

Status Update on Administrative IT Review As of May, 2009

For the past several years University Administration (UA) IT units have been involved in unit-focused analyses of actions to gain efficiencies within their spheres of influence. This report highlights some of the successes that these units have realized related to those individual efforts. In addition, starting in 2009, several of these units, mainly AITS, Decision Support, CARLI, OBFS-BIS and HRIS have formed a working group to explore additional opportunities to gain broad impact efficiencies and saving across all UA IT units. Given the detailed and thorough nature of this review, this exercise should be viewed as a work in progress. However, some potential ideas emerging from the review and planned next steps are described in this report.

Methodology

The unit-focused process of reviewing administrative information technology (IT) in University Administration generally consisted of two components: reviewing the efficiencies gained over the past few years and determining possible future efficiencies at a departmental level with the associated consequences of the actions, and a framework for reducing unnecessary redundancy. In addition to the unit-focus analysis, UA IT units have formed the working group to create a master inventory of IT roles and service providers across the organization, and to formalize the framework for reducing unnecessary redundancy going forward.

Highlighted Findings from Unit-Focused Analysis (including efficiencies currently in place)

Administrative IT at the University has increased efficiency over the past 14 years. For example, between 1995 and 2008, the number employees and students supported per central IT staff member increased from 370 to 580. Over that same period, state and institutional funding for central IT has increased 7% while the funding per employee and student has decreased 4%. In contrast to the nearly flat budget between 1995 and 2008, the administrative IT staffing has continued to decline over the past decade in one unit from about 240 employees to about 180 and another from 56 to 30, with the exception of an temporary employment spike due to the UI Integrate project.

Over the past decade, UA IT units have followed many industry standards including Gartner's and TDWI's recommendations for increasing efficiency. Typically included in cost-cutting exercises are increasing the ratio of customers supported per staff member, formalizing a portfolio management methodology, increasing help desk efficiency, shifting to video and teleconferencing for long-distance meetings, consolidating data centers, increasing server virtualization, using open source products (software that is developed collaboratively and distributed for free), moving servers to commodity hardware with Linux, minimizing hardware and software platforms supported, ensuring that enterprise

services are used by the entire University, and looking for opportunities to outsource and/or partner with other IT units on providing commodity services. The following paragraphs describe how we have met these challenges over the past decade.

- Through best practices and using industry leading project management software, the efficiency of IT application development has increased about 5% over the past five years, saving about \$700k.
- PC support for University Administration offices was consolidated, serving 155 laptop and desktop computers per employee, which is more efficient than the industry standard of 125 to 1.
- Previously separate UA help desks have been consolidated into the existing service center without the transfer of additional staff and staffing was eventually reduced by two analysts.
- The enterprise IT services have been consolidated into two data centers, the primary at UIC and the secondary (BCP) at the Urbana campus and allowed the closure of a number of smaller and inadequately provisioned data rooms.
- There has been a shift from large, proprietary servers to commodity hardware for smaller applications, increasing from just a few 1998 to over 293 today.
- About 89% of applications supported by central IT are used by all three of the physical campuses and only about 5% of the applications are used by only a single campus.
- Open Source technology (can you give a brief description here) is utilized where possible and appropriate. Since 2000, this has resulted in a license and maintenance cost savings of at least \$1.75M.
- The number of direct users and application accounts sourcing from the Enterprise Data Warehouse has increased which allows colleges and departments to reduce operating costs (servers and IT staff) and increase efficiencies
- Long-standing vendor agreements have been renegotiated, and UA IT units have partnered with campus IT units on the development of new applications and new tool purchases of common interest in order to lower the overall IT cost of operation for the University.

Overview of the Current Review Process

The departments that support administrative information services are collaboratively assessing services and capabilities to determine the optimal efficiency of services and if there is a need to decrease unnecessary redundancy. A discussion of organizational efficiency must be preceded by the knowledge of what needs to be accomplished and what is being done at present. The participants are in the process of gathering the necessary data and information to make thoughtful decisions about services so that the result of the change increases efficiency and trust.

The basic focus of all UA IT units is to deliver the best set of IT products and services at the lowest cost possible. At the same time, there are business processes outside of IT that have an impact on IT. It must be acknowledged that the results of this review will only be as good as the overall academic and administrative processes IT supports. This comes from the realization that technology is not the end outcome; it is the facilitator to that outcome.

As an initial step in this process, the working group has started to document an understanding of the scope of IT services provided by UA IT units to understand the relationship between these services as compared to the needs. Recommendations for a future efficiencies and a transitional plan will be developed once the current state of IT services are fully analyzed over the next three months. The following steps are completed or in progress:

- Create a classification scheme for services that enables patterns to emerge (completed).
- Collect data from current University Administration IT service providers (completed).
- Verify service needs inventory process and through supplemental focus groups.
- Analyze and provide future state recommendations
- Create transitional plan and implement

Because the analysis involves several diverse business units, classification and decision making process will evolve throughout the process; however, there is a core set of data that has been collected about each service. Specifically, Service name, description, provider, primary beneficiary, and the number of internal and external service consumers. Type of service, such as email and calendaring, distributed hosting, application development, and desktop support. Further, these services have been classified under a two-dimensional typology: service impacts and service distinctiveness.

