organization and is offered on a recurring basis for anyone interested.  The PMLC will continue to evolve as any process.

**Industry Best Practices Review:**  AITS is in the process of evaluating industry best practices and ITIL guidelines against existing departmental processes and policy.  The goal for implementing best practices is to implement an IT Service Management approach, not individual processes for nine of the ten IT Service Management processes at AITS.  In FY 10 AITS has focused on improvement in the areas of service desk and problem management along with further refinement to the recently deployed CA USD implementation.  In addition to upgrading / stabilizing the environment and proactively addressing user concerns, AITS is deploying a refined workflow for the Change Management process as well as a new Configuration Management Data Base (CMDB) each of which are integrated in the USD toolset.  Mapping of the interrelationships between configuration items and services for the Banner Student system will go live with the CMDB early in FY 11.

**Review AITS Policies for Security Related Implications:**  AITS Enterprise Systems Assurance (ESA) worked with other UTMT Security Working Group members on revision of the University Information Security Policy. This policy was reviewed by Faculty Senates on all campuses. Both the Urbana and Springfield campus approved the policy. The Chicago campus

raised some concerns that are not resolvable until a new CIO is named for the Chicago campus (following the retirement of the current CIO).

## HR Front-end

*Review and document the HRFE process and integrate lessons learned into AITS policies and procedures.*

**HR Front-end Application:** At the completion of the HR Front-end implementation, a satisfaction survey was completed. 62% of users were either very satisfied or satisfied with the application. Additional metrics showed that the number of application defects continue to decrease as the application matures. The application has moved into a maintenance mode with releases planned for twice per year, that includes defect fixes and application enhancements. Critical defects are addressed via patches on an as needed basis. Lessons learned from the project were collected and reviewed with project stakeholders.

**HR Front-end Security Policies and Processes:** AITS Enterprise Systems Administration staff worked with HR staff to address the HR Front-end (HRFE) open security issues. This included creating process documentation and modifying existing Banner profiles impacted by the implementation of the HR Front. The actual removal of Banner HR access to prevent bypassing HRFE controls was not approved in time HR units to be completed by end of FY 10. This final change-over is expected early in FY 11.

**HR Front-end Reporting:** AITS created a reporting solution allowing HR Front-end users, their managers, and other key decision makers the ability to analyze security and transaction information within the HR Front-end system.

# FY 10 Other Accomplishments

A number of the initiatives AITS completed or were engaged with in FY 10 were more operational in nature or were important to the institution, but do not directly support any of the AITS Strategic Objectives.  These initiatives and accomplishments are detailed below.

**Enterprise Applications and Services:**  AITS Security Administration assumed additional access provisioning responsibilities for Enterprise applications and services. This included HR Front-end, NEWT, REPortfolio, SUA Front-end Access Requests, UniCenter, and UpsideContract. Documentation on provisioning processes for these systems was created as well as moving workload to more effectively manage the processes.

**Increased Database Support Services:** AITS's Data Management Area worked with OBFS-BIS in FY 10 to transition support for over 100 of their Microsoft SQL Server databases, both in development and production.  We are also currently working with the UIUC Veterinary Medicine department to host and support their Oracle database.  With a team of eight highly skilled DBAs, AITS is positioned to be able to provide 24x7 database support for Oracle or Microsoft SQL Server databases.

**Furlough Implementation:**  AITS worked with University Human Resources to identify requirements, complete system analysis and write logic to implement University-wide furloughs in Banner.

**Financial Aid Electronic Award Letter:**  This was our first major modification to Banner Self-Service, which provided an electronic method for students to view awards, budget and need information, and accept/reject/reduce aid and view specific student information, while saving the University over $100,000 annually in postage, printing and labor costs.  This also put the University of Illinois among the trendsetters in the Financial Aid industry.

**AITS Performance Tests:**  Performance tests generally involve the use of test applications that are able to mimic multiple real life users.  The primary purpose of these tests is to evaluate performance from the user's perspective and ensure that users will receive timely responses that are acceptable to the user. In addition to this the performance test can check the accuracy of server responses, and can test technical performance (memory usage, wait times, etc.) under high loads.  These tests can be as simple as quantifying the performance enhancement or degradation associated with adding a database index to evaluating new servers or software that are being considered as adding value to the  University.  QA has conducted tests to evaluate Physical and Virtual Machines hardware, and software like Oracle Snap, file systems, and in-house and vended enterprise applications like Banner and SitePublish CMS.

**Desktop Linux:**  In an effort to improve the environment for developing applications and reduce expenses, a pilot project was executed to explore the option of using Linux as a standard development desktop environment for developers and support staff.  The pilot was successful and Ubuntu Linux was made a standard for desktop Linux for an approved set of staff members.  The adoption of Linux has been successful and allows staff to develop and administer applications in the same platform that houses the production and test servers.  The Linux O/S also increases the capacity of the development machines and increases the efficiency of the development process.

**Creation of a Customer Satisfaction Survey for Client Services Support:** In FY 10, Client Services Support planned to create a survey to be given to clients that includes:
- Create a baseline for customer satisfaction
- Review feedback
- Determine bench marks
- Improve in the areas as identified

Due to other projects and priorities, this project was not started during FY 10.  This is currently planned for FY 11.

**UI2 Project Website Replacement:** The UI-Integrate Project website is still the vehicle for development Banner access and is firmly entrenched in the processes of Application Support and Deployment with regards to the Banner recreate process.  The replacement site is designed to improve existing processes and as a future gateway for end-user access to all testing and development environments, not strictly Banner.  This project was expected to be completed in the following phases in FY 10:
- Establish security controls and procedures for appstest; complete testing of Recreate Calendar
- Put Recreate Calendar into production
- Complete testing of Banner login entry pages and move to production
- Add functions to document and associate OAS servers to Banner instances
- Decommission project.ui-integrate.uillinois.edu website

The UI-Integrate website replacement project was temporarily put on hold until the new web content management system was implemented in production along with the successful transition of the AITS and OBFS websites.  It is anticipated that this project will be put back in the FY 11 queue with continued work to provide a suitable replacement with several enhancements.

**WCMS Intrafinity Implementation:** The University Administration offices of AITS, BP, HRIS, OBFS and UR have implemented a Web Content Management System, Intrafinity SitePublish, in FY 10 to meet the needs of UA and provide an available platform for other organizations at the University. A balanced governance structure was created during the implementation of SitePublish to ensure that all UA needs are discussed and work is prioritized to meet customer needs. Additionally, a new web template (Brand) was created to improve the customer and users experiences when browsing UA websites. In FY 11, AITS will make this service more widely available to the University as a whole.

**Subversion (SVN):** AITS deployed a new concurrent file management system (Subversion) and migrated content from old systems. This system provides flexible and adaptable versioning system to service UA needs and the University as a whole. Subversion is used to manage application code, deployment artifacts, enterprise systems configurations, and web content versioning.

