

# Pittsburg State University

## INFORMATION TECHNOLOGY MANAGEMENT AND BUDGET PLAN

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### SECTION I ~ AGENCY PROFILE

#### MISSION

Pittsburg State University, a comprehensive regional university, provides undergraduate and graduate programs and services to the people of southeast Kansas, but also to others who seek the benefits offered. This is accomplished by the unique combination of academic programs in the four colleges of the University: Arts and Sciences, Business, Education, and Technology. The university is equally committed to fulfilling its statewide mission in technology and economic development by facilitating partnerships with secondary and postsecondary educational institutions, businesses and industries.

The university supports an organizational and interpersonal structure that actively encourages individuals to achieve their potential. The university provides programs and services that create opportunities for students and other individuals to develop intellectually, ethically, aesthetically, emotionally, socially and physically. The university provides intellectual leadership and multicultural experiences that contribute to the preservation of the heritage of the region and the enhancement of its inhabitants. Finally, the university recognizes the world as interdependent and, thus, seeks to promote a broad and interactive international perspective.

The university fulfills the traditional academic missions of teaching, scholarship and service. Excellence in teaching is the primary focus of the university. The university recognizes that active scholarship and creativity add vitality to teaching, expand and refine the knowledge base and are instrumental to the professional development of the faculty and staff. Programs of professional and community service promote and strengthen university endeavors. Pittsburg State University fosters a campus culture of assessment and accountability that supports strategic planning and the continuous improvement of its academic programs and administrative processes.

#### BUSINESS PROGRAMS

- Program 1:** **Instruction:** Pittsburg State University's instructional programs are provided through College of Arts and Sciences, College of Business, College of Education, College of Technology and Continuing and Graduate Studies.
- Program 2:** **Academic Support:** Academic administration, Library Services, Instructional Media and Computing are included in the academic support programs. These activities provide vital resources for faculty and students and are basic to effective instruction and research.
- Program 3:** **Institutional Support:** This activity is composed of the President's Office, Vice President for Academic Affairs, Vice President for Administration and Campus Life, and Vice President for University Advancement. Also included are the Business Office, Budget and

Human Resource Services, Institutional Research, Alumni Relations, University Communications, Information Services, and Printing and Postal Services.

- Program 4: Research:** Pittsburg State University's research programs are comprised of sponsored research projects, National Science Foundation Research Grants and National Defense Education Research Grants.
- Program 5: Public Service:** Public service includes those services maintained by the institution to provide services to the general community or special sectors within the community. The primary intent of this program is to provide services that are beneficial to groups and individuals outside the institution, although such programs may be of incidental benefit to faculty, staff, and students. All programs within this activity are non-credit producing and include restricted fees service centers, workshops, conferences, institutes and special projects.
- Program 6: Student Support:** Student support is comprised of the following offices: Student Affairs, Registrar, Admission and Enrollment Services, Testing Services, Student Financial Assistance, Career Services and Intercollegiate Athletics.
- Program 7: Physical Plant:** Physical Plant operations include the departments responsible for the maintenance and upkeep of the campus, Facilities Planning, Utilities and University Police and Parking Services. Expenditures for routine repairs and maintenance of campus buildings, grounds, and parking lots are reported in this program.
- Program 8: Student Aid:** This program activity center includes funds awarded to undergraduate and graduate students as grants-in-aid, stipends, and tuition waivers occurring within the Education and General Operating budget. Excluded from this activity are work-study funds and student loan funds.
- Program 9: Auxiliary Enterprises:** Activities included within Auxiliary Enterprises include University Housing, Parking, and Student Health.
- Program 10: Service Clearing:** The service clearing fund is used for the following service activities: duplicating and printing services, instructional media services, office stationery and supplies, motor carpool, postage services, telephone services and other such internal service activities as are authorized by the Board of Regents.
- Program 11: Debt Service:** This program activity is established to record expenditures made from the Bond and Interest Sinking Funds.

## Organization

### STATE OF KANSAS IT STRATEGIC DIRECTION

This section summarizes agency direction toward the current administration's strategic initiatives in several key areas of information technology and business system management. Please indicate your agency's plans in each area for the current state fiscal year and for SFY2012, 2013, and 2014.

- **Information Technology Cost Reduction:** *[Indicate your agency's plan to reduce the cost of IT in Kansas.]*

#### FY 2011

**Continue to grow the use of Virtual Servers. Pilot Virtual Desktops. Deploy a new purchasing system that will allow us to create more efficiencies. Reduce the use of hard copy print jobs by continuing to increase the development of electronic reporting. Continue promoting the use of IT efficiency tools at PSU. Continue to standardize IT practices to improve efficiencies. Continue promoting shutting down campus machines each evening to save energy.**

#### FY 2012

**Continue to grow the use of Virtual Servers. Pilot Virtual Desktops. Deploy a new learning**

management system and unified communications (email/calendaring/IM) system that will allow us to create more efficiencies. Reduce the use of hard copy print jobs by continuing to increase the development of electronic reporting. Continue promoting the use of IT efficiency tools at PSU. Continue to standardize IT practices to improve efficiencies. Continue promoting shutting down campus machines each evening to save energy.

#### **FY 2013**

Continue to grow the use of Virtual Servers. Pilot Virtual Desktops. Deploy a new FMS (financial management system) that will allow us to create more efficiencies. Reduce the use of hard copy print jobs by continuing to increase the development of electronic reporting. Continue promoting the use of IT efficiency tools at PSU. Continue to standardize IT practices to improve efficiencies. Continue promoting shutting down campus machines each evening to save energy.

#### **FY 2014**

Continue to grow the use of Virtual Servers. Pilot Virtual Desktops. Reduce the use of hard copy print jobs by continuing to increase the development of electronic reporting. Continue promoting the use of IT efficiency tools at PSU. Continue to standardize IT practices to improve efficiencies. Continue promoting shutting down campus machines each evening to save energy.

- **Electronic Mail:** *[Indicate your agency's plans regarding electronic mail. Include all planned upgrades, modifications, and enhancements. Also, include how these plans will decrease the total cost of providing electronic mail in Kansas.]*

#### **FY 2011**

Currently, Pittsburg State University uses no cost, open source e-mail applications for faculty and staff. Faculty and Staff e-mail is hosted on an IBM AIX based PowerPC platform in the university's datacenter. Sendmail provides secure SMTPS transport. Dovecot is used to support secure IMAPS access to saved e-mails. RoundCube and SquirrelMail – two open source LAMP applications – provide secure https access to e-mail via the web. Student e-mail is provided by Google at no cost to the university as well. Group calendaring is provided by Oracle Calendar – an application no longer in active development – which runs on the same IBM server.

The university has been exploring alternatives to this arrangement for some time. Understanding current fiscal realities, we have concentrated our exploratory efforts on open source, no cost groupware applications. Several key people from the Office of Information Services – including the CIO - have been using the Zimbra Open Source group collaboration suite for quite some time with good result. In addition, staff in various departments across campus have also been using Zimbra Open Source. OIS technical staff is comfortable with its intricacies and feels confident that this alternative could be successfully deployed to the entire university. Two "full up" migrations of all existing faculty and staff e-mail and Oracle Calendar appointment data have been successfully completed as part of our testing and evaluation. We will continue our efforts to work with university stakeholders to select and deploy a solution.

While there will be a small initial capital outlay to increase the memory capacity of our VMware cluster, implementation will decrease the total cost of providing electronic mail by eliminating recurring costs associated with our current hardware and software without increasing recurring costs elsewhere. Specifically, we will eliminate the need for the IBM Power-PC server and its associated ongoing support contract costs and eliminate the license fees and support contract cost for Oracle Calendar. OIS staff feel confident of our ability to provide self-support for this application – given its track record of stability throughout our testing regime.

**FY 2012**

Make certain we remain current as updated versions are released.

Plan for and support growth as the university community's increasing familiarity with the new application's group collaboration capabilities drives greater utilization of the application to enhance and streamline business and educational processes all across campus. We have anticipated the needs for increased storage this increasing use will generate and have planned for an adequate reserve in our storage budget to accommodate projected growth for this fiscal year.

**FY 2013**

Continue the activities outlined above. We have also made allowance for projected growth in storage requirements in our storage budget for this fiscal year.

**FY 2014**

Continue the activities outlined above. Again, we anticipate adequate storage reserves to meet demand.

Indicate quantities in appropriate cells in the tables below.

<b>Cost Per Mailbox<sup>1</sup></b>	
<b>FY2011</b>	\$0.00 direct cost. ~ \$3.00/mailbox/year indirect costs ~\$10/1 time startup
<b>FY2012</b>	\$0.00 direct cost. ~\$3.15/mailbox/year
<b>FY2013</b>	\$0.00 direct cost. ~3.30/mailbox/year
<b>FY2014</b>	\$0.00 direct cost. ~3.45/mailbox/year

		<b>Number of Mailboxes</b>
Microsoft Exchange	<b>Microsoft Exchange 2010</b>	<b>0</b>
	<b>Microsoft Exchange 2007</b>	<b>0</b>
	<b>Microsoft Exchange 2003 or Later</b>	<b>0</b>
Lotus Notes		<b>0</b>
Novel Groupwise		<b>0</b>
Other (List)		<b>1706</b>

- Desktop Support:**

**FY 2011**

In 2009 Pittsburg State University began offering network drive space to users across campus for file storage and ease of access to shared documents. This allows for backups and protection of client files, easier recovery of files, and improved storage utilization. It also saves technical support time since there is less work involved in client support.

