

Administrative Information Technology Services FY 16

Executive Summary

It has been demonstrated repeatedly that the most expensive way to manage administrative information technology is through decentralization. Central IT is the greatest cost reduction engine in the university, and it helps create and preserve high quality business functions throughout the University.

Through administrative IT delivered at the highest scale, AITS moves the University's business processes from paper, to electronic systems, to web-based services, and to mobile technology as demand for productivity increases and as IT continues to innovate. The projects that AITS works on support cost reductions that are distributed throughout the campuses, colleges, and departments of the University of Illinois.

By implementing recommendations from four administrative reviews over seven years, AITS has saved the University millions of dollars by consolidating employees and services into AITS. Additionally, AITS completes projects that are prioritized by the campuses with our often-imitated governance process that results in millions of dollars of increased labor productivity for the University. We estimate that for every dollar of investment in enterprise projects, three dollars of benefit is obtained.

AITS has helped dozens of departments increase administrative efficiency. AITS can continue to help colleges and departments consolidate administrative IT services and shrink costs by reducing unnecessary redundancy and providing services at less cost than they are currently being delivered. To raise revenue, we should provide additional hourly consulting services, offer consolidation services that save units 31% of their current costs, and work with other public schools to increase income to the University of Illinois.

There are significant unfunded expenses in AITS. The annual maintenance fees for the business software used by the campuses is paid by AITS, and the annual increases mandated by existing contracts are not funded. The replacement for the enterprise hardware that supports Banner and the enterprise data warehouse is unfunded. As we support more new business software each year at the request of our customers, we have not received increases to restore capacity to perform new efficiency projects, so we implement fewer projects that increase productivity. New cyber threats are appearing at a rate faster than we address them because we have not invested in fighting them. Administrative software is often developed in a decentralized manner because it is not funded at an enterprise level. Industry research at both EDUCAUSE and Gartner show that central IT budgets are increasing regularly to keep data safe and improve productivity, and we should be keeping pace with our peers.

The funding model for AITS differs from other departments throughout the University, and we should revise the model. Approximately 81% of the AITS budget is provided by state funds, which is high compared to other units in the campuses and UA. Activity based costing shows that about 83% of the expense for AITS goes toward supporting business software and services used by the campuses. This suggests that more of our funding should be based on utilization of services by the customers.

1. Overall State of the Unit

1.a Unit's mission and contribution to overall mission of University

The University of Illinois serves 78,540 students and has 33,067 employees providing its teaching, research, engagement and economic development mission. This mission requires a \$5.5B budget and millions of business transactions every year, and AITS supports these transactions in the most efficient manner possible. In terms of enabling the business of the University, how efficient is efficient and what overall benefit should a central IT

department provide? To answer, Gartner has analyzed data from the Bureau of Labor Statistics. They show that the labor productivity of an organization must increase about 2.7% every year to remain competitive. They also show that 70% of this productivity comes from the application of IT to improve productivity of everyone associated with the organization. Further, Gartner explains that as organizations become larger (around \$10B in revenue), they provide operational IT at the larger scale and spend about 3% of revenue on operational IT as compared to 5% for smaller organizations. Based on these data, AITS must assist the University to realize \$66M in annual labor productivity increases required to keep pace with the competition and help recover part of the \$110M difference between 3% and 5% of revenue by providing services at the enterprise level. As an example of productivity gains provided by UA led IT projects, ITPC projects currently in progress and in queue (Table 4) have a combined total cost of approximately \$19.7M, with an expected annual productivity increase of approximately \$12.3M. This provides a payback period of 1.60 years after implementation and a return on investment of 200% after five years, which means the benefits received are three times the costs over five years.

At approximately 0.5% of the overall budget for the University of Illinois, AITS is part of Gartner's 3% of revenue spent on operational IT that increases productivity and reduces overall cost by providing operational IT on a large scale. AITS is responsible for enterprise-wide business services to support all of the students and employees at the University of Illinois with the best services at the lowest possible cost.

AITS is in the third year of the current AITS Strategic Plan for FY 13 – FY 15. The five strategic directions guide and prioritize our actions to make administrative IT as simple and beneficial as possible for our customers:

- **Save Time** – Improve and add services that increase productivity for faculty, students, and staff.
- **Improve Ease of Use** – Improve the usability of AITS services.
- **Improve Speed to Service** – Improve the time to delivery of AITS services.
- **Deliver Targeted and Pervasive Information** – Provide for strategic, widespread use of our data.
- **Collaborate** – Build and strengthen relationships throughout the University based on mutual trust.

1.b Services provided by the unit

Administrative IT systems at the University are utilized by individuals in student services, finance, human resources, facilities, institutional research, and faculty research administration to support the mission activities of the enterprise, create efficiencies in business processes through automation, and provide business intelligence services to help with data analysis and inform decision making. AITS manages services for performing millions of transaction every year. The AITS Decision Support group helps employees use our enterprise data to make effective decisions, measure results of initiatives, and be compliant with federal and state reporting requirements. These services, and the associated projects to support the services, are summarized Appendix 6. These services result in transactions that allow the University to perform day-to-day work, for example:

299,000	Student Application Transactions	479,000	Payment Requests Processed
12,343,500	Registration Record Transactions	138,100	HR Front-end Transactions
556,000	Financial Aid Disbursements	153,000	Travel Expense Reimbursements
113,000	Transcripts Processed	240,000	Data Warehouse Sessions
157,500	eProcurement Transactions	882,000	Regular Payroll Transactions
25,000	Non-iBuy Purchase Orders	99.99%	FY 14 Banner Availability
467,000	Financial Aid Records		

1.c Changes implemented to increase or improve services provided and reduce cost

AITS was created in 1984 by combining five existing administrative IT groups. At its peak, AITS had about 300 employees, and through increased efficiency, now has about 200. Over this 30 year span, the consolidated AITS

has probably saved over \$200M in labor costs. It is estimated that the current consolidated AITS saves between \$10-20M annually.

ITS continually looks for opportunities to outsource and streamline services when this is cost effective for the University and provides increased benefits for users. ITS has participated in four university reviews of administrative units over the past eight years with a focus on outsourcing or streamlining of services.

Table 1. University Reviews of Administrative Units

Year	Consultant / Review Group	Report
2013	Administrative Unit Review	Report of the UA Review Advisory Committee
2010	Administrative Review and Restructuring	Administrative Review and Restructuring Working Group
2009	University Administration	Administrative IT Review
2007	University Administration	Pappas Consulting Administrative Review

The Pappas Review in 2007 contained numerous recommendations focused on consolidating services and improving collaboration with the campuses. ITS has accomplished many of these initiatives via hardware and unit consolidations over the past seven years as well as increased participation with campus governance. The Administrative Review and Restructuring efforts returned over \$1M to the University through reduced maintenance costs, labor savings, and reduced service levels. The Administrative Unit Review in 2013 resulted in an evaluation of the optimal relationship between institutional reporting, operational reporting, and business intelligence. This study has been completed and submitted to the oversight committee for review.

ITS has undertaken a variety of actions to save over \$2.2M that was returned to the University. Our current cost-reducing actions include:

- 1) Conducting Activity-Based Costing analysis to develop a more accurate costing structure
- 2) Obtaining multi-year maintenance contracts where possible
- 3) Redistributing FTE internally to meet the highest demand
- 4) Improving training and professional development for existing personnel
- 5) Utilizing open source products when possible.

In FY 11 and FY 13, ITS had a permanent budget reduction of \$1,086,500 and \$1,125,000, respectively. Several of the improvements and cost reductions below were in response to recommendations from the various reviews above, while others are part of ITS' ongoing actions to decrease costs and improve services in the normal course of business.

Table 2. Examples of Service Improvements and Cost Reductions

Service Improvements	Measurable Cost Reductions
<ul style="list-style-type: none"> Internal cloud services deployed for storage, virtual servers, web hosting, and enterprise videoconferencing New usability analyst improves design of user interfaces Workflow tools and services made available Partnered with nine campus units to produce 84 process improvement recommendations Improved information security and threat management to safeguard data/users Mobile-friendly services deployed for student dining, registration information, and student access to accounts Program review dashboard deployed for university, campus, and college use Knowledge base deployed to provide improved self-service help for customers Principal investigator portal deployed to provide improved functionality and usability for research administration New AITS website provides simpler design and improved self-service 	<p>FY 11</p> <ul style="list-style-type: none"> \$471,430 Moved Banner modification maintenance in house – budget returned to University (AR&R related) \$135,914 Labor savings from retiring services – budget returned to University (AR&R related) \$45,000 Energy savings from desktop computing configuration (AR&R related) \$461,156 Diminish services through labor reduction – budget returned to University (AR&R related) <p>FY 13</p> <ul style="list-style-type: none"> \$230,000 Reduction in transportation, travel, and training and education – budget returned to University \$658,694 Diminish services through labor reduction – budget returned to University \$239,500 Reduction of leased space, printing services, and separation expenses – budget returned to University <p>FY 14</p> <ul style="list-style-type: none"> Negotiated \$100,000 savings on on-line training shared service contract – cost savings for campuses

1.d Emerging issues resulting in significant change in unit, or issues that will affect the unit's ability to carry out its responsibilities

Each year, AITS participates in at least one internal audit and one external audit. In addition to managing audit findings, changes in state and federal law often impact the business software that AITS maintains. Typically, our audit findings point out improvements that should be made in information security, and new legislation targets business processes such as purchasing, payroll, and financial aid. The resulting work must be performed by AITS at the cost of doing business and generally does not lead to improved functionality for the customer.

Additionally, there is increased demand following two paths: 1) requests to consolidate services at an enterprise level, for example, moving software from a department level to the university level, and 2) requests to adapt to newer technologies such as mobile platforms, better data visualization tools, and improved workflow management. As an example of the growth in mobile, users accessing Banner self-service applications from mobile devices during start of term have increased 125% over the past three years

Procurement law and the resulting process changes make it increasingly challenging to obtain IT products and services required to improve efficiency in university operations. IT products evolve rapidly, so it is difficult to get the best combination pricing, maintenance and new products. For example, it is hard to meet vendor deadlines for pricing incentives and partner with higher education consortia to purchase via shared contracts offering favorable terms to the University (such as Internet2).

1.e Efforts to improve diversity within unit including goals and processes to ensure achievement of diversity goals

At AITS and CIO, the gender demographic is 42% women and 58% men. This in comparison to the Corporate IT gender ratio taken from United States Department of Labor, Bureau of Labor Statistics, Employed Persons by Occupation, Sex, and Age. For 2013, women represented 26% and men represented 74% of the workforce. To improve diversity in our unit, AITS is guided by the University's affirmative action and procurement goals for IT. The primary focus of the staffing diversity efforts is within the recruitment area, in accordance with the established goals of the affirmative action plan. AITS, Employee Relations and Human Resources and University Equal Opportunity work together to ensure the recruitment process is fair and to attempt to make the candidate pools diverse. The University is committed to vendor diversification by ensuring businesses with minority ownership are included in the University procurement process, and goals have been established to allocate a certain percentage of purchasing contracts to qualifying businesses. At the unit level, AITS champions inclusiveness in all of its business practices, and we honor the diverse strengths, needs, voices, and backgrounds of all individuals with whom we interact.

2. Long-Term Financial Projections

2.a Historical trends including large revenue swings, expenditures and carryforward balances year over year

The AITS carryforward balance includes funds from the operational budget and customer requested ITPC projects. In 2008, AITS had approximately \$8M in carryforward balances. Over several years, the carryforward was used to replace the Banner servers and to decrease the backlog of deferred maintenance in our data centers. When committed ITPC projects and plant funds are removed, the AITS carryforward is less than \$1M, or less than 5% of our budget. In addition to the AITS carryforward, our plant fund pays for data center equipment facility infrastructure that are improved over multiple fiscal years. The CIO carryforward funds pays for university shared services such as Box.com, Lynda.com, EndPoint Management, RIMS, and Identity and Access Management. These carry over at year-end because of the mismatch between when we receive funding for these services from the campuses and when the expenditure is due.

Due to the duration and complexity of large projects, expenditures follow the peaks and valleys of work, spending outside of the normal fiscal year patterns and constraints. For example, IAM and START MyResearch projects are currently at peak expenditure levels today in the implementation phase because we conserved expenditures during the start up and design phases. Further, some projects are funded with contributions outside of the AITS budget, so funds will flow into and out of project accounts which affects the activities in our income and expenditure accounts.

Figure 1 shows the historical carryforward balance for AITS, which has decreased from 15% of our overall budget to 5%. This shift has taken place over the last five years as we have paid deferred maintenance on hardware.

Figure 1. AITS Historical Carryforward as a Percentage of Department Budget

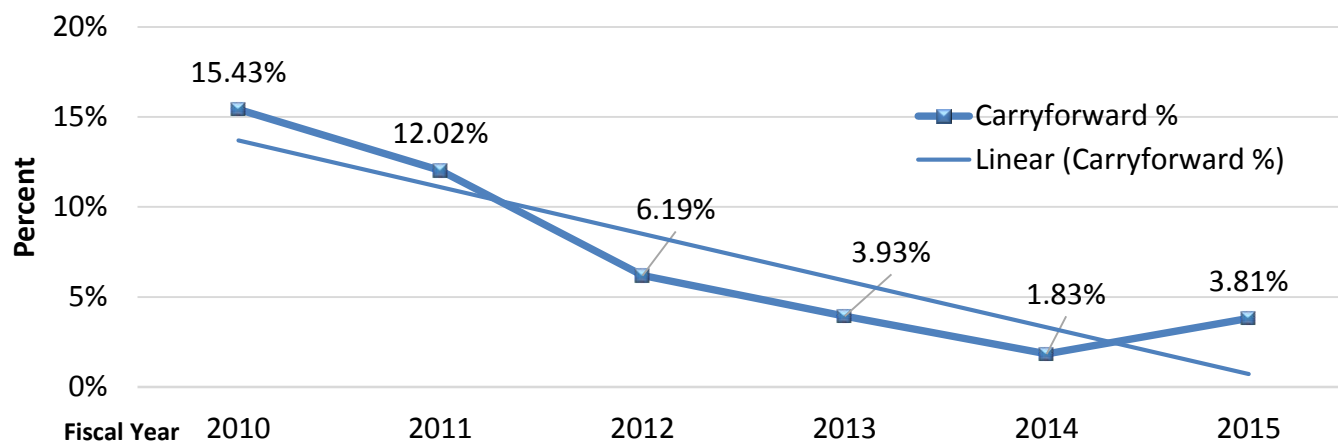


Table 3 shows the nature of our carryforward which is mainly comprised of ongoing campus requested and governance approved project work which is funded and expenditure across several years.

Table 3. Carryforward Balance Analysis (in thousands)

AITS		
FY 15 Total Carryforward	\$5,543	
Approved ITPC Projects Fund – CFOAP# 9-699008-200201-699017	(\$2,472)	Project funds tied to campus initiatives committed by ITPC governance. AITS is the steward of these funds, but not the owner.
FY 15 Plant Fund Carryforward Balance	(\$2,066)	Pays for data center equipment facility infrastructure that are improved over multiple fiscal years.
Accruals	(\$23)	Purchase order submitted in previous fiscal year that will post in FY 15.
Self-Supporting	(6)	
Remaining Unallocated Contingency Balance	\$976	Earmarked for hardware/infrastructure refresh.

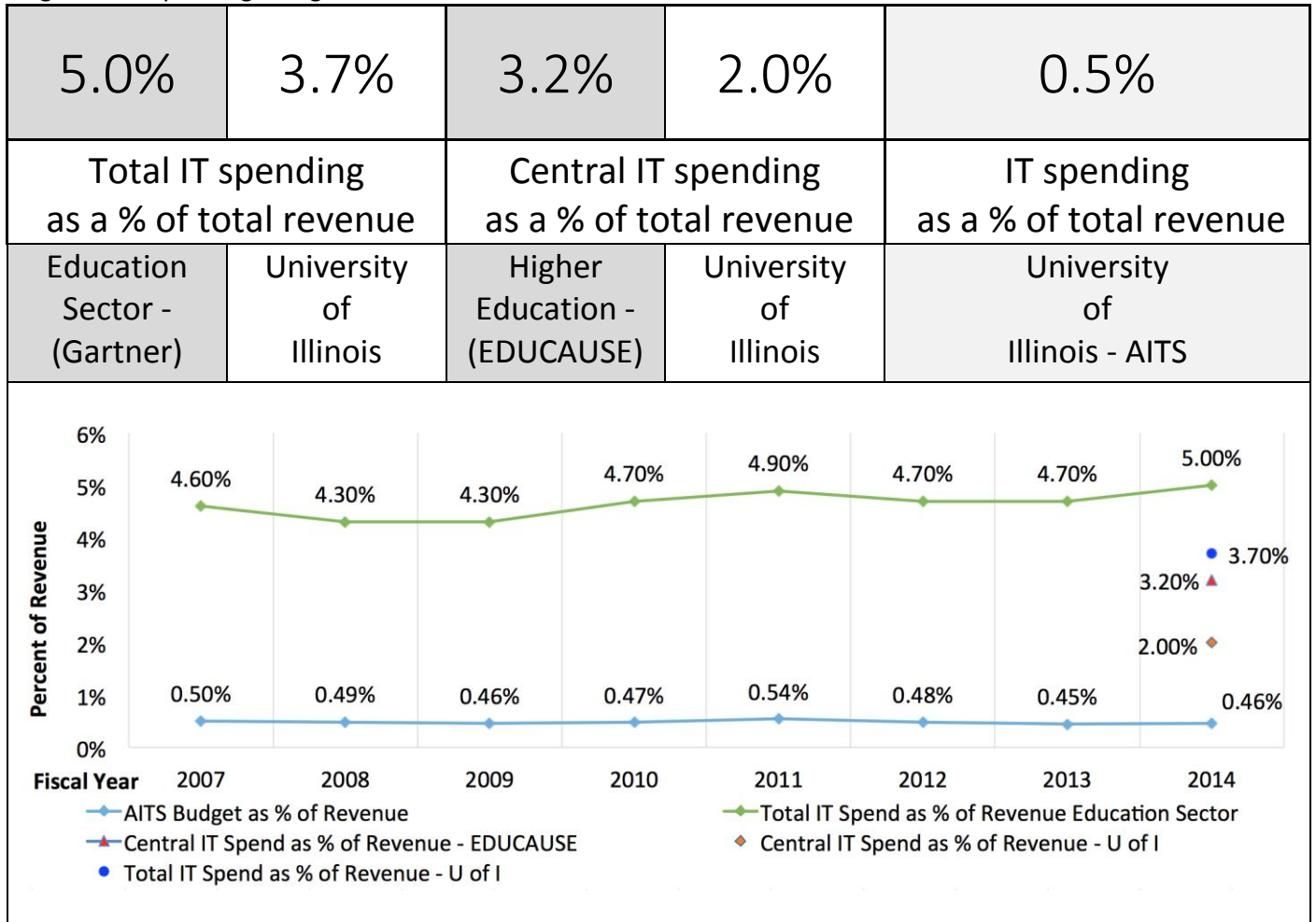
CIO		
FY 15 Total Carryforward	\$239	
2 FTE RIMS Salary Funded by UIUC Provost - Pass-through	\$118	UIUC funds 2 FTE with budget transfer. These funds carry over to pay salary.
Allocated to Lynda.com, Box.com, IAM, Kuali, (5) document management pilot (50), and portfolio management system support (40) for FY 15 - FY 16	\$95	Shared service recurring maintenance and one-time project encumbrances.
Remaining Unallocated Contingency Balance	\$26	Earmarked for unfunded shared service maintenance.

2.b Assumptions used to project revenues and expenses

- The Activity Based Costing (ABC) analysis compares AITS favorably to other, similar institutions that support administrative IT services.
- AITS must continue to run and improve the critical business systems of the University at a level equivalent to or better than today.
- University customers could adapt to the degradation of services, or fund alternative services, as a result of AITS service reductions. Alternatively, they would be willing to transfer funding to cover budget cuts that affect them adversely.
- The University expects AITS to address audit findings, honor regulatory requirements, secure university data from loss, and keep current with technological evolution to support customer needs.
- AITS expects hardware and software costs from vendors to rise approximately 5% annually.
- AITS should be following a trend that more closely resembles the IT spend of higher education, increasing as a percentage of overall revenues, as shown in Figure 2. Industry standard for total institutional spend on IT is 5.0% in 2014. (AITS, which represents the enterprise administrative portion is currently at 0.46% of institutional revenue.)

Figure 2 shows AITS, as a component of total University IT spending, has remained flat over the past ten years. This is in comparison to IT spending in higher education which has been increasing as a percent of overall revenues. The University spends much less on IT relative to total revenues than its peers at both the overall level of IT spending at the University and central IT spending. (UI total IT spend includes Hospital)

Figure 2. IT Spending in Higher Education Metrics



2.c Unavoidable cost increases due to external mandates and internal pressures such as increased demand.

Customer demand for project work is robust compared to the capacity available for this work. The table below depicts customer requested project work currently in progress, approved and in queue, or submitted for review. Because demand has increased while AITS funding as a percentage of university budget has declined, the queue for this work is approximately 30 months long for approved work as illustrated in the figure on the following page. Additionally, customer demand competes for the same resource pool that performs the mandatory work for legislative changes and maintenance of current systems. AITS, as well as its customers, believe the queue is too long.