**Central Build System:** Deployed a new system for managing and streamlining development and deploying applications developed by AITS. Key benefits for this system are improving AITS ability to package applications, simplify applications deployment, and improve efficiency and maintenance of locally developed systems.

**Java Upgrade:**  AITS upgraded all enterprise applications to use the newest version of Java. Previously, applications ran on various older versions of Java, some of which have been de-supported for some time.  This effort brings all applications up to the same level and allows us to leverage newer features and improve overall product dependability.  The work associated to this effort also fed into / enabled other initiatives (e.g. central build environment).

**Batch Application Servers:**  AITS re-architected Java Batch application infrastructure to continue to follow industry best practices and segregate applications from database servers.  Key benefits for this change include reduced cost of batch application (including Banner related applications) deployment and maintenance, improved database security, and creation of a more scalable infrastructure to support business processes.

**Learning Management System (LMS) Banner Integration:**  AITS collaborated with various groups in Urbana, Chicago, and Springfield to submit an ITPC template for deploying SunGard's Learning Management integration software. The goal of this project is to integrate Banner with various LMS systems. These systems include but are not limited to Blackboard, Moodle, Vista, and Lon-Capa.  This solution will automate the management of approximately 9,000 course sections and 540,000 grade entries per year.

**Global Campus Decommissioning**:  AITS is working with Global Campus staff and other University Organizations to decommission the Global Campus infrastructure. Some Global Campus components have been migrated to other University colleges and departments and others are in the process of shutting down. This work involves decommissioning applications, databases, and reallocating hardware for other projects.

# FY 11 Strategic Goals, Objectives, and Initiatives

## FY 11 Strategic Goals

The AITS strategic goals 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 goals, the strategic objectives in the next section serve as actionable broad and specific initiatives that AITS will pursue in order to fulfill these stated strategic goals. AITS's strategic goals for FY 11 are:

### The Information Continuum
Provide beginning to end information delivery to our customers including transactional, historical and analytical information resources to facilitate operations and support decision-making.

### Do Work Better, Faster, and Cheaper
Pursue opportunities to improve and offer new services, increase productivity, and drive out costs wherever possible.

### Simplify IT
Improve the breadth, quality, and access to information technology services.

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

# FY 11 Strategic Objectives

The AITS strategic objectives were created through discussions with our customers, and are refined by internal conversation within AITS. In planning our objectives for FY 11, a number of themes emerged to drive their development. The University's revenue has almost equal components of tuition, state funding and sponsored research. These make up about $700M each, and they are vital to the University. Even though AITS cannot directly influence these important aspects of the University, our strategic objectives can help ensure that our revenue is maximized and our expenses minimized.

To do this, we work on objectives that help departments, colleges and campuses access that information they need to make decisions. Since the U of I is highly decentralized, it is important to provide the infrastructure for accurate and timely information to assist decision makers and managers throughout the university. Students are the source of tuition, and although administrative units are not the reason students attend the U of I, a bad experience with the University can make it less likely for students to continue their attendance. We must help provide transactional services that make it easier for students and faculty to perform their work and gather the information needed to be successful. In regards to sponsored research, faculty continue to write more proposals and receive more awards each year. Research administration is key to making this process more efficient so that more proposals can be accurately submitted and awarded with the same (or less) administrative support. These are just a few of the examples of why our strategic objectives are chosen and how they are relevant to the success of the University.

Each objective 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 significant initiatives AITS intends to pursue in FY 11. These initiatives will be a key component in next year's annual progress report when reporting progress against our strategic objectives.

## SUPPORT THE ADMINISTRATIVE REVIEW & RESTRUCTURING

*Support the implementation of the Administrative Review & Restructuring (ARR) recommendations:* AITS will implement projects specified in the UA IT Council review of the ARR recommendations including:

### Grants Management Software
AITS is working with the Vice Chancellors Research on their evaluation and assessment of the Grants Management software.

### Workflow Project
AITS will implement and support workflow tools, software and standards.

### Expense Trends Analysis
AITS will provide a new Expense Trends Analysis cube.

### Shared Services
Involvement in increasing support of shared services for Desktop Support, Server Support, Storage, and Service Desk.

### Banner Modification Maintenance
AITS will in-source Banner modifications.

### Reduce Power Consumption for Desktop Computing
AITS will reduce the power consumption for desktop computing.

### Reduce Application Portfolio
AITS will reduce the application portfolio to reduce support costs.

### Disclosure Portal
AITS will implement and support the disclosure portal.

### Outsource Where Beneficial
AITS will look for opportunities to outsource where cost effective.

*Note: A number of the items below also support the ARR Implementation*

## INFORMATION MANAGEMENT

### Departmental Planning and Information Provisioning
Analyze and deliver beginning to end information delivery to the customer.

### Decision Support Function
AITS will work with Institutional Research (IR) and the University Technology Management Team (UTMT) Business Intelligence/ Performance Management (BI/PM) group to optimize data utilization across the enterprise.

### Document Management
Create University standards for document imaging, storage, use, retention and disposal.

### Information Management
Create a roadmap for the future state of obtaining, storing, validating, moving, using and disposing of data.

### Proactively Expose Banner Data
Provide consistent and straightforward methods for departmental applications and third-party applications to utilize authoritative Banner data.

### Data Quality
Provide consistent policies, procedures, and data entry standards.

## LOWER COSTS / STEWARDSHIP OF RESOURCES

### Equipment and Server Space
Determine the most efficient locations and configurations for primary and secondary (BCP) data centers. Consolidate any applicable equipment, including by equipment of others throughout the University.

### University of Illinois Community Source Solution Development
Work with departmental, college and central IT organizations and individuals to develop a process for sharing solutions across organizations to leverage and reuse IT resources. Where appropriate, extend local solutions to a broader audience to be maintained and offered at centralized points (college, campus, UI).

### PC Thin Client and Application Server
Create a plan to provide the following: Moving people to thin clients and mini PCs and configuring a Terminal Services and Citrix environment to host applications and clients.

### People
Preserve employment to the highest extent possible. Discussions related to the reallocation or reduction of staff should focus on impact analysis for services provided by AITS.

### Green IT
Create our statement of environmental sustainability.

### Administrative IT Consolidation
Continually search for opportunities to consolidate administrative services and functions where doing so can reduce costs while improving the quality and access to services and information.

### Use What We Own
Increase functionality of enterprise systems by specifically using more of Banner delivered functionality and eliminating as many costly modifications as possible. Be a Leader in the SunGard Community Source Initiative to enhance baseline product functionality at nominal cost to the UI and partner institutions.

### Support the Unified Communications Project
Participate and provide support for the UCP initiative to converge email, calendar, voice, conferencing and instant messaging services.

### Vendor Interaction
Leverage partnerships with our vendors to maximize benefit to the University and minimize costs.


## PROCESS IMPROVEMENT / INDUSTRY BEST PRACTICES

### Policy Documentation and Ownership
Organize all policies and create clear rules for establishing, maintaining, and owning policies. Ensure that every policy relevant to AITS has a champion and a caretaker.