Type of impact:

- Operational: A service that has a primarily operational impact is one that enables the daily business of the university.
- Transformative: A service that has a transformative impact gets the consumers to a different end state but does not necessarily require innovation. For example, an IT service that enables a paperless office is transformative.
- Innovative: A service that is innovative is one that no one has done before.

Service distinctiveness:

- Commodity: Any service for which there is demand, but which is supplied without qualitative differentiation across a market. It is a product that is the same no matter who produces it. We recognized that not all application of technology is the same but there are techniques and IT core competencies that can be construed as

commodity even though there might be a need for subject matter expertise involvement.

- **Distinctive:** Any service whose requirements are unique to specific department or research effort and/or can only be offered by a specialized provider

The future state of UA IT will evolve from the services and needs inventory. The plan organizes IT services by their impact and distinctiveness aligns the service provider(s) accordingly. The analysis will show where UA might decrease or consolidate the number of providers for services that are more of a commodity in nature. For services that are in broad demand but that are unique and specialized it will show which individuals and groups across UA can provide this service in the form virtual service groups, regardless of physical location. Finally, for services that are unique to a single service or task, no change may be recommended.

Regardless of the final structure, services will be organized around “centers of excellence”. A center of excellence would have a single service category focus such and would enable the stakeholders to implement appropriate industry standards and best practices for that category. For each center, the stakeholders, performance indicators, and office responsible for its management will be document if they do not already exist.

Future Opportunities

All of the current findings noted earlier are savings that occur at the department level. Through the cross-unit review process, the working group anticipates additional savings that will be achieved by reducing unnecessary redundancy across UA IT units.

Some potential opportunities have been identified. While it is difficult to quantify the effects of system downtime, a linear approach to the University’s \$4.2B budget shows that an hour of IT system downtime costs about \$500k. This could vary drastically depending on the time of year, that is, the beginning of a semester or the end of a fiscal year as compared to any evening over a holiday break. It is important to consider the risk to both the University’s critical operating needs and its primary data systems when considering recommendations for gaining efficiencies. In short, there will be tradeoffs with any efficiency implemented that will need to be weighed carefully in the final decision making process.

The core of UA IT services is the SunGard Banner Enterprise Resource Planning (ERP) software. The University does not use all of the functionality included in Banner; therefore, there is a goal to utilize more of the existing functionality in evolving the University’s enterprise systems. This requires a shift from using outsourced vendor support to performing maintenance in house to gain the necessary expertise on staff. While this could result in significant savings, the University also clearly assumes additional risk during the Banner upgrade process without a vendor safety net.

Another possible savings is to decrease headcount involved with support and development of new functionality for our enterprise business systems. In the aggregate, to achieve a savings of \$100,000 in cost we would need to decrease our headcount by 1.32 FTE, which would decrease our capacity for performing new work by 1,870 hours.

While consolidation of the Network Operations Center (NOC) and Help Desks to a 24x7x365 Service Desk has been effective, reducing hours of operation of these functions could result in salary savings in excess of \$100,000. However, a decision to not have a live service desk support 24x7 is generally viewed as a reduction in critical services felt directly by IT clients. Decoupling the transition from separate NOC and Help Desk functions and staff to a Service Desk will reverse efficiencies already gained. There are no other 24x7 help desks at the University that could provide this service.

There are two separate PC service groups within University Administration. One supports most of the computers within University Administration, and the other supports the University's executive offices. The executive office support also provides additional server support, some of which is also duplicative within UA. These groups could be combined to provide a single service level for all units within UA, and the server support will be moved within the existing server support in central IT. At present there is a higher level of service provided to the executive offices of the University. This change would create a single service level for all UA employees, regardless of location or title.

At present, that the University's enterprise system maintenance is provided at the highest available (typically called Gold or Premium service). This coverage could be reduced from Gold to Silver with significant savings. At the same time, this action would decrease response time by the vendor for critical hardware and operating system issues from 4 hours (24x7x365) to 24 hours (8x5) – which could result in added costs to the University when considering the impact of an hour of system downtime noted earlier.

Next Steps & Timeline

Throughout the next few months, the working group will continue to analyze the data gathered from the services inventory and individual departmental proposals for administrative IT savings. Between these two data sets, the group will determine the areas of maximum efficiency gain with minimal service impact. The final deliverable will be recommendations on specific changes to services offered (with related impacts and risks) with estimated savings/efficiencies, as well as the roles and responsibilities of the various UA IT units. We expect the final deliverable to be posted the week of July 27th, 2009.