Figure 3. ITPC Project Three Year Queue by Fiscal Year and Major Initiatives

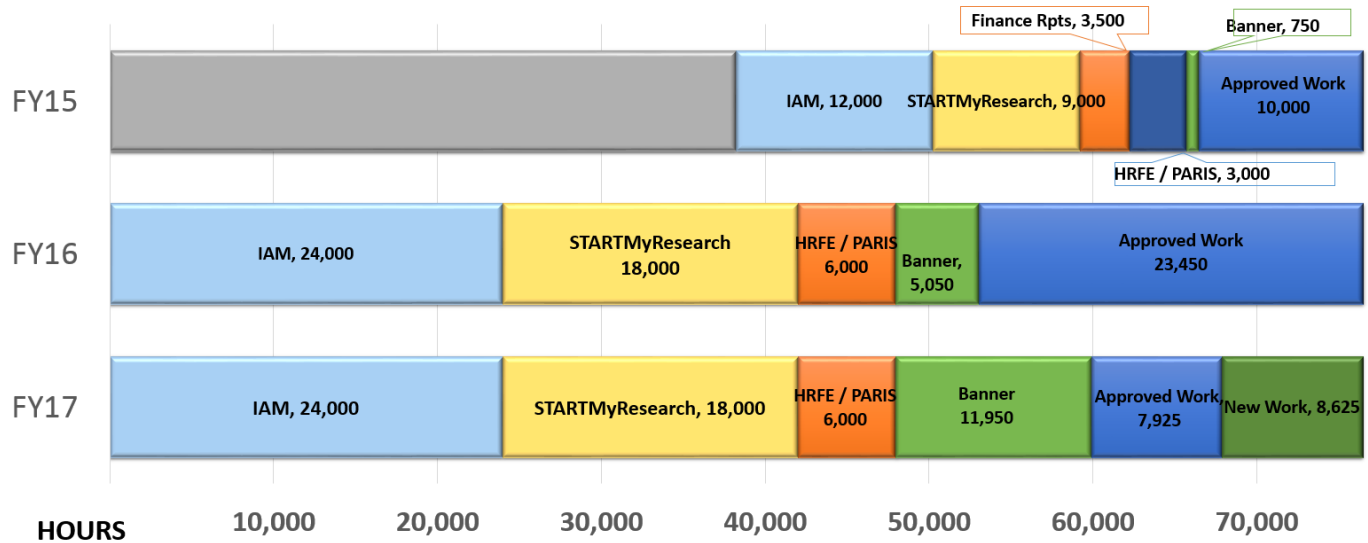


Table 4 details the individual customer requested projects in queue. Table 6 details the individual mandatory regulatory and maintenance projects in the queue. All of these projects together represent the totality of the projects in queue and represented above in summary form in Figure 3.

Table 4. Customer Requested ITPC Projects (45) in progress, in queue, and submitted (as of 3/1/15):

1. ITPC-0306 Banner Relationship Management (BRM) Implementation	24. ITPC-0462 HR and Payroll Legacy Databases - Equivalent Access Analysis
2. ITPC-0353 Learning Management Systems (LMS) Banner Integration	25. ITPC-0464 Position Tracking System for Civil Service Employees
3. ITPC-0363 UAfr: FOAPAL Maintenance Web Application	26. ITPC-0466 HireTouch Data Acquisition Phase 2 – Custom Forms Data
4. ITPC-0367 Service Desk Management Front-end	27. ITPC-0467 Automated Grade Change Process
5. ITPC-0368 Athletics NCAA CAI	28. ITPC-0468 Ad Astra UIC Unit Pilot
6. ITPC-0370 Costing Application Analysis	29. ITPC-0469 Finance Reports Distribution Role Application
7. ITPC-0374 Enterprise Academic Leave Tracking and Reporting	30. ITPC-0471 Implement ICS Data into the EDW
8. ITPC-0375 Identity and Access Management (IAM)	31. ITPC-0472 UAfr: Investment Income Distribution Application Rewrite
9. ITPC-0398 UAfr: Surplus Warehouse Inventory System	32. ITPC-0480 Preferred Name Analysis
10. ITPC-0408 GCO: Sponsor Remittances	33. ITPC-0483 Tableau License Expansion
11. ITPC-0412 Online Course Catalog	34. ITPC-0491 DRES Integrated IT Services Implementation
12. ITPC-0421 Employee Training Infrastructure Analysis	35. ITPC-0492 UAfr: Account Code Search Application
13. ITPC-0428 PARIS Prior pay adjustments	36. ITPC-0493 UOCPRES: Capital Project Management System
14. ITPC-0429 Vendor Portal	37. ITPC-0494 UAfr: Biennial Inventory System
15. ITPC-0435 UPB: Database Analysis	38. ITPC-0495 Emergency Notification Service
16. ITPC-0438 DRES Integrated IT Solution Analysis	39. ITPC-0496 NetID Length Expansion
17. ITPC-0441 Implement Banner 9 (Banner XE) Events Management	40. ITPC-0497 Multi-Factor Authentication
18. ITPC-0442 GCO: Federal Financial Report Modification	41. ITPC-0498 Retro Pay
19. ITPC-0444: Finance Reports Distribution	42. ITPC-0499 AITS: Message Enable XCFOAPAL Application
20. ITPC-0447 CCFD System Enhancements	43. ITPC-0502 Employee Training Infrastructure Implementation
21. ITPC-0449 UAfr: Banner Feeder Application	44. ITPC-0503 Document Management Service Analysis
22. ITPC-0453 Analysis and Implementation of iBuy data into the EDW	45. ITPC-0504 Student CRM Implementation
23. ITPC-0461 New Hire Redesign Implementation	

Escalating vendor maintenance costs exceed both the rate of inflation and AITS budget allocations. The University enters into 5-10 year long contracts to reduce maintenance charges on hardware and software and all contracts have an escalation clause of 3%-10% each year. These contracts persist until the use of the software is terminated or hardware is replaced. This practice is standard for universities and corporations with enterprise systems. Below are examples of some of the larger unfunded contract increases coming in the next year:

Table 5. Significant Unavoidable Contract Increases FY 15 – FY 16

Vendor	Business Purpose	Cost Increase From FY 15 - FY 16	FY 16 Increase Amount
CDW-G	Maintenance for Banner servers.	\$838,400 - \$880,320	\$59,487
EMC	To defer expenses, the University prepaid maintenance for a number of years on equipment that stores all of our business data. The equipment now requires an annual maintenance contract.	Included in original purchase	\$189,375
Ellucian	Banner software contract for upgrades, support 24/7.	\$838,400 - \$880,320	\$41,900
Oracle (one of several contracts)	Annual maintenance expense increase for the databases for Banner data and most other business data.	\$1,250,579 - \$1,319,969	\$69,391
Polycom	Video conferencing hub that connects conference rooms throughout the world to reduce travel expenses. Supports up to X rooms and Y simultaneous video conferences.	N/A	\$80,000

Mandatory work for legislative changes, such as pension, retiree, financial regulations, and financial aid regulations, increases mandatory project demand. Since these are required mandates, they correspondingly decrease the funding and capacity for new customer requested services.

Mandatory maintenance levels for administrative IT services grow as more services are automated with information technology. As customers request new systems and functionality for business process improvement, the maintenance of these services increases operational costs and reduces the capacity to implement new customer requested services. Costs occur as payments to vendors for maintenance and support contracts and in human labor expended supporting the systems. In the current year, examples of this mandatory work caused by state and federal regulatory changes and university processes and mandatory maintenance and support work caused by the growing technology infrastructure has included those in Table 6 below.

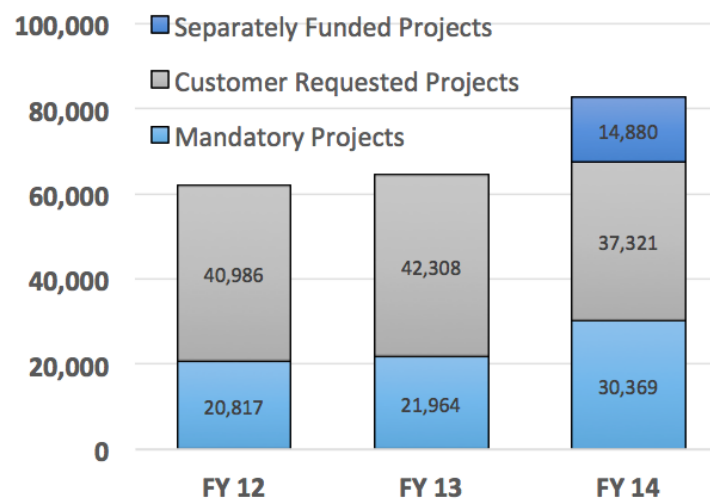
Table 6. Mandatory ITPC Projects (21) in progress, in queue, and submitted (as of 3/1/15):

Mandatory Regulatory Projects	Mandatory Maintenance Projects
<ol style="list-style-type: none"> ITPC-0463 Analysis and Implement PPACA Monitoring, Controlling, and Reporting ITPC-0481 Retiree Rehire Data into EDW ITPC-0485 Program Review Dashboard ITPC-0486 Financial Aid Regulatory Changes for FY 15 ITPC-0488 UIUC Winter Term Creation ITPC-0490 SAT Changes for 2015 	<ol style="list-style-type: none"> ITPC-0305 Upgrade to Astra Schedule Software to Ver. 7 ITPC-0359 DARwin Upgrade to u.achieve ITPC-0430 State Clearing Application Rewrite ITPC-0458 Desktop Intelligence Ad Hoc Report Conversion ITPC-0473 BOXI Upgrade Implementation ITPC-0476 Nelnet Business Solutions FY 15 Maintenance ITPC-0477 SciQuest Maintenance for FY 15 ITPC-0478 Prodagio (iCS) Upgrades for FY 15 ITPC-0479 HRFE and PARIS Maintenance for FY 15 ITPC-0482 Clarity 13.3 Upgrade ITPC-0487 Upgrade Enterprise Messaging Brokers ITPC-0489 EMC ApplicationXtender Upgrade to 7 ITPC-0500 View Direct Upgrade ITPC-0501 SDM Upgrade ITPC-0505 Banner Student Upgrade

Findings and recommendations from internal, external, and compliance audits obligate the University to address critical information security areas, such as documenting risk, protecting data through encryption, adhering to training legislation, implementing additional identity protections, review and timely termination of access, and regular review of controls.

The combination of mandatory projects for regulatory purposes and growing maintenance work has a significant effect on the project capacity for new customer requested work. Figure 4 to the right shows the growth of mandatory project work completed compared to relatively flat levels of customer requested work completed within AITS labor capacity constraints. In FY 14, approximately 20% of total AITS resources were dedicated to projects. Of that amount, 45% of AITS project resources funded from ongoing university operations were dedicated to mandatory projects. In other words, only about 10% of the work of AITS is directed toward customer requested projects. As the same individuals support ITPC projects, ongoing maintenance and support, and work requests, often there is a nominal redistribution of effort (~5%) annually between these categories of work.

Figure 4. Mandatory and Customer Requested ITPC Project Hours



2.d Sustainability of funding model long-term

We are concerned that AITS will lose the ability to help increase labor productivity at the rate needed to stay competitive and that increased decentralization of administrative IT will lead to increased overall costs.

With increased regulation, a history of previous budget reductions, escalating software maintenance, increased customer demand, new technologies, deferred maintenance, and an impending replacement of the Banner hardware, the funding model for AITS does not appear sustainable if AITS is expected to be a provider of dependable, mission-critical services that reduce university-wide costs.

In 2014, both Chicago and Urbana-Champaign invested millions in their central IT units while over the past few years, AITS has sustained the largest total budget cut and the largest percentage budget cut of any central IT unit at the University. While the campus units do have regular cuts, they are not of the magnitude of those within AITS. From 2004-2015 UA saw a decrease in their overall funding by 4.4% while Urbana saw an increase of 58.2%, Chicago an increase of 54.5%, and Springfield an increase of 62% (source: Budget Summary for Operations). An informal comparison of CIC enterprise and administrative IT units shows no budgets as flat as AITS over 15 years. This underinvestment in enterprise services results in less service improvement, older systems, and more dissatisfaction. Past experience shows that this can result in a service death spiral, that is, less investment leads to less satisfaction, which leads to less investment, and so on. The graph in Figure 2 on page 5 illustrates AITS' total budget as a percentage of university overall budget over the past several years as well as the total of University of Illinois IT spending compared to peers.

According to Gartner research, IT is roughly 5% of government budgets, and it is also the primary enabler for productivity in the remaining 95%. Further, Gartner states that this largely explains why, even though the unit costs of IT have fallen dramatically over the years, total IT spending as a percentage of budgets has remained flat or increased as more IT is used in more programs.

All units at the University are looking for new ways to be more efficient. According to the Bureau of Labor Statistics, 70% of annual U.S. productivity (2.7%) growth comes from the application of IT. This is in the form of the application of IT by the labor force to get work done. For the University of Illinois, this would translate into \$66M per year in productivity gains from the application of IT that we should be realizing based on enterprise salary expense of \$3.54B.

The negative effects of underfunding IT operational expense at the enterprise level is lost opportunity to achieve impactful economies of scale with IT services which in turn reduces the broad beneficial effects across the entire organization. In the instance where economies of scale are not realized to bring more and cheaper IT services to a broader constituent base, Gartner estimates this lost efficiency at 1.88% of an organization's revenue. In order to achieve the most operational efficiency from IT investment, commodity IT services should be offered at the highest level possible to allow other units to save money.

AITs performed an analysis in 2007 to estimate the relative cost of offering enterprise administrative services at the campus level, pushing out the operations of these services for the Banner Student/Pay/HR to the campus central IT units while maintaining a centralized Finance instance. This scenario resulted in a cost increase of 35-59% to the University based on the configuration of the Banner instances and related support services. It becomes more inefficient to operate enterprise services as they become more decentralized and involve duplication of labor, software, and hardware costs.

According to Gartner, the non-obvious negative effects of suboptimal IT spending—namely lower labor productivity and reduced economies of scale—frequently precede the obvious negative effects such as outages. Yet, the non-obvious negative effects are far more significant in terms of overall enterprise value. Alarming, as we enter an eighth year of slow economic growth and continued IT cost cutting, non-obvious damage to enterprise value is occurring more frequently.

2.e Use of cash reserves

Carryforward balances have been used for capital expenditures to support the essential computer operations of the University. As these balances are nearly depleted, we will need to request funds on an annual basis for items typically considered as the cost of doing business. Our unallocated carryforward balance of about \$1M is less than 5% of our total budget. Examples of plant fund projects planned for FY 15 that should occur in FY 16 include upgrades for building HVAC at approximate \$600K, a backup diesel generator at \$625K, and air ventilation replacement for \$225K.

Table 7 represents some upcoming essential infrastructure expenses that are only partially funded at current budget levels. These expenses will result in special requests to UBRAC.

Table 7. Upcoming Essential Infrastructure Expenditures

Critical Near-term Required Upgrades	Replacement Cost	Annual Maintenance Cost
Banner Hardware Replacement (every 7 years)	\$2,400,000	\$300,000
Golden Gate Database Replication Software	\$770,000	\$169,400
RRB Power Capacity Upgrade	\$600,000	\$100,000
HAB Storage Array Replacement	\$540,000	\$90,000
RRB Storage Array Replacement	\$540,000	\$90,000
HAB Generator	\$625,000	\$10,000
Video Surveillance System Upgrade	\$300,000	\$15,000
Encryption on Storage Arrays (recurring annually)	\$300,000	\$300,000
HAB 54 UPS Replacement	\$250,000	\$15,000
Total	\$6,325,000	\$1,114,400

2.f Deficit reduction if applicable

Not applicable

3. Staffing Plans

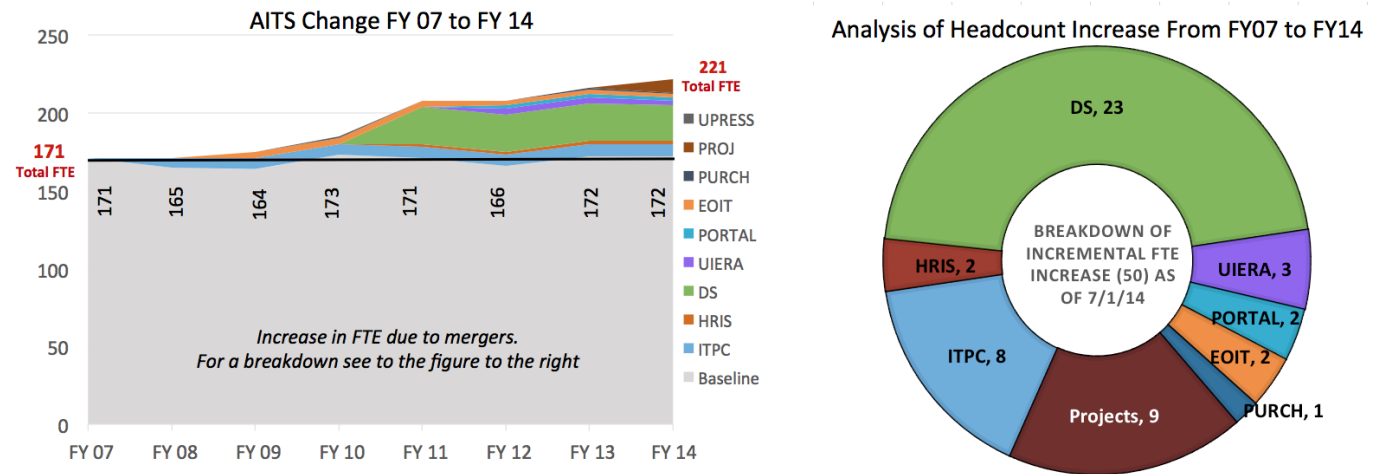
Please see section 4d below for our assumptions regarding projecting FTE over FY 16 – FY 18. AITS uses portfolio management standards, activity based costing, and a full accounting of all time within the organization to project our FTE. We address resignations and retirements at our bi-weekly AITS Leadership Team (LT) meeting. With the participation of all members of the LT, we continuously evaluate short-term and long-term priorities and reallocate vacancies across departmental lines in order to use each vacancy for highest priority need. All members of AITS management are expected to justify refilling positions, reallocating internal resources to reduce gaps, or proposing new positions based on changing needs to the LT. We also expect our workforce to be as flexible as possible because of the speed at which information technology changes. Practices are in place for enhancing organizational performance and sustainability, while maintaining flexibility (e.g., performance management, employee exchange, contingent resources, vacancy and succession planning). Many of the positions at AITS require specialized skills. Due to the expanding technology marketplace, recruiting employees is often difficult.

On an ongoing basis, AITS streamlines operations to utilize resources in the most efficient manner while providing the highest quality services to customers. As part of this process, functions and teams are combined where integration makes sense to improve performance and service. In some cases, functions that were outside of AITS were integrated with AITS teams to take advantage of the technical management structure in place and the proximity to complimentary resources, while still serving the same customers. In the past eight years, a number of such opportunities have been undertaken to combine functions and teams. In a few cases, new functions have been created to directly address emerging priorities and technologies where distinct and dedicated resources were warranted to better serve AITS' customers and position the organization for the future. The figures below provide an accounting of how organizations have been combined over this time period. While overall headcount at AITS has increased as a result, the overall headcount of the combined units to the University has remained flat. The teams integrated during this period include AITS, Decision Support, University Press (partial), Capital Programs (partial), Portal (from CITES), Executive Offices IT, HR Information Services (partial), Purchasing (partial), Electronic Research Administration, and ITPC (augmented project resources).

Historical Headcount Analysis and Analysis of Headcount Increase from FY 07 to FY 14

There has been considerable human resource activity within AITS during the past eight years. In this section, we attempt to show the trends by separating the components of "traditional AITS" from the mid 1980's and those units that have been merged in recent years. Figure 5 shows the effects of merger activities on overall FTE versus baseline FTE levels that have remained virtually unchanged over the past eight years.

Figure 5. Analysis of AITS Mergers and FTE Effects FY 07 – FY 14



4. Continuing Efforts to Reduce Costs and Internally Reallocate Funds

4.a Specific activities which will be stopped or reduced

There are two components of impact for specific activities that might be stopped or reduced. There is the dollar amount of expenditure reduced at AITS and also the impact to the University in narrative form because it is difficult to estimate the loss in overall efficiency resulting from the cut. Table 8 details the specific activities that would be reduced or stopped, along with the university-wide impact. Where items show a range, this is to demonstrate contingency flexibility if necessary based on external factors such as vendors, hardware failure, or mandatory project levels. Expenditure reductions within the range for one item would affect expenditure reduction levels in alternate items.

Table 8. Specific Activities Targeted for Reduction and Impact

Item and Impact to Service	Expenditure
Lengthen hardware life cycles and consolidate physical space Impact: Hardware refresh cycles for servers, generators, desktop workstations, videoconferencing, enterprise hardware would lengthen past recommended lifespans. This would result in a higher failure rate and lower performance compared to current standards that maximize uptime for enterprise business software. This may add downtime for areas such as student services, human resources, and finance due to unplanned production outages. This past year we experienced a full failure of the aging M9000 enterprise server hardware (Banner) when redundant system controllers failed simultaneously resulting in being down for a day while replacement hardware was shipped and installed.	\$500,000 - \$1,500,000
Reduce maintenance service levels with select vendors for student/finance/HR applications Impact: Reducing maintenance levels would result in less availability from our vendors during weekends and evenings and reduce uptime for Banner and other applications. This may disrupt normal university business operations for areas such as student services, human resources, and finance. In the worse case, a Friday outage resolution may be delayed until Monday.	\$600,000 - \$1,200,000
Reduce training and education expense Impact: One of the few flexible expense items in the AITS budget is training and continuing education expense. The budget for training and education expense would be reduced by 50% for FY 16 for an average expenditure of \$271 per employee. Corporate Learner Factbook 2014 executive summary indicates, "Technology companies spent \$1,847 per learner, on average—one of the highest of any industry sector." AITS would be funded at 15% of industry average.	\$60,000
Reduce or eliminate capacity for new customer requested services and business software Impact: Utilizing expected attrition rates, customer requested ITPC project work and work requests would be reduced to account for reduced development capacity. This would reduce the ability for campuses to request	\$850,000 - \$1,950,000

new work for student, finance, HR, and other administrative applications. There would be a reduction of approximately 15-25 FTE positions for developers, analysts, DBAs, project managers, customer relations specialists, quality assurance, and associated management that perform that work. Table 4 in Section 2 above illustrates over 40 current customer requested projects that would be affected by a cut in capacity. Some of these projects would continue as staffing levels wind down, some would be eliminated, and future capacity for new customer requested work would be reduced by 100%.	
Reduce support of existing customer requested services and business software Impact: Utilizing expected attrition rates, AITS would reduce headcount approximately 4-10 FTE to meet funding cuts resulting in the elimination or degradation of a number of production operations services that support critical business applications utilized by faculty, staff, and students at the University. These degraded services would include self-service websites, data storage support, server and application hosting for departments, help desk, data security threat protection, departmental IT support, videoconferencing support, desktop support, shared services (SharePoint, SitePublish, SVN, SiteMinder, RightFax, Bomgar, etc.), support for departmental applications, data visualization, and operational reporting.	\$300,000 - \$800,000
Total reduction from FY 16 – FY 18	\$3,998,900

4.e Rank order used to prioritize measures

Each of these affect different customer groups in different ways. While we have attempted to rank the previous items in order from least customer impact to highest customer impact, any of them could have dramatic impact on the bottom line and the different customers.