Another initiative that has been in place is desktop provisioning. Devices connected to the campus domain receive updates, patches and the latest security monitoring in an organized, methodical fashion. This also allows for streamlined management, improved security and standardization of campus equipment.

<sup>1</sup> Please include all hardware, software and personnel required to support your entire email platform. This includes storage space, physical and virtual server hardware, anti-virus, anti-spam, email encryption, archiving, backup, recovery, mobile email, and any other services included in your electronic mail offering.

Remote desktop support is available via Bomgar. This allows our support staff to resolve support issues in the most efficient and effective way with less downtime experienced by our clients.

**FY 2012**

Due to our decentralized model of technical support, we have had some adopters using network drive space and desktop provisioning, however some areas that have not moved this direction. With the addition of new leadership, there is an expressed interest in moving the non-participants across campus to utilize these resources.

We are currently testing virtual desktops with a pilot planned for the current year.

We continue to use Bomgar for remote desktop support. This year we are increasing the number of support staff using this program. We are also looking at the opportunity of using such a program for remotely installing programs to increase efficiencies.

PSU is also implementing a new help desk system. The former system was an enterprise program written years ago, which no longer meets the needs. We will implement a Parature system, which will provide more resources for our clients in a self-help environment where they will have access to a knowledge base or be able to submit a ticket if unable to locate a solution. The program will also allow for automation of responses and processes, reducing the need for human interaction.

**FY 2013**

The University plans to continue to utilize central storage and advance desktop virtualization to increase efficiencies and stretch funding.

**FY 2014**

The University plans to continue to utilize central storage and advance desktop virtualization to increase efficiencies and stretch funding.

*Indicate quantities in appropriate cells in the tables below.*

	<b>2010</b>	<b>2012</b>	<b>2014 (estimated)</b>
<b>Desktops</b>	<b>2120</b>	<b>2296</b>	<b>2442</b>
<b>Desktops Replaced</b>	<b>361</b>	<b>332</b>	<b>484</b>
<b>Laptops</b>	<b>690</b>	<b>783</b>	<b>897</b>
<b>Laptops Replaced</b>	<b>149</b>	<b>176</b>	<b>245</b>
<b>Mobile Devices</b>	<b>118</b>	<b>201</b>	<b>408</b>

<b>Number of Desktops</b>	
<b>Windows 7</b>	<b>1202</b>
<b>Windows Vista</b>	<b>46</b>
<b>Windows XP or Older</b>	<b>1231</b>
<b>Other (list)</b>	<b>Mac – 349, Linux – 24, IRIX - 1</b>

- **Physical Infrastructure:**

#### **FY 2011**

The university just completed the purchase of a new Storage Area Network in FY 2011. Not counting performance requirements for large scale desktop virtualization – this new unit should meet our primary high performance Enterprise storage requirements through FY 2013 – and perhaps beyond. Lower cost, lower performance storage requirements are growing much faster with the increased use of multimedia content in the classroom. This storage class will need to be expanded on a regular basis – with much less fiscal impact than that caused by high performance storage growth.

By adopting a tiered approach to the university’s storage requirements, data center costs in Kansas can be reduced by not providing “overkill” in terms of redundancy or performance for data whose value or usage patterns don’t require more redundant and/or higher performing storage.

Virtualization efforts have and will continue. The University’s primary SQL server and file server are now virtualized and performing well in this environment. To date, approximately eighty virtual servers are running in our virtual infrastructure on only four physical servers. This initiative offers a true win-win set of benefits. Datacenter hardware, energy, and cooling costs are significantly reduced while redundancy, survivability, and reliability are enhanced. The university remains committed to leveraging virtualization to the fullest extent possible.

During FY 2011, the university has initiated a comprehensive plan for off-site replication of critical data in near real-time. For example, quiesced images of our SQL databases are replicated out of the data center across campus to storage in Axe Library every few minutes throughout each work day. E-mail is also replicated out of the data center multiple times each work day. While it may be difficult to place a hard number to the potential savings, we believe it’s fair to say that in the event of data loss due to disaster or equipment failure, this new approach could reduce recovery times from weeks to hours or even minutes in some cases. The savings in such a scenario are potentially enormous. In addition to locally diverse replication, PSU is working with Ft. Hays State on a storage swapping arrangement to give both institutions the ability to house redundant copies of each other’s critical data. This arrangement should assure data integrity even if one of the institutions should suffer a large scale disaster.

#### **FY 2012**

Enhancements to our virtual infrastructure are planned. This includes the beginning of a “private cloud” dispersal of new and existing virtual infrastructure resources with an eye toward further enhancements to our survivability and disaster recovery abilities.

We anticipate the need for low cost, lower performing archival/reference storage to continue to grow significantly. We will pursue existing and emerging technologies and services to meet this demand as economically as possible.

We will also begin preliminary deployments to support 10 gigabit Ethernet on key portions of our backbone infrastructure.

**FY 2013**

While it's difficult to speak with great specificity when the time line gets this far out, we would anticipate that the University's acquisition of a new accounting system would be nearing completion. A significant increase in physical host horsepower will likely be needed to support the resilient, powerful virtual machines such a system will likely require.

The university will also begin migrating key portions of our backbone campus distribution system to live 10 gig Ethernet during this time. We believe that the trends we're seeing for the increased use of high quality video on the network will have increased to the point that it becomes the driving force behind the next generational evolution of our distribution system.

**FY 2014**

We anticipate the completion of the 10 gig Ethernet deployment and will likely be ready for a fresh look at our physical VMware host servers.

*What percentage of your agency's computer equipment is hosted in the following locations?*

State Hosted Data Centers	Agency Hosted Data Centers and Server Rooms	Other
0%	100%	0%

	<i>Square Foot of Data Center Space Needed</i>	<i>Cost Per Square Foot of Data Center Space</i>	<i>Electricity Cost of Data Center</i>
<b>FY2011</b>	700		
<b>FY2012</b>	700		
<b>FY2013</b>	650		
<b>FY2014</b>	600		

*Is any component of your data center at capacity?*

<i>Floor Space?</i>	<i>Air Handling / Cooling</i>	<i>Electrical</i>	<i>Other (explain)</i>
No	No	No	No

*Indicate quantities in appropriate cells in the tables below.*

	2010	2012	2014 (estimated)
<b>Mainframes<sup>2</sup></b>	0	0	0
<b>Servers<sup>3</sup></b>			
<b>Virtual Servers<sup>4</sup></b>	4	6	12
<b>Virtual OS Instances</b>	80	120	350+ incl. V-Desktops

<sup>2</sup> A mainframe should only be recorded here if the mainframe is owned and operated by your agency. Do not record a mainframe here if you are using a mainframe application that is hosted on another agencies mainframe. Mainframes are distinct from midrange servers. Midrange servers should be listed with the other servers in your agency.

<sup>3</sup> Physical Servers are defined as unique physical "boxes" that are running a server operating system.

<sup>4</sup> Virtual Servers are defined as unique physical "boxes" that are running a virtual operation system. This number should not include the number of virtualized servers, but rather the hardware that is running the virtualized servers.

How long does it take to provision a server and what is the average cost?

	Physical	Virtual
<b>Time to Provision</b>	8 hours	1 hour
<b>Average Cost Per Server<sup>5</sup></b>	\$15,000	\$3,500

What percentage of your agency's storage is hosted in the following locations?

	State Hosted SAN	State Hosted Other	Agency Hosted SAN	Agency Hosted Other	Other
<b>FY2011</b>	0%	0%	70%	30%	0%
<b>FY2012</b>	0%	0%	80%	20%	0%
<b>FY2013</b>	0%	0%	95%	5%	0%
<b>FY2014</b>	0%	0%	95%	5%	0%

<b>Cost Per Gigabyte of Storage</b>	
<b>FY2011</b>	\$147
<b>FY2012</b>	\$147
<b>FY2013</b>	\$147
<b>FY2014</b>	\$147

<sup>5</sup> Please include operating system, staff, hardware, rack space, security, and patching

