

## Emporia State University

### FY2011-FY2013 INFORMATION TECHNOLOGY MANAGEMENT AND BUDGET PLAN

**Plan Date:** August 31, 2010

**Approved By:** Dr. Tes Mehring, Provost & Vice President for Academic Affairs and Student Life

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## SECTION I ~ AGENCY PROFILE

### **Mission**

Emporia State University is a dynamic and progressive student-centered learning community that fosters student success through engagement in academic excellence, community and global involvement, and the pursuit of personal and professional fulfillment.

### **Business Programs**

**Program:** As a Kansas Regents University, Emporia State University provides quality instruction, develops lifelong learners, imparts society's cultural heritage, and educates its students for the professions and advanced study.

**Locations:** Emporia State University  
1200 Commercial Street  
Emporia, KS 66801

ESU Metro Learning Center  
8400 W. 110<sup>th</sup> St, Suite 150  
Overland Park, KS 66210

## Technology Assets

<b>PLATFORMS</b>			
	<i>FY2009</i>	<i>FY2011</i>	<i>FY2013 (est.)</i>
<i>Mainframes</i>	0	0	0
<i>Physical Servers</i>	70	75	80
<i>Virtual Servers</i>	125	140	156
<i>Desktops / Laptops</i>	2500	2500	2500
<i>Desktops Replaced</i>	350	300	300
<i>Mobile Devices</i>	135	150	175

## IT STAFFING

IT FUNCTIONAL AREA	SFY 2011 ACTUAL FTE		SFY 2012 PROJECTED FTE		SFY 2013 PROPOSED FTE	
	Class.	Uncl.	Class.	Uncl.	Class.	Uncl.
General Management & Administration (includes training and cross-agency coordination)	1.5	4	1	4.5	1	5.5
Application Maintenance and Enhancement (in-production systems)	6	2	6	2	6	2
Application Development (includes general and tactical plans, business area analysis, process reengineering, prototyping, application design, coding, integration and testing)	0.5	0	0.5	0	0.5	0
Data Administration, Data Analysis/Validation and Database Administration	1	2	1	2	1	2
Network Engineering, Technical Management and Support	0.5	1	0.5	1	0.5	1
Computer Operations, Management and Technical Support	3	.5	2	2.5	2.5	2.5
Web application development and maintenance	1	0	1	0	1	0.5
IT Security	0.5	0.5	0.5	0.5	0.5	0.5
Instructional Support	3.5	1	3.5	1	3.5	1
Customer Service	4.5	1	4	1.5	4	1.5
Multimedia Services	0.5	1	0.5	1	0.5	1
Telecommunications	4	0	4	0	4	0
<b>TOTAL FTEs</b>	<b>27</b>	<b>13</b>	<b>25</b>	<b>16</b>	<b>25</b>	<b>17</b>
<b>Total IT Salaries – Classified/Unclassified</b>	<b>\$1,250,368.34</b>	<b>\$ 802,970.74</b>	---	---	---	---

## **AGENCY IT ACCOMPLISHMENTS**

### **Summary of IT accomplishments for SFY 2010**

During FY 2010, Technology and Computing Services (TCS) at Emporia State University continued to focus on providing the highest quality technology services and support to the campus community. Each of the major areas within TCS has continued to expand and enhance services for the university community as detailed below.

#### **Enterprise Systems**

- **Banner / ERP Support:** Continued high level of support for the Banner ERP system and its application in support of both administrative and academic functions. Continued to keep pace with vendor releases and enhancements by upgrading to the most recent version, Banner 8.3. Through thorough testing and validation prior to go-live, interruption to services across the institution was minimized.
- **Improved PCI and PA-DSS compliance:** Information security related to payment card processing was increased for the campus community through implementation of a vendor-hosted solution and enhanced integration and services for University Advancement and Graduate Admissions Applications payment points.
- **SMART –** The enterprise team successfully interfaced ESU's financial systems with the new state system. In partnering with Wichita State University for collaboratively developing the interfaces, ESU met and exceeded all testing and validation requirements to ensure a successful integration.
- **Online Admissions Application Development:** Online applications were developed and deployed for undergraduate, graduate, and international students to ensure maximum availability and flexibility for potential students.
- **Website Redesign Project:** During FY2010, TCS assumed responsibility for the university Web Presence, assisting in the migration of university and department-specific web pages to a new university template.
- **Banner Enrollment Management Suite Implementation Project:** The Banner Enrollment Management Suite consists of a CRM (Constituent Relationship Management) system, Prospective Student Portal/Luminis environment and Performance system for enhanced reporting, score-carding and performance dashboards. Preparation for data migration, testing of funnels and workflow processes, and data validation has been the focus in preparing for an early FY2011 go-live date.

#### **Academic Technology**

ESU continues to expand the use of technology to enhance face-to-face, hybrid, and online learning instruction. The university has made significant strides in the past three years through the adoption and integration of several key software systems:

- **Technology Enhanced Classrooms:** Faculty continued to integrate technology into their daily face-to-face teaching. ESU supports more than 100 learning spaces enhanced with integrated technology in nearly every academic building on campus, one of the highest overall percentages of classrooms equipped with fixed mediated technology of any Regents university. Also known as Smart Classrooms, these enriched classrooms employ a variety of presentation, media, and other

technology to support instruction. During the past year, significant improvements to more than 30 of these classrooms were accomplished, including the elimination of all outdated technology projectors and workstations. New lecterns were designed and installed. In addition, ten Promethean interactive whiteboards were installed to allow faculty to enhance their teaching experience with this technology.