4.f Evaluation and prioritization processes within unit

We develop our strategic plan based on the campuses' plans and with stakeholder participation. Our prioritization process for projects (though the ITPC) includes customers from all three campuses and UA (over 70), and all meeting agendas and results are posted to the ITPC website. Prioritization is revised each quarter. This prioritization process is recognized as a best practice in higher education and is utilized as a model for other institutions ([via EDUCAUSE](#)).

4.g Processes/Mechanisms to evaluate programs and prioritize funding

AITS supports the business functions of the University, and we have contractual obligations to pay annual maintenance to the vendors whose software we use. It takes the combination of in-house staff and outsourced maintenance to support the systems that each of our 78,540 students and 33,067 employees use in one form or another.

Every few years, AITS examines outsourcing our major systems, and thus far, no vendor has been able to support our customized and distributed environment. There are other options for individual HR, finance, student, and data warehouse systems; however, the University of Illinois has business processes and practices that deviate from the way that most vendors support large organizations. As such, the University of Illinois is like every other CIC school, where the majority of the business applications are supported in-house because of the business needs of a large, renowned university.

4.c Communication plan with stakeholders and customers

AITS revises its website often, uses Facebook and Twitter to communicate regularly, and publishes monthly, quarterly, and annual reports. As it relates to this budget review process, we will communicate with customers based on the results of the budget review and the effects on customers and seek their feedback as to minimizing any negative effects to them.

4.d Assumptions used to develop projections

- We would be able to negotiate with vendors to lower costs and levels of contracted support
- We would be able to reduce FTE via attrition over the next three years at historical attrition rates. Where critical needs exist in a vacancy position, personnel would be reallocated and trained as necessary to meet

needs.

- There are no emergency hardware or facilities demands that occur
- Customers would be able to meet their business objectives with diminished or eliminated services
- There will be no new regulatory, audit, or information security demands placed on the remaining resources
- ITPC annual funding levels would continue at current levels. Approved and funded ITPC projects would continue as designated unless canceled. A reduction in FTE available for projects would result in the cancellation of some portion of ITPC projects.

The scenario of a reduction of 20% to AITS State budget and 3% of Intuition funds amounts to \$4.0M. In FY 16, reductions would be levied through a review of maintenance contracts and either the elimination of support, products, or moving from higher levels of support to lower levels of support (e.g., gold to silver or bronze). Refresh cycles for servers will be extended from 3-5 years to 4-7 years and workstations from 3 to 5 years. The reduction in services will include planning, notification to clients, and reduction in staff. This will take several years to implement, with the full impact not taking effect until FY 18. In FY 16 and FY 17 cash reserve obtained through position vacancies will partially fill the gap but there will be a shortfall in reaching the scenario provided. There is a risk associated with the proposed areas of reduction as explained above.

The reduction in FTE would affect most service areas in AITS with larger reductions in customer requests and smaller reductions in services required for daily operations. The greatest reduction in staff would be focused in reducing the capacity for customer requested new projects and work requests. In order to accomplish a 20% reduction in costs as an organization, this capacity would be nearly eliminated from the organization resulting in a significant negative impact to customers. Referencing the project listing above provides a specific overview of the work that would not be possible under this scenario. As described earlier, a significant percentage (45%) of project resources perform mandatory projects supporting regulatory change and ensuring the health of existing administrative IT services and infrastructure. These projects must remain funded and be executed, but it is the new customer requested projects that provide the most perceived value to users. Current ITPC funding may be redirected towards restoring some project capacity, but the effects of this redirection would be minor (~15%) compared to the overall reduction.

Comparing our current information technology products to the Gartner market analysis for when the market is most competitive for products, Gartner identifies 12 technologies reaching obsolescence. Of those 12 products AITS has six technologies that will be in the replacement phase within 5 years. That means that we should be replacing these technologies soon. Table 9 details the current University technologies supported by AITS scheduled for near-term replacement.

Table 9. Replacement Cycle for Current Technologies

Technology	Description	Gartner's Projected Time to Replacement	Estimated Replacement Cost
Data Storage/High End Storage Arrays	Enterprise class storage devices. Current devices in AITS are nearing end of life. Future direction includes cloud storage and virtual disaster recovery functionality with high end arrays targeted for only highest levels of data protection and scalability.	2 – 5 years	>\$1.5M
IT Service Desk Tools	Traditional Service Desk tools which track cases and move them through a workflow queue are moving towards IT service support management (ITSSM) solutions with traditional tools falling out of support. ITSSM tools leverage a business view of IT services, enabling the IT support organization to quickly resolve or escalate issues and problems, improve root cause isolation, and provide higher levels of business user satisfaction. We are at risk of losing support of current system.	At End of Life	< \$750K
Automated Job Scheduling Tool	Traditional job scheduling systems are moving towards systems that do event-based scheduling and provide functionality such as self-service, workflow, and critical path analysis, thus reducing the amount of manual monitoring and management of jobs.	< 2 years	< \$750K
Banner Servers	Enterprise server class used by current Banner servers. Platform is being replaced by T5 and M6 product stacks as well as x86 and Power platforms.	< 2 years	>\$1.5M
Data Backup	Look to replace tape storage solutions with virtual storage and cloud based DR solutions that provide automation and built-in encryption.	2 – 5 years	\$750K to \$1.5M

5. Development of Metrics

AITS utilizes several different metrics to measure ongoing performance. These can be found in the [AITS Strategic Plan Progress Report](#), [AITS Annual Progress Report](#), [AITS Metrics Report](#), and [ITPC/BPI Post-project reviews](#). These metrics allow us to save money by doing just-in-time expansion of hardware, capacity planning, and project management. The measures are published on the AITS website, and they are used to compare AITS to our peers and national standards. Each year, we examine the cost and benefit of gathering the data, and we stop measuring where the value is less than the cost.

AITS had increased efficiency over the past 20 years. Between 1995 and 2008, the number employees and students supported per AITS staff member increased from 370 to 580. Over that same period, AITS funding per employee and student supported decreased 4%. Also during this time, the Consumer Price Index (CPI) increased 46%. This budgetary weakness reduced agility and service levels; however, it created significant efficiency in AITS.

Table 10 below summarizes progress made toward AITS' current strategic goals and initiatives, categorized into six focal areas: 1) IT Governance, Portfolio and Project Management, and Business Process Improvement; 2) Administrative Software and Services; 3) Infrastructure and Operations; 4) IT Human Resources and Finance; 5) Information Security and Privacy; and, 6) Institutional Data and Information. The table shows the number of initiatives that have been achieved, on target to be completed, deferred, off target, and in critical status at risk for failing, in each of the focal areas.

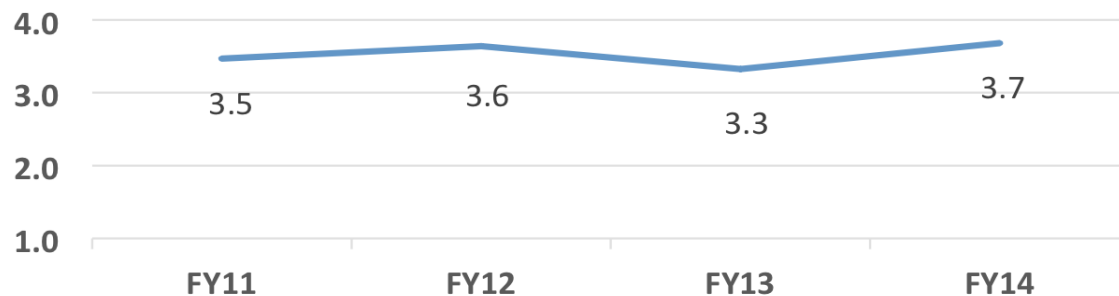
Table 10. Summary of AITS Current Progress Toward Strategic Goals/Initiatives as of January 1, 2015

Progress		Critical	Off Target	Deferred	On Target	Achieved
Goals						
AITS	High-level goals - encompass multiple initiatives (below)	1	0	1	33	5
Initiatives						
Team 1	IT Governance, PPM and BPI	0	1	0	11	15
Team 2	Administrative Software and Services	0	0	1	9	9
Team 3	Infrastructure and Operations	0	0	3	5	14
Team 4	IT Human Resources and Finance	0	0	0	16	11
Team 5	Information Security and Privacy	1	1	0	9	9
Team 6	Institutional Data and Information	0	0	12	5	14

Table 11. Select AITS Metrics for Past Five Years.

Measure	FY 10	FY 11	% Change from Prior Year		FY 12	% Change from Prior Year		FY 13	% Change from Prior Year		FY 14	% Change from Prior Year	
Active databases supported	517	717	39%	↑	856	19%	↑	994	16%	↑	1,083	9%	↑
Volume of data in TB	18.2	22.6	24%	↑	33.6	49%	↑	53.2	58%	↑	61.5	16%	↑
Banner security requests processed	14,722	14,218	-3%	↓	18,551	30%	↑	18,978	2%	↑	14,213	-25%	↓
Banner Self Service availability not inc. planned outages	99.2	99.7	1%	↑	99.8	0%	↑	99.9	0%	↑	99.9	0%	↑
Banner Self Service Usage (sessions in millions)	7.9	8.5	8%	↑	8.8	4%	↑	9.2	5%	↑	8.3	-10%	↓
Backup storage in TB	544	601	10%	↑	753	25%	↑	1,058	41%	↑	1,202	14%	↑
Service desk cases closed	38,417	46,423	21%	↑	45,394	-2%	↓	42,938	-5%	↓	43,256	1%	↑
Changes to Banner (patches, upgrades, etc.)	NA	505	NA	NA	632	25%	↑	645	2%	↑	489	-24%	↓
Changes to other systems (patches, upgrades, etc.)	NA	5,102	NA	NA	6,166	21%	↑	7,454	21%	↑	7,395	-1%	↓
Rollout related outages	31	32	3%	↑	20	-38%	↓	25	25%	↑	44	76%	↑
Sync message consumption by applications (millions)	16.7	14.2	-15%	↓	20.0	41%	↑	22.4	12%	↑	24.9	11%	↑
Total batch processing requests	3,865	3,928	2%	↑	4,394	12%	↑	4,839	10%	↑	4,523	-7%	↓
Security Service Desk tickets closed	1,521	1,925	27%	↑	2,373	23%	↑	1,698	-28%	↓	986	-42%	↓
Security Application requests for iBuy, Banner, UIeRA	12,484	12,813	3%	↑	40,033	212%	↑	29,337	-27%	↓	24,872	-15%	↓
Completed ITPC projects	26	37	42%	↑	29	-22%	↓	34	17%	↑	25	-26%	↓
Work requests closed	491	546	11%	↑	776	42%	↑	677	-13%	↓	617	-9%	↓
Work requests outstanding	184	228	24%	↑	308	35%	↑	308	0%	↑	366	19%	↑

Figure 6. Average Project Customer Satisfaction Score FY 11 – FY 14



6. Requests for Recurring and Non-recurring Funding

6.a-b Our two largest issues are a backlog of customer requests and the speed at which we can introduce new technologies and improved services. Both of these issues influence our ability to increase productivity and save money throughout the University. As the backlog of maintenance grows, less time is spent on improving our services to the customers. Even though we have made improvements in efficiency and effectiveness, we have not kept up with our Committee on Institutional Cooperation peers and the national trends in terms of funding enterprise IT services. By funding an efficient centralized service, it allows the University to save money throughout the distributed environment. In 2007, we determined that the centralized support of the primary business systems saves the University between \$8 and \$13M annually.

The funding requests in Table 12 are ordered based on impact to end users, managing risk to the University and its constituents, and providing value to the University in pursuing mission activities. Please refer to the detailed spreadsheet provided by BRAC in the Appendix 4 for additional information.

Table 12. AITS' Critical Priorities

Funding Requests	Cost
Unavoidable Annual Maintenance to Vendors to Support University Business Processes We have existing contracts for the products that support student services, human resources, finance, and data warehouse applications. These costs increase at an average annual rate of 3-10%. This escalation of costs is not funded, and it is an unavoidable expense to maintain the critical administrative systems to support the University's business processes, employees, and students. FY 15 funding was a one-time allocation from BRAC. This request is to cover the FY 15 and FY 16 recurring increments. FY 15 Unavoidable Annual Maintenance - \$247,411 FY 16 Unavoidable Annual Maintenance - \$245,118	\$492,529 Recurring 3-10% increase on total maintenance each year
Large Essential Hardware and Software Infrastructure Refresh Enterprise class infrastructure is needed to support enterprise systems such as Banner, HRFE, IAM, Finance, HR, Data Warehouse, and student systems. This infrastructure includes things such as the data centers at RRB at UIC and HAB at UIUC which are 24X7 high availability and redundant facilities as well as the servers, disks, and infrastructure components needed to keep the University's administrative systems running. The data centers also support campus functions such as Unified Communications and campus computing cluster. This request is to replace aging equipment and infrastructure to keep the systems running and safe.	\$6,325,000 Replacement Cost \$1,114,400 recurring maintenance
Restore Capacity for Implementing New Customer requested Services that Increase University-wide Productivity Increase funding to meet the demand for customer requested business software focused on increasing the productivity of university constituents performing administrative tasks. Examples of this work include making it easier to login to university systems, making it easier to manage student rosters and grades between Banner and Learning Management Systems, being more efficient in recruiting students and meeting student profile targets, managing contracts, tracking employee and graduate student training, and scheduling rooms for classes and non-classroom purposes. A complete listing of the associated projects affected by this development capacity is in section 4 and Appendix 10.	\$2,000,000 recurring
Enhance User Experience when Utilizing Administrative IT Services University systems users are demanding that the applications they utilize in their daily life at the University are simple, user-friendly, and intuitive, with a consistent look and feel when possible between different systems. In order to meet these user requirements, AITS proposes the creation of a Design and User Experience Service area will set aside resources that will be dedicated to assisting AITS staff as well as other university departments with implementing user experience design standards. Responsible for, but not limited to, documenting design standards and guidelines, prototyping, developing style guides, and providing a consistent look and feel for university applications. By considering the user experience	\$170,000 start-up one-time \$85,000 recurring

during the design phase of the project, it saves time during the development phase because there is less time spent redesigning software functionality such as accessibility requirements. Resources: 2 FTE @ average of \$70K + 2 student hourly @ \$30K. 50% cost recovery after 2 years.	
Protect University Users and Assets from Malicious Security Threats Protect university resources and reduce vulnerability to security threats and data breaches. Eliminate or mitigate the following risks to the University: 1) loss of credibility, 2) denial of service or access (e.g., Federation), 3) downtime, 4) loss of revenue, and 5) identity theft risks. Ensure the University is in compliance of state and federal rules and regulations for protected information, such as HIPAA and FERPA.	\$32,000 start-up one-time \$447,000 recurring
Address Critical Security-Related Audit Findings Based upon findings and recommendations from internal, external, and compliance audits, the University is obligated to address the following critical security areas: documenting risk assessments, protecting data through encryption, adhering to training legislation, implementing additional identity protections, review and timely termination of access, and review of computer network controls.	\$40,000 recurring
Provide Improved Document Workflow and Digital Image Storage Management Capabilities for Users Document Management (DM) was initially implemented to store and secure electronic documents in support of Banner processes. However there is now a need by units to use a DM tool for other processes and practices. A Document Management Service Center (DMSC) at AITS would dedicate resources to assist units with their DM needs. A DMSC would augment and enhance the existing services (Workflow, Formbuilder, etc.) offered by our office/departmental automation group. Resources: 3FTE @ average \$80K with 50% cost recovery after 2 years Xtender has been in production since the inception of our Banner ERP. Unfortunately, Xtender is not keeping up with the current industry needs. Xtender is lacking in many critical functions, including built-in workflow; OCR – data recognition; full-text indexing and searching; automatic capture, index and storage of electronic forms (E-forms). Xtender also is slow in providing necessary support for Firefox, Safari, and Mozilla, as well as the current versions of IE and Adobe. A more robust tool would allow us to automate many workflow tasks that cannot be cost effectively solved with our current tools.	\$1,040,000 start-up one-time \$252,000 recurring
Provide Data Visualization and Enterprise Reporting Tools for University Users In order to provide the most capabilities of the tools in our portfolio for data visualization and enterprise reporting to end users, we must upgrade and expand our licensing for these systems to take advantage of all of the features and meet user demand.	\$135,000 start-up one-time \$3,000 recurring
Total Request for FY 16	\$7,702,000 start-up one-time \$4,433,929 recurring

7. New Revenue Sources

7.a-d AITS has submitted proposals for NSF funds and has worked with researchers to perform work paid by the researcher's grant. It is difficult for AITS to charge the units within the department because they often are looking to AITS because they do not have the funding to perform the function themselves or to pay for an outside vendor. As such, revenue generation on a project basis is challenging. We will continue to expand ability to generate revenue with mobile development, data visualization, and data center services.

As we have seen with the startup of the business process analysis team, there is no shortage of work at the University; however, there is a shortage of funding as many units expect that AITS services should be provided at no additional cost to them.

We see potential new revenue in areas below in Table 13. For more details see business case attachments in Appendix 5 and the individual revenue proposals in Appendix 9.

Table 13. Potential New Revenue Sources

Consolidation of Campus Applications and Services

Transition decentralized commodity services to AITS reducing overall costs to IT units and the University based on providing those services at scale with a goal of saving 31%. AITS has done this multiple times in the past as discussed in Section 3. This initiative aligns with the AITS strategic directions in that the ultimate beneficiaries are faculty, staff, and students who receive the benefits from these initiatives. Those benefits would likely support our strategic directions to save time, improve ease of use, improve speed to service, provide targeted and pervasive information, and collaborate.

Sourcing Large Strategic IT Projects

Partner with university and campus units to develop large strategic information systems that provide broad benefits, return on investment, and further the accomplishment of strategic and operational goals. Host and maintain these systems once in production. In instances where vendor-developed software does not fit specific value-added processes of the University, or is too expensive to purchase and maintain, AITS can provide enterprise-class system development and management capabilities that exceed most organizations' in-house capacity or skillsets. Projects, as described above, for example Start MyResearch, may be outsourced to AITS for development and support. Usually, these projects either do not fit within the funding or timing constraints of ITPC.

Administrative Fee-Based IT Services

AITS staff provides a wide range of administrative technology solutions and enterprise services currently at no additional cost to the University community. Where AITS provides a cost effective option to a department, that would otherwise need to hire a consultant or hire their own full FTE, AITS can provide economies of scale, sharing resources, and utilizing our expertise in areas of application support and development and quality assurance testing.

- | | |
|------------------------------|-------------------------------------|
| • Application Administration | • Mobile App Development |
| • Application Development | • Process Management |
| • Data Modeling | • SiteMinder |
| • Data Visualization | • Usability Analysis and Design |
| • Database Hosting | • Website Quality Assurance Testing |

Consolidation of Administrative IT Services for State of Illinois Higher Education Institutions

Duplication of enterprise services such as ERP hosting, storage, and server and application hosting within the University does not provide the optimal cost model as hardware, software, and labor resources are increased. The management of Banner as a central IT responsibility versus distributed results in significant ongoing savings to the University. There are opportunities to partner with other state colleges and universities to consolidate services among institutions to provide overall savings to state higher education. We have had discussions in the past few years with Illinois State and others about potentially sharing data center space. This would be a new path to explore with our fellow higher education institutions in Illinois.

Activity Based Costing (ABC)

ABC provides a way to define services to customers by directly tying lines of business to the source of funding and aligning the cost of providing a service in a way that is more logical and transparent than standard budget allocation. Activities and costs are assigned to the services we provide and by tracking hours worked, true costs of services can be provided to the campuses. For example, from the ABC analysis performed in FY 13, it was identified that 83% of AITS supports core university business processes. For this enterprise support AITS could shift to cost support based on usage and population of students and employees; UIUC – 56%, UIC – 38%, UIS – 6%, rather than going directly to state for allocations. Other FY 13 budget costs were associated with infrastructure support, compliance, and consulting services. The remaining percentage of the budget, represented by UA infrastructure support would be subsidized by UA or billed to departments utilizing consulting services.