### Coordinated Administrative IT Governance
Evolve the ITPC into a more complete solution. Work with the campuses to integrate with their governance processes.

### Measuring Progress

Document all relevant AITS metrics and provide regular updates and analysis of the metrics.

### Business Process Analysis

Identify avenues to create a more common and standardized BPA.

### Project Management

Coordinate all projects for consistency, communication, and standardization.

## RELATIONSHIPS WITH OUR CUSTOMERS

### Communication and Expectation Management

Complete and publish a communication plan including publications, media, schedule and constituents served.

### Get Students Involved

Provide opportunities for students to assist AITS through direct involvement or through college faculty.

### Administrative Services Training

Partner with other organizations to increase the consistency and access to IT training.

### Consolidated AITS Website

Create a one-stop shopping for services, standards, processes, pricing, policies, news, assistance, and contacts both internally and externally.

### Business Relationship/Development Management

Coordinate the customer needs to the delivery and modification of AITS services.

## SECURITY AND COMPLIANCE

### Comprehensive Compliance Monitoring

Create an ongoing coordination plan to ensure we continue to assign responsibility for implementation and track maintenance.

### Security Compliance

Review, revise and ensure compliance with all AITS and University security policies and procedures.

### PCI Compliance

Review and revise PCI-related policy and assist the University with compliance for PCI policies and procedures.

### Identity Management and Login Credentials

Unify identity management into a single logical and effective infrastructure.

# FY 11 Departmental Strategic Initiatives

AITS departments implement initiatives in order to fulfill the AITS strategic objectives as outlined above.  For FY 11, these initiatives are described below by department.  The first section describes initiatives that are shared among multiple departments in AITS.

## Shared Initiatives

**Web Content Management System (WCMS), Phase II Implementation:** The SitePublish WCMS provides the tools to automate the process of web content management - including content input, organization, storage, coordination, review, and publishing - in a timely fashion using a consistent method and format.  SitePublish removes most of the day-to-day burden of site content management from IT staff.  It empowers functional content owners, fostering a greater sense of ownership and buy-in. In FY 11, the second phase of this project will continue.

**Moving Documentation to SharePoint:**  AITS is pursuing a document management policy that includes moving all team documentation from CVS, network, and personal drives to SharePoint.

**Student 8.3 Upgrade for Banner:**  In order to remain supported with SunGard and stay up to date with the most recent features available with the Banner Student and Web Tailor system, a major upgrade to these areas will be done on September 12th, 2010.  Doing so will also allow us to move forward with other planned projects including the Banner Relationship Management System.

**Banner Relationship Management Project:** SunGard's Relationship Management suite of products (formerly Enrollment Management) will help the University manage the relationship with prospective students, make informed decisions about campaigns and programs, use scorecards and dashboards to provide reports and analytics to management, provides easy comparisons of performance to goals, and provides a retention management tool.

**Travel and Expense Management System:**  AITS is tasked with building the hardware infrastructure required for a fully on-premise installation, completing the installation of the vended app, integrating with the Banner Accounts Payable system for travel reimbursement, developing other interfaces as required for syncing the vended application with authoritative Banner data, providing authentication services via EAS, and establishing a channel for requesting application access and other configuration items in the USC Portal.

**Business Objects XI Release 3.1 Upgrade Implementation:** In FY 11, AITS will upgrade the Business Objects Enterprise system to Release 3.1 and the current service pack.

**SunGard Database New Beta Project:**  AITS is taking a proactive, lead role in being a SunGard beta test partner for their Database New Beta project.  This is critical to our long term success for supporting Banner in that it gives an early look at the changes associated with this effort including a large production conversion as well as allowing the University of Illinois an opportunity to offer suggestions and feedback before the process is finalized.

**Oracle 11g/Fusion Middleware 11g Upgrade for Banner:** The Banner production database as well as the middle-tier application servers will be upgraded to version 11g and Fusion Middleware 11g.  The current versions of both the database and middle tier will be unsupported by the end of 2011 so this upgrade is mandatory from a support standpoint as well as implementing new features associated with the new releases.

**Upgrade the EDW to Oracle 11g:** In FY 11, AITS will upgrade the EDW database from 10.2.0.4 to 11.1.0.7 to stay within Oracle supported releases.

**Upgrade non-Banner databases to 11g:** In FY 11, AITS will upgrade all non-Banner databases to 11.1.0.7 to stay within Oracle supported releases.


# Administrative and Financial Management

**Administrative Support Matrix:**  In FY 11, AFM will document the support matrix for oversight and performance of essential administrative services that improve service to AITS and the University. This team will also centralize all business responsibilities and administrative support under AFM.

**Administrative Process Improvement:**  AFM will serve as willing advocates for sound and responsible management of AITS resources and provide advice in support of administrative services.

**Stipend Program Review:**  In FY 11, AFM will complete multi-phased review and create recommendations related to the AITS stipend program.

**Update HR Policies and Practices:**  AFM will review the policies and practices of the divisions within AITS and integrate and update these into a single set of policies and practices across the organization.

**Social Environment Enhancement:**  In FY 11, AFM will continue to develop and enhance working conditions that are excellent for both the employees and the organization by building better relationships and achieving organizational social objectives.

**Rewards and Recognition:**  AFM will promote and enhance employee programs that encourage recognition, professional development, and personal growth.

**Human Capital Initiative and Strategic Workforce Planning:**  AFM will ensure organizational effectiveness through resource management, communication mechanisms, and ongoing evaluation to meet the needs of AITS.  AFM will also review and begin the formal implementation of an AITS-wide workforce and succession plan.

**Performance Appraisal:**  In FY 11, AFM will develop a role and competency based performance appraisal system which will take into account both objectives and behavioral competencies while linking development goals to organizational values and objectives.

**Management Development:** AFM will provide supervisor and manager training to a broad group of AITS leads and managers on topics including the difference in managers versus leaders, maximizing effectiveness, and talent management.

## Applications Development, Support, and Data

**Migrate OBFS SQL Servers to new hardware: As** part of OBFS hardware refresh, in FY 11, AITS will migrate to new hardware and upgrade to SQL Server 2008 64-bit.

**Implement ZFS disk snap technology in Banner development environment:** In order to reduce the disk consumption for all of our needed non-production Banner databases, AITS will implement ZFS Snap technology to clone databases.

**Transition VetMed database and application servers to AITS hardware and support:** In FY 11, AITS will work with VetMed to transition their Oracle database and application to AITS hosted servers. AITS will also transition the support of the Oracle database to the AITS DBA team.

**Update QA Server Platform:** In FY 11, AITS will update the Quality Assurance Server Platform that currently resides on Windows 2000 servers that are utilized for functional, regression, performance, and automate the testing of hardware and software at AITS. Quality Assurance performs the testing for internal projects as well as other UA departments and Campus entities such as CITES. The current platform is in need of updated OS and hardware to become vendor supported. These updates will allow increased capacity and consolidation.