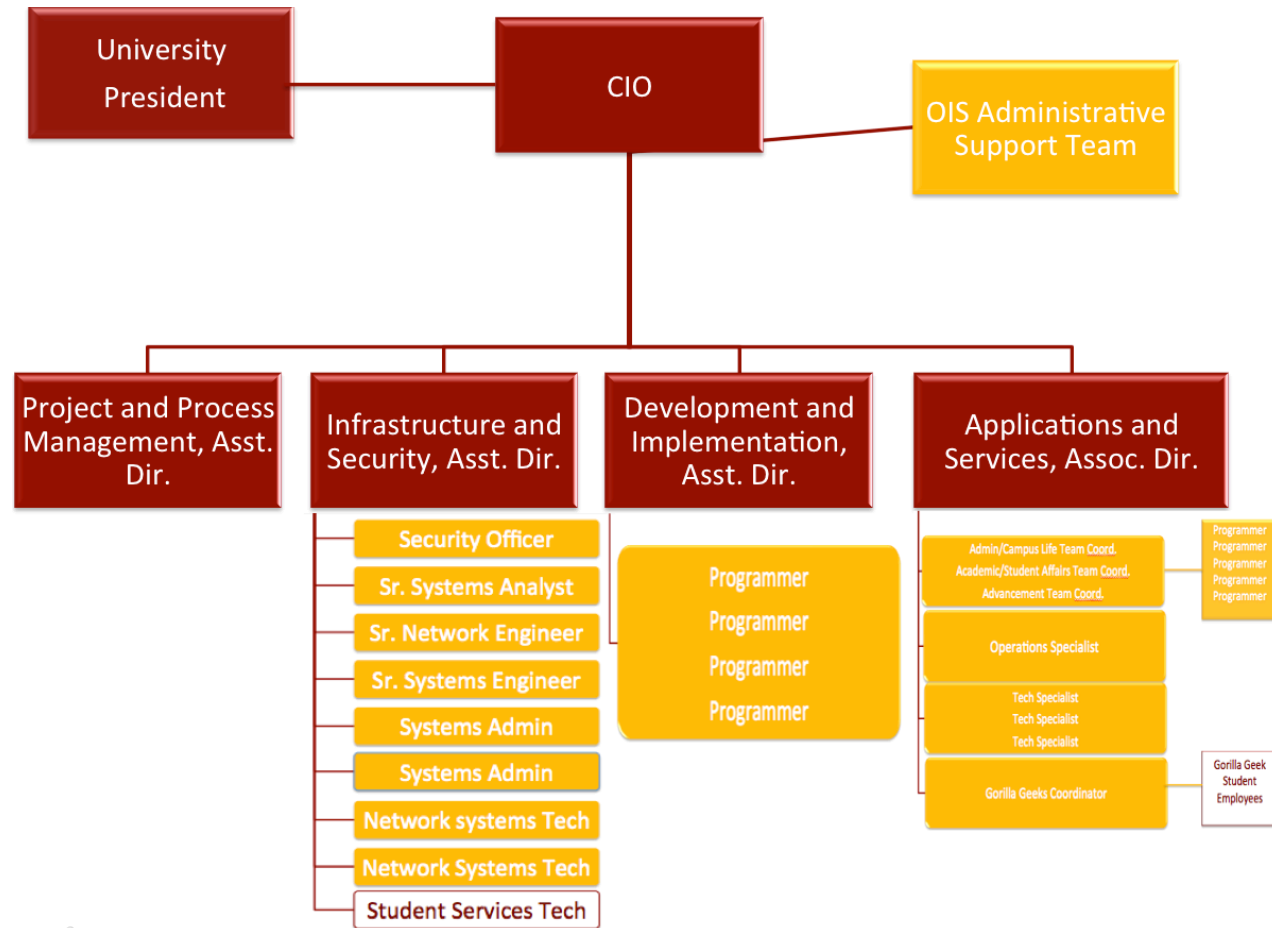
- **IT Staffing:**  
List all agency IT staff allocations by function<sup>6</sup>:

IT FUNCTIONAL AREA	SFY 2012		SFY 2013		SFY 2014	
	ACTUAL FTE		PROJECTED FTE		PROPOSED FTE	
	Class.	Uncl.	Class.	Uncl.	Class.	Uncl.
General Management & Administration (includes training and cross-agency coordination) We hope to hire a trainer in the future.	0	5	0	6	0	6
Application Maintenance and Enhancement (in-production systems)	4	2	4	2	4	2
Application Development (includes general and tactical plans, business area analysis, process reengineering, prototyping, application design, coding, integration and testing)	5	4	6	4	6	4
Data Administration, Data Analysis/Validation and Database Administration	0	1	0	1	0	1
Network Engineering, Technical Management and Support (2 positions are vacant now)	0	4	0	6	0	6
Computer Operations, Management and Technical Support	2	4	2	4	2	4
Web application development and maintenance (non OIS)	0	1	0	1	0	1
IT Security (vacant now)	0	1	0	1	0	1
Other IT Functions (administrative assistant/officer)	2	0	2	0	2	0
College Technical Support (non OIS)	1	4	1	4	1	4
Media Technicians (non OIS)	2	0	2	0	2	0
<b>TOTAL FTEs</b>	13 OIS 16 Total	22 OIS 27 Total	14 OIS 17 Total	25 OIS 30 Total	14 OIS 17 Total	25 OIS 30 Total
<b>TOTAL CLASSIFIED AND UNCLASSIFIED IT EMPLOYEE SALARY</b>	<b>\$2,125,553</b>					

**NOTE: We have several vacant positions now. We intend to hire for the upcoming year. Salaries of all positions (vacant or filled) have been included above.**

<sup>6</sup> Example: Someone who spends half their time modifying existing software, one-third testing new applications, and the remainder doing database administration would have 0.5, 0.3 and 0.2, respectively, in the Application Maintenance, Application Development and Data Administration blocks.

**Pittsburg State University Office of Information Services Organizational Chart: (Note: This does not include all campus technology staff as in above table.)**



## INFORMATION TECHNOLOGY EXECUTIVE COUNCIL IT STRATEGIC DIRECTION

This section will provide data to track action on ITEC lead efforts. This data will be used in the Three-Year Plan Annual Summary and will be provided annually to the Information Technology Executive Council.

### Kansas Information Technology Architecture

- **Target Architecture:** Pittsburg State University has worked, and will continue to work, diligently to reach target architecture goals. Through a central data center, central network, server virtualization, and more PSU is moving toward the target architecture.
- **Technology Infrastructure:** The University infrastructure will continue to be upgrades through a cycle that we have in place which includes switch upgrades, access point additions, and wiring upgrades.
- **Cloud Computing:** We are using very little true cloud computing solutions. However, this is something that our Information Technology Council believes is important. We are exploring our options over the course of this year on this topic.
- **Service Oriented Architecture:** The University is diligently moving toward SOA as we purchase new products. In addition as we develop applications internally we consider SOA
- **Web Site Accessibility:** PSU has completed the state web accessibility report required last year. We use several tools to identify accessibility issues.

### Strategic Information Management Plan

- **Data Catalog:**

*Please answer the questions below.*

Does Your Agency Have A Published Data Catalog?
No

If so, is it Available to Other State Agencies?
N/A

- Data Exchange Standards:**

<b>Data Exchange Name</b>	<b>Internal or External Data Exchange</b>
Administrative System to CyberSource	Internal
Millennium to the Administrative System	Internal
Administrative System to CampusCall	Internal
ETS GRE and TOEFL	External
GMAT Scores	External
Paypal	External
National Student Clearinghouse	External
Cashnet	External
WENS	External
RED	External
StarRez	Internal
IRS	External
Student Health 101	External
C-Board	Internal
SciQuest	External
INFO1	External
Parature	Internal
Docufide	External
Hobsons Connect	Internal and External
Live Text	Internal
Studio Abroad	Internal
Ed Express/COD	Internal and External
ANGEL	Internal

What percentage of current automated interfaces that are using standards-based data exchanges compared to proprietary data exchanges?

<b>Percent Standards Based</b>	<b>Percent Proprietary</b>
30%	70%

- External Collaborative Groups:**

<b>Services to Citizens</b>	<b>Efficiency of Agency Operations</b>	<b>Local Government</b>
1	3	

- Metadata Repository:**

*Please answer the questions below.*

<b>Does Your Agency Have An Agency Metadata Repository?</b>
No

<b>If so, is it Available to Other State Agencies?</b>
N/A

- **Online Transactional Services<sup>7</sup>:**

Online Service Name	New or Existing	Used by Citizens, Businesses, and/or Government	Other Agencies Involved (list)
Student Services	New and Existing	Students	
Employee Services	New and Existing	Employees	
Public Services	New and Existing	Citizens	

- **Portfolio Management Methodology:**

Does Your Agency Use an Application Portfolio Management Methodology?
In process

Does Your Agency Use a Project Portfolio Management Methodology?
In process

- **Web Services<sup>8</sup>: Based on the given definition, Pittsburg State University does not have any qualifying web services at this time.**

**AGENCY IT STRATEGIC DIRECTION**

This section summarizes agency direction in several key areas of information technology and business system management.

- **Summary:** *We are focused on student and faculty engagement. This includes heavy use of information technology. As you can see in the below plan, we have aligned our objectives carefully to the University goals and objectives.*

**The Pittsburg State University Information Technology Planning Process of the ITC:**

The Pittsburg State University information technology strategic planning membership consists of the University Information Technology Council (ITC) members. The ITC is made up of a diverse group of 19 University stakeholders who bring their experiences and suggestions to the Council in order to create a clear information technology direction for the University. The ITC consists of students, faculty, and staff with unique backgrounds, experiences, and perspectives.

The ITC met each month during the academic year in order to construct a campus wide information technology plan. Throughout the process of strategic IT planning the ITC focused on the six University Goals in order to ensure that the University IT Plan was constructed as a supportive pillar for the University Strategic Plan. The University Goals are referenced in the IT Plan Objectives with the following numeric representation:

1. Enhancing learner success
2. Discovery and research
3. Engagement and interaction with external stakeholders
4. Embracing emerging technologies

<sup>7</sup> An "Online Service" is defined in this document to mean a "service" provided by the state that is available on the Internet for its customers to access. Examples of Online Services include Income Tax E-Filing, the Kansas Business Center, and the Registered Offender Website.

<sup>8</sup> A "Web Service" is defined in this document to means "software system designed to support interoperable machine-to-machine interaction over a network." ("Web Services Glossary." World Wide Web Consortium. Available at <http://www.w3.org/TR/2004/NOTE-ws-gloss-20040211/>)

5. Obtaining necessary resources for the future
6. Institutionalizing the concepts and practices of environmental sustainability.

