EXTERNAL REVIEW

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Kent State University Information Services

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INTRODUCTION

This report summarizes the findings from the external review of the Division of Information Services (IS). The review was commissioned by President Lefton and coordinated by Vice President and Chief Information Officer Ed Mahon. The review was conducted by a visiting committee of experienced higher education CIO’s and an independent higher education consultant. A roster of the members of the team is included in Appendix A.

The review team conducted a two day visit to the Kent campus on March 2nd and 3rd of 2010. The review focused on two broad questions:

- Is the IS strategy well aligned with the needs and priorities of the institution?
- How can KSU use and manage technology more effectively?

During the visit, the review team met with representatives of each of the University’s divisions, students, faculty and the IS leadership. In addition, a phone interview was conducted with representatives from the regional campuses. The team also reviewed the IS strategic plan, organization chart, budget and a comparative staffing report from the EDUCAUSE core data service. A list of interview participants is provided in Appendix B.

SUMMARY OF FINDINGS

The University enjoys a reliable and solid technology foundation. The IS team is recognized for their dedication, effort and willingness to collaborate. There were few concerns expressed with the quality of IS services. In fact, the majority of our findings and recommendations are aimed at positioning KSU and IS for the next stage in its strategic evolution. The IS strategic planning process provides KSU with an opportunity to examine and adjust as necessary the allocation of resources among many potential technology priorities. To date, the agenda has been dominated out of necessity by the Banner implementation. It is an opportune time to engage in a conversation about how technology can support broad institutional goals in teaching, research and outreach. Clarified and more structured IT priority setting within and between the different missions technology supports will continue to build even greater confidence in IT decisions and will improve the utilization of scarce resources.

Technology has grown more pervasive at the University and it is very important that IS increase its communication and engagement with key stakeholders. We recommend that IS use existing groups to a greater extent such as the UTC, Deans Council and the Banner advisory committees to inform technology decisions. These groups should be supplemented by designating an executive level technology governance group that can address competing needs across different divisions and areas of technology. IS also needs to lead a conversation to establish a shared understanding of the optimal division of responsibility for technology between its own organization and colleges and other administrative units. The implementation of responsibility center management makes this conversation critical. IS should move to convene discussions to
establish clear guidance on the division of responsibilities between IS and colleges and to clarify how technology services will be funded in the new RCM system.

Finally, we recommend IS consider a broader set of options for addressing the challenges of managing the workload of maintaining and enhancing Banner. This is a problem of both supply and demand. It requires adjustments to how requests for Banner work are identified and prioritized as well as changes to how IS assigns work to its application development teams.

CONTEXT

This review comes at an important juncture in the evolution of KSU’s technology and the Division of Information Services. Of necessity, the technology agenda of the University has been focused on shoring up the foundation. Considerable attention and investment was directed to improving the core technology infrastructure of the institution and improving the quality of basic support services. More recently, the University successfully completed the complex challenge of implementing a new enterprise information system (Banner). The project was completed as planned and is supporting improving institutional administrative services and management information.

The IS organization is very focused on enterprise administrative systems that will support registration, admissions and student tracking as well as other enterprise administrative functions. This is an understandable by-product of the Banner implementation. Out of necessity, it consumed significant resources and management attention. However, we see an opportunity for IS to rebalance its focus. KSU has the opportunity to ask what comes next? Information Services has drafted a strategic plan that proposes new initiatives to support institutional goals and priorities. However, with scarce resources and an enlarged technology base to support, it is critical to KSU’s success that its technology strategy be focused and its priorities clearly defined.

STRENGTHS

The review team was struck by the considerable strengths KSU and IS have to build upon. The list below summarizes several of the most important of IS’ strategic assets.

**IS enjoys a sizeable reservoir of goodwill.**

There was widespread praise for the talent, professionalism and dedication of the IS team. Interviewees were also cognizant of the progress that has been made to modernize the University’s technology infrastructure and the success of the Banner implementation.

**The technology foundation is solid and enables IS to focus on strategic projects.**

KSU’s technology appears to be secure, reliable and sufficiently robust. There were no reports of frequent outages, serious service failures or practices that were outside the mainstream of a well run IT organization. With few exceptions (see Opportunities section) the core services appear to meet the needs of students, faculty and staff. This provides a foundation upon which KSU can pursue strategic technologies (e.g., distance learning) and enables IS to turn its attention to new projects and priorities.
Technology is recognized as a strategic asset of KSU and constituents support further investment in IT.