- **Learning Management System:** TCS continues to provide the latest functionality and most robust online learning environment for faculty and students. ESU continues to experience adoption and utilization of our course management system, Blackboard, in nearly every course on campus. Associated and integrated products such as Adobe Connect Pro, CampusPack Fusion, and SoftChalk provide a robust set of learning technologies to provide most up to date learning environment possible.
- **Web 2.0 Technologies:** ESU continues to expand and increase the utilization of web 2.0 and social media applications, including blogs, wikis, podcasting, and Twitter feeds which are deeply integrated into every Blackboard course.
- **Web Conferencing:** Continued expansion and increased utilization of desktop web conferencing using Adobe Connect Pro. ESU has tripled the number of faculty using this technology in just over one year
- **Lecture Capture:** During the past year, TCS worked with The Teacher's College to roll out Panopto Focus, providing lecture capture for use in our Community Counseling Services and more recently, in a pilot for use across campus. Lecture capture allows faculty and students to record everything from client counseling sessions to physics lectures.
- **Mobile Technologies:** Early exploration of mobile technologies and access to course content and textbooks through devices such as the Apple iPad and Smartphones. Many product vendors are beginning to develop their applications for use on these devices and ESU is exploring how these technologies can benefit the campus community both inside and outside the classroom.
- **Video:** Increased utilization of video production in a variety of academic and promotional areas. There is a new initiative to investigate a system to help manage and index video content institution-wide and make it available to everyone from marketing to faculty.
- **Digital Signage:** There has been increased utilization of digital signage and display systems on campus. Several more systems are scheduled to come online in the next 12 months, providing students and faculty point-of-contact information through LCD kiosks.
- **Expanded training opportunities for faculty/staff:** During the past year, the Academic Technologies group has offered new and increased training opportunities on the use and application of technology. Examples include:
  - The first annual "Spring Fling" for intensive face-face training of faculty in use of the various technology tools that have been acquired.
  - Multiple training modules for federal and state compliance issues (FERPA, Harassment, etc.)
  - Online Security Awareness training for all employees.
- **Outreach support:** TCS provided assistance with the generation of five cultural video vignettes in conjunction with the Jones Institute for the Kansas State Department of Education.

### User Support Services (Help Desk / Client Services)

- **Enhanced Desktop Technology Support:** TCS continued to improve the desktop support technology infrastructure model to reduce total cost of ownership (TCO) for all ESU owned computer systems. This includes the development of a Computer System Lifecycle (CSL) to help understand all processes and procedures throughout the life of computers, the standardization of system purchases to reduce initial purchase costs as well as reduce overall support costs, and the refinement of both computer and network printer asset inventory for ESU owned equipment. This also includes an improved off-site support model to provide an effective support mechanism for ESU's remote locations in Kansas City and Leavenworth. These refined support models help to ensure that all ESU entities have access to professional technology services and support.
- **Enhanced User Support & Communication Models:** TCS continued to refine the business model and mechanisms used to support students, faculty, and staff at Emporia State University. This includes improved software download capabilities, increased communication, and enhanced service offerings through a technology portal, "Techsite". It also included the implementation of a password self-service system, allowing users to set challenge questions and reset their passwords without assistance from TCS. This system has increased user satisfaction and significantly decreased support calls regarding account management.
- **Involvement with Student Orientation:** TCS has developed relationships with multiple departments involved with the orientation of new and returning students to ESU to help introduce those students with ESU's information technology environment and service and support offerings (e.g. – account management, e-mail assistance, information security, residence hall network and wireless network configuration, etc.). This involvement, which is now on a proactive basis, has significantly increased satisfaction from student organizations, students, parents, as well as TCS support staff.
- **Development of Emergency Communication Procedures:** TCS developed and implemented emergency communication procedures for critical system outages. This includes the use of RSS feeds to inform the campus community regarding critical system outages and information security alerts. This also includes enhanced communication with departments other than TCS for critical systems outages that occur outside of normal business operating hours.
- **Enhanced Use of Technology for Business Sustainability:** TCS continues to refine the ways in which technology can be used in a more sustainable manner. TCS is an active participant in the University Sustainability Committee, as well as other university committees which focus on using current and evolving technologies to help reduce waste and improve the efficiency and effectiveness of business practices at ESU.
- **Symantec EndPoint Protection Migration:** During the past year, ESU completed the migration to Symantec EndPoint Protection (replacing Sophos Anti-Virus). In addition, enhanced licensing provides enterprise-class anti-virus for all students as well as faculty and staff for home use.
- **Web Help Desk:** TCS transitioned to Web Help Desk (replacing Numara Footprints) for ticket tracking and desktop and network printer asset inventory management, as well as for FAQ/Knowledgebase management. This system allows the TCS Helpdesk to better manage and track tickets submitted by students and employees, as well as improve response time and time-to-resolution when upper tier support is needed to resolve the issue.

### Technical Infrastructure and Operations

- **Campus-wide wiring project:** During the past year, funding was identified to remedy a long-standing issue with outdated cabling. The project was planned and initiated and will continue

through FY2011. The result will be standardized, modern cabling infrastructure across the entire campus.