The ITC began the planning process by learning about all University technology services and who offers those services across campus. After visiting with 13 individuals that support technology in 7 different areas across campus, the ITC began the process of evaluating all current campus information technology. The process used during the evaluation phase of planning consisted of a SWOT analysis, with group members examining current University technology Strengths, Weaknesses, Opportunities, and Threats. Following the SWOT analysis, statements of need were constructed and ranked by the ITC members. Each objective was evaluated to ensure that it was specific, measurable/observable, achievable, relevant to the University mission, and time bound.

Although challenging, the ITC felt it important to set target dates as goals for each objective. Due to the complex manner of funding, information technology changes, and human resources the target dates listed are based on current known information. Target dates will be reviewed and updated by the ITC as needed.

This process led to the following University Technology Plan Goals and Objectives.

**University IT Plan Goals:**

1. Enhance and develop faculty and staff technology training.
2. Support instruction and operations utilizing innovative and reliable technology tools.
3. Communicate information technology tools, initiatives and resources to the PSU community.
4. Support the addition and expansion of University research resources.
5. Provide and promote a secure IT environment for the PSU community.
6. Utilize technology resources to support campus sustainability efforts.

Goal 1		
Enhance and develop faculty and staff technology training.		
Objective A	PSU Goal(s)	Target Date
Expand current Instructional Technology Training Offerings for Faculty by 3.	1, 2, 4	Spring 2012. The expansion number is to be evaluated each year by the ITC.
Objective B	PSU Goal(s)	Target Date
Offer at least 3 Technology Training Workshops for Staff each year.	1, 2, 4	Spring 2012. The number of offerings is to be evaluated each year by the ITC.

<b>Goal 2</b>		
Support instruction and operations utilizing innovative and reliable technology tools.		
<b>Objective A</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Deploy a suite of central enterprise resource planning (ERP) services that are built on industry standards.	1, 2, 3, 4, 5, 6	Begin evaluation of needs Summer of 2011. Final suite deployment targeted for Summer 2015.
<b>Objective B</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Deploy a unified email and calendaring system.	1, 2, 3, 4, 5, 6	Summer 2012.
<b>Objective C</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Explore learning management products that would further support student and faculty demands.	1, 2, 4, 5, 6	Begin evaluation of tools Summer 2011. Final deployment targeted for Summer 2012.
<b>Objective D</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Identify and begin standardizing basic campus IT services and practices, which will lead to improved reliability and consistency of all campus IT.	1, 2, 4, 5	Begin Fall 2011. Ongoing.

<b>Goal 3</b>		
Communicate information technology tools, initiatives and resources to the PSU community.		
<b>Objective A</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Create a central University IT Web page for the PSU Community to access informational, instructional, and operational IT information from all campus-wide IT units.	1, 2, 3, 4	Spring 2012.
<b>Objective B</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Share campus IT Plan via the web, forums, email, social media.	1, 2, 3, 4	Fall 2011.
<b>Objective C</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Create awareness of technology tools available on campus via the web, forums, email, social media.	1, 2, 3, 4, 5, 6	Spring 2012.
<b>Objective D</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Create awareness of technology training available on campus via the web, forums, email, social media.	1, 2, 3, 4, 5, 6	Spring 2012.

<b>Goal 4</b>		
Support the addition and expansion of University research resources.		
<b>Objective A</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Deploy a new library software system that is built on industry standards.	1, 2, 3, 4, 5	Summer 2013.
<b>Objective B</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Deploy data dashboards and data warehousing tools to be used for trend analysis and data decision making.	1, 2, 3, 4, 6	Summer 2015 (this should be closely aligned to ERP changes/additions).
<b>Objective C</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Identify and expand videoconferencing resources and opportunities to foster additional research and collaboration opportunities for our campus community.	1, 2, 3, 4, 5, 6	Summer 2012.
<b>Objective D</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Identify underutilized research tools currently available on campus and educate campus clients about the availability and benefits of these tools.	1, 2, 3, 4	Summer 2012.

<b>Goal 5</b>		
Provide and promote a secure IT environment for the PSU community.		
<b>Objective A</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Operate within the dynamic state and federal information technology security guidelines.	4, 5	Has begun. Ongoing.
<b>Objective B</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Continue to construct an infrastructure that is secure and reliable, meeting the needs of today's mobile users.	1, 2, 3, 4, 5	Has begun. Ongoing.
<b>Objective C</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Continue to promote information technology security awareness to students, faculty, and staff through events, training opportunities, emails, etc.	1, 4, 5	Has begun. Ongoing.

Goal 6		
Utilize technology resources to support campus sustainability efforts.		
<b>Objective A</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Continue to promote proper eWaste disposal across campus by offering 2 campus eWaste sweeps per year for faculty and staff.	5, 6	Has begun. Ongoing.
<b>Objective B</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Continue to offer eWaste disposal for students through Gorilla Geeks.	5, 6	Has begun. Ongoing.
<b>Objective C</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Promote the benefits of using less paper through the P drive and document imaging.	5, 6	Fall 2011.
<b>Objective D</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Continue to utilize server virtualization (when compatible) with new deployments.	4, 5, 6	Has begun. Ongoing.
<b>Objective E</b>	<b>PSU Goal(s)</b>	<b>Target Date</b>
Investigate the benefits and costs of desktop virtualization for student computer laboratories. Report this information back to the ITC.	4, 5, 6	Begin Fall 2011. Report to ITC Spring 2012.

#### Evaluation:

The ITC will continue to meet regularly to evaluate the progress of each objective.

In addition, the ITC will annually examine the need for additional goals and objectives, given changing information technology resources and demands.

#### AGENCY IT ACCOMPLISHMENTS

This section summarizes agency IT accomplishments that happened in the previous state fiscal year.

- **Summary: There have been many accomplishments over the course of the 2010-2011 fiscal year at Pittsburg State University. They include, but are not limited to the following:**
  - *The development and approval of the University Strategic Information Technology Plan.*
  - *The reorganization of the Office of Information Services. This reorganization has moved the OIS from a silo'd organization to a project management organization, allowing for cross training, succession planning, and efficiencies of resources.*
  - *Infrastructure upgrades including access point additions, switch upgrades, and a network controller installation.*
  - *A SAN replacement, including the creation of additional redundancy in a University building separate from the data center.*
  - *The consolidation of University storage and processing systems to the University virtual servers.*
  - *Procurement and implementation of Sci Quest purchasing system*
  - *Development of Pitt Points card swiping system for student campus activities.*

- *Paperless meetings for President's Council. This pilot is now complete and others on campus are taking steps to implement paperless meetings. Consolidating efforts to create less paper costs and improve efficiencies.*
- *Considerable efficiencies in the area of campus IT standards including: ADA web compliance, repair procedures, documentation, project management, and help desk services.*
- *Creating the first wireless network and live video streaming for the International SAE Mini Baja Championship held at Pittsburg State University. The SAE Mini Baja Championship is held in a remote location with little access to electrical power, cellular connectivity, etc. This was quite a feat given the obstacles.*
- *Establishment of the Technology Round Table, which is a group of campus technologist from various areas that meet throughout the year to discuss issues, initiatives, etc. This has helped to consolidate efforts and standardize the way that we do IT business on campus.*
- *Cyber Security Awareness campaign for all students, faculty, and staff.*
- *Pittsburg State University presented at the annual KanREN conference. The topic was: The Game Boy Generation, which focused on the students entering higher education from high school.*
- *Pittsburg State University presented at the annual CHECK conference. The topics was: Gorilla Geeks, which focused on PSU sharing how we have pooled student IT experts to provide on campus IT services for our campus students.*
- *Modified the Event Registration System to also use a different Credit Card Processor which would allow them to accept donations.*
- *Modified the Online License Plate program to allow people to purchase multiple plates.*
- *Defined some Best Practices for the Administrative Programming unit to follow to allow our internal web pages more ADA accessible.*
- *This section summarizes agency IT accomplishments that happened in the previous state fiscal year.*
- *FY 2011 Academic Affairs Accomplishments July 1, 2010 to June 30, 2011*
- *Financial Assistance Direct Loan, automated reconciling with COD, PSU business accounts, multiple FA files.*
- *Studio Abroad hosted solution student and faculty updates completed.*
- *eTranscript with Docufide, build transcript, connect student with Docufide to request transcript, send and receive data files.*
- *International Programs new India student advance deposit implemented in application, include automated emails.*
- *Enrollment Management Services Freshmen Retention data reports.*
- *AACSU online voter registration reports, files update.*
- *Undergraduate web app for an Official Degree Check for graduation and the whole graduation workflow including sign-offs and reporting.*
- *Athletic Compliance Report*
- *Automate the Graduate Assistantship appointments. Update the data files when HR approves the appointment. Also, custom automated emails notifying students of appointment approvals.*
- *Implement automated honors/dishonors posting for part time students per specifications provided by Registrar.*
- *Implement a system to automatically change incomplete grades to the designated pending grade based on the term the course was taken and the current term and also consider any extensions given.*

## SECTION II ~ MAJOR IT APPLICATIONS.

**Part One** – Unmodified Applications is dedicated to IT applications that have not been modified since the agencies last submission of the Three-Year IT Management and Budget Plan. The information required for these applications is much less than in past years.