Number	Line of Business	FTE Cost	Non Labor Costs	Total Cost
1	BPI (Delivered to Customer)	\$220,497	\$17,369	\$237,866
2	Collaboration tools	\$120,239	(\$32,542)	\$87,698
3	Compliance	\$193,973	\$48,543	\$242,516
4	Database Customer Services (Consulting)	\$150,833	\$11,912	\$162,745
5	Customer Training	\$76,240	(\$94,094)	(\$17,854)
6	Data Visualization	\$17,635	\$1,242	\$18,877
7	Centralized Desktop Support	\$1,144,756	\$153,171	\$1,297,927
8	Enterprise System Support	\$1,773,843	\$697,765	\$2,471,608
9	Enterprise System Research Administration	\$516,483	\$464,391	\$980,874
10	Enterprise System Finance Applications	\$1,951,727	\$1,212,272	\$3,163,999
11	Enterprise System HR Applications	\$2,909,092	\$1,093,233	\$4,002,325
12	Enterprise System Student Applications	\$2,575,520	\$1,232,413	\$3,807,933
13	Enterprise System Capital Programs	\$647,902	\$93,021	\$740,923
14	Enterprise System Mobile Applications	\$206,663	\$37,787	\$244,450
15	Identity and Access Management	\$1,061,629	\$1,224,638	\$2,286,267
16	Mobile Applications (Consulting)	\$57,794	\$4,097	\$61,892
17	Reports and Data	\$2,583,382	\$857,592	\$3,440,974
18	Records and Information Management System	\$224,201	\$31,481	\$255,682
19	Security (Consulting)	\$106,023	\$10,505	\$116,528
20	Enterprise Class Storage/Backup Services	\$74,871	\$63,155	\$138,027
21	Server Support Services (Maint & Consulting)	\$123,998	\$96,681	\$220,679
22	Workflow Development (Consulting)	\$116,850	\$8,313	\$125,163
23	Application System Support	\$57,783	\$4,113	\$61,896
24	Security Provisioning	\$231,047	\$16,476	\$247,524
25	Data Center Management / Co Location Services	\$151,884	\$44,388	\$196,272
26	UI Ready (Kuali)	\$157,749	\$251,896	\$409,645
27	Video Bridge Conferencing (Consulting)	\$89,140	\$184,976	\$274,117
28	Web Services (Consulting)	\$5,247	\$16,164	\$21,410
29	Projects and Portfolio Management (Consulting)	\$15,663	\$978	\$16,641
30	Web Services Infrastructure	\$191,615	\$13,664	\$205,280
31	Enterprise Integrations	\$0	\$0	\$0
Totals		\$17,754,280	\$7,765,605	\$25,519,885

Funding Model

In addition to looking for ways to generate revenue, taking a closer look at the funding model for AITS could provide a more solid structure to the financial narrative. Currently, a 20% state reduction will impact departments differently based on the composition of each department's budget (I.E., state, institutional, other fund sources). Comparing departments within UA to each other, a 20% reduction in state permanent funding has an effective rate ranging from 3% to 20% of their respective budgets. For example AITS' budget is comprised of approximately 82% state permanent funds and approximately 18% institutional funds, resulting in a 17% effective rate reduction. With a higher percentage of our budget coming from state funds, we are on the higher end of the effective rate impact for UA.

FY 15 (when only looking at permanent allocations)

- AITS represents 34.5% of CFO budget
- State funds represents 81.45% of AITS budget
- AITS reduction of 20% state and 3% institutional has an effective rate of 16.85%
- CFO Total Reduction \$10,094.49
- AITS reduction of \$3,998.9
- AITS represents 40% of reduction for CFO

References

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Appendices

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2	Unit Financials Supporting Details
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Appendix 1

Unit Financials Summary

AE - AITS									
699 - AITS									
Fiscal Year 14 Period 14									
FINANCIAL RESOURCES (000)									
Amounts from previous years have been restated to reflect the data structures as of the fiscal year and period above.									

Budget Sources Unrestricted ¹	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
State Perm Budget	18,704.2	18,349.2	19,031.4	18,493.8	18,985.1	19,334.1	15,467.3	15,467.3	15,467.3
Inst Perm Budget	4,195.4	4,195.4	4,227.1	4,254.3	4,372.7	4,403.3	4,271.2	4,271.2	4,271.2
State & Inst Temp Budget	1,524.1	2,812.6	975.0	1,747.7	2,374.5	1,864.4	1,664.4	1,664.4	1,664.4
Subtotal Unrestricted Funds	24,423.7	25,357.2	24,233.5	24,495.8	25,732.3	25,601.8	21,402.9	21,402.9	21,402.9
Restricted Sources ²	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Self-Supporting	984.7	874.6	906.8	950.7	1,418.7	1,600.0	1,600.0	1,700.0	1,900.0
Grants & Contracts	15.7	-	-	-	-	-	-	-	-
Endowments & Gifts	-	-	-	-	1.1	-	-	-	-
Agency Funds	-	-	-	-	-	-	-	-	-
Federal Contracts	-	-	-	-	-	-	-	-	-
Subtotal Restricted Funds	1,000.4	874.6	906.8	950.7	1,419.8	1,600.0	1,600.0	1,700.0	1,900.0
Fiscal Year Total	25,424.1	26,231.8	25,140.3	25,446.5	27,152.1	27,201.8	23,002.9	23,102.9	23,302.9
Carry Forward Balances ³	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Institutional	6,339.4	4,850.2	4,016.1	2,203.9	2,798.5	3,470.8	3,617.1	475.8	-
Endowments & Gifts	-	-	-	-	-	2,066.2	1,500.0	1,000.0	500.0
Plant/Agency	0.6	-	2,600.0	2,786.0	1,615.9	6.4	-	-	-
Self-Supporting	10.0	8.3	(0.6)	1.6	72.6	-	-	-	-
County	-	-	-	-	-	-	-	-	-
Check figure Total Carry Forward	6,350.0	4,858.5	6,629.4	5,006.4	4,502.0	5,568.3	5,117.1	1,475.8	(915.5)
Total Carry Forward	6,350.0	4,858.5	6,615.3	4,991.5	4,487.0	5,543.4	5,117.1	1,475.8	500.0
Total Operating Budget	31,774.1	31,091.0	31,769.7	30,452.9	31,654.1	32,770.1	28,120.0	24,578.7	22,387.3
Expenditures - All Funds	FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Personal Services	16,779.7	16,680.3	16,637.0	17,064.8	18,261.8	18,732.3	18,060.7	17,110.7	15,660.7
Other Expense	8,356.3	7,118.8	9,073.2	6,333.4	6,925.9	7,294.5	7,023.5	6,823.5	6,523.5
Equipment/Plant	1,778.9	662.5	1,053.1	1,129.8	898.1	1,626.2	1,560.0	1,560.0	1,560.0
Agency Funds	-	-	-	-	-	-	-	-	-
Transfers	-	-	-	1,422.9	-	-	-	-	-
Indirect Charges to G&C	-	-	-	-	-	-	-	-	-
Fiscal Year Total	26,914.9	24,461.6	26,763.3	25,950.9	26,085.8	27,653.0	26,644.2	25,494.2	23,744.2
Fiscal Year Balance	4,859.2	6,629.4	5,006.4	4,502.0	5,568.3	5,117.1	1,475.8	(915.5)	(1,356.9)
Summary From Other Workbooks (must add in)									
Cost Reduction/Reallocation Efforts	-	-	-	-	-	-	900.0	1,200.0	1,900.0
New Strategic Initiatives/Budget Requests	-	-	-	-	-	-	6,961.5	5,641.2	5,562.8
New Revenue Sources	-	-	-	-	-	-	-	-	-

FACULTY & STAFF FTE (ALL FUNDS) ⁴									
	FY10*	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Faculty	-	-	-	-	-	-	-	-	-
Ac Prof	205.50	199.50	194.50	198.00	203.75	202.6	196.7	188.4	176.5
Civ Svc	17.00	14.00	11.00	13.00	15.00	16.0	16.0	16.0	16.0
Grad Assts	0.50	-	-	-	-	-	-	-	-
Staff	223.0	213.5	205.5	211.0	218.8	218.6	212.7	204.4	192.5
Fac & Staff	223.0	213.5	205.5	211.0	218.8	218.6	212.7	204.4	192.5

Notes

- Budget Sources Unrestricted
 - State Perm Budget - End of year recurring base
 - Inst Perm Budget - End of year recurring base
 - State & Inst Temp Budget - Temporary transfers
- Budget Sources Restricted
 - Self-Supporting - End of year revenue/sales
 - Gifts - End of year revenue/sales
- Carry Forward Balances from College Financial Statements
 - Institutional - Cash Balance
 - Gift - Fund Balance
 - Plant - Fund Balance
 - County - Fund Balance
- Faculty FTE and Staff FTE (ALL FUNDS)

*Note: Decision Support merged with AITS in FY11. For comparative purposes, FY10 balances for Decision Support (Org 661) are included with AITS balances above.

NOTE: AITS' aggregate budget includes ITPC which is a budget for project funds tied to campus initiatives committed by ITPC governance. AITS is the steward of these funds, but not the owner. By combining these budgets into one document, it appears ITPC funds could be used to support AITS' budget reduction. To demonstrate the true impact, we have separated the AITS, ITPC, as well as the Plant funds which all have uniquely defined usage for spending and in practice cannot crossover. This is shown by looking at Appendix e, 'AITS Only' financial sheet. In FY16, we would finish the year with a deficit. When combining all budgets, a deficit inaccurately does not show until FY17, see Appendix 1 'AITS'.

AE - Chief Information Officer 412 - Chief Information Officer Fiscal Year 14 Period 14									
FINANCIAL RESOURCES (000) Amounts from previous years have been restated to reflect the data structures as of the fiscal year and period above.									

Budget Sources Unrestricted ¹	FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
State Perm Budget	-	-	621.5	603.4	622.0	635.6	508.5	508.5	508.5
Inst Perm Budget	-	-	-	-	-	-	-	-	-
State & Inst Temp Budget	-	-	819.5	215.9	145.7	152.1	155.9	159.8	163.8
Subtotal Unrestricted Funds	-	-	1,441.0	819.3	767.7	787.7	664.4	668.3	672.3
Restricted Sources ²	FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Self-Supporting	-	-	-	-	-	-	-	-	-
Grants & Contracts	-	-	-	-	-	-	-	-	-
Endowments & Gifts	-	-	-	-	-	-	-	-	-
Agency Funds	-	-	-	-	-	-	-	-	-
Federal Contracts	-	-	-	-	-	-	-	-	-
Subtotal Restricted Funds	-	-	-	-	-	-	-	-	-
Fiscal Year Total	-	-	1,441.0	819.3	767.7	787.7	664.4	668.3	672.3
Carry Forward Balances ³	FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Institutional	-	-	-	220.5	388.9	239.4	162.1	126.5	99.8
Endowments & Gifts	-	-	-	-	-	-	-	-	-
Plant	-	-	-	-	-	-	-	-	-
Self-Supporting	-	-	-	-	-	-	-	-	-
Agency Funds	-	-	-	-	-	-	-	-	-
Check figure Total Carry Forward	-	-	-	220.4	388.8	239.4	162.1	126.5	99.8
Total Carry Forward	-	-	-	220.5	388.9	239.4	162.1	126.5	99.8
Total Operating Budget	-	-	1,441.0	1,039.7	1,156.5	1,027.1	826.5	794.8	772.1
Expenditures - All Funds	FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Personal Services	-	-	276.2	588.6	591.9	595.0	610.0	610.0	610.0
Other Expense	-	-	926.6	62.3	316.1	270.0	90.0	85.0	62.3
Equipment/Plant	-	-	17.8	-	9.1	-	-	-	-
Agency Funds	-	-	-	-	-	-	-	-	-
Transfers	-	-	-	-	-	-	-	-	-
Indirect Charges to G&C	-	-	-	-	-	-	-	-	-
Fiscal Year Total	-	-	1,220.6	650.9	917.1	865.0	700.0	695.0	672.3
Fiscal Year Balance	-	-	220.4	388.8	239.4	162.1	126.5	99.8	99.8
Summary From Other Workbooks (must add in)									
Cost Reduction/Reallocation Efforts	-	-	-	-	-	-	120.0	120.0	127.1
New Strategic Initiatives/Budget Requests	-	-	-	-	-	-	-	-	-
New Revenue Sources	-	-	-	-	-	-	-	-	-

FACULTY & STAFF FTE (ALL FUNDS) ⁴									
	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18
Faculty	-	-	-	-	-	-	508.	508.	-
Ac Prof	-	-	-	4.00	4.00	5.0	-	-	-
Assts	-	-	-	-	-	-	5.0	5.0	5.0
Civ Svc	-	-	-	-	-	-	-	-	-
Staff	-	-	-	4.0	4.0	5.0	-	-	-
Fac & Staff	-	-	-	4.0	4.0	5.0	5.0	5.0	5.0
						5.0	5.0	5.0	

Appendix 2

Unit Financials – Supporting Details

AE - AITS - Only 699 - AITS Fiscal Year 14 Period 14 FINANCIAL RESOURCES (000) Amounts from previous years have been restated to reflect the data structures as of the fiscal year and period above.										
Budget Sources Unrestricted ¹		FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
State Perm Budget		18,704.2	18,349.2	19,031.4	18,493.8	18,985.1	19,334.1	15,467.3	15,467.3	15,467.3
Inst Perm Budget		4,195.4	4,195.4	4,227.1	4,254.3	4,372.7	4,403.3	4,271.2	4,271.2	4,271.2
State & Inst Temp Budget		1,524.1	2,812.6	975.0	1,747.7	2,374.5	265.4	265.4	265.4	265.4
Subtotal Unrestricted Funds		24,423.7	25,357.2	24,233.5	24,495.8	25,732.3	24,002.8	20,003.9	20,003.9	20,003.9
Restricted Sources ²		FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Self-Supporting		984.7	874.6	906.8	950.7	1,418.7	1,600.0	1,600.0	1,700.0	1,900.0
Grants & Contracts		15.7	-	-	-	-	-	-	-	-
Endowments & Gifts		-	-	-	-	1.1	-	-	-	-
Agency Funds		-	-	-	-	-	-	-	-	-
Federal Contracts		-	-	-	-	-	-	-	-	-
Subtotal Restricted Funds		1,000.4	874.6	906.8	950.7	1,419.8	1,600.0	1,600.0	1,700.0	1,900.0
Fiscal Year Total		25,424.1	26,231.8	25,140.3	25,446.5	27,152.1	25,602.8	21,603.9	21,703.9	21,903.9
Carry Forward Balances ³		FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Institutional		6,339.4	4,850.2	4,016.1	2,203.9	2,798.5	975.9	1,664.0	-	-
Plant/Agency		0.6	-	2,600.0	2,786.0	1,615.9	-	-	-	-
Self-Supporting		10.0	8.3	(0.8)	1.6	72.6	6.4	-	-	-
Accruals		-	-	-	-	-	23.1	-	-	-
Check figure Total Carry Forward		6,350.0	4,859.2	6,629.4	5,006.4	4,502.0	5,568.3	1,664.0	(776.3)	(1,540.3)
Total Carry Forward		6,350.0	4,858.5	6,615.3	4,991.5	4,487.0	1,005.4	1,664.0	-	-
Total Operating Budget		31,774.1	31,091.0	31,769.7	30,452.9	31,654.1	26,608.2	23,267.9	21,703.9	21,903.9
Expenditures - All Funds		FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Personal Services		16,779.7	16,680.3	16,637.0	17,064.8	18,261.8	17,060.7	16,560.7	15,860.7	14,860.7
Other Expense		8,356.3	7,118.8	9,073.2	6,333.4	6,925.9	6,823.5	6,423.5	6,323.5	5,923.5
Equipment/Plant		1,778.9	662.5	1,053.1	1,129.8	898.1	1,060.0	1,060.0	1,060.0	1,060.0
Agency Funds		-	-	-	-	-	-	-	-	-
Transfers		-	-	-	1,422.9	-	-	-	-	-
Indirect Charges to G&C		-	-	-	-	-	-	-	-	-
Fiscal Year Total		26,914.9	24,461.6	26,763.3	25,950.9	26,085.8	24,944.2	24,044.2	23,244.2	21,844.2
Fiscal Year Balance		4,859.2	6,629.4	5,006.4	4,502.0	5,568.3	1,664.0	(776.3)	(1,540.3)	59.7
Summary From Other Workbooks (must add in)										
Cost Reduction/Reallocation Efforts							-	900.0	1,200.0	1,900.0
New Strategic Initiatives/Budget Requests							-	6,961.5	5,641.2	5,562.8
New Revenue Sources							-	-	-	-
FACULTY & STAFF FTE (ALL FUNDS) ⁴										
	FY10*	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	
Faculty	-	-	-	-	-	-	-	-	-	
Ac Prof	205.50	199.50	194.50	198.00	203.75	202.6	196.7	188.4	176.5	
Civ Svc	17.00	14.00	11.00	13.00	15.00	16.0	16.0	16.0	16.0	
Grad Assts	0.50	-	-	-	-	-	-	-	-	
Staff	223.0	213.5	205.5	211.0	218.8	218.6	212.7	204.4	192.5	
Fac & Staff	223.0	213.5	205.5	211.0	218.8	218.6	212.7	204.4	192.5	
Notes										
1. Budget Sources Unrestricted						3. Carry Forward Balances from College Financial Statements				
State Perm Budget - End of year recurring base						Institutional - Cash Balance				
Inst Perm Budget - End of year recurring base						Gift - Fund Balance				
State & Inst Temp Budget - Temporary transfers						Plant - Fund Balance				
2. Budget Sources Restricted						County - Fund Balance				
Self-Supporting - End of year revenue/sales						4. Faculty FTE and Staff FTE (ALL FUNDS)				
Gifts - End of year revenue/sales										
Carry Forward Balances - See table 3 in report.										
*Note: Decision Support merged with AITS in FY11. For comparative purposes, FY10 balances for Decision Support (Org 661) are included with AITS balances above.										
NOTE: AITS' aggregate budget includes ITPC which is a budget for project funds tied to campus initiatives committed by ITPC governance. AITS is the steward of these funds, but not the owner. By combining these budgets into one document, it appears ITPC funds could be used to support AITS' budget reduction. To demonstrate the true impact, we have separated the AITS, ITPC, as well as the Plant funds which all have uniquely defined usage for spending and in practice cannot crossover. This is shown by looking at FY16, AITS Only financial sheet, in Appendix 2, we would finish the year with a deficit. When combining all budgets, a deficit inaccurately does not show until FY18, see Appendix 1 AITS Combined.										

ITPC									
Fiscal Year 15									
FINANCIAL RESOURCES (000)									
Amounts from previous years have been restated to reflect the data structures as of the fiscal year and period above.									
Budget Sources Unrestricted ¹	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
State Perm Budget									
Inst Perm Budget									
State & Inst Temp Budget						\$1,599	\$1,399	\$1,399	\$1,399
Subtotal Unrestricted Funds	-	-	-	-	-	1,599.0	1,399.0	1,399.0	1,399.0
Restricted Sources ²	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Self-Supporting									
Grants & Contracts									
Endowments & Gifts									
Agency Funds	-	-	-	-	-	-	-	-	-
Federal Contracts	-	-	-	-	-	-	-	-	-
Subtotal Restricted Funds	-	-	-	-	-	-	-	-	-
Fiscal Year Total	-	-	-	-	-	1,599.0	1,399.0	1,399.0	1,399.0
Carry Forward Balances ³	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Institutional						2,471.8	1,927.4	1,226.4	875.4
Plant/Agency									
Self-Supporting						-	-	-	-
County						-	-	-	-
Check figure Total Carry Forward						2,471.0	1,927.4	1,226.4	875.4
Total Carry Forward	-	-	-	-	-	2,471.8	1,927.4	1,226.4	875.4
Total Operating Budget	-	-	-	-	-	4,070.0	3,326.4	2,625.4	2,274.4
Expenditures - All Funds	FY10	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected
Personal Services						1,671.6	1,500.0	1,250.0	800.0
Other Expense						471.0	600.0	500.0	600.0
Equipment/Plant									
Agency Funds						-	-	-	-
Transfers						-	-	-	-
Indirect Charges to G&C						-	-	-	-
Fiscal Year Total	-	-	-	-	-	2,142.6	2,100.0	1,750.0	1,400.0
Fiscal Year Balance	-	-	-	-	-	1,927.4	1,226.4	875.4	874.4

AITS - Plant Fund										
Fiscal Year 14 Period 14										
FINANCIAL RESOURCES (000)										
Budget Sources	FY10*	FY11	FY12	FY13	FY14	FY15 Projected	FY16 Projected	FY17 Projected	FY18 Projected	
Unrestricted ¹										
State Perm Budget										
Inst Perm Budget										
State & Inst Temp Budget										
Subtotal Unrestricted Funds										
Restricted Sources ²										
Self-Supporting										
Grants & Contracts										
Endowments & Gifts										
Agency Funds										
Federal Contracts										
Subtotal Restricted Funds										
Fiscal Year Total										
Carry Forward Balances ³										
Institutional										
Plant/Agency						2,066.2	1,500.0	1,000.0	500.0	
Self-Supporting										
Accruals										
Figure Total Carry Forward						2,066.2	1,500.0	1,000.0	500.0	
Total Carry Forward						2,066.2	1,500.0	1,000.0	500.0	
Total Operating Budget						2,066.2	1,500.0	1,000.0	500.0	
Expenditures - All Funds										
Personal Services										
Other Expense										
Equipment/Plant						566.2	500.0	500.0	500.0	
Agency Funds										
Transfers										
Indirect Charges to G&C										
Fiscal Year Total						566.2	500.0	500.0	500.0	
Fiscal Year Balance						1,500.0	1,000.0	500.0	-	

NOTE: AITS' aggregate budget includes ITPC which is a budget for project funds tied to campus initiatives committed by ITPC governance. AITS is the steward of these funds, but not the owner. By combining these budgets into one document, it appears ITPC funds could be used to support AITS' budget reduction. To demonstrate the true impact, we have separated the AITS, ITPC, as well as the Plant funds which all have uniquely defined usage for spending and in practice cannot crossover. This is shown by looking at Appendix e, 'AITS Only' financial sheet. In FY16, we would finish the year with a deficit. When combining all budgets, a deficit inaccurately does not show until FY17, see Appendix 1 'AITS'.