- **Data center improvements:** A long-range plan for data center modernization was established to enhance the technology infrastructure, increase efficiency – space, utility consumption, etc, and enhance redundancy within the primary data center. It will also lay the foundation for migration to a distributed, redundant technology infrastructure to support the university's business continuity and disaster recovery plans. Short term goals were identified and progress has been realized on this multi-year goal.
- **Continuation of the transition to Microsoft services as a platform for the enterprise.** The strategy has provided the foundation for University-wide services, as well as smaller, departmental systems while maintaining general uniformity, security, stability and access.
- **Completion of the File Migration Project.** Scheduled to wrap up in May 2010, the migration and redesign of share-based file services completed mid-March, approximately 2 months ahead of the target date. Following the migration from Novell eDirectory to Active Directory, this completes the second pillar in migrating away from Novell services. A unique benefit that came out of this project was the establishment of the Data Access Coordinator role, established in each department to assist and oversee management of departmental shares. This role will be beneficial when notifying departments of system changes, maintenance, and other similarly structure projects. Additionally, it gives the users the tools to manage their own permissions as well as increasing security by encouraging users to be aware of the data stored in their network folders.
- **Cloud2 Architecture.** The Cloud2 architecture is a backend server and network design created by TCS staff that promotes the ability for demand-based computing, while providing a foundation, or platform that is dynamic and expandable, while including the underpinnings of a disaster recovery and business continuance model. Cloud2 technologies include Windows Server, Hyper-V, Virtual Machine Manager and Data Protection Manager. Services offered on top of Cloud2 include file and print services, TechSite, Onbase, and the interlibrary loan systems.
- **TechSite v12.** In FY2010, TechSite, ESU's technical services and information portal saw three major revisions. The first included both backend and frontend changes, while the second and third saw user interface enhancements, based on user feedback and refocusing on future enhancements and expansion of the TechSite brand. New features included in this year's revisions include role-based selections to provide on-campus single sign-on, RSS feeds from TechSite Communicator, departmental and project-based collaboration sites, and the new InfoPath forms server.
- **Remote Access.** The file services migration to Windows meant the discontinuance of the popular Novell service called MyFiles at ESU. Microsoft does not offer a similar solution, and as such, we were required to design a new solution. MyFiles 2.0 is a webdav-based service for access to home directories for students, faculty and staff. Using only a web browser or webdav client, remote computer can establish a secure connection to the file server hosting the user's Y: drive. A broader solution, currently offered to ESU employees, is called LaunchPoint. This service provides a secure Windows-based desktop housed in the ESU data center and remotely accessible from any Windows, Mac or Linux computer connected to a high-speed Internet connection. Users have access to software programs such as GroupWise, Microsoft Office and SPSS, while having the ability to access files on the W: and Y: drives from within the remote session.
- **Password Self-Service.** Early in 2010, TCS released a new password self-service technology called SMOP, or Self-Management of Passwords. SMOP was successfully integrated into BuzzIn, capturing the challenge questions for any user who logs in. Password Self-Service provides a

single-point of resetting and managing passwords to ESU's sign sign-on technology services and has become an integral part in allowing TCS support staff to both follow security policies and provide top level customer service.

### **Information Security**

- **Successful completion of the LPA Audit review:** ESU responded to all recommendations of the Division of Legislative Post Audit as a result of the 2008 review of the 2005 Information Security Audit. The thoroughness and completeness of the effort drew praise from the Joint Committee on Information Technology (JCIT) in remediating identified concerns.
- **Increased Awareness of Information Security policies and best practices:** During the past year, the Information Security Office has provided an increased number of opportunities for Information Security awareness. An online course was developed and completion is required of all employees on an annual basis. Targeted training is offered to specific groups such as lab and server managers/administrators and to specific department offices. Enhanced communication regarding phishing attempts and email hoaxes is now made available to campus through various means, including RSS.
- **Enhanced Information Security support via policy:** Working with Faculty Senate, the successful development and approval of six new policies and eight existing policies to enhance Information Security practices at the university.
- **Collaboration and significant contribution to the state's Security Requirements Document (SRD).** ESU's Information Security Officer chairs the Regents Information Security Council and as such, has spearheaded the effort to ensure the state-wide Security Requirements Document is viable for the Regents Institutions. Continued efforts will ensure the Regents Institutions are included as an integral part of state-wide IT security policy and implementation planning.

# **STRATEGIC INFORMATION MANAGEMENT PLAN TRACKING**

## **Data Catalog**

ESU currently does not have a published data catalog.

## **Data Exchange Standards**

ESU interfaces its Banner ERP system with a number of internal and external systems through a variety of exchange formats and processes.

**Internal exchanges / interfaces:** A total of 22 internal interfaces allow data to be exchanged between ESU's Banner ERP and independent systems. These systems include:

- EMAS (a legacy student information system being eliminated in FY2010)
- RMS (Housing / Residence Life administrative system)
- Point and Click (Student Health Services administrative system)
- Blackboard (Learning Management System)
- Banner ODS (Operational Data Store)
- Budget Development System
- Identity Management (for provisioning of accounts in other systems)
- Several Alumni / Foundation systems

Nearly all data exchanges are based on standard protocols, mechanisms and formats, including  
SQL Server Data Transformation Services (DTS)  
ODBC  
JDBC  
SCP and FTP of flat files

In two exchanges, proprietary mechanisms and interfaces are utilized.

**External exchanges / interfaces:** There are 25 interfaces which allow for data exchange with external systems. Of those, 23 exchanges are with the State of Kansas. These exchanges support Finance and Human Resources processing and utilize formats and methods based on specifications set by DISC. They involve the transferring of fixed-length ASCII files (varying lengths) through Secure FTP to systems administered by DISC.

In one case, a proprietary data integration tool is utilized (specific to the application) to exchange data regarding international students. In another, information is uploaded through a CSV file to a service providing support for Alumni business processes.

## **External Collaborative Groups**

ESU collaborates with a number of external entities that provide benefits to Information Technology Management efforts. These groups include:

- **The Kansas Board of Regents and other Regents Universities:** Significant collaboration occurs through the Regents Information Technology Council (RITC), the Information Technology Services Advisory (ITSA) sub-committee (of RITC), and the Regents Information Security Council (RISC). Collaboration through joint efforts in code development, volume purchasing power, information sharing and direct interaction provide numerous benefits. RITC sponsors an annual Conference on Higher Education Computing in Kansas (CHECK), planned by ITSA and hosted by a Regents institution at which IT staff gather to share ideas and best practices.

During the past year, Emporia State University collaborated with Wichita State University on the development, implementation, and testing of the interfaces required to integrate the Banner systems on each campus with the new state financial system, SMART. The cooperative agreement proved to save time, resources, and funding and was quite successful as all tests

were successfully met at or above the state requirements and the system went live without incident.

- **Kansas IT Governance:** ESU actively participates and collaborates with other state agencies in state-wide projects and in state-wide Information Technology initiatives. Examples include the FMS/Smart project, in the State Security Council (primarily through RISC representatives), the Consolidation Feasibility Study, and in the next generation of KITA standards.
- **Kansas Partnership for Accessible Technology (KPAT):** ESU's Associate Vice President for Technology and Computing Services is a member of the KPAT advisory group, actively representing the Regents Institutions in ensuring accessible technology for all users.
- **KanREN:** As a member of the KanREN consortium, the ESU community experiences numerous benefits through reliable, cost-effective, very-high-speed connectivity to the Internet and Internet2. In addition, inter-consortium collaboration enhances ESU's efforts in providing leading edge network-based services to its constituents.