**Replace QA Test Management Tool with Test Director:** HP Test Director will be an enterprise level test management replacement for our current in house developed QA Tool. Test Director is compatible with our HP Quick Test Professional and LoadRunner software utilized in performance, functional, and automated regression testing. Currently Quality Assurance is utilizing a home grown QA Management Tool built on a Microsoft Access platform. This tool tracks all test plans, test cases, changes, defects, and has a user base of over 60 users including Developers, Testers, Analysts, and Clients. The new system will provide enterprise level project data, analysis and tracking.

**Business Objects CMS Data Retrieval:** The Business Objects XI repository has information that would be extremely useful to those in AITS who support the Business Objects infrastructure. This information can be divided into two types: user supplied and system generated. The repository is a proprietary database, called the Central Management Server (CMS) database, and the data can be accessed through Java SDKs. This data cannot be accessed through normal SQL tools such as TOAD or through a Business Objects universe. A proof-of-concept Java batch application was written to retrieve information from the repository. It needs to be enhanced to write to Oracle tables, which would be refreshed nightly.

**PRZM Evolution Proof of Concept:** PRZM was developed in-house and needs updating to reflect current needs. This will require analysis and proof-of-concept of PRZM/FCPWeb integration to populate new projects in PRZM when they are created in FCPWeb with cross-validation of data. The new look for PRZM is based on the VSA design.

**Upgrade to 4.0.3 version of Darwin:** All campuses are using the DARwin version 3.5.6 and there is an upgrade available to 3.5.8. However, there is a direct upgrade path available to version 4.0.3 that is built on Java and would be easier for AITS to support. The upgrade to 4.0.3 would allow the campuses to enjoy several new benefits. Audits can be run in HTML or PDF formats allowing reformatting capabilities and the sharing of templates for PDF versions with other schools. Exception entry screens are also provided in 4.0.3 and would require customization for the current version. Additionally, exception security has been added to allow controlled entry into DARSweb by exception code or requirement.

**Moodle enterprise service offering:** AITS is looking to partner with College of Education to leverage the expertise of both offices in providing an enterprise offering of Moodle LMS. The services could be offered at various levels depending upon the needs of the campus department.

**Business Process Management (BPM) Solution Suite:** Many organizations are looking to implement business process or workflow solutions to cut costs and improve efficiencies. AITS is evaluating various BPM/Workflow solutions including existing products such as Banner Workflow, Xtender, HRFE, Infinity, and others, to perhaps offer a suite of BPM/Workflow solutions. The solution set may likely include the development of a routing assignment service which would maintain a central set of routing assignments by role and by person that can be used by workflow and routing engines.

**HRIS Application Standardization:** The HRIS applications and developers were consolidated with AITS in order to provide enterprise level support for the HR applications. As part of this consolidation, the applications will be restructured and have their deployment patterns revised to comply with AITS standards. This restructuring will allow the applications to utilize enterprise services such as AppWorx, SiteScope, Urchin, SVN, etc., which will make the applications more robust and take advantage of existing resources and expertise.

**UiReport Portal:** AITS will participate with OBFS, HRIS, and other organizations in the visioning, design, and development of a centralized reporting portal. This multi-phase project looks to provide an individualized delivery mechanism for reports developed on various reporting platforms while using a common platform such as a portal. AITS will facilitate the integration of this project with other initiatives such as uPortal and Luminus implementation.

**Development of an Enterprise Open / Community Source Facility:** As part of the Core Services Team, ARR, and IT@Illinois, the council of CIOs have chartered an initiative to build an environment for sharing applications, services, and providing a facility for building open source products within the University. AITS will actively participate in this effort by hosting the environment and actively contributing services, applications, and enterprise expertise to the effort.

**Software Engineering Process Group (SEPG) SDLC Development:** The review, documentation, and implementation of a formal Software Development Life Cycle (SDLC) is an ongoing and continuous process. The SEPG completed development of SDLC 2.0 and will roll it out to the organization in FY 11. These efforts follow the model described by the CMMI standards.

**CIC - Application Development:** AITS will continue to be a participating and contributing member of the CIC Application Directors consortium for Big Ten schools. This will allow AITS to

continue to evaluate and monitor the progress of our IT systems in comparison to our Big Ten peer institutions.

**UOCP Portfolio Management:** The support of UOCP systems by AITS has allowed for growth and long term sustainability of these systems for the University while reducing overall support costs.  AITS will continue to build architectural roadmaps for the product suite and provide comprehensive end-to-end services for UOCP.  FY 11 enhancements to the systems include further integration of the systems with other enterprise services and systems as well as major upgrades to existing applications.   The systems will also continue to be enhanced to provide further functionality to external vendors.

**Unit Security Coordinator (USC) Portal:** This project will develop an application to address a number of needs regarding how application security is requested and managed for administrative IT applications at the University.  The project will include a single point of access to request security access for applications, the ability to audit and reconcile access, and will facilitate training and annual review of security access across the University.   The project will provide significant time savings for USCs throughout UI and for the security team managing security access.

**FY 11 HR Front-end Application Support:** The purpose of this effort is to provide application maintenance, enhancements and service desk support for the HR Front-end application.

**Vacation and Sick Leave (VSL) Application Integration to Banner:** This project will provide an alternative mechanism for departments with online leave reporting systems to feed academic vacation sick leave (AVSL) data into Banner rather than using Banner forms.  The development of an integration for AVSL data into Banner will help to prevent data entry errors and improve the efficiency of vacation/sick leave processing.

Another purpose of the project is to make the current UA AVSL application message-aware so that an implementation model can be developed for other departmental academic leave systems.  The UA AVSL application will be modified to use the existing BasicPerson and BasicEmployee sync messages and as well as the proposed leave integration to Banner.

**Electronic I-9 System:** The purpose of this project is to implement a vendor hosted electronic I-9 system that will provide error identification, retention period tracking and recertification monitoring capabilities to help ensure compliance.  The system will also electronically feed to E-Verify.  Employees will be able to complete their I-9 forms online and the department will be able to process and send electronically to HR.

**On-Call and Contact Management System:** The system will consolidate all of the contact information into a central data store and interface with Banner to consume basic person updates to automatically keep business contact information current.  There will be a web interface used by staff to update personal information that is not stored in Banner.  A scheduled application will generate email notices to employees to review and update their contact information on a regular basis.

**License Tracking Project:** The purpose of this project is to create a centralized web and reporting application for tracking software licenses in use by AITS.

**Batch Application Migration:** The purpose of this effort is to migrate applications started via AppWorx to application servers that do not have the same restrictions as our database servers. The goal is to migrate all applications of this type to this new platform.  The first phase of the project, focusing on the applications that are currently an exception to our security policy, is complete.

**Creation of Xtender Virtual Team:** This team will ensure support of Xtender activities is coordinated across all AITS departments.

**University-wide Community Source Initiative:**  A collaborative model across the University of Illinois which will allow colleges and departments to share their solutions across the enterprise, reducing duplication of effort.

**1098-T Interface Project:** This project will eliminate the use of a third-party vendor, merge and process all 1098-T information in-house and post summary 1098-T information to students on Banner Student Self-Service.