### **Application 1:** Student Information Systems

**Purpose:** To provide a system for student related functions that will augment the university experience in an effective and efficient manner.

**Planned Initiatives:** Web based financial awards, automated student messages, and electronic application fee payments.

### **Application 2:** Millennium System

**Purpose:** To provide constituent tracking, fund raising, donor cultivation, and reporting for PSU Alumni and Development Offices.

**Planned Initiatives:** Upgrade to Millennium 7.8 convert to Virtual Servers

### **Application 3:** CampusCall

**Purpose:** Online, automated phonathon software for the Development Office.

**Planned Initiatives:** None

### **Application 4:** Library Automation Systems

**Purpose:** Integrated software system to support library operations. Major functions are cataloging and online catalog, circulation, and acquisitions.

**Planned Initiatives:** Web based financial awards, automated student messages, and electronic application fee payments.

### **Application 5:** University Police and Parking Services

**Purpose:** To provide a stand-alone server for University Police and Parking Services use only. Access to the server is restricted to UPPS and OIS employees. Applications running on the server include 3rd party applications such as Cardinal TickeTrak ticket tracking software and GWKIBRS and LAW for reporting crime statistics to the KBI. It also includes inhouse developed applications such as the online parking permit application. With a stand-alone server, we can guarantee that only certain users have access to sensitive information such as crime statistics and incident reports.

**Planned Initiatives:** Upgrade DBMS to SQL Server 2005

### **Application 6:** Virtual Private Network

**Purpose:** To allow off-campus users to securely connect remotely to the campus network for the purposes of email, remote desktop, etc.

**Planned Initiatives:** None

**Application 7:** Document Imaging

**Purpose:** Provides document imaging services and repository for university related documents from various administrative areas.

**Planned Initiatives:** Add additional storage, upgrade operating system, and upgrade application software to latest revision.

**Application 8:** Email (Faculty and Staff)

**Purpose:** To provide electronic mail communication services between faculty, staff, and the Internet community.

**Planned Initiatives:** Evaluate new faculty / staff email system

**Application 9:** Ticket Office (Pro-venue / Tickets.com)

**Purpose:** To provide point of sale and Internet sales of tickets for campus events.

**Planned Initiatives:** None planned.

**Application 10:** Micros Point of Sale

**Purpose:** To provide point of sale support for campus food services.

**Planned Initiatives:** None planned.

**Application 11:** Symantec Anti-Virus

**Purpose:** Provide current virus protection to all computers connected to the internal campus network

**Planned Initiatives:** None Planned

**Application 12:** Xythos Web File Share

**Purpose:** Provide a web based file sharing and storage solution for PSU faculty, staff and students

**Planned Initiatives:** None

**Application 13:** Local Windows Update (WSUS) Server

**Purpose:** To provide an automated mechanism for keeping the Windows machines up-to-date with patches and security updates. These updates help to keep the client machines from becoming infected with the ever present malicious code (e.g. "worms" and "trojans") constantly "hammering at our doors" via the Internet.

**Planned Initiatives:** none

**Application 14:** Virtual Servers

**Purpose:** To provide a more flexible, reliable and efficient server platform

**Planned Initiatives:** Add additional servers

**Application 15:** Student Health Center

**Purpose:** Electronic support of PSU Student Health Services Center

**Planned Initiatives:** Additional module to be installed

**Application 16:** Consolidated Backups

**Purpose:** To provide a centralized, reliable backup process

**Planned Initiatives:** None Planned

**Application 17:** ANGEL Learning System, Course Management System(LMS)

**Purpose:** Provides faculty and students easy access to course information, documents, and assignments. Also used to support group interactions.

**Planned Initiatives:** The current contract expires on June 20, 2012. We are currently in the process of reviewing replacement systems for implementation in the spring of 2012.

**Application 18:** StarRez

**Purpose:** University Housing system

**Planned Initiative:** None planned.

**Application 19:** Inspiron Wireless Emergency Notification System

**Purpose:** To provide Emergency Text Messaging and Email to Faculty, Staff, Students, Parents, and Community Leaders.

**Planned Initiatives:** None planned.

**Application 20:** Pitt State Apps and Student email powered by Google

**Purpose:** Provides students with email accounts and other online applications for communicating and collaborating. Faculty, staff and alumni can request accounts for personal use.

**Planned Initiative:** None planned.

**Application 21:** Shibboleth

**Purpose:** To provide single-sign on services to the campus.

**Planned Initiatives:** Migrate more applications to using Shibboleth for Authentication

**Application 22:** ECSI

**Purpose:** Manages student financial aid payments

**Planned Initiative:** None

**Application 23:** Tegrity

**Purpose:** To provide lecture-capture services to faculty and improve student comprehension of course material.

**Planned Initiatives:** Expand service to include more of the faculty.

**Application 24:** dotCMS (Dot Marketing Content Management System)

**Purpose:** Manages and runs the web site, provides an interface to edit and maintain web pages and sites.

**Planned Initiatives:** Launching Alumni portal ~Sept. 1, 2009, course search engine, event registration, faculty publications archive, faculty/staff directory and bios, emergency response tools, integration of e-commerce tools, better catalog management interface.

**Application 25:** Live Text

**Purpose:** Student Assessment and Portfolio tool

**Planned Initiative:** Students in the Colleges of Business and Education will first use this tool for assessment purposes as well as student portfolio purposes. After piloting the tool in these two colleges the University will offer this tool to both the College of Arts and Sciences and the College of Technology. (I think this is last year's data. The pilot has been completed and I believe we are in the process of rolling out to other departments.)

**Application 26:** Online EDR (Employment Data Report) Form

**Purpose:** Allow recent graduates and departments to report employment information to the Career Services Office

**Planned Initiatives:** None

**Application 27:** Hiring Process System

**Purpose:** Electronic work flow of searches and appointments for unclassified, classified and graduate assistant positions

**Planned Initiatives:** None

**Application 28:** ESPT

**Purpose:** Collects statistical analysis on instructor evaluations

**Planned Initiatives:** None

**Application 29:** Hobson's – Connect

**Purpose:** Provide Admission Office communication and tracking of prospective students. Daily uploads of applications for admission via web services updates student data for communication targeting applicants.

**Planned Initiatives:** None

**Part Two – New / Modified Applications** is dedicated to IT applications that are new or have changed over the past year. Please fill out the information required for Part One IT applications, plus any of the additional Part Two questions that have been modified in the past year. Modifications include enhancements to the system. Changes made due to maintenance of the application are not considered a modification. For new applications please complete all of Part Two.

**Application 1:** Studio Abroad by Terra Dotta

**Purpose:** Provides student ability to login using single sign on, apply for study abroad programs, and allows them to request recommendation from faculty and faculty to respond to request.

**Planned Initiatives:** Student and faculty loads currently manual, to be automated.

**Hosted:** by vendor

**Functions:** Course and Student information

**Interaction:** Students, faculty

**Technical Environment:** Hosted by vendor

**Implemented:** Spring 2010

**Maintenance:** Vendor

**Application 2:** Human Resource Information Systems

**Purpose:** To provide an integrated personnel/payroll system to the university HRS office that integrates through electronic interfaces with the SHaRP system in Topeka.

**Planned Initiatives:** Web-based position allocation and appointment process.

**Functions:** The system provides for the effective and efficient tracking of university employees, ensures the correct and timely payment of those employees. Provides feedback and webbased applications and information to supervisors and employees including pay stub, leave reports, leave balance reports, benefit summaries, classified employee performance review, professional information, and time and leave process.

**Interaction:** Employees, supervisors, and SHaRP administrators

**Technical Environment:**

**Hardware:** IBM pSeries

**Network Protocols:** TCP/IP

**System S/W:** AIX

**DBMS:** UniVerse

**Client:** Web-based, terminal pc

**Special S/W:** In-house developed web server

**Language:** Universe Basic and Retrieve

**Implemented:** 1984 with major re-write in 1996/1997

**Revision:** (1) Modified payroll application to accommodate account coding changes and interface changes required by the state accounting system changes. (2) Added a web-based allocation and appointment process. (3) Added an Unclassified Performance Review process.

**Maintenance:** Administrative and Systems Services team

### **Application 3:** Business and Financial Information Systems

**Purpose:** To provide an efficient and effective method for maintaining purchasing, accounts receivable, budgeting, accounts payable, and general ledger information, and disseminating that information as appropriate back to university administration and other individuals. Also provides an electronic interface with an associated system in the State of Kansas financials areas. This system provides for static and dynamic reporting of financial information for effective decision making as well as both internal and external auditing.

**Planned Initiatives:** Replace home-grown system with purchased ERP

**Functions:** Purchasing, accounts receivable, Budget Office system and interface with State budget and financial system, accounts payable, general ledger information, business procurement card system, web-based reports and application processes, Student Health Center system, University Housing, University Police and Parking payroll deduction process, Physical Plant and Housing Maintenance work order system, Physical Plant ordering processes, eCommerce fee payment system, Campus Loan Manager process.

**Interaction:** Administrators, staff, students, and state agencies

#### **Technical Environment:**

**Hardware:** IBM pSeries

**Network Protocols:** TCP/IP

**System S/W:** AIX

**DBMS:** UniVerse

**Client:** Web-based, terminal pc

**Special S/W:** In-house developed web server

**Language:** UniVerse Basic and Retrieve

**Implemented:** 1984 with major re-write in 1996/1997

**Revision:** (1) Modified General Ledger and subsidiary systems to accommodate changes and interface changes required by the state accounting systems changes. (2) Substantial re-write of existing financial reporting components to accommodate changes.