### **Metadata Repository**

ESU has implemented an Operational Data Store and an Enterprise Data Warehouse as extensions to the Banner ERP system. These provide key resources for the Enterprise Systems Group, the office of Institutional Research, and individual functional units in their reporting efforts. These resources are not available to external entities.

### **Online Transactional Services**

ESU provides a variety of services online, primarily for the use of potential and current students, and current faculty and staff of the university, including:

#### Student Services:

Application for admission / Registration / Fee payment  
Financial Aid application / tracking  
Learning management system: electronic classrooms / coursework / grading  
Library Services: online catalog / e-reserves / archives  
Software downloads  
Career Services Support

#### Faculty/Staff

Course management / grade reporting  
HR functions – electronic paystubs, verification of information  
Dynamic report generation  
Web conferencing  
Software downloads

#### Alumni

Online giving  
Career Services Support

### **Portfolio Management Methodology:**

Technology and Computing Services has developed an integrated Project Management and Portfolio Management methodology. Their implementation, based on Microsoft Sharepoint, allows for documentation of projects and enhanced collaboration amongst project stakeholders. Report views provide a portfolio view of all active, managed projects, allowing for immediate review and periodic follow-up to individual projects.

### **Web Services**

ESU currently offers no services (as defined) at this time.

## **AGENCY IT STRATEGIC DIRECTION**

### **Summary**

During the coming fiscal year, Information Technology initiatives and efforts will continue to support the university's strategic plan. Each service area within Technology and Computing Services will continue to ensure that it is providing the infrastructure, support, and services to ensure the success of the University's teaching, research, and service mission. Key initiatives will expand offerings in infrastructure, new and improved messaging infrastructure, and a new vision for support of faculty and students in their pursuit of teaching and learning in an online, mobile environment.

### **Specific Areas of Note**

- **Academic Technologies:** ESU continues to expand the use of technology to enhance instruction in face-face, hybrid, as well as online courses. New initiatives will ensure that the university provides both technical and non-technical resources to support the use of those technologies by both faculty and students. During the coming years, key goals include ubiquitous use of ESU's Blackboard learning management system as well as enhancement and integration of web 2.0 technologies within that framework. A pilot project is underway in the use of lecture capture and its integration into Blackboard. Mobile technologies will play a key role both inside and outside the classroom and ESU faculty, with support from TCS staff, continue to explore ways to enhance its mission through the use of these technologies.
- **Agency Architecture:** ESU is committed to the Kansas Information Technology Architecture and continues to review its infrastructure and service offerings to ensure alignment with those standards. The completion of the Campus-Wide Network Wiring Project during FY2011 will represent a significant milestone in ensuring a standard, modern wiring infrastructure. Completion of this project will also ensure 100% compliance with the KITA standards.
- **Business Contingency Planning:** The university continues its institution-wide planning for business continuity and disaster recovery. An analysis of critical business processes, risks, required resources, and more is currently underway as part of the creation of a Continuity Of Operations Plan. This is a multi-year effort involving all university departments as well as local, state, and federal agencies.
- **Business Process and Workflow Management:** ESU has implemented the Banner ERP suite and has subsequently automated many of the University's business processes. As a result, automated workflow has been implemented for many of the processes supported by Banner. Business processes and workflow external to the Banner system exist in various levels of maturity and automation. Opportunities exist for improvement and integration of these processes with the core Banner modules. An analysis of these business processes and potential solutions for improvement is being considered during the coming year(s).
- **Collaboration Software:** Emporia State University continues to leverage multiple applications to support administrative and academic collaboration. Support for those applications, as well as new technologies, will continue to evolve to provide a solid foundation for collaboration.
  - **Email and Messaging:** During the upcoming fiscal year, ESU will transition from Novell Groupwise to Microsoft Exchange as the institutional standard for e-mail, calendaring, and messaging for faculty and staff. The direction for student email and associated tools will be identified during the coming year, with implementation occurring directly after the faculty/staff initiative is completed.

- **Telephony Systems:** Adoption of IP telephony over the next several years, combined with the introduction of Microsoft Exchange, lays the foundation for a number of new opportunities for system integration and increased collaboration. ESU will explore how such technologies can be leveraged to increase efficiencies and communication.
- **University Intranet and Portal:** A university-wide portal, BuzzIn, is used to connect all ESU stakeholders to targeted content based on role and affiliation with the university. Content within the portal is slated for review to ensure it is current, appropriate, and useful to the campus community. In addition, an information technology-oriented portal, Techsite, provides user access to supported software for installation, shared workspaces, support documentation and active project updates. During the coming year, both sites will be the focus of ensuring consistency in appearance and user experience, and to ensure they serve complementary (rather than competing) roles.
- **Videoconferencing:** The use of Adobe Connect Pro continues to expand and provide solid, user-oriented, web-based conferencing capabilities. It is currently primarily used by academic departments for online and distance education for classroom collaboration, but has the potential for broader application, including use by all faculty/staff for internal and external collaboration.
- **Blogs/Wikis:** A software suite providing Web 2.0 technologies (including blogs and wiki's) has been implemented and integrated into the university's Learning Management System (Blackboard). It can also be used external to the LMS to provide a collaboration platform for groups across the university, not just within the classroom. The tool provides flexible, role-based access to information and is integrated with the university's identity management system.
- **Data Storage and Administration:** All administrative data for the Student, Finance, Advancement, Financial Aid, Blackboard and departmental applications are stored and managed within either Microsoft SQL Server or Oracle RDBMS systems. Supporting storage for such databases is in either directly attached server storage or the Enterprise SAN environments. Data backup and retention processes exist to ensure appropriate storage and retention of all University data and information assets. Emporia State University utilizes a combination of strategies and tools for backup and recovery, including Veritas NetBackup, Microsoft Data Protection Manager, and various other application specific tools. The current technologies and strategies have proven sufficient and reliable, and (subject to unforeseen circumstances) are unlikely to change significantly in the coming year(s).
- **IT Disaster Recovery:** As part of an institutional effort in this area, TCS has begun a comprehensive review of its Business Continuity / Disaster Recovery plan for information technology assets and resources. Specific architectural models (load balancing, clustering, and virtualization) continue to be expanded to minimize identified risks, increase availability and minimize required recovery efforts. Piloting of architectural models that will support geographically distant redundancy is being explored.
- **E-Government:** N/A
- **Electronic Records Retention:** The University follows state guidelines regarding adoption and promulgation of electronic records retention policies and processes. The University has established an Electronic Records Retention Committee to review institutional policies and procedures related to records retention. The committee will work to ensure clear, consistent university policies and practices are in place and to address any issues regarding records retention.
- **End User IT Security Training:** IT Security Awareness materials are distributed to the campus community throughout the year and through a variety of means. Efforts to increase awareness of information security issues and incidents continue – including through new delivery mechanisms such