Appendix 3

Cost Reduction Summary

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN • CHICAGO • SPRINGFIELD				Cost Reduction/Reallocation Measures			Question #4
				UNIT NAME ENTERED HERE			
				FY 2016	FY 2017	FY 2018	
Description	Unit Name	Rank Order	Fund Source (State/ICR/Self-Supporting/etc.)	Annual cost reduction/internal reallocation			
Lengthen hardware life cycles and consolidate physical space. Impact: Hardware refresh cycles for servers, generators, desktop workstations, videoconferencing, enterprise hardware would lengthen past recommended lifespans. This would result in a higher failure rate and lower performance compared to current our standards that maximize uptime for enterprise business software. This may add downtime for areas such as student services, human resources, and finance due to unplanned production outages. This past year we experienced a full failure of the aging M9000 enterprise server hardware (Banner) when redundant system controllers failed simultaneously resulting in being down for a day while replacement hardware was shipped and installed.	COE	1	State	100,000-400,000	200,000-500,000	200,000-600,000	
Reduce maintenance service levels with select vendors for student/finance/HR applications. Impact: Reducing maintenance levels would result in less availability from our vendors during weekends and evenings and reduce uptime for Banner and other applications. This may disrupt normal university business operations for areas such as student services, human resources, and finance. In the worst case, a Friday outage may be delayed until Monday.	LOE	2	State	100,000-200,000	250,000-500,000	250,000-500,000	
Reduce training and education expense. Impact: One of the few flexible expense items in the AITS budget is training and continuing education expense. The budget for training and education expense would be reduced by 50% for FY 16 for an average expenditure of \$271 per employee. Corporate Learner Factbook 2014 executive summary indicates, "Technology companies spent \$1,847 per learner, on average—one of the highest of any industry sector." AITS would be funded at 15% of industry average.	AITS	3	State	\$ 60,000			
Reduce or eliminate capacity for new customer-requested services and business software. Impact: Utilizing expected attrition rates, customer-requested ITPC project work and work requests would be reduced to account for reduced development capacity. This would reduce the ability for campuses to request new work for student, finance, HR, and other administrative applications. There would be a reduction of approximately 20-25 FTE positions for developers, analysts, DBAs, project managers, customer relations specialists, quality assurance, and associated management that perform that work. Table 4 in Section 2 above illustrates over 40 current customer requested projects that would be affected by a cut in capacity. Some of these projects would continue as staffing levels wind down, some would be eliminated, and future capacity for new customer-requested work would be reduced by 100%.	AITS	4	State	100,000-500,000	300,000-500,000	450,000-950,000	
Reduce support of existing customer-requested services and business software. Impact: Utilizing expected attrition rates, AITS would reduce headcount approximately 5-10 FTE to meet funding cuts resulting in the elimination or degradation of a number of production operations services that support critical business applications utilized by faculty, staff, and students at the University. These degraded services would include self-service websites, data storage support, server and application hosting for departments, help desk, data security threat protection, departmental IT support, videoconferencing support, desktop support, shared services (SharePoint, SitePublish, SVN, SiteMinder, RightFax, Bomgar, etc.), support for departmental applications, data visualization, and operational reporting.	ADSD	5	State	0-100,000	100,000-300,000	200,000-400,000	
Reduce business process improvement shared service and records and information management services capabilities. Impact: Utilizing expected attrition rates, CIO would reduce headcount by 1 FTE to meet funding cuts resulting in a 30% reduction in capacity to perform this work for university customers. This reduction in capacity would elongate project timelines accordingly reducing service levels for customers requesting assistance in improving their own business processes. There would also be a reduction in travel between campuses supporting this work, customer tools for documentation management, and storage facilities for records management.	CIO	CIO		\$ 120,000	\$ 120,000	\$ 127,100	
Total Cost Reductions				480,000-1,380,000	970,000-1,920,000	1,100,000-2,577,100	
				Total Reduction needed by FY18 \$ 3,998,900			
Carry forward							
Instructions:							
1. Please briefly describe each cost reduction or internal reallocation measure you plan in order to meet the objective of not using cash reserves or running deficits by year 3 or FY18 as indicated on the Fiscal Report template.							
2. Please indicate the unit where the costs savings/reallocation will occur.							
3. If a reallocation is planned then please indicate the units and/or activities involved.							
4. Rank order your cost savings/reallocation measures so that the first one listed would be the first measure you would take and so on down the line until you have reached the goal of balancing your budget by FY18.							
5. Indicate the fund source where the savings and/or reallocation will occur and whether the savings are recurring or temporary.							
6. Avoid measures that would shift costs on to other units or charging units for services that they now receive for no cost.							

Appendix 4

Budget Requests Summary

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN • CHICAGO • SPRINGFIELD				BUDGET REQUESTS		Question #6	
				UNIT NAME ENTERED HERE			
Please see appendix for additional information on all requests.						FY 2016	FY 2017
Description & Justification		Justification (see description)	Rank Order	Unit Internal Funding/Reallocation	New Revenue Source	UA Funding Requested	
Unavoidable Annual Maintenance to Vendors to Support University Business Processes We have existing contracts for the products that support student services, human resources, finance, and data warehouse applications. These costs increase at an average annual rate of 3-10%. This escalation of costs is not funded, and it is an unavoidable expense to maintain the critical administrative systems to support the University's business processes, employees, and students.			1	AITS has base funding for the maintenance that does not automatically increase, but the amount required to fund this grows as maintenance contracts have an annual increase of 3-10%. AITS continues to look at ways to reduce the expenditures through prepaying multi-year maintenance agreements ahead of time to reduce costs as well as negotiating higher levels of support at lower tier prices and replacing systems with lower maintenance products.	N/A	\$ 492,529	\$ 250,000
Large Essential Hardware and Software Infrastructure Refresh. (see table 7) Enterprise class infrastructure is needed to support enterprise systems such as Banner, HRFE, IAM, Finance, HR, Data Warehouse, and student systems. This infrastructure includes things such as the data centers at RRB at UIC and HAB at UIUC which are 20X7 high availability and redundant facilities as well as the servers, disks, and infrastructure components needed to keep the university's administrative systems running. The data centers also support campus functions such as Unified Communications and campus computing cluster. This request is to replace aging equipment and infrastructure to keep the systems running and safe. The following is a list of investments that are required over the next 5 years to keep the enterprise infrastructure current.			2	Funds of approximately \$1.0M per year from state funds that are moved into carry over along with \$500K of hardware refresh budget is used for the majority of these infrastructure projects each year. Additional funding, such as what is needed for the Banner Hardware replacement has been sought after since current budget amounts can not accommodate that expense. If the AITS plant, hardware refresh, and carryover funds are eliminated or severely reduced then AITS will seek additional funding for these projects.	N/A	\$ 2,480,000	\$ 2,480,000
Restore Capacity for Implementing New Customer-Requested Services that Increase University-wide Productivity Increase funding to meet the demand for customer-requested business software focused on increasing the productivity of university constituents performing administrative tasks. Examples of this work include making it easier to login to university systems, making it easier to manage student rosters and grades between Banner and Learning Management Systems, being more efficient in recruiting students and meeting student profile targets, managing contracts, tracking employee and graduate student training, and scheduling rooms for classes and non-classroom purposes. A complete listing of the associated project affected by this development capacity is in section 4 and the appendix. The benefits to the university and constituents are primarily obtained through labor force productivity as facilitated through IT workflow capabilities. Based on Gartner analyses of data from the Bureau of Labor Statistics, they show that the labor productivity of an organization must increase about 2.7% every year to remain competitive. They also show that 70% of this productivity comes from the application of IT to improve productivity of everyone associated with the organization. Further, Gartner explains that as organizations become larger (around \$10B in revenue), they provide operational IT at the larger scale and spend about 3% of revenue on operational IT as compared to 5% for smaller organizations. Based on these data, AITS must assist the University to realize \$67M in annual labor productivity increases required to keep pace with the competition and help recover part of the \$110M difference between 3% and 5% of revenue by providing services at the enterprise level.			3	There are no internal funds or resources to reallocate to this activity.	N/A	\$ 2,000,000	\$ 2,000,000
Enhance User Experience when Utilizing Administrative IT Services University systems users are demanding that the applications they utilize in their daily life at the University are simple, user-friendly, intuitive, with a consistent look and feel when possible between different systems. In order to meet these user requirements, AITS proposes the creation of a Design and User Experience Service area will set aside resources that will be dedicated to assisting AITS staff as well as other university departments with implementing user experience design standards. Responsible for, but not limited to, documenting design standards and guidelines, prototyping, developing style guides, and providing a consistent look and feel for university applications. By considering the user experience during the design phase of the project, it saves time during the development phase because there is less time spent redesigning software functionality such as accessibility requirements. Resources: 2 FTE @ average of \$70K + 2 student hourly @ \$30K. 50% cost recovery after 2 years			4	Existing AITS resources could participate in this initiative based on project priorities.	N/A	\$ 170,000	\$ 170,000
Protect University Users and Assets from Malicious Security Threats Protect university resources and reduce vulnerability to security threats and data breaches. Eliminate or mitigate the following risks to the University: 1) loss of credibility, 2) denied of service or access (e.g., Federation), 3) downtime, 4) loss of revenue, and 5) identity theft risks. Ensure the University is in compliance of state and federal rules and regulations for protected information, such as HIPAA and FERPA			5	AITS requires net new funding to address this request.	N/A	\$ 479,000.00	\$ 447,000.00
Address Critical Security-Related Audit Findings Based upon findings and recommendations from internal, external, and compliance audits, the University is obligated to address the following critical security areas: documenting risk assessments, protecting data through encryption, adhering to training legislation, implementing additional identity protections, review and timely termination of access, and review of computer network controls			6	This can be handled by current staff.	N/A	\$ 40,000.00	\$ 40,000.00
Document Management Service Center Provide Improved Document Workflow and Digital Image Storage Management Capabilities for Users - Document Management (DM) Document Management (DM) was initially implemented to store and secure electronic documents in support of Banner processes. However there is now a need by units to use a DM tool for other processes and practices. A Document Management Service Center (DMSC) at AITS would dedicate resources to assist units with their DM needs. A DMSC would augment and enhance the existing services (Workflow, FormBuilder, etc.) offered by our office/departamental automation group. Resources: 3FTE @ average \$80k with 50% cost recovery after 2 years			7	AITS already has 1.5 FTE dedicated to Document Management, and additional virtual team members who contribute as time allows. By year 2, we hope to recover % of the annual costs by making more services available at an hourly rate.		\$ 240,000	\$ 120,000
Document Management Service Center Provide Improved Document Workflow and Digital Image Storage Management Capabilities for Users - Xtender Xtender has been in production since the inception of our Banner ERP. Unfortunately, Xtender is not keeping up with the current industry needs. Xtender is lacking in many critical functions, including built-in workflow; OCR - data recognition; full-text indexing and searching; automatic capture, index and storage of electronic forms (E-forms). Xtender also is slow in providing necessary support for Firefox, Safari and Mozilla, as well as the current versions of IE and Adobe. A more robust tool would allow us to automate many workflow tasks that cannot be cost effectively solved with our current tools			8	Existing staff would be used to do the analysis and implementation of new document management tools/functionality.	N/A	\$ 925,000	\$ 131,250
Provide Data Visualization and Enterprise Reporting Tools for University Users In order to provide the most capabilities of the tools in our portfolio for data visualization and enterprise reporting to end users, we must upgrade and expand our licensing for these systems to take advantage of all of the features and meet user demand.			9	We are accepting the added responsibility for administering and maintaining new tools (Tableau Server) in addition to existing enterprise level data warehousing and reporting services, without the allocation of additional staff. This request is only to cover the cost of licensing and training.	Cost recovery by year 3	\$ 135,000	\$ 3,000
Totals						\$ 6,961,529	\$ 5,641,250
Instructions:							
1. Please provide a short description and justification for your budget request. This is meant to be a quick summary so feel free to provide more detailed budget documents.							
2. Please rank order your requests.							
3. It is important to indicate how much of the activity can be funded from the unit through costs savings or reallocations and/or new revenue sources.							
4. If funds are requested from UA please explain if they are recurring or temporary.							

Appendix 5

New Revenue Sources Summary

UNIVERSITY OF ILLINOIS URBANA • CHAMPAIGN • CHICAGO • SPRINGFIELD			New Revenue Sources			Question #7
UNIT NAME ENTERED HERE			FY16			FY17
Description			Any new FTE needed? (if yes, #)	Annual net revenue		
Consolidation of Campus Applications and Services Transition decentralized commodity services to AITS reducing overall costs to IT units and the University based on providing those services at scale.			For services that could be centralized and provided at the enterprise level, units would transfer 50-75% of their current cost of those services to AITS. AITS would perform these services for this reduced overall cost and the units would experience a cost savings and be able to redirect resources towards mission activities.	Yes, number depending on amount of work transferred. FTE would be funded by discounted percentage of cost.		
Sourcing Large Strategic IT Projects Partner with university and campus units to develop large strategic information systems that provide broad benefits, return on investment, and further the accomplishment of strategic and operational goals. Host and maintain these systems once in production. In instances where vendor-developed software does not fit specific value-added processes of the university, or is too expensive to purchase and maintain, AITS can provide enterprise-class system development and management capabilities that exceed most organizations' in-house capacity or skillsets. Projects, as described above, for example Start MyResearch, may be outsourced to AITS for development and support. Usually, these projects either do not fit within the funding or timing constraints of ITPC.			Project funding represents a cost reimbursement for services provided and while this is neutral to the University in cash flow, it becomes positive through cost avoidance of more expensive vendor systems and support as well as the realization of the benefits of the systems implemented. The units experience reduced project costs and the service beneficiaries would be able to redirect associated resources towards mission activities.	Staffing would be necessary for project resources and ongoing support of deployed services. The project sponsors would fund incremental FTE		
Administrative Fee Based IT Services AITS staff provides a wide range of administrative technology solutions and enterprise services currently at no additional cost to the University community. Where AITS provides a cost effective option to a department, that would otherwise need to hire a consultant or hire their own full FTE, AITS can provide economies of scale, sharing resources, and utilizing our expertise in areas of application support and development and quality assurance testing.			Based on hours of support provided an hourly rate would be charged for consulting services requested.	It is expected that any future staff will be funded with revenue from clients.		
Consolidation of Administrative IT Services for State of Illinois Higher Education Institutions Duplication of enterprise services such as ERP hosting, storage, and server and application hosting within the University does not provide the optimal cost model as hardware, software, and labor resources are increased. The management of Banner as a central IT responsibility versus distributed results in significant ongoing savings to the University. There are opportunities to partner with other state colleges and universities to consolidate services among institutions to provide overall savings to state higher education. We have had discussions in the past few years with Illinois State and others about potentially sharing data center space. This would be a new path to explore with our fellow higher education institutions in Illinois.			For services that could be centralized between institutions other institutions would transfer 50-75% of their current cost of those services to AITS. AITS would perform these services for this reduced overall cost and the units would experience a cost savings and be able to redirect resources towards mission activities.	Staffing would be necessary where services are transferred and could not be absorbed with current labor and hardware. Incremental FTE would be funded by the transfer of a discounted percentage of current cost to support specific services moved to the enterprise level		
Activity Based Costing (ABC) ABC provides a way to define services to customers by directly tying lines of business to the source of funding and aligning the cost of providing a service in a way that is more logical and transparent than standard budget allocation. Activities and costs are assigned to the services we provide and by tracking hours worked, true costs of services can be provided to the campuses.			Based on support, cost of services would be allocated to campuses, departments, along with a recurring infrastructure allocation budget.	Yes, 2-3 FTE. Initial funding would be requested. Future staffing would become part of support costs.		
Fee Based Business Process Improvement Services The Business Process Improvement (BPI) Shared Service provides support for initiatives seeking to improve customer service, free-up staff time, deliver services faster and reduce total cost. Support is provided through a pool of resources available for facilitation of targeted process improvement projects, a methodology and toolset for executing process improvement projects, and training on the concepts and techniques of process improvement initiatives. To offer additional BPI capacity for the University, fee-based services could be expanded, providing units able to cover costs with more timely services for a fraction of the cost of similar services offered in the external marketplace. Revenue from fee-based services could then be used to increase our capacity for services provided to units with more limited discretionary funds.			Based on hours of BPI services provided, an hourly rate would be charged for consulting services requested.	It is expected that any future staff will be funded with revenue from clients.		
Totals					50	50

Appendix 6

AITS IT Services Portfolio – FY 16

Administrative Information Technology Services IT Services Portfolio - FY 16

The scope of this portfolio includes only the activities and investments of the Administrative Information Technology Services (AITS) group. Please visit <https://www.aitis.uillinois.edu/services> for more information on the services and projects listed.

AITS



Save Time • Improve Ease of Use • Improve Speed to
Service

Deliver Targeted and Pervasive Information •
Collaborate

By Function for faculty, staff and students General and administrative services			By IT Function General and administrative computing; Co-investments and shared infrastructure	
Ongoing Services	Student Services Financial Aid Processing Registration and Records Recruiting and Admissions	Professional Services (some may be fee-based) Business Process Improvement Consulting Data Visualization Identity and Access Management Mobile Application Consulting Project Management Records and Information Management Security and Compliance Consulting Workflow Development Consulting Security Provisioning Server Hosting Quality Assurance Web Services Consulting Workstation Management	Application Services Application Administration Application Development Application and Website Testing Data Visualization Distributed Hosting Document Management Enterprise Application Integration Enterprise Data Warehouse Enterprise Batch Scheduling Service Desk Management Web Content Management System	Professional Services Business Process Improvement Shared Services Change Management Service Database Services IT Portfolio Management Release Management Risk Management and Business Continuity Planning Records and Information Management Services
	HR Services Benefits Payroll Recruiting and Hiring		Network and Desktop Services Backup Management Collocation Services Desktop Support Storage Management System Monitoring, Alerting and Availability	Security and Access Services Authentication and Authorization Services Directory Services Firewall Services Information Security Consulting and Support Remote Access and VPN
	Financial Services Accounts Payable Accounts Receivable Contract Management eProcurement General Ledger Management Inventory Accounting Travel Expense Reimbursement			
	Research Services Research Administration Management			

Appendix 7

Cost Reduction Business Cases

Projects and Initiatives	<p>Customer Requested New Projects</p> <p>Student Relationship Management system • Integrate Learning Management System with Banner • Improve automation of financial account code charges • Vacation and Sick Leave Reporting system • Identity and Access Management • Improve federal financial reporting • Campus Charitable Fund Drive system enhancements • Add procurement data to the electronic data warehouse (EDW) • Position Tracking system for civil service employees • Improve hiring data availability via EDW • Implement Room Scheduling system for UIC units • Add contract data to the EDW • New Investment Income system • Disability Resources and Educational Services system • Capital Projects Management system • Biennial Inventory system • Enterprise Training Mgmt system</p>	<p>Regulatory Projects - Mandatory</p> <p>Monitor and report on retiree rehires • Healthcare law monitoring and reporting • Financial Aid Updates • Creation of new UIUC winter term • Pension reform analysis</p> <p>Maintenance Projects - Mandatory</p> <p>Upgrade enterprise reporting platform and associated reports • Update UPD database infrastructure • Credit Card Payment system upgrade • eProcurement system upgrade • Contract Management system upgrade • HR Transaction Processing system upgrade • Room Scheduling system upgrade • Degree Audit system upgrade • Portfolio and Project Management system upgrade • Banner ERP upgrade • System integration infrastructure upgrade • Document Imaging system upgrade</p>
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UA Budget Review FY 16 – Cost Reduction Template**Question 4****Reduction Activity: Lengthen Hardware Cycles****(4.a)Savings activity description:**

Hardware refresh cycles for servers, generators, desktop workstations, videoconferencing units, and enterprise hardware would lengthen past recommended lifespans. The refresh rates could go 3 to 5 years for workstations/laptops and 5 to 7 years for servers, videoconferencing units and enterprise hardware such as disk arrays, tapes, power units, etc. At the far end of the savings initiative, equipment would only be replaced when signs indicate failure is imminent or has been experienced to some degree and support is no longer provided by any vendor.

How this will impact customers and stakeholders:

This would result in a higher failure rate and lower performance compared to current standards that maximize uptime for enterprise business software. This may add downtime for areas such as student services, human resources, and finance due to unplanned production outages. This past year we experienced a full failure of the aging M9000 enterprise server hardware (Banner) when redundant system controllers failed simultaneously resulting in being down for a day while replacement hardware was shipped and installed.

Users may also experience slower workstation performance as equipment ages and operating system and software demands for faster processors grows. Users may also run into compatibility issues with applications requiring newer hardware to perform.

(4.b)Time period to implement:

FY 16, FY 17, FY 18

(4.c)Have stakeholders been consulted, explain:

System administrators and hardware support staff have reviewed the proposed cuts and have assessed the impacts. Due to the sensitivity of the issue and number of people that may be impacted, direct consultation with users has not been done.

(4.d)Assumptions used to come up with projections:

Information regarding failure rates of hardware were not available from vendors when asked. This is proprietary information. Impacts of extended life were based upon experience with equipment that has not been replaced due to specific requirements.

Other Information:**Savings Estimate****One Time Savings**

Amount: N/A

Description: N/A

Recurring Savings (Example: ongoing maintenance expense, FTE):

FY 16	
Amount:	\$100,000 to \$400,000
Description:	Annual reduction in COE hardware refresh budget which currently is \$1.5M
FY 17	
Amount:	\$200,000 to \$500,000
Description:	Annual reduction in COE hardware refresh budget which currently is \$1.5M
FY 18	
Amount:	\$200,000 to \$600,000
Description:	Annual reduction in COE hardware refresh budget which currently is \$1.5M (cumulative \$500,000-\$1,500,000)

UA Budget Review FY 16 – Cost Reduction Template**Question 4****Reduction Activity: Reduce Maintenance Levels****(4.a) Savings activity description:**

Currently AITS spends an annual recurring amount for software and hardware maintenance to product vendors to provide continued licensing and support of their products. The estimated cost for FY 16 maintenance is \$4.39M. Analysis was done to find maintenance contracts that could be reduced to provide a lower level of support or eliminated which would mean that the University could continue to use the services, but would be unsupported by the vendor. A savings estimate between \$600,000 and \$1,200,000 could be obtained on an annual basis.