**Student Transcripts to PDF:**  By generating and delivering transcripts as PDF files for some instances, the University can provide timelier, convenient and less costly services, reducing paper and postage costs, as well as staff time required to print and send transcripts.

**Tuition Waiver Calculator Rewrite Project:** This project will rewrite the existing application to utilize Banner delivered assessment calculation logic, and will greatly reduce the manual labor-intensive work in the form of maintaining Financial Aid assessment type rules and adjusting incorrect tuition and fee waivers.  Utilizing the assessment rules will also greatly improve the accuracy of waivers.  The successful implementation of this project will allow the decommission of three existing tuition waiver applications (existing tuition waiver calculator application, tuition waiver calculator front-end and tuition waiver calculator front-end loader utility).

**Cloud Computing - Federal Methodology Needs Analysis:**  SunGard will be providing the federal methodology calculation for calculating expected family contributions for financial aid in a hosted, Software as a Service (SaaS) environment that the University would like to take advantage of, rather than implementing and supporting the functionality in-house.

**Web for Proxy Project:** The University of Illinois is partnering with several other institutions as part of the SunGard Community Source Initiative on a Web for Proxy project which will allow a student to identify other persons who will have permission to access their data in Banner Self-Service.

**Academic Notice of Appointment Rewrite Implementation:**  We are working with HR Offices to replace the current Academic Notice of Appointment (NOA) with a version that would provide a more concise and accurate information regarding the employee's position (s) and reduce the number of erroneously generated NOAs.  Project team is currently working on finalizing functional requirements and development of the application has begun.

**EAS Enhancements:** AITS is currently working on enhancements to EAS. The primary purpose of this project is to ensure compliance with University of Illinois Strong Password Policy as well as integrating EAS with Banner, BEA, and I2S.

**Moodle On-line Training EAS Integration:** AITS is working with Vice Chancellor for Equal Opportunity and Access and ATLAS to provide an EAS integration for the Moodle On-line training application.

**Urbana Undergraduate Admissions Paperless Migration:** AITS is working with the Urbana Office of Undergraduate Admissions to develop an integration between their eAdmit application and Banner. In addition, we will need to develop an integration to get documents from eAdmit to Xtender, and a redirect from Web for Admissions to their Web portal.

**FABWeb:** AITS is working with OBFS to integrate Banner data with FABWeb. FABWeb will be used by both Departmental staff that handle fixed assets as well as by Property Accounting Office staff. FABWeb utilizes messaging to query from Banner for display in FABWeb and to send updates made in FABWeb to Banner. We will work on the final integration release in FY 10.

**Service Desk Manager:** AITS integrated Banner data with CA Unicenter Service Desk (USD) in FY 09. Additional enhancements were added this year. AITS re-platformed the Unicenter Service Desk (USD) tool and upgrade to Service Desk Manager (SDM) version r12.1. We will continue to make improvements the production system in FY 11.

**Vendor Database Project:** AITS worked with UOFPP to develop a centralized vendor registration application that allows vendors to register with the University for the creation and execution of capital construction contracts and programs. The vendor application centrally maintains vendor contact and legal information which is then integrated with other applications such as PRZM, FCPWeb, and Upside. This integration eliminates duplicate and inaccurate data that was separately maintained by each application. A new authentication system was also created call Vendor Authentication System (VAS) which was built upon the EAS repository which allows individuals external to the University to create IDs for authentication to university applications. Previously, authentication credentials were maintained by each application for external users and there was no central mechanism like EAS to centrally maintain credentials for external users. Additional integrations and enhancements will be made in FY 11.


## Computer Operations Engineering

**Improve EDW Query Performance:** In FY 11, AITS will identify areas of the EDW that are negatively affecting users with slow query performance. Through optimization and design techniques, we hope to improve performance for the EDW users.

**Implement Cognos Business Intelligence:** As part of the SunGard Enrollment Management System, implement the Cognos Business Intelligence software to support vendor-provided BI products.

**Deliver BI via campus/university portals:** In FY 11, AITS will deliver Corda Centerview graph and/or Business Objects products via a portal.

**Administrative Network Upgrade:** The new design provides 10 Gbps rates within the data center, separates routing from switching, supports IPv6, and consolidates the IPS within the router.  Load balancing will be performed using our existing Foundry load balancers which are not being refreshed for budgetary reasons.  This hardware purchase is being made now with an implementation planned for next fiscal year.  The re-design allows us to save $1,000,000 compared to a design that simply refreshes today's equipment with new Foundry components.

**AD/Exchange Consolidation:**  CITES and AITS will migrate users and Email into a new, jointly-operated, Active Directory forest.  The new forest will also be the basis for a Unified Communications implementation.  UC will provide voice, video, presence, instant messaging, voice mail, roaming, conferencing, and telephone services via Microsoft Office.

**Linux Server OS Upgrades:** Red Hat Enterprise Linux 3 AS has reached end of life.  All RHEL3 instances will be retired or replaces with RHEL4 and RHEL5 instances.

**Linux Server Virtualization:**  All non-production instances of Red Hat Enterprise Linux will be migrated from physical hardware to a virtual machine.

**Affiliation Service:** The goal of this project is to address the problems with tracking non-traditional identities affiliated with the University for the Identity Management project.   This project will allow for the creation of streamlined and standardized business processes, reduce the cost of future IT projects, provide significant labor savings, and lay the foundation for an enterprise identity and access management solution by:
  o   Creating or identifying authoritative sources and business processes to manage non-traditional University affiliated identities at the enterprise level.
  o   Modifying or creating a service to provide event-driven messages as those affiliations change.

**Evolve Configuration Management Database (CMDB):**  In FY 11, AITS will document the Configuration Management policies and procedures and improve the use of the Configuration Management database. This system will improve AITS ability to manage Enterprise System portfolio, maintain full inventory of enterprise systems, and improve system architecture and design processes. This project will also allow for better system outage maintenance, impact analysis, and communications.

**End to End process incident/request process:**  In FY 11, AITS will modify the Incident, Work Request, and some ITPC process to provide AITS the ability to track client requests inception to deployment.

**Fully document the change management process:**  In FY 11, AITS will improve the change management processes and procedures and expand the use of this process to other UA and campus units.

**GC Decommission:** In FY 11, AITS will continue to decommission Global Campus remaining infrastructure components.

**Upgrade SonicMQ and AppWorx:** In FY 11, AITS will upgrade AppWorx and SonicMQ to remain on a supportable product releases.

**SVN Service:** In FY 11, AITS will create the proper business processes and procedures to expand the use of the UA-Subversion (SVN). AITS will work with various departments in both UA and the campuses to use SVN for the versioning needs.

**Complete Actional Implementation:** In FY 11, AITS will complete the implementation of Actional. This software provides the ability to analyze data flow through the Service Oriented Architecture and identify data use trends. Actional is also capable of controlling the data flow, securing access to data, and implement data service level agreements.