Multiple stakeholders including executive officers and faculty representatives characterized technology as a strategic asset of the institution. They described it as an area worthy of investment and important contributor to the University’s teaching and research missions. This is an important distinction not recognized universally by all institutions. Many view technology as a cost center that provides necessary, but not strategic infrastructure. The broad recognition of the value of technology suggests a culture that is more receptive to finding ways to innovate with technology and an organizational readiness to maximize the benefits of investments in technology.

The University should take steps to make sure the draft IS strategic plan addresses technology’s full potential to be a strategic asset of the University. The plan is primarily focused on the use of technology to support administrative process efficiency and improvements to core infrastructure. These areas are important issues but are not representative of the full range of technology’s possibilities for the University. We recommend that KSU take this opportunity to engage in a thoughtful campus-wide discussion of how IT should be used as a strategic resource in teaching, research, outreach to new constituents and administrative processes.

Several faculty and staff expressed concern that KSU was not investing enough in technology in light of its strategic importance. IT staffing and budgets are constrained in IS, colleges and administrative units. There was widespread acknowledgement that resources are constrained for the university overall and finding incremental funding for technology will be difficult. Establishing clear priorities for how scarce technology resources are used is an imperative for KSU as is aligning aspirations for technology with available staffing and budgets. We comment further on this issue in the following section.

The top IT priorities are understood and supported.

Interviewees were broadly aware that the top priorities for technology at the University were the implementation of the graduation progress system (GPS), and the transition to unified communications and identity management. The strategic value of these projects was clear and seems aligned with broader institutional goals. Interviewees were concerned that IS resources are stretched thin and that these priorities would crowd out other potential projects and priorities.
OPPORTUNITIES

The following observations are intended to help IS and the University maximize the effectiveness of its technology and technology services.

Clarify the process for setting IT priorities.

There is an inconsistent understanding of how IT priorities are set within and across the divisions of the University. Each stakeholder group we met conveyed a different understanding of how priorities for new projects and technology investments are set. Speculation as to who set priorities included IS leadership, IS project managers, the cabinet, and individual executive officers. Some of the individuals we met shared that they had stopped bringing ideas of technology projects and innovations forward because they did not see a path to having them become a priority.

There are both issues of structure and communication to address. Structurally, there are two major issues. The first is how the work of the Banner advisory committees to set priorities intersects with divisional priority setting. Priorities for Banner seem to come from both the advisory committees as well as divisions. Since Banner modules (e.g., student system) have stakeholders that span multiple divisions, there needs to be a clear mechanism to resolve conflicting and competing priorities. Second, the current approach to priority setting does not provide a mechanism for setting priorities across divisions or among strategic technology areas (e.g., administrative systems vs. distance learning). In addition to addressing these structural issues, IS should clarify to all stakeholders how priorities are set. It is important that all divisions understand how to propose IT priorities, the criteria by which technology investment opportunities will be weighed and the process for ultimately selecting the initiatives that will be pursued.

KSU should also consider modifying its IT governance. Presently all but one advisory committee (UTC) is focused primarily on administrative computing. As the IT strategy broadens and evolves, IS would be well served by a broader set of advisory committees. It is our understanding that the vice presidents serve as the executive IT governance group. However, it was notable to us that we heard no mention of this group or its role in IT decision-making during our review. KSU requires an active executive level IT governance group that can set priorities among needs in administrative systems, academic technology, research computing and infrastructure. In the following section of the report, we recommend that KSU rebalance its allocation of resources among its technology priorities. We believe this process would be facilitated by creating or designating an existing group to serve as an executive steering committee for technology.

Use the strategic planning process to review and adjust the allocation of IS resources.

In past years, KSU’s Technology focus has been drawn to several very large projects. The completion of the Banner project and some of the major infrastructure improvements that preceded it provides KSU with some greater flexibility to re-allocate resources among its technology priorities and portfolios. IS is working diligently to prioritize how to use the existing resources in each of its major areas of technology. This is important but it misses the larger question of whether there should be a redistribution of resources among the areas.

Given the scarcity of resources, it is important that the University and IS use the current technology planning process to question whether any adjustments in the macro-level allocations of resources is warranted. Questions that KSU should consider include:
- Should additional resources be invested in on-line learning even if it means having fewer resources available to enhance Banner?
- Are there high priority investments that should be made in research computing that may be more important to the institution than other priorities?