**Maintenance:** Administrative and System Services teams

**Application 4:** Online Event Registration System

**Purpose:** Allow any constituent to register for an Event Online

**Planned Initiatives:** Report and event set-up enhancements

**Hosted:** PSU - Internally

**Functions:** Event and Registrant Information

**Interaction:** Internal and General Public

**Technical Environment:**

**Hardware:** IBM pSeries p550

**Network Protocols:** n/a

**System s/w:** AIX

**DBMS:** UniVerse

**Client:** Web based

**Special s/w:** None

**Language:** UniVerse Basic and HTML

**Implemented:** May 2007

**Revision:** August 29, 2011 – Version 1.2

**Maintenance:** PSU

**Application 5:** Online License Plate Program

**Purpose:** Allows constituents to purchase their Pitt State license plate online

**Planned Initiatives:** None

**Hosted:** PSU - internally

**Functions:** Constituent License plate information

**Interaction:** General public

**Technical Environment:**

**Hardware:** IBM pSeries p550

**Network Protocols:** n/a

**System s/w:** AIX

**DBMS:** UniVerse

**Client:** Web based

**Special s/w:** None

**Language:** UniVerse Basic and HTML

**Implemented:** June 2010

**Revision:** August 29, 2011 – Version 1.2

**Maintenance:** PSU – Internal

**Application 6:** CBord One-Card System

**Purpose:** This is a card transaction processing system for faculty, staff and students.

**Planned Initiatives:** None

**Hosted:** PSU - internally

**Interaction:** General public

**Technical Environment:**

**Hardware:** Virtual Server

**Network Protocols:** TCP/IP

**System s/w:** Windows 2003

**DBMS:** SyBase

**Client:** Proprietary

**Language:** Proprietary

**Implemented:** August 1998

**Revision:** August 2011

**Maintenance:** Cbord software maintenance agreement

**Application 7:** Avotus Unity

**Purpose:** To provide billing and maintenance interface to phone system .

**Planned Initiatives:** Moving from Intelecontrol to Unity system.

**Technical Environment:**

**Hardware:** Win Virtual machine

**Network:** TCP IP

**System Software:** Win server 2008

**DBMS:** Proprietary

**Client:** Web browser management interface

**Language:** NA

**Implemented:** 2004

**Revision:** Upgraded 2011

**Maintenance:** PSU

**Application 8:** Hobson's - Retained

**Purpose:** Provide Enrollment Management Services ability to track current student retention and communication plan with students. Currently working with vendor on data files and communication plan.

**Planned Initiative:** Go live date with EMSS of November 2011, with students, advisors and faculty January 2012. Web services to provide daily data transfer.

**Hosted:** by vendor

**Interaction:** Enrollment Management Services, students, faculty, and advisors

**Functions:** Current student, course, and faculty information

**Technical Environment:** Hosted by vendor

**Implemented:** Fall 2011

**Revision:** Version 1

**Maintenance:** Vendor, OIS data files

**Application 9:** Parchment - Docufide Secure Transcript

**Purpose:** Provide student ability to request electronic transcript through PSU GUS secure web pages. Currently building XML transcript data which is sent to Parchment via Web services and receiving response file in return.

**Planned Initiative:** Go live with students October 2011.

**Hosted:** By vendor

**Interactions:** Students, Registrars Office

**Functions:** Current or previous student transcript data

**Technical Environment:** Hosted by vendor

**Implemented:** Fall 2011

**Revision:** Version 1

**Maintenance:** Vendor, OIS data files

### Application 10: AllofE Online Catalog

**Purpose:** A searchable catalog with one entry point from PSU web pages and minimize printing.

**Planned Initiatives:** None

**Hosted:** by vendor

**Interactions:** Anyone interested in PSU programs, courses, and majors

**Functions:** Catalog information

**Technical Environment:** Hosted by vendor

**Implemented:** Spring 2010

**Revision:** Version 1

**Maintenance:** Vendor, Registrars Office, Marketing

### Application 11: Database Logging and Auditing

**Purpose:** Logs changes to the administrative database. Saved logs include a description of the change similar to that commonly used in traditional database logging, and useful for recovery. Also logged is a large amount of context information that can be used for auditing, application debugging, and various kinds of analysis.

**Planned Initiatives:** Possible enhancements include off-server log storage, performance enhancements, various usability enhancements, and indexing for more rapid retrieval of logged data.

**Functions:** Logging and auditing for all database data on the main administrative computer system. Using applications include Student Information Systems, HRS, certain business systems, and other miscellaneous applications.

**Interaction:** Office of Information Services (OIS) employees; university supervisors and administration.

#### **Technical Environment:**

**Hardware:** IBM pSeries p550

**Network Protocols:** n/a

**System s/w:** AIX

**DBMS:** Universe

**Special s/w:** In-house developed by OIS

**Language:** BASIC, C++

**Implemented:** 06/16/2011

**Revision:** 08/29/2011 1.2

**Maintenance:** OIS

## **Application 12: Parature Ticketing Program**

**Purpose:** This application will be used for client support. It provides a ticketing function for reporting technology issues. A self-help component is available so our faculty, staff and students can have access to a knowledge base or review the status of their ticket at any time. The system will allow us to set up criteria and routing to reduce the amount of staff interactions and allow for increased efficiencies.

**Planned Initiatives:** This is a new implementation, purchased at the end of the fiscal year to be setup and implemented in the fall of 2011.

**Hosted:** Parature is an externally hosted solution.

**Functions:** Client support services

**Interaction:** PSU faculty, staff and students

**Implemented:** Anticipated Fall 2011

**Revision:** NA

**Maintenance:** Parature – hosted solution

## **Application 13: Purchasing and Accounts Payable**

**Purpose:** Re-write and replace the Purchasing and Accounts Payable systems. This was due to the changes required from the state's implementation of PeopleSoft Financials. We retired this functionality from the existing legacy system and ported these systems to a newer platform.

**Planned Initiatives:** Retire and replace with purchased ERP system.

**Functions:** Purchase order entry, encumbrance accounting, accounts payable processing, general ledger accounting, reporting, and interface into the state accounts payable system.

**Interaction:** Purchasing and Accounts Payable staff

### **Technical Environment:**

**Hardware:** Virtual Server

**Network Protocols:** TCP/IP

**System S/W:** Windows Server 2008 / IIS

**DBMS:** MS Sql Server

**Client:** Web-based

**Special S/W:** None.

**Language:** ASP.NET, C#, Sql

**Implemented:** 2010.07.01

**Revision:** None.

**Maintenance:** Administrative and Systems Services teams

**Application 14:** SciQuest E-Procurement System

**Purpose:** Provide a managed E-procurement system and processes which are available to the entire university administrative staff.

**Planned Initiatives:** None

**Functions:** SciQuest allows a single environment for requisition entry, approval workflow, purchase order distribution, receiving, and matching. Interfaces ready-to-pay items into the Accounts Payable system.

**Interaction:** University staff, administrative assistants, purchasing staff, accounts payable staff

**Technical Environment:**

**Hardware:** Hosted

**Network Protocols:** TCP/IP

**System S/W:** Not Applicable.

**DBMS:** Not Applicable.

**Client:** Web-based.

**Special S/W:** None.

**Language:** Not Applicable.

**Implemented:** 2011.10.31

**Revision:** None.

**Maintenance:** Not Applicable.

**Application 15:** Pitt Points

**Purpose:** To provide a transactional point reward system for students.

**Planned Initiatives:** Generate more interest in Pittsburg State University events.

**Hosted:** Internally hosted

**Functions:** Provide a point reward system for attending specific Pittsburg State University events.

**Interaction:** Students

**Technical Environment:**

**Hardware:**

**Network Protocols:** TCP/IP

**System s/w:** AIX

**DBMS:** Universe

**Client:** web based and thick client

**Special s/w:** None

**Language:** Microsoft c# and Universe basic

**Implemented:** Sept 2011

**Revision:** 1

**Maintenance:** Internal

#### **Application 16: Baja**

**Purpose:** To provide a near time online score list for an international SAE Baja event hosted by Pittsburg State University

**Planned Initiatives:** Possibly host event in the future.

**Hosted:** Internal

**Functions:** Display event scores to the web

**Interaction:** General Public

#### **Technical Environment:**

**Hardware:** Virtual Server

**Network Protocols:** TCP/IP

**System s/w:** Microsoft Windows

**DBMS:** Microsoft SQL

**Client:** web-based

**Special s/w:** None

**Language:** Microsoft C#

**Implemented:** May 2011

**Revision:** 1

**Maintenance:** Internal

**Application 17: Tech Tips Repository**

**Purpose:** To provide a repository to technical tips generated by OIS to the rest of the campus.

**Planned Initiatives:** To make the Pittsburg State University campus community aware of usage and pitfalls of technology.