as RSS. An online training course for all faculty and staff is required and will be reviewed and updated annually.

- **Identity Management:** Microsoft's Active Directory is used to support the authentication and authorization services of all workstation-based applications at ESU and to maximize the "single-sign-on" environment across all University on-line services. ESU currently relies on Novell's eDirectory for the foundation of its Identity Management infrastructure for provisioning of accounts. The use of Novell will be phased out over the next several fiscal years, with migration of that functionality to either the Microsoft platform or one that works with AD in a tightly integrated manner.
- **IT Asset Management & Deployment Infrastructure:** The University currently supports a mixed environment of desktop and mobile technology models, software, and installation methods. It relies on a combination of software management consoles (per software), manual inventory management (for both hardware and software), and various personnel resources to help ensure consistency of desktop technology across the organization. TCS continues to develop and refine protocols and procedures to ensure that desktop and mobile technologies (including desktop software) are being purchased and utilized at an optimal level and that quality support for these functions can be maintained. To that end, TCS will be utilizing additional solutions to increase remote assistance offerings as well as remote management of desktop technologies at ESU. This will not only help to ensure that the university is in compliance with software licensing agreements, but also ensure that funding for desktop support technologies (both hardware and software) are being used as efficiently as possible.
- **IT Security Staffing:** Emporia State University currently has one full-time staff member who serves as the University Information Security Officer (ISO) and a second individual on the network team who focuses 0.5 time on information security efforts. The ISO continues to aggressively and successfully expand the scope and depth of information security efforts here at ESU. Awareness efforts will continue to be provided in a variety of formats to ensure maximum participation of the university community. Investments in information security technologies such as laptop encryption, email encryption will mitigate identified risks, while tools to support incident management will ensure remediation and identification of issues for self-improvement. As part of the implementation of the university's strategic plan, investments will be made to ensure the most comprehensive information security program possible.
- **Public Key Infrastructure:** ESU currently has no active initiatives or plans related to PKI.
- **Service Oriented Architecture:** ESU currently has no active initiatives or plans related to SOA.
- **Software as a Service (SaaS):** ESU has very limited utilization of SaaS technologies and applications, preferring to host applications and the underlying technology in-house. It currently relies on SaaS services for its online payment processing services in order to help ensure compliance with PCI and PA Data Security Standards. It also uses a SaaS application to provide blog, wiki, and podcast capabilities to the Blackboard LMS. There are no current plans to actively migrate any other currently offered services or technologies to SaaS, but such interest may change as vendor offerings evolve and the technology infrastructure climate changes both internally and externally to ESU.
- **Sustainability:** TCS will continue to play an active role on the University Sustainability Committee, as well as on other university committees which focus on using current and evolving technologies to help reduce waste and promote sustainable practices across the institution.
- **Technology Infrastructure:** The University currently supports a mixed operating system platform environment including Netware, Windows Server 2008, Linux, and Solaris. Standardization on SQL/Server and Oracle Database technologies help to ensure supportability and reliability of database-driven systems.

- **Virtualization:** TCS has embraced and realized the benefits of virtualization strategies and technologies. It will continue to leverage such technologies for maximum management and fiscal efficiencies, redundancy, and business continuity. Use of virtualization to realize an increase in server resources has allowed the university to continue to ensure top quality technology resources during fiscally challenging times.
- **Cloud Infrastructure:** TCS has utilized internal cloud technologies for some time to provide remote campuses and non-windows desktop environments an accessible, consistent set of technologies with which to work. TCS is poised to expand the use of cloud technologies and features in new and innovative ways for the entire campus community. Offerings such as virtual labs have the potential to provide full range of software and services to geographically distant individuals (employees and students alike) while offering potential monetary savings.
- **Telephony Systems:** During the upcoming fiscal year, ESU will begin a multi-year initiative to transition from its existing PBX to an IP Telephony system. Through potential integration with the new Microsoft Exchange system, users will be able to leverage presence technologies and other information seamlessly between the two systems. In addition, ESU will initiate and complete within fiscal year 2011 a project to ensure accurate 911 caller location information to local city and county emergency responders.
- **Mobile Technologies:** ESU anticipates a dramatic increase in the quantity and diversity of mobile technologies. They will play a key role both inside and outside the classroom and both ESU faculty and information technology staff are experimenting with the capabilities and potential of these technologies. Broader support for the variety of emerging mobile technologies, balanced with available resources, vendor-specific limitations, and information security will be an interesting challenge in the coming years.

## SECTION II - MAJOR IT APPLICATIONS

### Part I: Unmodified Applications

**Application 1: Banner Advancement**

**Purpose:** Supports information needs of development and alumni relations

**Planned Initiatives:** Expanded reporting and analysis of data through reporting tools. Review and implement process controls and change management procedures.

**Application 2: Banner Student**

**Purpose:** Supports the management of academic programs, faculty, advising, and registration services

**Planned Initiatives:** Expand reporting and analysis of data and creation of dashboard reports. Refine baseline implemented business rules. Review and implement process controls and change management procedures.