Define the optimal division of responsibilities for technology services between IS and other divisions.

IS has responsibility for a broad and appropriate set of technology functions and services. Compared to many institutions of similar scale, KSU's IT operations are more coordinated and centralized. This serves KSU well in terms of efficiencies. IS also recognizes that some technologies and services are best provided locally to spur innovation or to support unique needs.

The University’s implementation of responsibility center management (RCM) will create pressures on the division of responsibilities for technology. Colleges will gain the financial means to make their own IT investments and may perceive the need to have greater control over support services including technology as they seek to maximize revenues. At the same time, they will place greater scrutiny on the quality and efficiency of the central IT services that are funded by the administrative tax they pay. Deans and their staffs will be tempted to explore whether their college could offer a service at less cost than IS. This can create a healthy dynamic that spurs central IT to be as efficient as possible and helps colleges appreciate the costs of the services they receive. However, RCM can also incent unnecessary duplication of IT services and the loss of scale economies if the wrong services become decentralized.

It was clear that the CIO and President are aware of the potential for RCM to create a level of decentralization of services that is inefficient. There was a firm commitment to avoid seeing unnecessary duplication of technology or services (e.g., multiple email systems). IS should continue to work with the colleges to achieve a common understanding of an optimal division of responsibilities for providing technology services between IS and the colleges. Particular questions that the community seeks clarity on include:

- What IS services and infrastructure will be funded by the administrative tax?
- What services will colleges be expected to pay for through a charge-back?
- Should colleges plan to build their own local educational technology and instructional design support or will IS provide this?
- What is the division of responsibility among IS, Distance Learning and colleges for providing faculty support?
- What hardware and software will colleges be responsible for funding outside of the administrative tax? Specifically, will colleges by required to fund the refresh of faculty computers?

Increase communication and engagement with key stakeholders in IT.

Faculty and staff expressed some concerns that the perceived urgency to act has at times led IS to limit its consultation with stakeholders prior to making a decision. While there is always a balance to be struck between the need to build consensus for a decision and the need to act quickly, we see several opportunities to productively increase engagement with stakeholders.

1 The following paper may be help IS to formulate an effective definition of local and central services. There is a Gartner report “Six Steps to Process-Based IT Organizational Design” (ID Number G00143151, published 18 October 2006, AU=Colleen M. Young)
• The current chair of the UTC has reinvigorated the group. It is now meeting regularly and seems ready to provide constructive input to IS. In the course of our conversation with the chair, there were two issues that seem ready for UTC input. The first is how standards for desktop and laptop computers could be refined to better support faculty needs. The second would be to work in collaboration with IS and the VP for Research to identify gaps in research computing support.

• As RCM rolls out, it will be increasingly important for IS to be in regular communication with Deans about the scope and cost of shared technology services, the division of responsibility for technology and the priorities for the future. We recommend that the CIO meet with the Deans on a quarterly basis. This could be accomplished by inviting the CIO to join a regularly scheduled Deans meeting each quarter.

• Shift responsibility for chairing Banner committees from IS to functional leaders. This will promote a greater sense of ownership for managing the system among users.

• Continue to build on the recognized improvement in communications and coordination between IS and technology staff on the KSU campuses. Focus on improving coordination of the timing of technology upgrades and changes.

Focus the role of the IS project managers and better define the role of liaison from IS to other divisions.

Presently, IS project managers serve as liaisons to each division and are responsible for understanding their priorities for new projects and providing a gateway to IS’ services. While the concept of having a liaison is sound, the way it has been implemented is creating challenges for IS. Using the project managers as the liaisons diverts a significant portion of their time away from planning and managing projects. Also, the present model is for a project manager to only oversee projects for the particular divisions to which they are the liaison. This constrains IS flexibility. Given that project managers are a scarce and specialized resource, IS would be better served if they were focused only on planning and running projects. Further, they should be organized as a pool of resources and not dedicated to any particular division.

The liaison role is important and should continue. Interviewees valued having a single point of contact for accessing IT expertise. They appreciate that a member of IS team is charged with developing a deeper understanding of their organization’s priorities. Some would like to see the role expanded to include being a general technology advisor to divisions.

We recommend that IS work with divisional leaders to refine the role description of an IT liaison. IS should then evaluate the workload required to be a liaison and identify individuals within the organization with the skills and capacity to fill the role for one or more departments. Strong consideration should be given to using analysts as the liaisons. Finally, the project managers’ role should be focused on projects.