How this will impact customers and stakeholders:

Reducing maintenance levels would result in less availability from our vendors during weekends and evenings and reduce uptime for Banner and other applications. This may disrupt normal university business operations for areas such as student services, human resources, and finance. For example, a problem experienced late on a Friday may not be able to be reported to the vendor until the next business day.

The reduction of other maintenance agreements may require AITS and customers to look at non-commercial products such as open source solutions to provide similar, but perhaps less sophisticated functionality. There would also be an effort convert data and processes from one system to another which would further reduce discretionary capacity for other initiatives. Users may also see a degradation in functionality with the new products or be required to change business processes. For example, the current ticketing systems used by multiple service desks within the University may need to be replaced with an open source solution to provide similar functionality. Thus requiring changes in the way tickets are generated, routed, managed, and reported upon by support groups.

Other systems where support is being entirely eliminated may result in the University paying the vendor hourly rates to provide a fix or paying back maintenance in order for a vendor to provide a solution. For systems that are only used by a single department, AITS may need to request that the external unit fund the maintenance if they continue to need that level of support.

(4.b) Time period to implement:

FY 16, FY 17, FY 18

(4.c) Have stakeholders been consulted, explain:

The maintenance budget is reviewed every year by the product administrators who review the agreements and evaluate whether or not the products are still needed and if the agreements can be reduced. The product administrators have reviewed the maintenance agreements again to identify those that may offer lower levels of support or are products that serve smaller number of units or don't require a maintenance agreement to continue to run. Specific changes have not been discussed with clients directly.

(4.d) Assumptions used to come up with projections:

Agreements were looked at and classified as either 1) no change possible, 2) could possibly be reduced, 3) could possibly be eliminated and replaced with another product or run without support. Due to time constraints, the number of agreements in place, and the sensitivity of the matter, direct discussions with vendors to determine exact pricing levels and impacts were not discussed. Savings were based upon estimates made by product administrators.

Other Information:	
The maintenance agreements increase on an annual basis between 3 – 10%. These typically are the terms that the University agrees to when purchasing the products.	
Savings Estimate	
One Time Savings	
Amount:	N/A
Description:	N/A
Recurring Savings (Example: ongoing maintenance expense, FTE):	
FY 16	
Amount:	\$100,000 to \$200, 000
Description:	Annual range of savings from reduction in maintenance contracts.
FY 17	
Amount:	\$250,000 to \$500,000
Description:	Annual range of savings from reduction in maintenance contracts.
FY 18	
Amount:	\$250,000 to \$500,000
Description:	Annual range of savings from reduction in maintenance contracts. (\$600,000-\$1,200,000 cumulative)

UA Budget Review FY 16 – Cost Reduction Template**Question 4****Reduction Activity: Reduce training and education expense****(4.a) Savings activity description:**

One of the few flexible expense items in the AITS budget is training and continuing education expense. The budget for training and education would be reduced to \$60,000 for FY 16 - 50% of its FY 15 level, representing an average training commitment of \$271 per employee. According to a recent Educause Core Data Survey, "IT is a profession that demands continual learning, and IT departments commonly invest in staff training as a result." The Corporate Learner Factbook 2014 executive summary indicates, "Technology companies [...] spent \$1,847 per learner, on average—one of the highest of any industry sector." With the planned 50% training and education budget reduction, AITS would be funded at 15% of industry average.

AITS will continue to invest in professional development, develop performance-based measures for monitoring improvement attributable to training, and make changes to environmental factors which impact performance.

AITS will invest in training when it allows AITS staff to:

- Learn about new technologies that will impact future business strategies.
- Improve the skills required to work effectively with technologies in order to enhance business value and customer relationships.
- Ensure the University of Illinois' voice is heard with vendors of technologies that we use.
- Share our knowledge and experience with higher education IT colleagues and collaborators.
- Provide better customer support to University of Illinois customers and colleagues.

How this will impact customers and stakeholders:

As new technologies emerge, and our existing technologies change, we need to learn about them to support the business processes of the University. The increasing complexity of the University's operations underscores the need for well-trained IT professionals that can serve large groups of customers. Annual training results in better decisions on the use of our business systems and allows the best implementation of the technology to meet the long-term objectives of the University. Training means less time and money required to initially develop the solution, add features, expand functionality, support the solution, and improve customer relationships.

(4.b) Time period to implement:

FY 16

(4.c) Have stakeholders been consulted, explain:

n/a

(4.d) Assumptions used to come up with projections:

Performance deficiencies may be due to environmental factors rather than lack of skill and knowledge which require training. Addressing environmental factors may have positive impact on productivity and reduce the need for a sustained high level of formalized / funded training.

Other Information:

Examples of environmental factors impacting performance include (but are not limited to) vague expectations; lack of clarity in job functions; inadequate feedback; insufficient access to information, tools, resources, and

procedures; ineffective/inefficient processes; lack of employee motivation.

Professional development definition: acquisition of skills and knowledge, both for personal development and for career advancement, which expands an employee's ability to produce results needed for strategic improvement.

Learning is not defined only by structured activities or supplied learning opportunities. Professional development encompasses both formal & informal opportunities and doesn't always require financial outlay.

1. "Formal" learning opportunities (e.g., degree programs/course work, experiential learning program, conferences/workshops/seminars)
2. "Informal" learning opportunities (e.g., conducting research, coaching one another, project planning, meetings, mentoring, volunteer work, collaboration groups, reflection, problem solving teams)

Savings Estimate

One Time Savings

Amount: N/A

Description: N/A

Recurring Savings (Example: ongoing maintenance expense, FTE):

FY 16

Amount: \$60,000

Description: Continue to invest in professional development opportunities that meet the criteria in 4a while beginning to assess effectiveness of programs pursued on performance and goals and seek out cost-effective delivery options (e.g., eLearning, on-site instructor led, custom-built solutions, virtual conference attendance, internally developed training/job aids, train-the-trainer).
Assess and address environmental issues contributing to performance gaps. Identify which tasks require training.

FY 17

Amount: \$60,000

Description: Capture relevant data re: impact of funded professional development on performance and goals. Duplicate efficient/effective programs and eliminate/replace less effective programs.

Outline divisional training plans based upon performance gaps. Align funded professional development with organizational mission/goals (e.g., Ellucian) and implement knowledge sharing methods.

Continue to assess and address environmental issues contributing to performance gaps.

FY 18

Amount: \$60,000

Description: Continue to provide professional development opportunities, built around and aligned with organizational needs, emphasizing essential core competencies to support achievement of strategic objectives and reduce existing gaps. Assess and revise delivery methods as needed. Support growth and performance through a continuous and collaborative

	performance appraisal/individual development plan process. Continue to address environmental issues that may inhibit productivity. (\$60,000 cumulative)
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UA Budget Review FY 16 – Cost Reduction Template**Question 4****Reduction Activity: Reduce or eliminate capacity for new customer requested services and business software****(4.a)Savings activity description:**

Utilizing expected attrition rates, customer requested ITPC project work and work requests would be reduced to account for reduced development capacity. This would reduce the ability for campuses to request new work for student, finance, HR, and other administrative applications. There would be a reduction of approximately 15-25 FTE positions for developers, analysts, DBAs, project managers, customer relations specialists, quality assurance, and associated management that perform that work. Table 4 in Section 2 of the report illustrates over 40 current customer requested projects that would be affected by a cut in capacity. Some of these projects would continue as staffing levels wind down, some would be eliminated, and future capacity for new customer requested work would be reduced by 100%.

How this will impact customers and stakeholders:

- Current projects may be halted based on resource capacity. The list of 45 projects at risk is in Table 4 of the report. The value of these projects to customers and the University are summarized in Appendix 10.
- Based on the level of resource reduction, customers' goals for these affected projects would not be met.
- Under a scenario of a 20% funding reduction to AITS, 100% of capacity for customer requested project work and work requests would be eliminated.
- In certain instances, customers would fund and pursue software initiatives without partnership with AITS to achieve their goals. In these instances, there are often undesirable consequences with smoothly and proactively integrating these systems with enterprise services.

(4.b)Time period to implement:

We would plan to lower headcount at our expected attrition rate (6% annual) resulting in this capacity being reduced to targeted levels over a three-year period, achieving full budget impact in FY 18.

(4.c)Have stakeholders been consulted, explain:

Customers have not been consulted on this planned service reduction. We expect their feedback will be negative based on the impacts detailed above. We will communicate with customers based on the results of the budget review, how changes will affect them, and seek their feedback as to minimizing the negative effects to them.

(4.d)Assumptions used to come up with projections:

- There will be a continued demand for customer requested ITPC project work based on 10 years of actual experience
- We would be able to reduce FTE via attrition over the next three years at historical AITS attrition rates. Where critical needs exist in a vacated position, personnel would need to be reallocated as necessary to meet needs.
- Customers would be able to meet their business objectives with diminished or eliminated services
- Approved and funded ITPC projects would continue as designated unless canceled

Savings Estimate**One Time Savings****Amount:** N/A**Description:** N/A

Recurring Savings (Example: ongoing maintenance expense, FTE):	
FY 16	
Amount:	\$400,000-\$500,000
Description:	Reduced FTE supporting customer requested ITPC project work and work requests.
FY 17	
Amount:	\$500,000-\$900,000
Description:	Reduced FTE supporting customer requested ITPC project work and work requests.
FY 18	
Amount:	\$450,000-\$550,000
Description:	Reduced FTE supporting customer requested ITPC project work and work requests. (\$1,350,000-\$1,950,000 cumulative)

UA Budget Review FY 16 – Cost Reduction Template**Question 4****Reduction Activity: Reduce support of existing customer requested services and business software****(4.a) Savings activity description:**

Utilizing expected attrition rates, AITS would reduce headcount approximately 4-10 FTE to meet funding cuts resulting in the elimination or degradation of a number of production operations services that support critical business applications utilized by faculty, staff, and students at the University. These degraded services would include self-service websites, data storage support, server and application hosting for departments, help desk, data security threat protection, departmental IT support, videoconferencing support, desktop support, shared services (SharePoint, SitePublish, SVN, SiteMinder, RightFax, Bomgar, etc.), support for departmental applications, data visualization, and operational reporting.

How this will impact customers and stakeholders:

The impact of these reductions would be felt across many services provided to customers including:

- Few resources for Executive Support
- Potential elimination of UA Business Continuity Support with Kuali Ready
- Drop in support of Knowledge Base self-service support tool
- Reduction of server and application hosting to departments
- Elimination or reduction in support hours
- Reduction in overnight monitoring and support of business transaction and report processing
- Increase in dropped support calls and response rates
- Slower response times for processing security requests
- Reduce operational reporting to monitor health and performance
- Reduction in security reporting and access reviews
- Slower implementation of production critical system fixes
- Increased risk of production failures
- Reduction in ability to manage user directory services
- Loss of capacity to support individual departments such as CPRD, Education, Legal Council, IGPA, LER, P&B, etc.
- Reduction in desktop support services to UA
- Reduction in support levels for videoconferencing
- Reduction or elimination in shared services support. Products such as SharePoint, SitePublish, SVN, SiteMinder, RightFax, Bomgar, etc.
- Decreased ability to support dashboard products

(4.b) Time period to implement:

We would plan to lower headcount at our expected attrition rate resulting in this capacity being reduced to targeted levels over a three-year period, achieving full budget impact in FY 18.

(4.c) Have stakeholders been consulted, explain:

Customers have not been consulted on this planned service reduction. We expect their feedback will be negative based on the impacts detailed above. We will communicate with customers based on the results of the budget review, how changes will affect them, and seek their feedback as to minimizing the negative effects to them.

(4.d) Assumptions used to come up with projections:

- We would be able to reduce FTE via attrition over the next three years at historical attrition rates. Where critical needs exist in a vacated position, personnel would need to be reallocated as necessary to meet needs.
- Customers would be able to meet their business objectives with diminished or eliminated services

Savings Estimate**One Time Savings**

Amount: N/A

Description: N/A

Recurring Savings (Example: ongoing maintenance expense, FTE):	
FY 16	
Amount:	\$0-\$100,000
Description:	Reduced FTE supporting existing customer requested services and software.
FY 17	
Amount:	\$100,000-300,000
Description:	Reduced FTE supporting existing customer requested services and software. \$100,000-\$400,000 cumulative
FY 18	
Amount:	\$300,000-\$500,000
Description:	Reduced FTE supporting existing customer requested services and software. (\$400,000-\$900,000 cumulative)

Appendix 8

Budget Request Business Cases

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Unavoidable Annual Maintenance to Vendors to Support University Business Processes****Request Description:**

We have existing contracts for the products that support student services, human resources, finance, and data warehouse applications. These costs increase at an average annual rate of 3-10% per system. This escalation of costs is not funded, and it is an unavoidable expense to maintain the critical administrative systems to support the University's business processes, employees, and students.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

These costs are for software and hardware maintenance agreements with vendors to continue to provide support for their products. The support includes fixes for defects in vended products, upgrades to keep the systems current, and vendor support to troubleshoot and configure the products to work with other university systems.

Failure to maintain the maintenance agreements can have varied effects. Some software packages require maintenance to be in place or the products will have to stop being used. Other vendors will allow their software and hardware systems to continue to be used, however, they will not be supported and if they fail, the University may not be able to resolve the issue since the problem may be a failed component or defect within proprietary code. The failures could cause significant system outages for extended periods of time as alternative solutions are determined and either built or purchased.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

AITS has base funding for the maintenance that does not automatically increase, but the amount required to fund this grows as maintenance contracts have an annual increase of 3-10%. AITS continues to look at ways to reduce the expenditures through prepaying multi-year maintenance agreements ahead of time to reduce costs as well as negotiating higher levels of support at lower tier prices and replacing systems with lower maintenance products.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

No additional staff will be required.

(6.f) How will success be determined and evaluated?

The maintenance budget is reviewed every year by the product administrators who review the agreements and evaluate whether or not the products are still needed and if the agreements can be reduced.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

No new revenue sources.

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

As indicated above, the agreements are reviewed each year with the functional area representatives.

How does this align with our strategic plan:

These are vended products that are the foundational components of enterprise systems that are implemented in

support of strategic initiatives.	
(6.d)Start up and ongoing cost estimate:	
Start Up/One Time Fund Request (Example: hardware, FTE)	
Amount:	None
Description:	
Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)	
Year 1	
Amount:	\$492,529
Description:	\$247,411 was funded with one-time funds last year. This amount needs to be funded again this year in addition to the annual increase, which is \$245,118 (or 7.6%). The flat AITS maintenance budget is baselined at \$3.9M and the projected expenditures for FY 16 is \$4.393M
Year 2	
Amount:	\$329,000
Description:	Using Year 1 of \$4.393M as a baseline, a 7.5% increase would be \$329,000 bringing the new budget amount to \$4.72M
Year 3	
Amount	\$354,000
Description	Using Year 2 of \$4.72M as a baseline, a 7.5% increase would be \$354,000 bringing the new budget amount to \$5.07M

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Large Essential Hardware and Software Infrastructure Refresh Business Processes****Request Description:**

Enterprise class infrastructure is needed to support enterprise systems such as Banner, HRFE, IAM, Finance, HR, Data Warehouse, and student systems. This infrastructure includes things such as the data centers at RRB at UIC and HAB at UIUC which are 24X7 high availability and redundant facilities as well as the servers, disks, and infrastructure components needed to keep the university's administrative systems running. The data centers also support campus functions such as Unified Communications and campus computing cluster.

This request is to replace aging equipment and infrastructure to keep the systems running and safe. The following is a list of investments that are required over the next 5 years to keep the enterprise infrastructure current.

Table A – Essential Infrastructure Expenditures

Critical Near-term Required Upgrades	Replacement Cost (Estimated)	Annual Maintenance Cost (Tentative)
Banner hardware replacement (every 7 years)	\$2,400,000	\$300,000
Golden Gate database replication software	\$770,000	\$169,400
RRB Power Capacity Upgrade	\$600,000	\$100,000
HAB Storage Array Replacement	\$540,000	\$90,000
RRB Storage Array Replacement	\$540,000	\$90,000
HAB Generator	\$625,000	\$10,000
Video Surveillance System Upgrade	\$300,000	\$15,000
Encryption on storage arrays (recurring annually)	\$300,000	\$300,000
HAB 54 UPS Replacement	\$250,000	\$40,000
Total	\$6,325,000	\$1,114,400

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

Enterprise systems such as Banner are critical to the University to continue to provide business processing such as payroll, hiring, student admissions, registration, and grades. Failure to replace hardware or maintain the infrastructure that supports the hardware will result in system outages and failures that can cause university business to stop. It is also critical to invest in the infrastructure to keep these university assets secure.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

Funds of approximately \$1.0M per year from state funds that are moved into carry over along with \$500K of hardware refresh budget is used for the majority of these infrastructure projects each year. Additional funding, such as what is needed for the Banner Hardware replacement has been sought after since current budget amounts can not accommodate that expense. If the AITS plant, hardware refresh, and carryover funds are eliminated or severely reduced then AITS will seek additional funding for these projects.

(6.e)How many additional staff will need to be hired or can this be handled by current staff:	
No additional staff will be needed.	
(6.f) How will success be determined and evaluated?	
Banner and enterprise systems will continue to remain with high availability and security. Annual audits of infrastructure, security, and processing continue to indicate that university and industry standards are being met.	
(6.g)Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION	
No new revenue sources.	
(6.h)Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?	
Clients understand the need to maintain the infrastructure supporting enterprise systems such as Banner. Initiatives are reviewed, scheduled, planned, and communicated through standard ITPC, Project Planning, and Deployment Scheduling meetings held with customers.	
How does this align with our strategic plan:	
The goal of Banner is to allow business units to complete their daily processing to keep their units running. This is in alignment with the AITS strategic plan.	
(6.d)Start up and ongoing cost estimate:	
Start Up/One Time Fund Request (Example: hardware, FTE)	
Amount:	\$2,108,000
Description:	This figure represents a third of the “Total Replacement Cost” as indicated in Table A – Essential Infrastructure Expenditures above. The expenditures in that table are estimated over the next 3-year period.
Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)	
Year 1	
Amount:	\$371,800
Description:	One third of the “Annual Maintenance Costs” from Table A – Essential Infrastructure Expenditures above as annualized over 3 years.
Year 2	
Amount:	\$2,480,000
Description:	2 nd year of \$2,108M “Total Replacement Cost” as indicated in Table A – Essential Infrastructure Expenditures above plus the second third of the “Annual Maintenance Costs” from Table A – Essential Infrastructure Expenditures above as annualized over 3 years.
Year 3	
Amount	\$2,480,000
Description	2 nd year of \$2,108M “Total Replacement Cost” as indicated in Table A – Essential Infrastructure Expenditures above plus the second third of the “Annual Maintenance Costs” from Table A – Essential Infrastructure Expenditures above as annualized over 3 years.

UA Budget Review FY 16 – New Request Template**Question 6**

Request Title: Restore Capacity for Implementing New Customer requested Services that Increase University-wide Productivity

Request Description:

Increase funding to meet the demand for customer requested business software focused on increasing the productivity of university constituents performing administrative tasks. Examples of this work include making it easier to login to university systems, making it easier to manage student rosters and grades between Banner and Learning Management Systems, being more efficient in recruiting students and meeting student profile targets, managing contracts, tracking employee and graduate student training, and scheduling rooms for classes and non-classroom purposes. A complete listing of the associated projects affected by this development capacity is in section 4 and Appendix 10.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

This funding request is intended to meet customer demand in a timelier manner than is possible with current resource levels. As discussed in the BRAC report, the backlog of ITPC projects is approximately 30 months deep and includes projects as described above. The increase in levels of mandatory regulatory and maintenance projects has degraded the capacity for customer requested work. The requested resources would increase development capacity to better meet demand in a shorter timeframe, cutting development duration by 50%. One caveat to reducing duration is the level and timeliness of support of functional office personnel required to participate on projects.

Not funding this request would continue a long queue to deliver projects and delay the delivery of benefits to faculty, staff, and students. For a description of the benefits of current ITPC customer requested projects, please see Appendix 10.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

There are no internal funds or resources to reallocate to this activity.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

This would require additional staffing of approximately 20 FTE in positions for developers, analysts, DBAs, quality assurance, and business intelligence developers that perform that work.

(6.f) How will success be determined and evaluated?

Success will be determined by project throughput rates, reduction of the project queue, and the realization of project benefits as specified in each project business case. The portfolio management office currently tracks these metrics.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

There are no new revenue sources that would result from this initiative. The benefits to the University and constituents are primarily obtained through labor force productivity as facilitated through IT workflow capabilities. Based on Gartner analyses of data from the Bureau of Labor Statistics, they show that the labor productivity of an organization must increase about 2.7% every year to remain competitive. They also show that 70% of this productivity comes from the application of IT to improve productivity of everyone associated with the organization. Further, Gartner explains that as organizations become larger (around \$10B in revenue), they

provide operational IT at the larger scale and spend about 3% of revenue on operational IT as compared to 5% for smaller organizations. Based on these data, AITS must assist the University to realize \$66M in annual labor productivity increases required to keep pace with the competition and help recover part of the \$110M difference between 3% and 5% of revenue by providing services at the enterprise level.

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

Customers have been consulted about this request via the ITPC governance process for enterprise administrative IT projects. Committee members on the main committee have expressed repeatedly that the project capacity available is a limiting factor for academic and business units to realize successes and efficiencies via the application of IT.

How does this align with our strategic plan:

This aligns directly with several AITS strategic directions including:

- **Save Time** – Improve and add services that increase productivity for faculty, students, and staff.
- **Improve Ease of Use** – Improve the usability of AITS services.
- **Improve Speed to Service** – Improve the time to delivery of AITS services.
- **Deliver Targeted and Pervasive Information** – Provide for strategic, widespread use of our data.

(6.d) Start up and ongoing cost estimate:

Start Up/One Time Fund Request (Example: hardware, FTE)

Amount:

Description:

Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)

Year 1

Amount:

\$2,000,000

Description:

Increase funding to meet the demand for customer requested business software focused on increasing the productivity of university constituents performing administrative tasks. This would fund software, hardware, and labor costs associated with implementing projects.