**Application 3: Banner Financial Aid**

**Purpose:** Supports the management of financial aid services and processing Requirements

**Planned Initiatives:** Expand reporting and analysis of data through reporting tools. Review and implement process controls and change management procedures.

**Application 4: Banner Human Resources / Payroll**

**Purpose:** Supports the management of ESU Human Resources and Payroll services

**Planned Initiatives:** Expand reporting and analysis of data through reporting tools. Review and implement process controls and change management procedures.

**Application 5: Banner Operational Data Store**

**Purpose:** Supports information reporting needs of Banner users.

**Planned Initiatives:** Expand reporting and analysis of data through reporting tools.

**Application 6: Cognos 8 BI (Business Intelligence)**

**Purpose:** Supports information analysis and reporting needs of Banner users.

**Planned Initiatives:** Expand reporting for University-wide performance dashboards and analytics. Deploy score-carding features to support the Banner Enrollment Management performance module.

**Application 7: e~Print**

**Purpose:** Reporting; decision support; data analysis

**Planned Initiatives:** None.

**Application 8: OnBase**

**Purpose:** Document Imaging, Limited workflow

**Planned Initiatives:** Within 3 years, interface document imaging functionality with Banner module(s) for real-time data retrieval and improved workflow.

**Application 9: Infopath**

**Purpose:** Workflow, Online document storage

**Planned Initiatives:** Expand workflow functionality to other business processes.

**Application 10: Novell Groupwise / Integrated Messaging**

**Purpose:** Email, Calendaring, Messaging for faculty, staff, and students.

**Planned Initiatives:** Use by employees will be eliminated by migration to Microsoft Exchange during FY2011. Complete elimination by end of FY2012.

- Application 11: RMS**  
**Purpose:** Residence Halls management system.  
**Planned Initiatives:** None.
- Application 12: Millenium ILS**  
**Purpose:** Supports operation of University Libraries and Archives - including circulation, acquisition, cataloging, serials management, etc.  
**Planned Initiatives:** Possible integration with university's Banner ERP.
- Application 13: Novell eDirectory & Provisioning**  
**Purpose:** Provisioning of user accounts  
**Planned Initiatives:** Replacement within 2 years.
- Application 14: Blackboard Learning Management System**  
**Purpose:** Online course delivery, course content management.  
**Planned Initiatives:** Possible integration of video-capture and play-back for course lectures.
- Application 15: Adobe Connect Pro**  
**Purpose:** Online, real-time course delivery and videoconferencing  
**Planned Initiatives:** None

## **Part II: New/Modified Applications**

- Application 1: Banner Finance**  
**Purpose:** Supports business and finance needs of the University  
**Planned Initiatives:** Created custom interfaces to integrate with FMS/Smart system.  
**Hosted:** ESU internal
- Application 2: Banner Enrollment Management Suite**  
**Purpose:** Constituent relationship management for tracking and corresponding with prospective students, tracking and performance reporting.  
**Planned Initiatives:** Currently being implemented. Go-live date is January, 2010.  
**Hosted:** ESU internal  
**Functions:** Constituent relationship management, prospective student portal, performance management  
**Interaction:** Prospective students, enrollment services and admissions staff  
**Technical Environment:** Part of existing Banner ERP environment
- Application 3: TouchNet Payment Gateway**  
**Purpose:** Secure acceptance and transmission of online payments  
**Planned Initiatives:** Migrated to vendor-hosted solution during past FY to assist in PCI and PA-DSS compliance.  
**Hosted:** External by vendor, SaaS.
- Application 4: Web Helpdesk**  
**Purpose:** Help desk ticketing and incident tracking software.  
**Planned Initiatives:** None  
**Hosted:** ESU internal
- Application 5: Campuspack Fusion**  
**Purpose:** Wiki, Blog, and Podcast functionality integrated with Blackboard LMS  
**Planned Initiatives:** None  
**Hosted:** External by vendor, SaaS.

**Application 6:           Softchalk**  
**Purpose:**                Content generation tool for Blackboard LMS  
**Planned Initiatives:**   None  
**Hosted:**                ESU internal

**Application 7:           Symantec Anti-virus**  
**Purpose:**                Anti-virus software  
**Planned Initiatives:**   None  
**Hosted:**                ESU internal

### **Part III: Retired Applications**

**Application 1:           EMAS – Enrollment Management and Admission System**  
**Reason:**                Functionality replaced by Banner Enrollment Management Suite which provides significantly better integration with existing Banner ERP. Existing data was migrated from EMAS into BEMS.

**Application 2:           Footprints Help Desk Software**  
**Reason:**                Migrated to Web HelpDesk for Help Desk support application. Significantly better functionality, performance, and fit for institutional help desk needs.

**Application 3:           Sophos Anti-virus**  
**Reason:**                Migrated to Symantec A/V for the institutional anti-virus needs.

## **SECTION III~ IT PLANNED PROJECTS**

Emporia State University currently has no Information Technology projects planned that will cost \$250,000 or more.