**Implement Poller Application:** In FY 11, AITS will improve operational efficiencies and system monitoring by implementing monitoring at the EAI service level.

**CMDB/Change Management:** Application Support is currently responsible for supporting and maintaining the Unicenter Service Desk ticketing application. To make further use of this tool, new features and functionality associated with the Configuration Management Database (CMDB) and Workflow for Change Management will be installed and activated to assist with the cutover of the new change management process and decommissioning of the existing application.

**View Direct Policy Rewrite to support BOXI:** It has been identified by the AITS Development team that currently there are 424 business reports generated from BO in PDF format, then transferred to ViewDirect for end users to view. Decision Support would like to complete the upgrade of the Business Objects (BO) batch portion of the application where the 424 report PDF files will be generated in CID (Unicode) format. Combined with this effort is the prerequisite task of upgrading View Direct and modifying all associated policies to support the new reports and version of BO and VDR.

**BDMS 6.5 Upgrade:** In order to remain supported with EMC and SunGard, a major upgrade will be done to the Banner Document Management System. As such, the existing application will be brought up on new machines to replace obsolete equipment as well as on virtual servers.

**Talisma Upgrade:** A planned upgrade of the Talisma Constituent Management System will be done to both provide enhanced functionality to the Urbana Admissions department, stay supported with the vendor as well as move portions to virtualized servers to conserver both energy and data center space.

**WCMS standards and search capabilities:** For FY 11, there are plans to move the ITPC, Apps, UTMT and HRFE sites along with others to the SitePublish platform. As part of there efforts, standards and processes will be built in regards to requesting and building new SitePublish environments in order to provide a matter of efficiency and service to our clients. There will also be considerable effort put forward for search capabilities through use of the Google Search Appliance as well as a migration strategy for moving sites from prod to dev.

**Expand of the scope of measuring availability of administrative IT systems:** The availability numbers of the Banner Forms and Self Service applications are currently maintained

metrics.  The scope of these numbers will be increased to include EAS, SitePublish, and other key systems.

**Banner Community Source Technical Committee:**  Participation on the Banner Technical Review Committee to review submissions to the Committee Source Initiative.  A goal for this year will be to submit the Patch Tracker application to the CSI in hopes of having it baselined and maintained by SunGard and alleviate some of the support responsibilities by the University of Illinois.

**Develop better way to manage SSH keys for batch processes:** In FY 11, AITS will improve the provisioning process for creating and managing SSH keys, which is used to secure data transfer between AITS, Vendors, and other departments.

**Tool for loading Sonic and LDAP objects:**  In FY 11, AITS will automate the process for provisioning new EAI messages for both internal and non-AITS applications.

**Deployment Readiness Tool** – checks environment to make sure all objects (xml, ldap, db, sonic) exist for the intended deployment: In FY 11, AITS will deploy a tool to automate the process for preparing and making shared non-production environments ready for development efforts and testing.

**Upgrade Tomcat instances to Tomcat 6:**  In FY 11, AITS will upgrade shared enterprise systems to use Tomcat 6. This upgrade will bring existing applications to a more current platform and make new Tomcat features available to various development teams.


## Decision Support

**Improve product quality and maintainability by addressing Data Warehouse subject areas with usage or usability issues:** Review Financial Aid, Recruiting & Admissions, and Payroll. Analyze current usage, identify usability issues, and determine what actions to take, e.g. removing unused tables, redesigning areas to improve usability, etc. Create and execute projects and/or work requests as appropriate.

**Improve efficiency by centralizing customer support and CRM activities:**  As part of merging AITS and Decision Support, a number of support activities that DS previously performed separately will be consolidated and handled centrally by other parts of AITS:

- Access request provisioning
- 2nd tier help desk support
- BI tool training

This also includes working with the new CRM function that will coordinate customer-related activities across AITS.

**Provide a more integrated set of information solutions to customers by centralizing BI development:** Combine the teams performing BI development and Standard Report development. Incorporate Standard Reports into BI Product Planning, BI Governance, and BI

Development and Maintenance processes. Extend staff capabilities to include Cognos development to support the BRM project.

**Support new and expanded product offerings by extending DW and support infrastructure:**  Establish better ways to connect customers to OLAP cubes and support their use. This includes R&D efforts related to portals, remote desktop, and OLAP browsers.  Also includes determining effective approaches and methods for support, training, and metadata. Partner with Service Desk and CRM functions as appropriate.

**Ensure quality of data in the Warehouse by performing systematic data validation:** Establish procedures to systematically validate that the data in the Data Warehouse has been correctly extracted, transformed, and loaded from source systems. Determine appropriate levels and types of validation by product and/or subject area. Develop validation queries, scripts, etc. and perform validations on a scheduled basis, either automated or manually as appropriate. Identify and address data anomalies.

**Enable decision makers to perform data-driven analysis by providing OLAP cube solutions that are targeted to critical areas of their business:**  Scope, build, and deploy one OLAP cube solution relevant to the current fiscal crisis for each subject area: Expense Trends Analysis (Finance), Employee Headcount/FTE Analysis (HR), and Student Enrollment Analysis (Student).

**Improve beginning to end information delivery to the customer by evaluating the current mix of BI/DW capabilities and services provided and the existing architecture that supports them:**  Assess how the current BI/DW capabilities and architecture support customers' information needs and make recommendations regarding: portals; data visualization, including dashboards and graphical reports; push technology for reports.

**Improve beginning to end information delivery to the customer by determining how the different sources of enterprise-level administrative data should work together to support customers' information needs:**  Enterprise-level sources of administrative data include: Banner production, REPTPROD, the Data Warehouse, and potentially the new Banner ODS/EDW implemented with EMS. Assess customer usage/needs and determine which kinds of information needs each data source is most appropriate to support. This is a first step towards the longer-term goals of reducing overlap and customer confusion regarding which sources to use, and optimizing each source for the kinds of information needs it supports.


## Enterprise Architecture

**UA Portal:** The goal of this project is to redeploy the Enterprise Applications site (https://apps.uillinois.edu/) to a portal technology, which is more suitable for the purposes of this website. The goal of the Enterprise Applications site is to serve as a portal or gateway for all enterprise applications.  Currently this site is deployed using static web pages, inflexible architecture, and does not support personalization.

**Identity and Access Management (IAM) Solution:** The objective of this project is to identify current issues with identity management, review and modify existing policies, document

requirements, and recommend the deployment of enterprise wide IAM system for Access Management at the University of Illinois. The assigned project team will be looking into the following six tenets of identity management: identity governance, identity affiliations, Identity Business Intelligence, identity proofing and provisioning, authentication, and authorization.

**Web Content Management system (WCMS) as a service:** Create the proper business processes and procedures to expand the use of the UA-WCMS (SitePublish). Work with various departments in both UA and the campuses to migrate their websites to SitePublish. Create a University-wide Website (web.uillinois.edu) to publish shared documentation and tools for managing websites.

**Document the Enterprise Architecture decisions and standards:** Document the Enterprise Architecture decisions and standards.