**Hosted:** Internal

**Functions:** Allows content provider to post information and content consumers to display information.

**Interaction:** Students, Faculty, and Staff

**Technical Environment:**

**Network Protocols:** TCP/IP

**System s/w:** AIX

**DBMS:** Universe

**Client:** web-based

**Special s/w:** None.

**Language:** Universe basic

**Revision:** 1

**Maintenance:** Internal

**Application 18: Policy Repository**

**Purpose:** To provide a policy repository for the Pittsburg State University campus.

**Planned Initiatives:** Provide an easy mechanism to review and agree to Pittsburg State University policies.

**Hosted:** Internal

**Functions:** Enable policy makers to manage policies. Provide a built in agreement reminders.

**Interaction:** Campus staff.

**Technical Environment:**

**Network Protocols:** TCP/IP

**System s/w:** AIX

**DBMS:** Universe

**Client:** web-based

**Special s/w:** None.

**Language:** Universe Basic

**Revision:** 1

**Maintenance:** Internal

**Application 19:** RED

**Purpose:** To provide a SMS notification system to students.

**Planned Initiatives:** To move to a notification system that is more customer friendly and more granular.

**Hosted:** Externally Hosted

**Functions:** Allow Students and Staff to receive alerts pertaining to specific categories that they have subscribed to. Provide an emergency notification system to the Pittsburg State campus community.

**Interaction:** Pittsburg State University staff, students, parent and alumni.

**Technical Environment:**

**Network Protocols:** TCP/IP

**System s/w:** Windows/AIX

**DBMS:** SQL/Universe

**Client:** Web based

**Special s/w:** None

**Language:** PHP and Universe Basic

**Implemented:** Begin testing Sept/2011

**Revision:** 1

**Maintenance:** RevDel, Inc./Internal

**Application 20:** Reading Screening

**Purpose:** To assist parents, teachers, and professionals assess the reading abilities of children between the ages of 5 and 12 years of age

**Planned Initiatives:** None

**Hosted:** PSU - Internal

**Functions:** reading assessment scores

**Interactions:** general public

**Technical Environment**

**Hardware:** Windows VM /IIS

**Network Protocols:** TCP/IP

**System s/w:** Windows

**DBMS:** MS SQL server

**Client:** Web based

**Special s/w:** none

**Language:** VB.Net

**Implemented:** 2009

**Revision:** Version 2

**Maintenance:** PSU

**Part Three** - Retired applications includes applications that had information submitted last year, but are no longer used in the agency. Please list these applications and the reason for it no longer being in use.

**Application 1:** Accounts Payable System

**Retirement Reason:** In order to be able to transact with State SMART system.

### SECTION III ~ IT PLANNED PROJECTS

Provide information below for all planned projects with an estimated total cost of \$250,000 or more from any source of funds, in which the agency is proposing new state funding or has spending authority. Agencies are required to provide this information pursuant to KSA 75-7209. Planned projects identify new projects by agencies that are in planning stages only and the IT Project Plan may or may not have been submitted for CITO approval.

An information technology project is defined in KSA 75-7201 as “a project for a major computer, telecommunications or other information technology improvement with an estimated cumulative cost of \$250,000 or more and includes any such project that has proposed expenditures for: (1) New or replacement equipment or software; (2) upgrade improvements to existing equipment and any computer systems, programs or software upgrades therefor; or (3) data or consulting or other professional services for such a project.”

**To:** Carey Brown, Chief Information Officer of Kansas  
**From:** Kathy Sanley, Associate Director of Information Services, [sanley@pittstate.edu](mailto:sanley@pittstate.edu), 620-235-4165  
**Agency Name:** **Pittsburg State University** **Date Submitted:** **May 2007**  
**Project Name:** *Integrated Library System*

**Project Acronym:** *ILS*

**Estimated Project Cost:** *[Total estimated cost, or estimated range (i.e. \$2 – 6M) over the life of the project from any source of funds, over all fiscal years. **Include** internal direct costs of state government staff and external project costs.]*

**Internal Costs:** \$ 125,000 (estimate)  
**External Costs:** \$ 385,000 (estimate)

**Estimated Ongoing Cost:** *[Total estimated operational cost from any source of funds, for three ensuing state fiscal years **after** project implementation.]*

SFY <u>14</u>	\$ <u>80,000</u>
SFY <u>15</u>	\$ <u>80,000</u>
SFY <u>16</u>	\$ <u>80,000</u>

**Estimated total project cost and three ensuing years of ongoing cost:** \$ 750,000

**Estimated Start Date:** *March 2012*

**Estimated Completion Date:** *June 2013*

**Project Business Objective(s) or Motivator(s):**

*Due to aging of the current library system, Pittsburg State University Library Consortium desires to partner with a library automation company that is well developed and provides in-depth support for a fully featured enterprise class library system software solution. We seek to implement an integrated library system (ILS) that is developed for consortia, has depth and flexibility in consortia borrowing policies, advanced reporting capabilities for each member library, distributed technical service functions and configurations, and state-of-the-art Web 2.0 integration features for patrons including mobile PAC, text messaging, email, and other patron-engagement and discovery features.*

*The Pittsburg State University Library Consortium is comprised of libraries and administrative service units on the campus of Pittsburg State University (the Leonard H. Axe Library, the Kansas Technology Center Library, the Career Resource Library, and the Campus Recreation Center); Pittsburg Public Library; Pittsburg Unified School District 250 (six sites); Eureka Public Library; Sedan Public Library; Parsons Public Library; and Fort Scott Community College Library. An additional 1-2 library sites may be added to the Consortium in the near future.*

**E-Government:** *Pittsburg State University Library Consortium desires to partner with a library automation company that is well developed and provides in-depth support for a fully featured software solution. We seek an ILS that is developed for consortia, has depth and flexibility in consortial borrowing policies, advanced reporting capabilities for each member library, distributed technical service functions and configurations, and state-of-the-art Web 2.0 integration features for patrons including mobile PAC, text messaging, email, and other patron-engagement and discovery features.*

**Technical Architecture:** *The Pittsburg State University Library Consortium is seeking firm proposals for a new integrated library system (ILS). The Pittsburg State University Library Consortium is comprised of libraries and administrative service units on the campus of Pittsburg State University (the Leonard H. Axe Library, the Kansas Technology Center Library, the Career Resource Library, and the Campus Recreation Center); Pittsburg Public Library; Pittsburg Unified School District 250 (six sites); Eureka Public Library; Sedan Public Library; Parsons Public Library; and Fort Scott Community College Library.*

**Project Description and Scope:** *The Pittsburg State University Library Consortium is comprised of libraries and administrative service units on the campus of Pittsburg State University (the Leonard H. Axe Library, the Kansas Technology Center Library, the Career Resource Library, and the Campus Recreation Center); Pittsburg Public Library; Pittsburg Unified School District 250 (six sites); Eureka Public Library; Sedan Public Library; Parsons Public Library; and Fort Scott Community College Library. An additional 1-2 library sites may be added to the Consortium in the near future.*

*The mission of the Pittsburg State University Library Consortium is to provide quality library services for all sizes and types of libraries, which mutually benefit from each other through cooperation and collaboration in the southeast Kansas region. The Consortium shares bibliographic and patron databases, utilizes holds management and centralized catalog records, indexes, and resource-sharing policies.*









**Project Status:** *High-level project plan underway.*

## SECTION IV ~ BUSINESS AND TECHNOLOGY RADAR CHARTS

Agency Business Program Initiatives				
No.	Description	Description		
1	Anytime/Anyplace Learning	Provide anytime/anyplace access to University resource for students, faculty, staff, and community		
2	21st Century Business	Make it easy for people to do business and the University		
3	"Maximized Everything"	Increase the efficiency and productivity of University students, faculty, and staff		
4	Information Security	Make security of the University's data strong, yet unobtrusive		
5	Enhanced Communication	Foster strong communication links-making all of the PSU community "In the loop"		
			FY2011	FY2012
			FY2013	FY2014
	All of the above will be ongoing.			
Technology Infrastructure				
			FY2011	FY2012
			FY2013	FY2014
	Upgrade Data Switches			
	Migration of IPV6			
	Expansion of VM Platform			
	Expansion of SAN Platform			
	Create a Redundant Backup both on and off site for Disaster Recovery efforts			
	Green Computer Thin Client VM Trial			
IT Business Initiatives				
			FY2011	FY2012
			FY2013	FY2014
	Library System Replacement			
	Financial Management System Replacement			
	Purchasing System Replacement			
	Development of on-line appointment system			
	Procurement and deployment of a unified email/calendaring system			
	Procurement and deployment of a new Learning Management System (LMS)			
	Student Information System Replacement 2013-2015			
	Help Desk Ticketing System Replacement			
	Docufide online transcript pilot			
	Student Tutoring Support Scheduling System			
Online-Enabled Services Initiatives				
			FY2011	FY2012
			FY2013	FY2014
	Pitt Points Student Event Rewards System			
	Event Registration System Upgrade/Additions			
	Survey System Upgrade/Additions			
	Star Rez online web additions			
	Online Course Catalog			
	Co Curricular Transcript			

SECTION V ~ ENTERPRISE BUSINESS PARTNERS MODEL

Pittsburg State University:

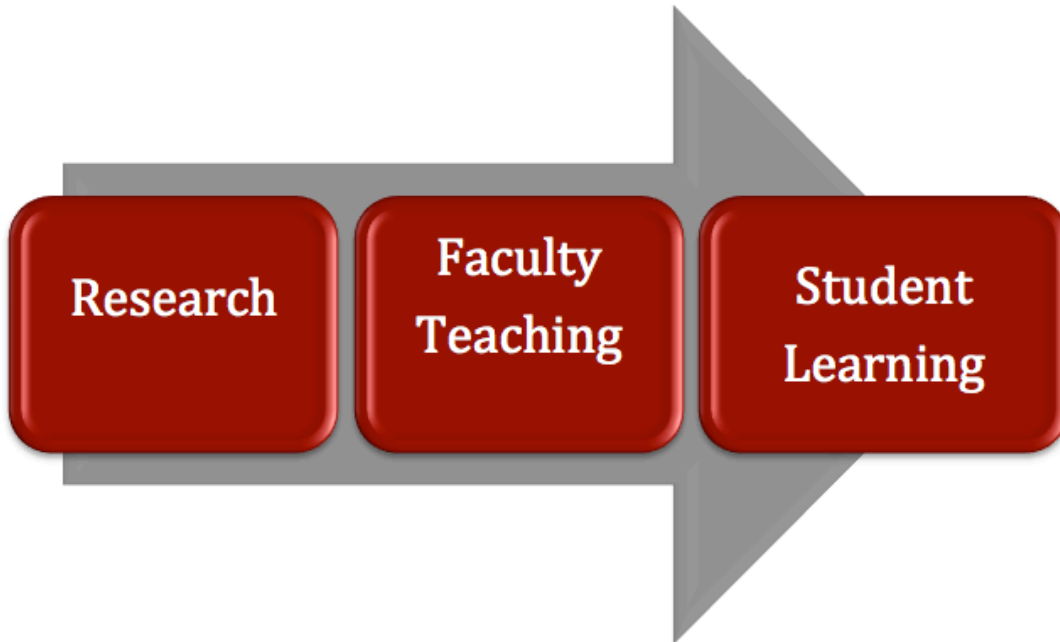
Business Partner	Input/ Output	Data Shared	Agency
Kansas Board of Regents		Student Enrollment Data	<b>Pittsburg State University</b>
Federal Dept. of Education		Student Demographic Data	
State of Kansas		Accounts Payable	
Other Higher Education Institutions		Student Data	
Secondary Institutions		Student Data	
International Institutions		Student Data	
Federal Dept. of Education Financial Aid		Student Financial Records	
State of Kansas		Employee Data	

## SECTION VI ~ ENTERPRISE VALUE CHAIN

### Pittsburg State University Value Chain:



### Primary Activities:



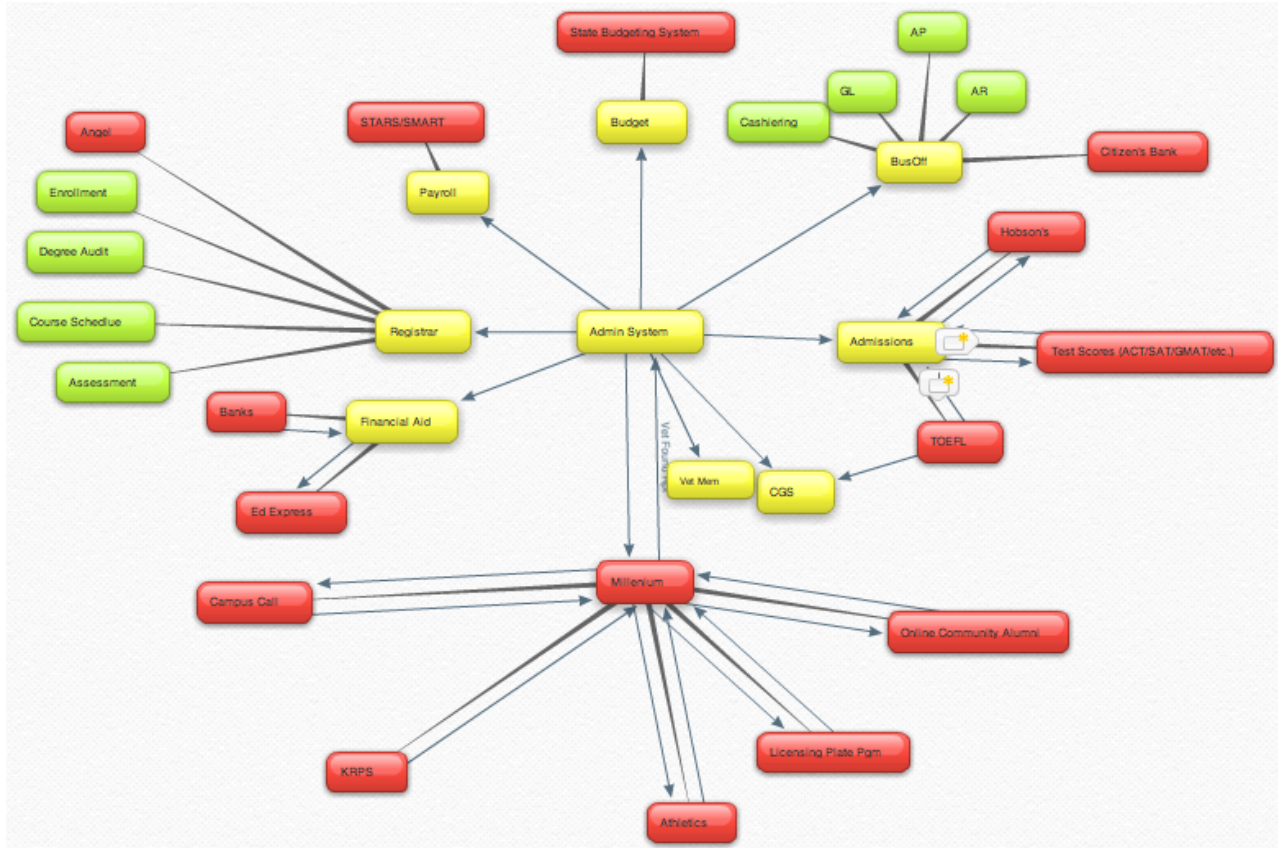
### Support Activities:



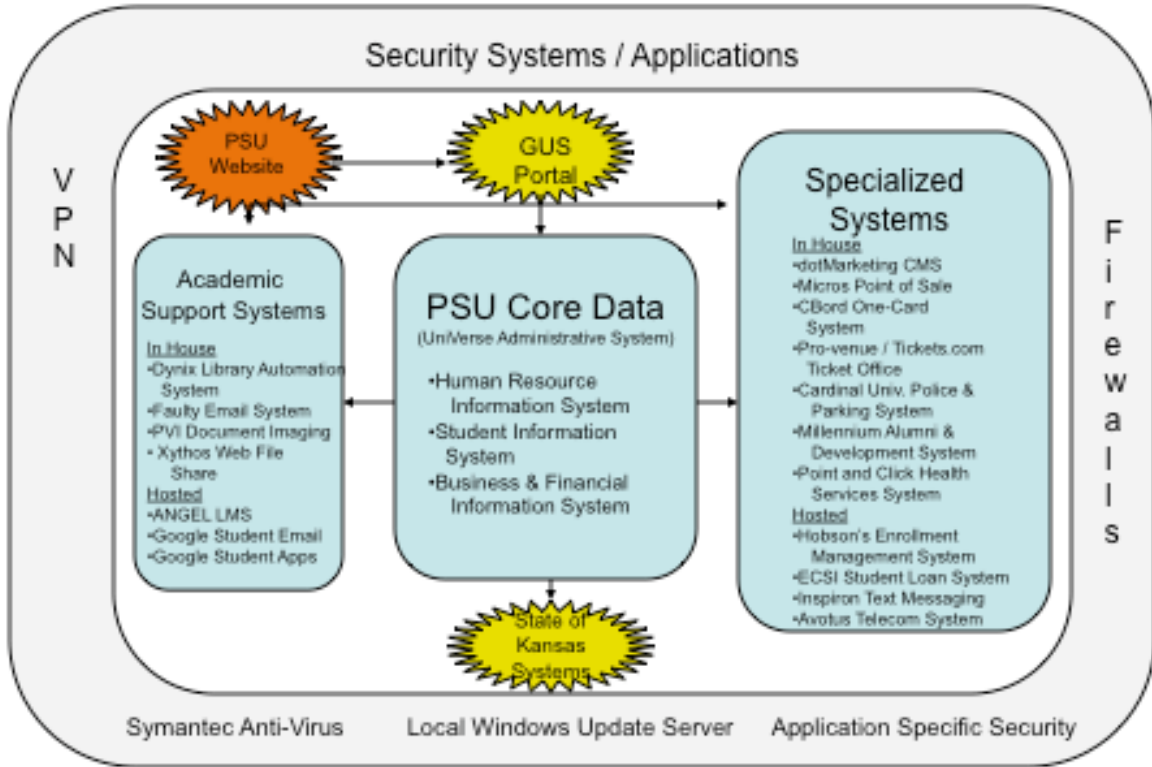
(adapted from: [Hilse, 2000](#))

## SECTION VII ~ ENTERPRISE APPLICATION MAP

Application Data Map Diagram (This data map is being supplied as an alternative to an Enterprise Value Chain. Due to the diverse and complex systems used in higher education overlaying applications on value chain makes the Enterprise Value Chain unreadable/undecipherable.)



## SECTION VIII ~ ENTERPRISE DATA MAP



An Enterprise Data Map is a high level mapping of the data your agency currently stores at a logical level. Completing this section will give the agency a better understanding of the types of data that is being collected and the ability to see where redundant information is being stored in different agency databases.

# Network Diagram

Pittsburg State University  
Network Diagram  
May 2010