## SECTION IV ~ BUSINESS AND TECHNOLOGY RADAR CHARTS

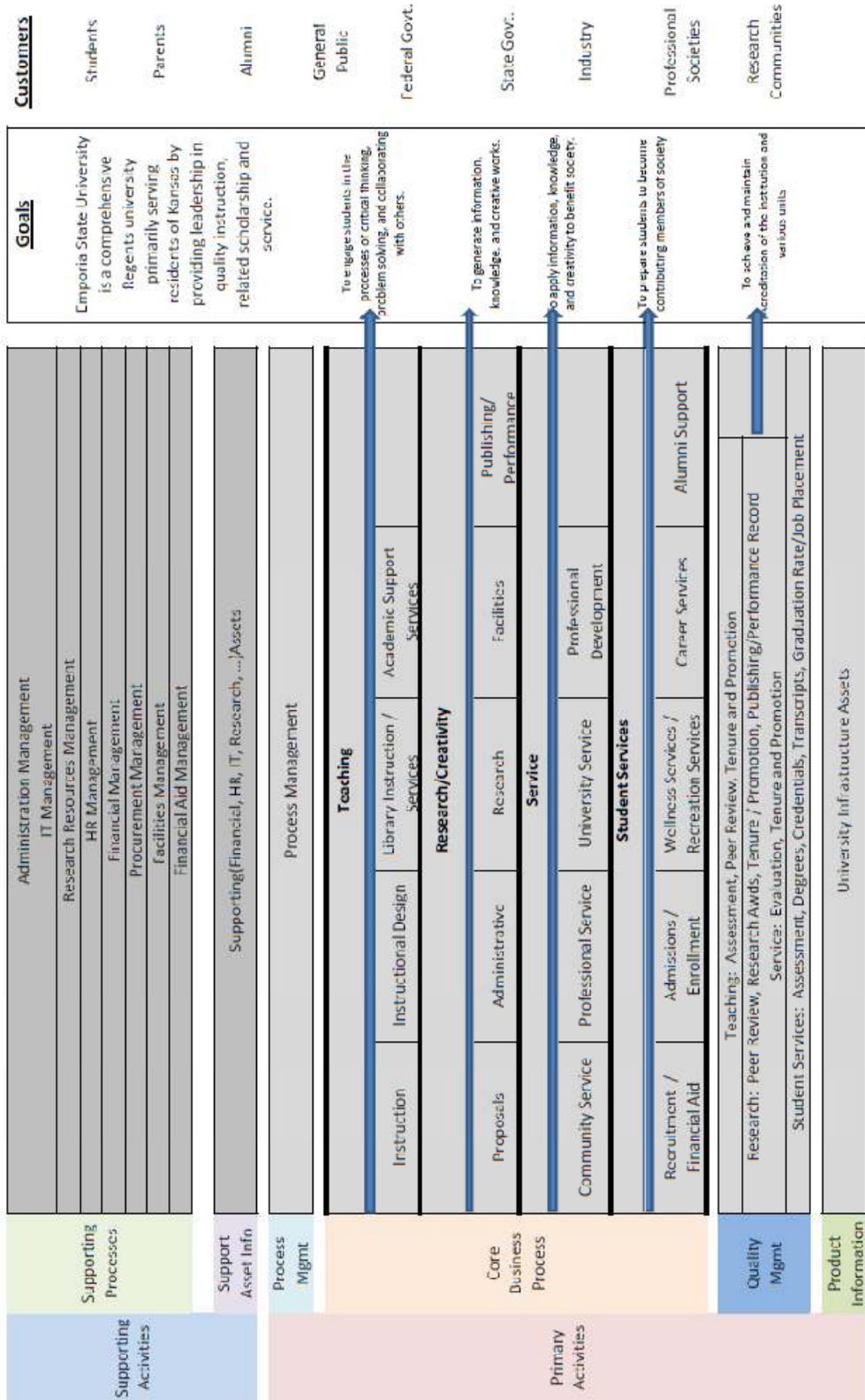
FY2010	FY2011	FY2012	FY2013
<b>University Initiatives</b>			
Enhancing Academic Excellence: To enhance academic excellence by providing opportunities that lead to even higher levels of student success through excellence in curricular development and deliveries, facilities, and technologies that meet the educational requirements of members of the Emporia State University community.			
Building Mutually Beneficial Partnerships: To increase the number of opportunities for students, faculty, and staff to engage with local, regional, and national entities to develop and manage mutually beneficial partnerships.			
Enhancing Opportunities to Engage in International Learning: To enhance the opportunities for the Emporia State University community to engage in international learning.			
Improving Communication: To improve communication among all University stakeholders.			
Provide a Welcoming and Sustainable Learning and Working Environment: To provide an attractive, welcoming, and sustainable learning.			
<b>Technology Infrastructure</b>			
Improve technical infrastructure to meet campus academic, research, service and operational requirements			
Continue to develop, adopt and promulgate security policies, practices and technologies			
Upgrade / Replace desktop, server, and classroom systems as necessary			
Review and update the comprehensive disaster recovery and business continuity process.			
Expand wireless network accessibility			
Voice / Data Wiring Infrastructure Refresh			
Migrate from Novell-based e-mail, calendaring, and account provisioning to Microsoft-based or hosted technologies			
Establish comprehensive Information Security Plan			
<b>IT Business System Initiatives</b>			
Ongoing development of Banner applications			
Expand operational and analytical administrative reporting capabilities and access			
Review/Revise Business Continuity, Disaster Recovery Plans			
Expanded / Enhanced training in online teaching / learning technologies			
Establish comprehensive Information Security Plan			
Migrate from Novell-based e-mail, calendaring, and account provisioning to Microsoft-based or hosted technologies			
Banner Enrollment Management Suite			
Business Process Automation / Workflow			
Pilot IP Telephony			
Migrate to IP Telephony infrastructure			
<b>Online-Enabled Service Initiatives</b>			
Expanded online course offerings			
Achieve and Maintain PCI-DSS and PA-DSS Compliance			
Expand Initiatives in Accessibility Technology			
Website Redesign			
Expanded online payment services			
Web-based video capture / playback			
Web 2.0 (Blogs, Wikis, etc) integration into LMS			