**Create EAC web page on the AITS sites:** Create an Enterprise Architecture web page to communicate the EAC standards, decisions, and work. This page will also provide an overview of the UA Enterprise Architecture.

**Incident Management:** AITS continues to coordinate incidents utilizing the process in place that includes updates to users during critical incidents, an executive summary, and follow-up information on what caused the incident and how it was resolved and what we were doing going forward to prevent this from happening in the future.


## Information Security and Compliance

**Comprehensive Compliance Monitoring:** Create a proactive, ongoing coordination plan to ensure we continue to assign responsibility for implementation and track maintenance to reduce IT risks and support internal and external compliance audit activities.

**Security Compliance:** Review, revise and ensure compliance with all AITS and University security policies and procedures. Coordinate with Unit Security Contacts (USCs) throughout the University to ensure periodic training and access reviews are completed.

**Identity Management and Login Credentials:** Unify identity management into a single logical and effective infrastructure. Continue working with UTMT subcommittees and AITS Architecture on the Identity and Access Management project to ensure we meet necessary security and audit requirements.

**PCI Compliance:** Continue to provide guidance and technical oversight of PCI compliant implementations including policy and process reviews, architecture reviews, as well as periodic vulnerability and penetration testing. Major University merchant implementations in FY 11 include the Urbana and Chicago campus bookstores, Chicago Parking, Urbana Bevier Hall, and Urbana Assembly Hall.

**BANNER HR/Pay and Student Security Group/Profile/Class Review:** AITS Security Administration will facilitate the tasks with HR/Pay and Student representatives necessary to review

all BANNER HR/Pay and Student Profile/Class/Form relationship. Additionally, BANNER HR/Pay and Student Profile ownership will be established.

**BANNER 8 Security Enhancements:** AITS Security Administration will create new processes to support the BANNER 8 security enhancements. This initiative will continue in FY 11 as the Banner Security Group/Profile/Class review is completed for all modules, AITS Security Administration will create new processes to support the BANNER 8 security enhancements.


## Portfolio Management Office

**Application Portfolio Review:** The PMO worked with individuals across the organization in late FY 10 to put into place a process for the periodic, systematic evaluation of all applications in the portfolio to identify items for retirement, replacement or a change in maintenance sourcing. That initial effort reviewed 266 applications and recommended action on 80 items. This review will continue on an annual basis.

**Unified Communications Program Support:** The PMO is working with the CITES project team at the program coordination level as well as providing tools and expertise in this area.

**Expanded use of IT Governance:** Michael Hites and the PMO have been working on efforts to expand the practice of IT governance into more locations across the University. As these IT governance processes are developed, it is desired that the IT governance process for administrative IT, ITPC, can be integrated with these.

**Increased attention to BPA in ITPC project proposal review:** The ITPC project proposal template will be modified to solicit better information regarding the business processes associated with the project proposal. The intent is that we should be focusing on addressing root causes instead of treating symptoms.

**Project Management Lifecycle:** AITS will continue the evolution of the Project Management Lifecycle (PMLC) to include more project types in its standards as well as promote use of the methodology across the organization.

**Enhancing Organizational Metrics:** New measures of success will be developed and measured for new components of AITS.

**Consolidated AITS Website:** The Customer Relations group will work with teams from across AITS to design and implement a consolidated AITS website with enhanced functionality focused on customer usability and access to data.

**AITS Communications Plan:** Working together, the Customer Relationship Group, AFM and PMO will complete and publish a communication plan for AITS including publications, media, schedule and constituents served.

# Appendices

## Other Information

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

AITS Internet:  www.aits.uillinois.edu
ITPC:  www.itpc.uillinois.edu
UTMT:   www.utmt.uillinois.edu

## IT Service Catalog

For a full description of the following services that AITS provides, please visit our IT Service Catalog.

- Application Development
- Application Support
- Authentication and Authorization Services
- Backup Management Service Catalog
- Business Continuity Planning
- Business Process Analysis and Automation
- Change Management Service
- Database Services
- Desktop Support
- Directory Services (LDAP, Active Directory)
- Distributed Hosting Service
- Document Management (DM)
- Email and Calendar Services (MS Exchange)
- Enterprise Application Integration
- Enterprise Batch Scheduling
- Firewall Service
- IT Portfolio Management
- Release Management Service
- Remote Access and VPN
- Service Desk Management
- Source Code Version Control
- Storage Management
- System Monitoring and Metrics Collection
- Technology Performance and Optimization
- Web Content Management System (WCMS)

# Key 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 stand-alone FAITS Metrics Report is available separately.  This section of the progress report highlights selected representative items from that report.  The complete FY 10 AITS Metrics Report is available on the AITS website at the Reports and Presentations link.

## Select Metrics

**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 increased at a rate of 97%, from 261 databases in FY 09 to 514 databases in FY 10 mostly due to transitioning support for OBFS-BIS SQL Server databases. Host servers increased at a rate of 26%, increasing from 35 database servers in FY 09 to 44 database servers in FY 10, again mainly attributable to transitioning support of OBFS-BIS SQL Servers.

**Quantity of Data:** The volume of production and development environment data stored on AITS maintained hardware increased at a rate of 6%, increasing from 17.1 TB in FY 08 to 18.2 TB in FY 09.

**Allocated Storage Capacity:**  Allocated storage capacity increased at a rate of 26%, increasing from 107 TB in FY 09 to 135 TB in FY 10.

**Security Service Desk Tickets Closed:**  The volume of security service desk tickets closed by AITS Security Administration increased at a rate of 11%, rising from 1,368 tickets closed in FY 09 to 1,521 tickets closed in FY 10.

**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 10 was 97.3%.  Availability excluding planned outages was 99.2%, meaning that unplanned unavailability of these systems was 70 hours for the year.  These 70 hours include issues such as power outages, system outages, and infrastructure problems.

**Total Change Requests (CRs) Submitted:**  The volume of CRs submitted for deployment was steady with 1,878 requests in FY 09 and 1,886 requests in FY 10.

**Report Usage:**  An analysis of report usage via ViewDirect indicates that there are a large percentage of unused reports among all available.  As of the end of FY 10, 92% of reports in ViewDirect were not being utilized indicating that an effort is needed to archive unused reports. There is an initiative ongoing to examine and decommission reports no longer in use.