Continue to monitor the quality of help desk services.

In general, we heard few concerns about the quality and reliability of basic IT services. The one exception was the help desk. Three constituent areas expressed concern that there had been a degradation of service quality since IS outsourced the help desk to a corporate provider. They expressed concern that help desk staff did not have sufficient knowledge of KSU technology and that the time required to resolve issues has grown longer since the outsourcing decision. A few individuals reported that they have begun to by-pass the help desk and take issues straight to their local technology support staff. We also noted that the two students we met with were unaware of the help desk’s services.
It has only been three months since the help desk was outsourced. It is understandable the vendor’s staff would still be learning how best to support KSU at this early juncture. IS leadership is taking appropriate steps to monitor the quality of service including routinely reviewing performance metrics and listening to recordings of actual help desk calls.

The performance data shows that the majority of calls are being resolved in a timely manner. However, the importance of the quality of help desk services justifies continued monitoring of the vendor’s performance. Given the high visibility of the decision to outsource the help desk, we recommend that IS provide the KSU community with a report on help desk performance on a regular basis.

Consider alternative strategies to enhance the capacity of the administrative technology group to perform Banner maintenance and enhancements.

IS leadership identified improving the productivity and capacity of the team supporting Banner as one of their most critical challenges. The University has a proposed project list for Banner that is quite large and in excess of the available staff capacity. At the time of the review, IS leadership was considering whether to re-organize the applications development team into a group focused exclusively on maintenance and a group focused exclusively on project work.

The review team does not recommend that IS make this change. We agree that project work requires focused attention and the constant interruption of maintenance issues limits a developer’s productivity. While dividing into two teams would create focus, it is too rigid. It would be difficult to sustain the motivation and skill development of a developer only focused on maintenance. Often, the best person to troubleshoot a program is the developer who played a significant role in its creation. We endorse the idea of enabling developers to have a more singular focus while they are working on an assignment. We suggest a resource planning model that assigns developers to projects or maintenance nearly full-time but for finite periods of time. For example, the organization may need to assign a developer to maintenance full time for two weeks to allow two or three other staff to work half time or more on a project during the same time period. While this approach is more challenging to manage, we believe it would have a greater impact on productivity.

Other strategies that IS should evaluate to improve the capacity of its application development groups include:

- Review the skill mix of development staff (imaging, workflow, Banner) and make sure it is aligned with the nature of the work in the project backlog.
- Confirm that the division of responsibilities for supporting Banner between IS and the functional departments is optimal and well understood. During our visit we observed that different administrative areas had differing expectations regarding how involved they should be in activities such as developing reports, testing functionality, or developing specifications.
- Project the long-term resource requirements for Banner including major upgrades, significant enhancements and on-going maintenance. When looked at over the long-term, other institutions have discovered that it can be more cost effective to hire additional staff and thereby increase the resources available for on-going work and lessen the need for consultants during workload peaks.

We also urge KSU to attack the capacity problem in Banner support from the demand side. We have already observed the need for stronger and clearer practices to prioritize IT projects. As part of this effort, it is important to create a means for senior leadership to influence how Banner related projects are prioritized. No matter how IS reconfigures its staff to boost productivity, the nature of ERP systems is that there is always
a greater appetite for projects than there are resources available. It is important that KSU implement mechanisms to focus its available capacity on the projects it deems to be of highest value.

CONCLUSION

KSU and IS are well positioned for continued success with information technology. We believe that addressing these opportunities for improvement will position KSU well for the next stage in its technology evolution. The University has an opportunity to move technology further into important strategic areas such as teaching, student success and research. Clear priorities and better communication with stakeholders will enable the University to have greater confidence that its scarce resources are being invested in its highest priorities and will position the University to take full advantage of the technology it has already deployed. We urge the University to take this opportunity to set broader technology goals that encompass teaching, research and outreach. We urge IS to lead a conversation about the optimal balance of responsibilities for IT and the accompanying cost model (e.g., chargeback vs. administrative tax) to facilitate the transition to RCM.

The review team thanks the IS team for hosting our visit and are appreciative of the time faculty, executives, staff and students spent with us during our visit.
APPENDIX A – REVIEW TEAM MEMBERS

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APPENDIX B – INTERVIEW PARTICIPANTS

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