Year 2

Amount:

\$2,000,000

Description:

Increase funding to meet the demand for customer requested business software focused on increasing the productivity of university constituents performing administrative tasks. This would fund software, hardware, and labor costs associated with implementing projects. (\$4,000,000 cumulative)

Year 3

Amount

\$2,000,000

Description

Increase funding to meet the demand for customer requested business software focused on increasing the productivity of university constituents performing administrative tasks. This would fund software, hardware, and labor costs associated with implementing projects. (\$6,000,000 cumulative)

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Enhance User Experience****Request Description:**

University systems users are demanding that the applications they utilize in their daily life at the University are simple, user-friendly, and intuitive, with as much consistency as possible in the look and feel among systems. To support this business need, AITS proposes the creation of a Design and User Experience Service area with dedicated resources to assist AITS staff and other university departments in implementing both user experience design standards and actual systems based upon those standards. Activities would include, but not be limited to, documenting design standards and guidelines, prototyping, developing style guides, and providing a consistent look and feel for university applications. By considering the user experience during the design phase of the project, it saves time during the development phase because there is less time spent redesigning software functionality such as accessibility requirements.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

Campuses, colleges, and departments desire to build web-based software applications with user experience in mind but have no single source from which to seek assistance or guidance. Most of these departments have no choice but to continue building and delivering outward facing software that follows development patterns of the past 15 years. Larger departments have sought the help of consulting organizations or vended solutions to try to meet their needs.

The Design and User Experience Center will be responsible for creating several new processes and standards for AITS. This will include but will not be limited to: An AITS style guide, AITS branding, AITS color palettes, AITS fonts, AITS naming conventions, and also an AITS library of accessible modules that can be used between projects to stop redundant coding efforts. All these areas will reduce the time it takes to develop projects yet improve consistency between them.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

Existing AITS resources could participate in this initiative based on project priorities.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

2 FTE + 2 student hourly

(6.f) How will success be determined and evaluated?

Success will be determined in several different areas: The reduction in AITS software development hours, reduction in rework AITS software development staff rework, and an increase in revenue generating SLAs with external organizations.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

SLAs would be created between AITS and external organizations requesting work from the Design and User Experience Service area.

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

Yes. The AITS User Experience Design (UXD) specialist has been working on several projects with HRIS. The UXD

resource has also been asked to provide cross-training with staff from HRIS. OBFS Staff is looking into User Experience training now.

How does this align with our strategic plan:

Design and User Experience Services will provide specialized IT services to the University, improve the usability of enterprise applications, save time in development of web applications and allow for UXD collaboration with other departments.

Other Information:

AITS has found that specialists in the area of “Design and User Experience” have the knowledge and expertise to complement software development. User Experience specialists focus on making applications easy-to-use and consistent with style guides and documentation. They also have the skills to meet with project stakeholders and use a special set of tools to discuss project requirements, and provide project stakeholders with prototypes that visually show how the application would work.

(6.d)Start up and ongoing cost estimate:

Start Up/One Time Fund Request (Example: hardware, FTE)

Amount:	\$170,000
Description:	2 FTE @ average of \$70K + 2 student hourly @ \$30K. 50% cost recovery after 2 years based on SLAs with customers.

Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)

Year 1	
Amount:	(see one-time expense)
Description:	
Year 2	
Amount:	\$85,000
Description:	FTE – lower expense in year two with assumption enough revenue generating to cover half of costs.
Year 3	
Amount	\$85,000
Description	FTE (\$340,000 cumulative)

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Protect University Users and Assets from Malicious Security Threats****Request Description:**

Protect university resources and reduce vulnerability to security threats and data breaches. Eliminate or mitigate the following risks to the University: 1) loss of credibility, 2) denial of service or access (e.g., Federation), 3) downtime, 4) loss of revenue, and 5) identity theft risks. Ensure the University is in compliance of state and federal rules and regulations for protected information, such as HIPAA and FERPA.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

According to the Ponemon Institute's 2014 Cost of Data Breach Study for the United States, the per capita cost of data breach for the education sector increased to \$259, more customers were inclined to sever relationships with breached entities, and malicious or criminal attacks were the main causes of breach. Organizational factors such as security posture and formal incident readiness reduce overall breach costs. Public sector organizations had the highest estimated probability of breach occurrence, with the education sector's probability of a data breach involving 10,000 records within the next 24 months estimated to be 21.1%. Heavily regulated industries such as education tend to have a per capita data breach cost substantially above the overall mean of \$201.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

AITS requires net new funding to address this request.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

During a 2014 risk assessment of AITS conducted by McGladrey LLP, it was recommended that AITS include 1-2 additional employees as part of a workforce expansion in the coming fiscal year with a focus on information and security compliance areas (namely multi-factor authentication, data discovery and loss prevention, vulnerability management, SIEM, and network penetration protection). Based upon the McGladrey assessment, AITS has filled one new position but was unable to secure recurring funds for that opening. As well, an additional 1-2 FTE (2-3 overall) are sought to address these threats.

(6.f) How will success be determined and evaluated?

The AITS strategic plan tracks security's initiatives for purpose, regular developments, and progress toward completion targets.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

No.

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

An internal risk assessment describing this request was distributed and discussed with University governance bodies, as well as included in the AITS FY 15 budget review. These services are deemed to be unavoidable operational requirements, relating to compliance of state and federal rules and regulations for protected information. The discussion with customers/stakeholders has included focus on prioritization, collectively sharing costs and benefits, joint piloting, and subsequently implementing with minimal user impact.

How does this align with our strategic plan:

All objectives of this request are itemized initiatives within the AITS strategic plan.	
(6.d)Start up and ongoing cost estimate:	
Start Up/One Time Fund Request (Example: hardware, FTE)	
Amount:	\$32,000
Description:	Server hardware for hosted desktop environments for accessing enterprise applications with unsupported versions of Java and Internet Explorer.
Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)	
Year 1	
Amount:	\$447,000
Description:	Includes active phishing prevention, recurring expenses: \$20,000 - Proofpoint 1500 user license \$56,000 - sensitive data discovery and loss prevention (Identity Finder for PCs and Servers) \$80,000 - hosted desktop environments for accessing enterprise applications with unsupported versions of Java and Internet Explorer (plus \$32,000 one-time, see above) \$56,000 – Splunk, Security Information and Event Monitoring (SIEM) tools for operational monitoring and alert correlation 2-3 FTE at \$70,000-\$80,000 to assist with these initiatives.
Year 2	
Amount:	\$447,000
Description:	See year 1 description.
Year 3	
Amount	\$447,000
Description	See year 1 description. (\$1,373,000 cumulative)

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Address Critical Security-Related Audit Finding****Request Description:**

Based upon findings and recommendations from internal, external, and compliance audits, the University is obligated to address the following critical security areas: documenting risk assessments, protecting data through encryption, adhering to training legislation, implementing additional identity protections, review and timely termination of access, and review of computer network controls.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

The University is currently under audit finding for the following items: risk assessments not performed (State Audit), access termination for separated employees (State Audit), SSN training (State Audit), enforcement of encryption of removable media (State Audit), multi-factor authentication for Banner forms (Internal Audit), incompatible finance roles in Banner (Internal Audit), database encryption at rest (Internal Audit), firewall controls for non-production database servers (Internal Audit), HR front end application scans (Internal Audit), HR profile reviews (Internal Audit), firewall policy audit (Internal Audit), review unassociated HR classes during access review (Internal Audit), and implement controls to help ensure inappropriate access identified in the annual user review is removed in a timely manner.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

AITS employs one FTE dedicated to auditing, regulatory compliance, and coordinating remediation efforts for audit findings directives.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

This can be handled by current staff.

(6.f) How will success be determined and evaluated?

Findings directives are formally closed or removed from subsequent, recurring audits. In cases of low risk or immaterial/non-financial impact, the institution may accept the risk for a particular finding.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

No.

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

Initiatives resulting from findings directives are discussed with University governance bodies. These actions are deemed unavoidable regulatory and audit requirements, relating to compliance of state and federal rules and regulations for protected information. The discussion with customers/stakeholders has included focus on prioritization, collectively sharing costs and benefits, joint piloting, and subsequently implementing with minimal user impact.

How does this align with our strategic plan:

“Managing internal and external audit engagements, including coordination, remediation of open findings, and communication with various groups including senior management, human resources, information technology groups, and the security working group” is an itemized initiative within the AITS strategic plan.

(6.d)Start up and ongoing cost estimate:	
Start Up/One Time Fund Request (Example: hardware, FTE)	
Amount:	
Description:	
Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)	
Year 1	
Amount:	\$40,000
Description:	Duo multi-factor authentication end user license to protect all users of Banner forms (\$40,000 recurring).
Year 2	
Amount:	\$40,000
Description:	See year 1 description.
Year 3	
Amount	\$40,000
Description	See year 1 description. (\$120,000 cumulative)

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Document Management Service Center****Request Description:**

Document imaging has become an integral part of business processes, exceeding its original scope of merely storing and securing electronic documents. It is currently used in undergrad application processing, financial aid, invoices and HR processes. Numerous additional processes could be made more efficient and easier for faculty and staff to perform with the application of state-of-the-art document management technologies. The creation of a Document Management Service Center within AITS would set aside resources that would be dedicated to assisting units with their document management needs, as well as providing additional automation opportunities, such as Workflow.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

By helping units improve their overall business processes through the use of document management strategies, the units will be able to focus more of their attention on immediate student and faculty needs, rather than administrative needs such as storage and retrieval of recorded information.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

AITS already has 1.5 FTE dedicated to Document Management, and additional virtual team members who contribute as time allows.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

3 FTE

(6.f) How will success be determined and evaluated?

Improved business processes across the enterprise, resulting in reduced duplicity of information and systems.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

By year 2, we hope to recover ½ of the annual costs by making more services available at an hourly rate.

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

While our customers have not been specifically consulted about a Document Management Service Center, we know there is demand for more services, as we cannot keep up with the existing demand.

How does this align with our strategic plan:

This aligns with our Administration goal: Improve business processes at all levels of the University to ensure that the front-end process is efficient. A document management service center would allow for the creation of efficient, streamlined business processes across the enterprise.

(6.d) Start up and ongoing cost estimate:**Start Up/One Time Fund Request (Example: hardware, FTE)****Amount:****Description:**

Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)	
Year 1	
Amount:	\$240,000
Description:	3 FTE (1 document management analyst, .5 Student analyst, .5 Finance analyst, .5 Finance analyst, .5 Application Administration FTE)
Year 2	
Amount:	\$120,000
Description:	1.5 FTE funded, 1.5 FTE cost recovery
Year 3	
Amount	\$120,000
Description	1.5 FTE funded, 1.5 FTE cost recovery (\$480,000 cumulative)

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Xtender Replacement****Request Description:**

The current document management tool, Banner Xtender, was originally implemented to provide basic “capture and conversion” of paper documents into electronic copies for processing. More recently it has been introduced into many business processes, such as student admissions, financial aid and invoicing. Unfortunately, Xtender is lacking many critical functions that could dramatically improve business process efficiency and effectiveness such as built-in workflow, optical character recognition (OCR), full-text indexing and searching, and automatic capture, index and storage of electronic forms. Equally, it is frustrating to users because updates to use it with the latest releases of popular browsers and Adobe are very slow to arrive. In order to provide better customer solutions, AITS must evaluate alternative tools, which can address the full life-cycle of a business process, including all aspects of document management, to determine if Xtender is still viable or if it should be replaced.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

With an improved document management system, faculty and staff would spend less time searching and routing documents as they perform existing workflow supported processes such as Admissions and Advising, and it would provide a tool for automating additional paper-intensive processes. The Admission’s review boards would be able to share and collaborate more efficiently, ensuring that we can secure desired students faster. Moreover, improvements in the existing document management service is necessary to improve our ability to provide crucial and timely financial assistance to these same students. Faster document review and approval cycles are vital, especially when College/School/Dean level, as well as, Financial Aid approvals are involved.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

Existing staff would be used to do the analysis and implementation of new document management tools/functionality.

(6.e) How many additional staff will need to be hired or can this be handled by current staff:

No new staff would be needed.

(6.f) How will success be determined and evaluated?

Improved critical functionality, including, especially, more timely support for browsers (Firefox, Safari, Chrome, IE) and Adobe; built-in workflow, full-text indexing and searching; and automatic capture, index and storage of electronic forms.

(6.g) Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION

N/A

(6.h) Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?

Yes, and the customers are anxious to gain this much-needed functionality.

How does this align with our strategic plan:

This aligns with our strategic goal: Provide a suite of tools and services available for managing both human and

business process management workflows. By improving our suite of document management tools, the enterprise will have a more complete business process, which incorporates all aspects of the document management life cycle.

(6.d) Start up and ongoing cost estimate:

Start Up/One Time Fund Request (Example: hardware, FTE)

Amount:	\$800,000
Description:	Initial estimate for software licensing, training, and potential consulting services

Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)

Year 1	
Amount:	\$125,000
Description:	Annual maintenance costs
Year 2	
Amount:	\$131,250
Description:	Annual maintenance costs, assuming 5% increase
Year 3	
Amount	\$137,812
Description	Annual maintenance costs, assuming 5% increase (\$1,194.062 cumulative)

UA Budget Review FY 16 – New Request Template**Question 6****Request Title: Analytics Licensing and Data Mining Training****Request Description:**

Strategic planning, resource management and increased compliance efforts require the University community to have access to data driven decision making tools. These tools can provide the analysis required to plan for organizational changes, monitor performance and gather data to answer questions quickly.

In order to develop and be prepared to take advantage of these capabilities we must upgrade our tools, expand our licensing and further our knowledge of those tools. Our current licensing method for the main campus reporting tool (EDDIE) is over 10 years old. There have been significant changes in the tools and technology since then but the old license is becoming restrictive to our ability to capitalize on these new features. We will negotiate a license conversion that will allow us to better utilize our investment.

Data Visualization with Tableau is becoming an important resource for the University. Tableau allows users to deliver interactive dashboards that display key performance indicators with drill down functionality that can be embedded in many online websites or portals. Preliminary information sessions announcing availability of the Tableau server garnered university wide interest with requests to be able to deploy dashboards on the server as soon as possible. To meet this demand we need to increase the number of Tableau desktop licenses available to our developers and user support staff.

Our knowledge of data mining methods and techniques is also critical to providing the best understanding of trends and opportunities for the university community. Developing this capability will allow us to assist the University in delivering targeted solutions to improve key metrics such as retention, graduation rates and satisfaction.

(6.a) Why this request should be funded including any consequences of not funding the request. How this will impact students and faculty:

Report distribution, performance measurement and delivering visualization of university metrics to faculty, students and staff are critical to the University's success in the current economic environment. The Academic Unit Review dashboard delivered on the request of the Vice President for Academic Affairs is a clear example of this need. We have also received multiple requests from colleges and administrative units to help develop dashboards that allow faculty and administrators to measure key performance indicators in their units.

Our capability to meet this demand is currently limited by the lack of flexibility in licensing and availability of tools for our staff. Additionally, the demand to have this capability was highlighted by strong attendance at a recent information session on the capabilities of a tool like Tableau.

Making this data and analysis available to faculty can strengthen both the administrative and academic experience for students. Analysis could identify procedures that can be streamlined while also identifying opportunities for improved learning experiences.

(6.c) What can the unit contribute to this request? Are there internal funds that can be reallocated from lower priority activities:

We are accepting the added responsibility for administering and maintaining new tools (Tableau Server) in addition to existing enterprise level data warehousing and reporting services, without the allocation of additional staff. This request is only to cover the cost of licensing and training.

(6.e)How many additional staff will need to be hired or can this be handled by current staff:	
None	
(6.f) How will success be determined and evaluated?	
<p>Engagement in these services by the university community will define the level of success. Our current EDDIE user base is 3,200 users and the upgraded license will allow us to capitalize on new features delivered by the vendor.</p> <p>We also already have over 55 individuals expressing interest in utilizing the new data visualization (Tableau) tool, with the user base expected to grow tremendously when a broader announcement is made. To evaluate the rate of success, we will monitor user engagement by continuously measuring usage on these tools and making appropriate adjustments to meet user demand.</p>	
(6.g)Are there new revenue sources that would result from this initiative? ALSO IN REVENUE SECTION	
Designing effective data visualizations can be a challenging and time consuming task. Groups with resources to fund development of data visualizations and dashboards could be a source of revenue that can take advantage of our enhanced capability in this area.	
(6.h)Have your customers/stakeholder been consulted about this request? Is this a new service that there is sufficient demand for?	
<p>The enterprise reporting environment EDDIE is an integral part of the university administrative environment. Over 3,000 users depend on the system to sustain the day-to-day operations of the University. Licensing the tools for this service is critical to maintaining the infrastructure of the environment.</p> <p>Additionally, the sessions announcing the availability of the data visualization tool Tableau had strong attendance rates. Out of those attendees over 55 expressed direct interest in developing data visualizations for their units. This is a small population compared to the expected audience of these dashboards. AITS staff will have a dual role in initial on boarding for those developers as well as developing data visualizations for other community members who don't have the technical resource to develop it themselves.</p>	
How does this align with our strategic plan:	
A common theme in the university strategic planning framework and each of the campus strategic plans is to strengthen our effective use of fiscal and infrastructure resources while benchmarking ourselves with our peers. The AITS strategic plan supports this mission by setting goals to make information dissemination easier by enabling more self-service data analysis and dashboard development. Understanding the data gathered from multiple systems and visualizing this data effectively to understand trends and opportunities is an important factor in this effort.	
(6.d)Start up and ongoing cost estimate:	
Start Up/One Time Fund Request (Example: hardware, FTE)	
Amount:	\$135,000
Description:	SAP Business Objects Licensing update 10 Tableau Developer Licenses Data Mining Training
Recurring/Ongoing Fund Request (Example: ongoing maintenance expense, FTE)	
Year 1	
Amount:	
Description:	

Year 2	
Amount:	\$3,000
Description:	Tableau license maintenance fee allowing us to call Tableau for support and upgrades.
Year 3	
Amount	\$3,000
Description	Tableau license maintenance fee allowing us to call Tableau for support and upgrades.

Appendix 9

New Revenue Sources Business Cases

UA Budget Review FY 16 – Revenue**Question 7****Revenue Service: Consolidation of Campus Applications and Services****Revenue Description: (Please provide a short description of the initiative or program and the source of revenue.)**

Transition decentralized commodity services to AITS reducing overall costs to IT units and the University based on providing those services at scale.

(7.a)How will revenue be generated:

For services that could be centralized and provided at the enterprise level, units would transfer 50-75% of their current cost of those services to AITS. AITS would perform these services for this reduced overall cost and the units would experience a cost savings and be able to redirect resources towards mission activities. Some of these IT services may include:

- Application administration
- Application hosting
- Backup management
- Collocation services
- Database services
- Server hosting

(7.b)How this will this service or initiative contribute to the University and unit mission:

This initiative would increase resources at the college and department levels that could be directed towards mission activities instead of support activities.

This initiative aligns with the AITS strategic directions in that the ultimate beneficiaries are faculty, staff, and students who receive the redirected savings from these initiatives. Those benefits would likely support our strategic directions to save time, improve ease of use, improve speed to service, provide targeted and pervasive information, and collaborate.

(7.d)Describe the staffing needs and how they will be funded:

Staffing would be necessary where services are transferred and could not be absorbed with current labor and hardware. Incremental FTE would be funded by the transfer of a discounted percentage of current cost to support specific services moved to the enterprise level.

How does this align with our strategic plan:

See 7b

Revenue and Cost Estimate:

This initiative would be funded on a cost recovery basis under which AITS would fund increased capacity based on the revenues generated from transferred services. There are no start up or recurring funding requirements from the University. The associated revenues and costs would be demand and activity based.

UA Budget Review FY 16 – Revenue**Question 7****Revenue Service: Sourcing Large Strategic IT Projects****Revenue Description: (Please provide a short description of the initiative or program and the source of revenue.)**

Partner with university and campus units to develop large strategic information systems that provide broad benefits, return on investment, and further the accomplishment of strategic and operational goals. Host and maintain these systems once in production. In instances where vendor-developed software does not fit specific value-added processes of the University, or is too expensive to purchase and maintain, AITS can provide enterprise-class system development and management capabilities that exceed most organizations' in-house capacity or skillsets. Projects, as described above, for example Start MyResearch, may be outsourced to AITS for development and support. These projects usually either do not fit within the funding or timing constraints of ITPC.

(7.a)How will revenue be generated:

Project funding represents a cost reimbursement for services provided and while this is neutral to the University in cash flow, it becomes positive through cost avoidance of more expensive vendor systems and support as well as the realization of the benefits of the systems implemented. The units experience reduced project costs and the service beneficiaries would be able to redirect associated resources towards mission activities.

(7.b)How this will this service or initiative contribute to the University and unit mission:

This initiative would provide capacity, as funding allows, to develop large strategic information systems that provide broad benefits, return on investment, and further the accomplishment of strategic and operational goals. It is assumed that the pursuit of such projects would be aligned and support the sponsoring organizations and university goals and mission.

This initiative aligns with the AITS strategic directions in that the ultimate beneficiaries are faculty, staff, and students who receive the benefits from these initiatives. Those benefits would likely support out strategic directions to save time, improve ease of use, improve speed to service, provide targeted and pervasive information, and collaborate.

(7.d)Describe the staffing needs and how they will be funded:

Staffing would be necessary for project resources and ongoing support of deployed services. The project sponsors would fund incremental FTE.

How does this align with our strategic plan:

See 7b

Revenue and Cost Estimate:

This initiative would be funded on a cost recovery basis under which project sponsors would fund increased temporary AITS project capacity and ongoing production support. It is assumed that sponsors would not enter into such partnerships unless they were cost effective for the unit. There are no start up or recurring funding requirements from the University. The associated revenues and costs would be demand and activity based.