**Project Performance:** Project performance against budget and schedule improved for AITS-led ITPC projects in FY 10 with the average ongoing percentage of projects on schedule increasing 9% and the average ongoing percentage of projects on budget increasing 2%.
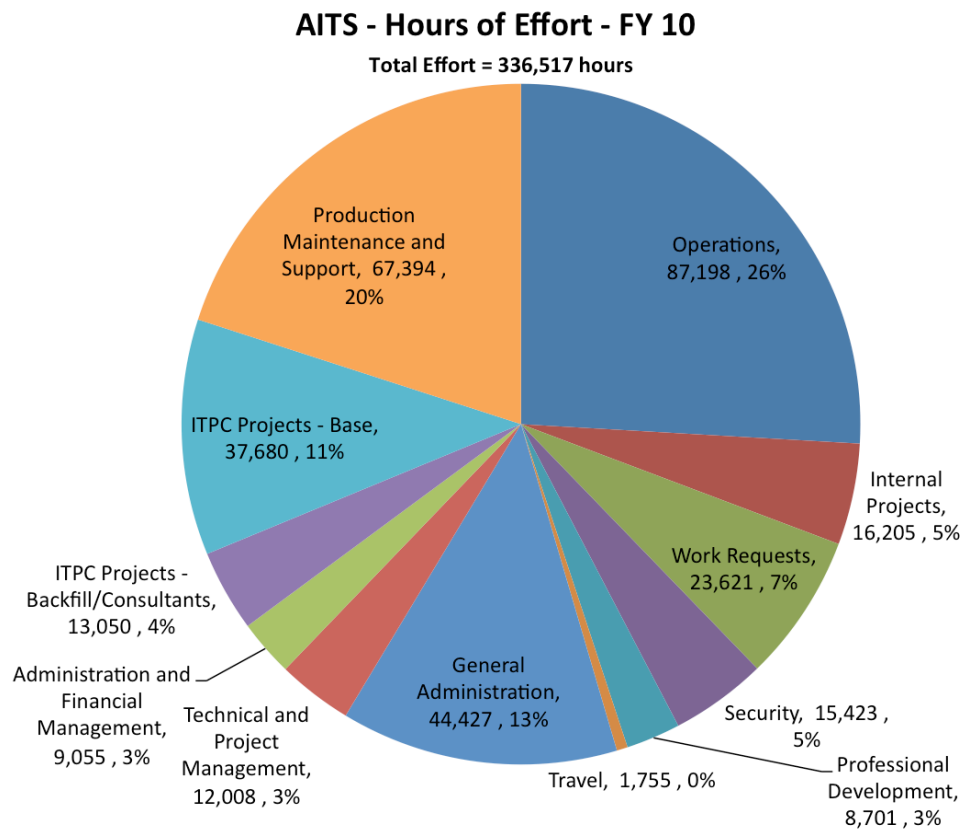
**Projected AITS Project Capacity for FY 11:** The following chart provides an overview of AITS discretionary project resource availability for the coming fiscal year. AITS' approximate base capacity for projects is 26.3 FTE. AITS's approximate augmented capacity for projects (capacity including backfill and contractors) is 36.3 FTE. These figures are as of July 1, 2010 and it is expected that attrition throughout the year will reduce this capacity.



AITS - FTE Distribution by Function

- ITPC Projects - Backfill FTE - 10.0 — 5%
- Maintenance and Support - 34.7 — 16%
- Operations - 56.1 — 26%
- Capacity for ITPC projects = 36.3 FTE — 17%
- ITPC Projects - Base FTE - 26.3 — 12%
- Security - 8.3 — 4%
- Work Requests - 16.2 — 8%
- Mgt. & Tech. Leads - 16.4 — 8%
- Non-technical Support - 20.5 — 10%
- Internal Projects - 13.0 — 6%
- Admin & Fin. Mgt - 10.0 — 5%
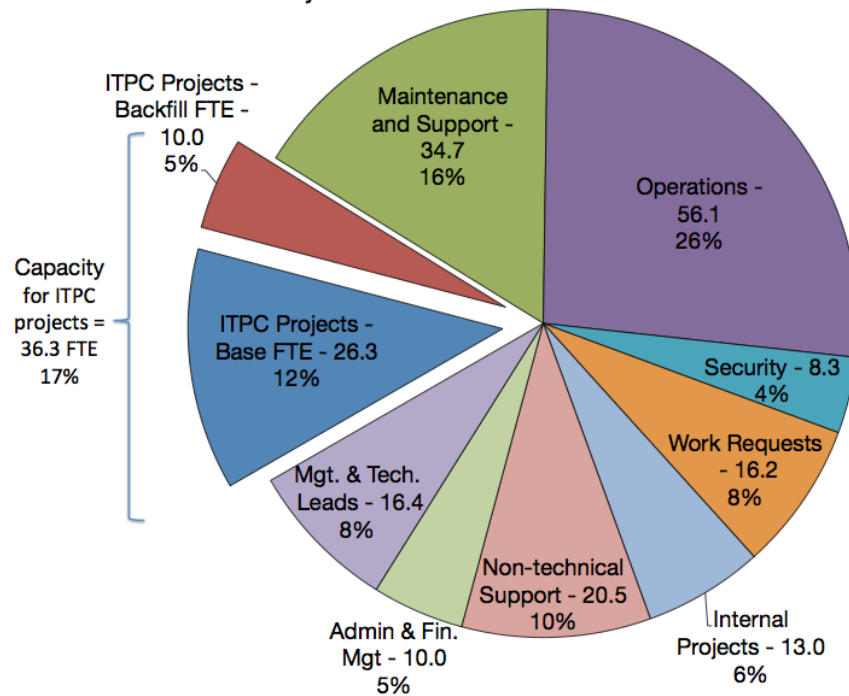
**Total AITS Effort Breakdown for FY 10:** The following chart shows the actual hours spent by AITS resources in FY 10.

**AITS - Hours of Effort - FY 10**

Total Effort = 336,517 hours

- Production Maintenance and Support, 67,394, 20%
- Operations, 87,198, 26%
- ITPC Projects - Base, 37,680, 11%
- Internal Projects, 16,205, 5%
- Work Requests, 23,621, 7%
- ITPC Projects - Backfill/Consultants, 13,050, 4%
- Administration and Financial Management, 9,055, 3%
- Technical and Project Management, 12,008, 3%
- General Administration, 44,427, 13%
- Security, 15,423, 5%
- Travel, 1,755, 0%
- Professional Development, 8,701, 3%

**University Processes Supported:**  This metric shows the approximate number of systems developed, maintained, or hosted by AITS.  They are organized into the following categories:

- **Banner and Banner related systems:**  AITS supports the SunGard 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 or custom vendor - developed components.
- **Business applications:**  Business applications are applications that address a specific business function supporting the strategic goals of the University.  These systems can be developed or purchased by the University, AITS, or a departmental partner.
- **Infrastructure and tools:** These systems are used to run and manage the University's information assets.  These include but are not limited to: operating systems, database management systems, message brokers, version control software, application servers, and monitoring infrastructure.  AITS supports these infrastructure components for the University and they are used internally within AITS.  Tools help AITS and AITS clients build or extend existing functionality. Services such as OpenEAI, SharePoint, LDI, and Drupal fall into this category.
- **Interfaces:**  AITS has developed and currently maintains over 100 interfaces designed to integrate Banner data with other systems.
- **Reports:**  There are over 1,600 reports and websites maintained by AITS.  (Not included in the chart below.)



Approximate count of systems developed, maintained, or hosted by AITS

| Category | Count |
|---|---|
| Interfaces | 120 |
| Buliness Applications | 62 |
| Infrastructure and Tools | 104 |
| Banner and Banner Related Systems | 91 |