## SECTION V~ ENTERPRISE BUSINESS PARTNERS MODEL

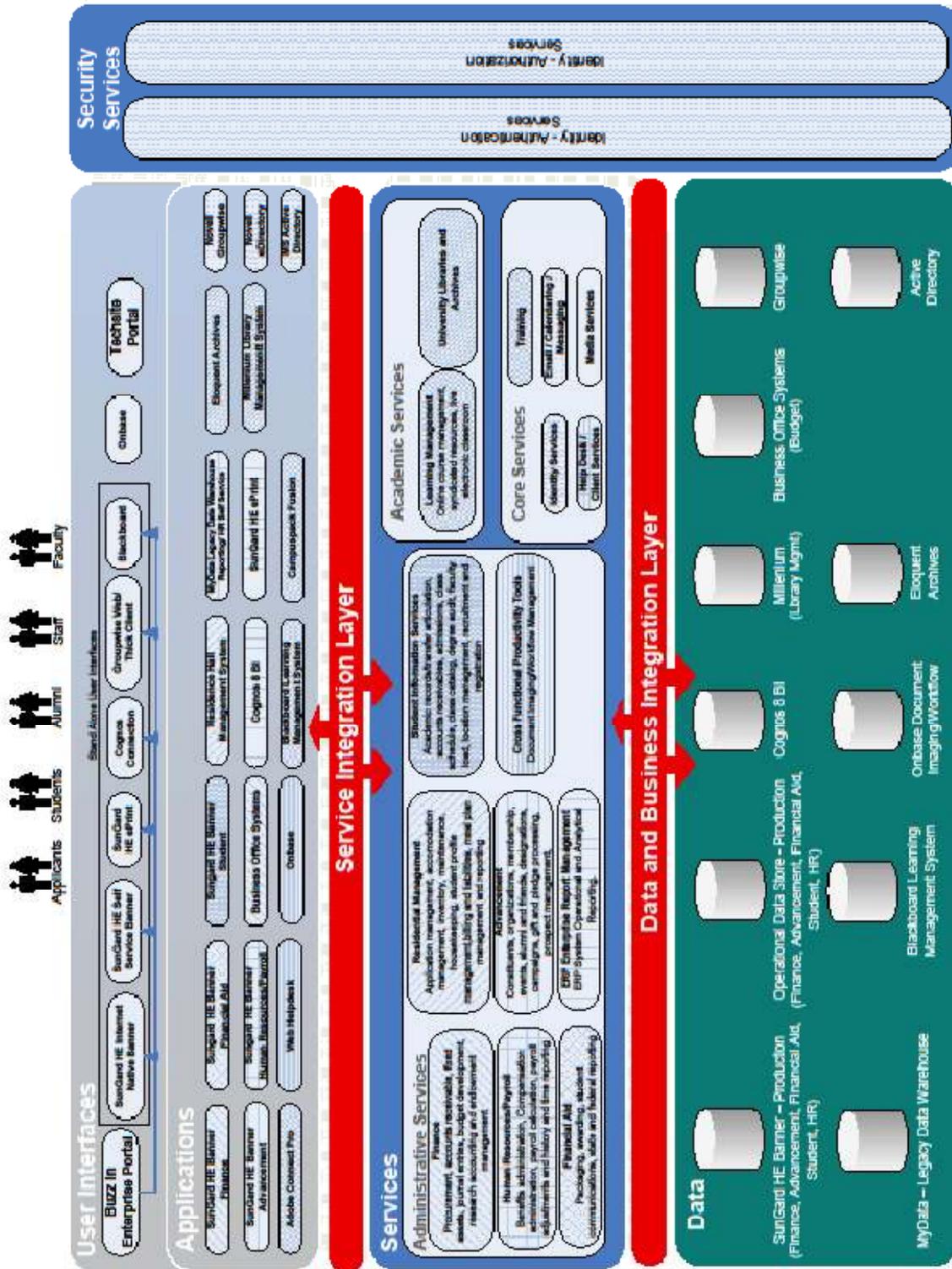
	<b>INPUTS TO UNIVERSITY</b>	-->	<b>Agency</b>
<b>Business Partner</b>	<b>OUTPUTS TO PARTNER</b>	<--	
<b>Students</b>	Applications; Enrollment Requests; Financial Aid Requests, Tuition/Fee Payments; Engagement/Involvement; Participation(Course, University Life) Program of Study; Education; Internships; Grades; Transcripts; Enrollment Info; Financial Aid/Scholarships; Information/Awards	<--	-->
<b>Parents of Students</b>	Financial Aid Information; Tuition Payments	<--	-->
<b>Alumni / Foundation</b>	News / Information; Bills Funding; Scholarships; Enhanced public relations; Continuing relationship with alumni; Public and private support;	<--	-->
<b>Service Agencies</b>	Information; Career services; Continuing relationship with the university Opportunities for student involvement; Services (food, banking, books, housing); Scholarships; Enhanced university experience;	<--	-->
<b>Schools</b>	Funding; Student involvement; Student information; Student Teaching Opportunities	<--	-->
<b>Industry</b>	Experienced Teachers; Student Teachers Work Experience Opportunities	<--	-->
<b>General Public</b>	Internships; Clinical Work Experience Financial Support	<--	-->
<b>System Vendors</b>	General information; Research Information; Service Software Applications: Hardware; Bills; Bids; Contracts; Licenses; Documentation; Training	<--	-->
<b>Data Vendors</b>	RFP's; Fix Requests; Payments; User Feedback Bills; Bids; Contracts; Licenses; Documentation; Training; Data Access; Books Journals	<--	-->
<b>Other Regents Schools</b>	RFP's; Fix Requests; Payments; User Feedback Collaborative Planning; Shared Experiences; Volume purchasing power	<--	-->
<b>Higher Ed Institutions</b>	Collaborative Planning; Shared Experiences; Volume purchasing power Partnerships; Students; Collaborative programs of study Partnerships; Opportunities for current students	<--	-->
<b>State Agencies</b>	Shared Services Research Information; Planning Information; Reports; Service	<--	-->
<b>Contractors</b>	Bids; Invoices; Deliverables; Status Reports R-P's; Contracts; Plans; Change Orders; Payments	<--	-->
<b>Federal Agencies</b>	Research Grant Opportunities; Financial Support; Compliance Guidelines Research Proposals; Reports;	<--	-->
<b>KBOR</b>	Research Information; Planning; Funding; Policies; Research/Planning Guidelines Assessment(Performance Indicators)	<--	-->

# Emporia State University

# SECTION VI~ ENTERPRISE VALUE CHAIN



# SECTION VII~ ENTERPRISE APPLICATION MAP



Note: The Shading of objects in the "Applications" section defines the object's associated "Service(s)"