UA Budget Review FY 16 – Revenue**Question 7****Revenue Service: Administrative Fee-Based IT Services****Revenue Description: (Please provide a short description of the initiative or program and the source of revenue.)**

AITs staff provides a wide range of administrative technology solutions and enterprise services currently at no additional cost to the University community. Where AITS provides a cost effective option to a department, that would otherwise need to hire a consultant or hire their own full FTE, AITS can provide economies of scale, resources, and expertise in areas of application support, application development, and quality assurance testing.

(7.a)How will revenue be generated:

By providing consolidated services, AITS would charge clients on an hourly rate or charge by service level for:

- Application Administration
- Application Development
- Data Modeling
- Data Visualization
- Database Hosting
- Mobile App Development
- Process Management
- SiteMinder
- Usability Analysis and Design
- Website Quality Assurance Testing

(7.b)How this will this service or initiative contribute to the University and unit mission:

This initiative would increase resources at the college and department levels that could be directed towards mission critical activities instead of support activities.

(7.d)Describe the staffing needs and how they will be funded:

It is expected that any future staff will be funded with revenue from clients.

How does this align with our strategic plan:

This initiative aligns with the AITS strategic directions in that the ultimate beneficiaries are faculty, staff, and students who receive the redirected savings from these initiatives. Those benefits would support our strategic directions to save time, improve ease of use, improve speed to service, provide targeted and pervasive information, and collaborate.

Revenue and Cost Estimate:

This initiative would be funded on a cost recovery basis under which AITS would fund increased capacity based on the revenues generated from transferred services. There are no start up or recurring funding requirements from the University. The associated revenues and costs would be demand and activity based.

UA Budget Review FY 16 – Revenue**Question 7****Revenue Service: Consolidation of Administrative IT Services for State of Illinois Higher Education Institutions****Revenue Description: (Please provide a short description of the initiative or program and the source of revenue.)**

Duplication of enterprise services such as ERP hosting, storage, and server and application hosting within the University does not provide the optimal cost model as hardware, software, and labor resources are increased. The management of Banner as a central IT responsibility versus distributed results in significant ongoing savings to the University. There are opportunities to partner with other state colleges and universities to consolidate services among institutions to provide overall savings to state higher education. We have had discussions in the past few years with Illinois State and others about potentially sharing data center space. This would be a new path to explore with our fellow higher education institutions in Illinois.

(7.a)How will revenue be generated:

For services that could be centralized between institutions other institutions would transfer 50-75% of their current cost of those services to AITS. AITS would perform these services for this reduced overall cost and the units would experience a cost savings and be able to redirect resources towards mission activities. Some of these IT services may include:

- Application administration
- Application hosting
- Backup management
- Collocation services
- Database services
- Server hosting

(7.b)How this will this service or initiative contribute to the University and unit mission:

This initiative would increase resources for the University and AITS by sharing costs with other higher education institutions in Illinois. Increasing our resources would allow us to redirect a portion of the revenues to other valued activities serving university constituents.

(7.d)Describe the staffing needs and how they will be funded:

Staffing would be necessary where services are transferred and could not be absorbed with current labor and hardware. Incremental FTE would be funded by the transfer of a discounted percentage of current cost to support specific services moved to the enterprise level.

How does this align with our strategic plan:

See 7b

Revenue and Cost Estimate:

This initiative would be funded on a cost recovery basis under which AITS would fund increased capacity based on the revenues generated from transferred services. There are no start up or recurring funding requirements from the University. The associated revenues and costs would be demand and activity based.

UA Budget Review FY 16 – Revenue**Question 7**

Revenue Service: Activity Based Costing

Prepared by: Karen Greenwalt

Revenue Description: (Please provide a short description of the initiative or program and the source of revenue.)

ABC provides a way to define services to customers by directly tying lines of business to the source of funding and aligning the cost of providing a service in a way that is more logical and transparent than standard budget allocation. Activities and costs are assigned to the services we provide and by tracking hours worked, true costs of services can be provided to the campuses. For example, from the ABC analysis performed in FY 13, it was identified that 83% of AITS supports core University business processes. Other costs were associated with infrastructure support, compliance, and consulting services. With this clearer definition of the costs of each activity, our clients will know how effective resources are being used and how costs contribute to the mission of the University.

(7.a)How will revenue be generated:

If utilizing ABC for billing purposes, the assumption would be campuses, colleges, and departments would pay for services. ABC can be utilized to identify the level of effort to support enterprise activity, consulting and discretionary work and infrastructure. Breaking out the cost of enterprise services, the cost of which would be billed to the campuses based on a percentage of usage/staff and employee population. The remaining budget would be tied to the particular service it supports and billed to departments utilizing consulting services and request for reoccurring allocation for infrastructure support. For example, the 83% of AITS which supports core University business processes, AITS could shift to cost support based on usage and population of students and employees; UIUC – 56%, UIC – 38%, UIS – 6%, rather than going directly to state for allocations. The remaining percentage of the budget, represented by UA infrastructure support would be subsidized by UA or billed to departments utilizing consulting services.

(7.b)How this will this service or initiative contribute to the University and unit mission:

This initiative would directly tie our services to the colleges and departments that utilize our services to meet their mission activities.

(7.d)Describe the staffing needs and how they will be funded:

While this information is useful in evaluating costs of services and eventually allowing for billing based on usage, the implementation of this accounting method is significant and would require 2-3 additional FTE to track and apply funding appropriately.

How does this align with our strategic plan:

Those benefits would likely support our strategic directions to save time, improve ease of use, improve speed to service, provide targeted and pervasive information, and collaborate.

Other Information:**Revenue Income Estimate:****Revenue One Time****Amount:****Description:**

Revenue Recurring:	
FY 16	
Amount:	Cost out budget
Description:	Estimate based on FY 15 Budget: \$22,577.5 is 83% of budget UIUC – 56% UIC – 38% UIS- 6% Remain budget supporting infrastructure funded by annual allocation, minus costs associated with consulting services for departments.
FY 17	
Amount:	
Description:	
FY 18	
Amount:	
Description:	
(7.c)Cost Estimate: (Include costs and description for FTE, Hardware, Software, etc.) ALSO INCLUDED IN REQUEST SECTION	
Cost One Time	
Amount:	\$210,000-240,000
Description:	2-3 FTE required for tracking of expenses and applying revenue according to government costing standards. FTE expense would be integrated into the cost of the support model in years two and three.

Appendix 10

ITPC Customer Requested Project Descriptions

ITPC-0306 Banner Relationship Management (BRM) Implementation

This project will be withdrawn and replaced with the Student CRM solution currently under consideration.

ITPC-0367 Service Desk Management Front End

Improves IT support services and customer satisfaction | Creates labor efficiencies

This project will provide to the customers of campus and administrative service desks the ability to search a knowledge base, enter tickets, and see the status of tickets. This front end will decrease the time to resolve issues as well as decrease the load on IT services desks that use this system. Internal labor savings is estimated at \$97,000 per year.

ITPC-0368 Athletics NCAA CAI

Supports NCAA, DoJ and DoE compliance | Creates labor efficiencies

UIC has more than 300 student athletes and is subject to oversight by the U.S. Departments of Justice (DoJ) and Education (DoE) and the National Collegiate Athletic Association (NCAA). At present, the lack of a centralized data repository makes the process of meeting legal and regulatory requirements both onerous and time consuming. This project will implement a system that will streamline this process.

ITPC-0353 Learning Management Systems (LMS) Banner Integration

Reduces faculty workload | Reduces errors in student grades | Enables more timely reporting of grades

The University of Illinois is responsible for providing and tracking grades for more than 78,000 students. This project will decrease the faculty workload associated with reporting these grades by eliminating double grade entry for approximately 4,000 sections and 160,000 grades.

ITPC-0363 FOAPAL Maintenance Web Application

Reduces staff workload | Improves timeliness and accuracy of processing

The University processes billions of dollars annually through the Banner financial system and each of the millions of transactions funnel through and into financial general ledger accounts. This new application will help campus units and accounting manage the creation of new financial accounts with increased workflow efficiency and accuracy.

ITPC-0370 Costing Application Analysis

Provides decision support for union negotiations

The University of Illinois has more than 40 labor agreements. Seven of these, covering approximately 7,000 employees, have expired or are close to their expiration date. This costing application analysis system will ease the amount of work required to determine the cost of a union settlement as well as provide a measure of consistency among the campuses. This project will generate requirements for such a system.

ITPC-0374 Enterprise Academic Leave Tracking

Provides online view to employees of leave balances | Creates labor efficiencies | Increases accuracy of salary liability reporting

This system will provide staff with real-time access to current and projected leave balances. It will also eliminate duplicate systems and paper processing of leave, providing a labor savings to campus departments. And finally, this system will increase the efficiency and accuracy of University salary liability reporting and ensure leave policies are applied consistently.

ITPC-0375 Identity and Access Management (IAM)

Increases security | Improves user experience | Creates labor efficiencies

Identity and Access Management (IAM) has been identified for some time as one of the top 10 priority projects for Higher Education by research organizations such as Gartner and EDUCAUSE. Several drivers have been behind its continued attention —user convenience and security; compliance and privacy; and most importantly, a focus on shared services driven by the quest for "economies of scale." This project will implement an IAM system for the entire University.

ITPC-0398 Surplus Warehouse Inventory System

Reduce audit risk | Eliminate maintenance costs | Creates labor efficiencies

Nearly all units at the University manage property and deal with surplus inventory. This project will replace the current Surplus Warehouse inventory application with an integrated system that will decrease redundant data entry and provide improved processing and reporting on surplus inventory.

ITPC-0408 Sponsor Remittances

Assists with sponsored project compliance | Creates labor efficiencies

The Grants and Contracts Offices (GCO) are required to track and retain data on all types of sponsored transactions as required by federal regulations, sponsor policy, or an individual award's terms. This application will reduce the risk for system failure, decrease data entry error, and create efficiencies through shared, automated processes. It is expected that this system will provide labor savings of approximately \$35,000 per year.

ITPC-0412 Online Course Catalog

Helps attract and recruit students | Creates labor efficiencies

The ability to attract and recruit the best students is tied into the University's marketing efforts. The online Courses Catalog and Programs of Study form the two most heavily used marketing tools to our public audience. This project will implement a vended solution that will provide a single and streamlined automated system to manage and publish this data.

ITPC-0421 Employee Training Infrastructure Analysis

Assists with research compliance | Creates proposal efficiencies | Assists with state government compliance

University of Illinois is subject to more than 250 federal compliance requirements as well as numerous state regulations. Delivering, completing, and documenting the required training to meet these regulations is a large burden and non-compliance is a common risk. This project will analyze the options for providing a comprehensive mechanism for training delivery and tracking

ITPC-0442 Federal Financial Report Modification

Creates labor efficiencies | Ensures timely quarterly grant report submission

Most federal grants require recipients to submit financial progress reports. While larger federal granting agencies allow upload of one electronic dataset, other federal agencies require individual reports to be prepared and submitted. There are approximately 200 reports per quarter that fall within this requirement. This project will reduce the manual work required by Grants and Contracts to meet this requirement and help ensure timely reporting.

ITPC-0428 PARIS Prior pay adjustments

Decreases processing time for payment adjustments to employees / Creates labor efficiencies

The University of Illinois processes over 50,000 prior pay adjustments annually, using several disparate systems. This project will implement an integrated solution that will decrease processing time and ensure employees are paid in a timely manner. It is expected to provide internal labor efficiencies of approximately \$125,000 per year.

ITPC-0435 University Payroll and Benefits (UPB) Database Analysis

Helps to improve stability of Payroll and Benefits systems

This project is the first step in improving the tools used for processing payroll and benefits. This project will assess all UPB databases and make recommendations designed to and improve stability, decrease risk of system failure, consolidate systems, and create efficiencies.

ITPC-0438 DRES Integrated IT Solution Analysis

Improves quality of student services / Maintains the University's leadership in post-secondary disability access

This solution will more effectively accommodate a rapidly growing population of students with disabilities (UIUC registered students have increased over 38 percent from 2008 to 2014). This system will greatly simplify and improve the quality of these services. This project will produce the necessary requirements for such an integrated system.

ITPC-0441 Implement Banner 9 (Banner XE) Events Management

Improves student event processes / Improves student event experiences

Student events such as orientation and preview days are an important opportunity for students and their parents to make a connection with the University of Illinois. This project will improve these processes by replacing the two existing systems with an integrated Banner system. Not only will this create efficiencies, it is expected to improve the participants' experience by providing web-based check-ins and event information.

ITPC-0444: Finance Reports Distribution (more than 75 words)

Provides timely financial data to faculty and staff / Provides significant labor savings

The University distributes financial reports enable sound financial decisions and accounting. Information that is distributed to units, is then distributed in a variety of ways to faculty and staff within that unit. This project will replace the disparate and often manual paper-based processes with a consistent distribution system that will make it convenient for faculty and staff to obtain timely and accurate financial information. Expected labor savings is \$2.6 million per year.

ITPC-0449 UAfr: Banner Feeder Application

Reduces incorrectly processed financial transactions / Provide timely student account activity / Increase internal financial controls

This application will provide a method for validating financial transactions prior to processing into Banner. In addition, it will provide more frequent processing which will help during critical time periods such as month-end processing. Overall, this application will reduce the rework associated with incorrectly processed transactions, provide more timely student account activity, reduce incorrect posts, and increase internal controls.

ITPC-0447 CCFD System Enhancements

Improve process for Urbana campus charitable giving

The Campus Charitable Fund Drive (CCFD) is the only annual, combined charitable giving campaign for the employees at the University of Illinois at Urbana-Champaign. Through the eight-week CCFD, University

employees can help improve the lives of people in our community and around the world. This project will improve the system and reduce the time spent by the staff in support of this process.

ITPC-0453 Analysis and Implementation of iBuy data into the EDW

Provides data for planning and decision support

Decision support projects such as this support effective decision making, help speed up problem solving, increase efficiency, promote collaboration, and provide data for continuous improvement. This specific project will implement detailed data from iBuy into the data warehouse to allow for ad hoc reporting.

ITPC-0461 New Hire Redesign Implementation

Improves new staff perception of the University | Reduces routine technical support work

The University of Illinois new hire system is likely the first interaction new staff have with the University's IT infrastructure. A positive onboarding experience sets a better tone for future interactions. This project will enhance the New Hire system to be improve usability of the applications, ensure ADA compliance, and reduce the departmental, HR, and UPB work load.

ITPC-0462 HR and Payroll Legacy Databases

Eliminates need for expansion of IT Portfolio | Creates labor efficiencies

This project will investigate options for providing access to legacy HR and Payroll information. The solution identified through this analysis has the potential to inhibit the development and maintenance of separate systems as well as provide all three campuses access to the same set of data.

ITPC-0464 Position Tracking System for Civil Service Employees

Improves compliance | Creates labor efficiencies

This system will provide a more efficient and accurate method to meet the Civil Service tracking requirements mandated by The State Universities Civil Service System (SUCSS). Current tracking processes rely heavily on paper files and a MS Access database. This project will ensure the University remains in compliance.

ITPC-0466 HireTouch Data Acquisition Phase 2 (Custom Forms Data)

Provides data for planning and decision support

Decision support projects such as this support effective decision making, help speed up problem solving, increase efficiency, promote collaboration, and provide data for continuous improvement. This specific project will pull in the custom data from the HireTouch system to allow for ad hoc reporting and analysis.

ITPC-0467 Automated Grade Change Process

Simplify grading processes for faculty

This project will implement Banner workflows to support the Grade Change Process. This workflow will reduce errors, rework, and decrease cycle time for grade changes. The primary beneficiaries of this project are student, faculty, and campus student offices.

ITPC-0468 Ad Astra UIC Unit Pilot (Implementation Phase 2)

Reduces IT system portfolio while still meeting demand

Ad Astra is the resource and room scheduling tool being implemented for the campus scheduling offices. After this implementation, this software will be configured for use by other Chicago departments, effectively replacing the end of life UIC Oracle Calendar being maintained by ACCC. Primary beneficiaries include UIC campus departmental resource schedulers and ACCC.

ITPC-0469 Finance Reports Distribution Role Application

Required component of ITPC-0444

This project is a required component of ITPC-0444. It is necessary to allow role based access to financial information.

ITPC-0772 Implement iCS Data into the EDW

Provides data for planning and decision support

Decision support projects such as this support effective decision making, help speed up problem solving, increase efficiency, promote collaboration, and provide data for continuous improvement. This specific project will implement detailed data from the University Contract System (iCS) into the data warehouse to allow for ad hoc reporting.

ITPC-0472 Investment Income Distribution Application Rewrite

Provides stable environment | Reduces risk of delayed distribution of income allocations

The University Accounting & Finance Reporting office calculates, allocates and tracks income investments for department funds with cash balances greater than \$10,000. This project will rewrite the application that is used to do this in order to reduce chances of failure. System failure will delay the processing of \$7 million worth of income allocations, effectively delaying the distribution by several months.

ITPC-0480 Preferred Name and Gender Analysis

Improves quality of student and staff services

UIS Student Government and UIC Sexuality and Gender Center have requested that students be able to be addressed by a preferred name and gender. UIC, UIS, and UIUC campuses would like to explore this possibility. This project will investigate how to accommodate preferred name and gender in existing systems such as Banner and LMS.

ITPC-0483 Tableau License Expansion

Provides visual and flexible data for planning and decision support

While the warehouse data is fairly accessible, the tools to easily mine it are not. In particular demand are visual tools that easily present and explore large amounts of data. This product will provide quick-to-develop visual dashboards, which will allow decision makers to ask strategic questions and make better strategic decisions.

ITPC-0491 Disability Resources and Educational Services (DRES) Integrated IT Services

Improves quality of student services | Maintains the University's leadership in post-secondary disability access

This solution will more effectively accommodate a rapidly growing population of students with disabilities (UIUC registered students have increased over 38 percent from 2008 to 2014). This system will greatly simplify and improve the quality of these services. It will also enable ongoing assessments to better inform ongoing strategic planning and budget planning processes.

ITPC-0492 Account Code Search Application

Creates significant labor efficiencies

There are thousands of account codes used in the University's general and operating ledgers. Most units rely on a large MS Excel workbook to make account code selections. This application will make it easier to locate the correct account code, thereby reducing the labor spent in the current process resolving account code issues. Estimated labor savings is approximately \$3 million per year.

ITPC-0493 Capital Project Management System

Creates labor efficiencies | Aids with compliance and error detection | Eliminates duplicate data entry

The University Office of Capital Programs and Real Estate Services uses 10 year old, poorly integrated systems to facilitate the capital delivery process. This project will minimize the need for redundant data entry and allow for enhanced workflow. This unified project management system will facilitate compliance, consistency, error detection, and reporting. Expected internal labor savings is approximately \$285,000 per year.

ITPC-0494 Biennial Inventory Application

Enables state government compliance / Instills stakeholder confidence / Creates labor efficiencies

This application will allow the University be more effective in performing the biennial inventory. Continued recurring audit findings may result in lost revenue and grant funding based on critical evaluations from Federal and State government funding sources. This project will increase compliance with the Illinois State Property Act and is expected to provide internal labor savings of approximately \$800,000 per year.

ITPC-0495 Emergency Notification Service

Improves safety

An emergency notification service allows the University to alert the community of a pending or existing emergency situation. This project will investigate and implement an enterprise Emergency Notification System.

ITPC-0496 NetID Length Expansion

Provides more meaningful email addresses to faculty and students

A NetID is the ID used to login to University systems and is the left hand side of a person's email address. This project will expand the length of NetID to allow for a more meaningful combination of letters and numbers as well as ensure that we do not run out of free NetIDs.

ITPC-0497 Multi-Factor Authentication

Safeguard critical University systems

Multifactor authentication (MFA) is a security process that drastically reduces the incidence of online identity theft and provides greater protection for the University's critical systems. This project will implement multi-factor authentication for critical University of Illinois systems.

ITPC-0498 Retro Pay Application

Provide timely payment to staff and retirees

The University of Illinois has more than 40 labor agreements. Seven of these, covering approximately 7,000 employees, have expired or will expire and are predicted to have a retro-pay scenario. The significant delays in processing retro pay have strained staff relations and unnecessarily hold up full retirement benefit payments. This project will reduce the time it takes to process retro pay for these increasingly complex agreements.

ITPC-0499 Message Enable Cross FOAPAL Validation (XCFOAPAL)

Creates labor efficiencies / Aids in the creation of accurate financial records

The "Cross FOAPAL Validation" process is intended to assure that the University's ledgers are accurate. This project will simplify and speed up the existing process by providing a method for applications such as TEM and iBuy to validate codes upon entry. This will greatly lessen the risk of inaccurate codes being recorded, reduce rework, and will speed up financial transactions.

ITPC-0502 Enterprise Training Infrastructure

Assists with research compliance / Creates proposal efficiencies / Assists with state government compliance

University of Illinois is subject to more than 250 federal compliance requirements as well as numerous state regulations. Delivering, completing, and documenting the required training to meet these regulations is a large

burden and non-compliance is a common risk. This project will address these issues by implementing a centralized system for delivering and reporting on this information.

ITPC-0503 Document Management System Analysis

Improves services to campus units

Electronic documents are the backbone of a wide array of University business transactions, from student admissions to employee separation. The current document management tool was deployed exclusively for the limited use of University Administration and it was not intended or configured for use by other campus units. This project will investigate the requirements and assess the possibilities of redeploying or replacing the existing tool to meet campus needs.

ITPC-0504 Student Customer Relationship Management

Improves recruitment effectiveness | Creates labor efficiencies

All institutions of higher education are facing challenges in attracting and retaining students. The competition for Illinois students from neighboring states and the Big Ten has put added pressure on our recruitment efforts. This project will improve our recruitment efforts, increase our ability meet current expectations for personalized and consistent communication, provide internal labor savings of 40,000 per year, and direct cost savings of \$165,000 per year.