Information and Technology Strategic Plan

2012/13 – 2017/18
Information Resources

July 2012

Information Resources
Information and Technology Strategic Plan

CSU, Chico Community:

I am pleased to share with you the Information and Technology Strategic Plan for fiscal years 2012/13 – 2017/18. The plan identifies an ambitious yet mindful set of high level goals to be accomplished during the next five years. It is an outcome of numerous conversations with students, faculty and staff in an effort to align information and technology efforts with the goals and planning activities of the campus community.

This plan focuses on extending and enhancing the information and technology foundation already in place at CSU, Chico while also delivering new solutions to meet the ever increasing demands of the community and the changing technology landscape. As the campus continues to face increased financial pressure, we view technology as an enabler to empower the campus to realize its vision, mission, and strategic priorities.

We are grateful to our campus partners and key stakeholders for their dedicated efforts to add to this plan. Our next steps, to be completed by June 2013, include further definition of our IT initiatives, proposed tactical objectives and action plans, as well as a detailed vetting of these plans with the campus community.

Michael Schilling
Vice Provost for Information Resources and Chief Information Officer (CIO)

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EXECUTIVE SUMMARY

Background and Process

Information and technology services are provided to the CSU, Chico community to support high quality learning environments and effective business processes. The Information and Technology Strategic Plan is designed to assure that IT priorities and initiatives are identified to support CSU, Chico's Strategic Plan for the Future, the campus Academic Plan and supporting plans for Business and Finance, Student Affairs and University Advancement.

CSU Chico's Strategic Plan for the Future, includes the following strategic priority related to information and technology.

> *"Believing in the wise use of new technologies in learning and teaching, we will continue to provide the technology, the related training, and the support needed to create high quality learning environments both inside and outside the classroom."*

Prioritization and coordination of technology planning and implementation will ensure that Chico State students, faculty, and staff have the information and technology solutions required to meet their learning, teaching, research, and service missions.

This strategic planning process was initiated in the Spring of 2011 with multiple planning sessions including students, faculty, and staff. In these sessions we discussed challenges in higher education and at CSU, Chico. We also discussed ways in which information and technology may help us to deal with these challenges.

The output of these planning sessions generated five strategic goals and supporting proposed tactical objectives

Vision

The Information and Technology Strategic Plan sets the following vision for information and technology.

> *Chico State will be recognized as an innovative and dynamic campus that integrates technology into the fabric of the institution by providing students, faculty, and staff with the information, tools, and services needed to accomplish the University mission.*

Goals

The Information and Technology Strategic Plan has five high level strategic goals, focused on the following areas:

1. Advance the Learning and Teaching Environment
2. Enhance Campus Connectivity and Infrastructure
3. Provide Effective Administrative Solutions
4. Leverage Information and Knowledge Management
5. Improve Information and Technology Services

PLAN OVERVIEW AND METHODOLOGY

At CSU, Chico we have a long history of campus collaboration in developing technology plans. The Information and Technology Strategic Plan (FYs 2012/13 – 2017/18) builds on a 15 year foundation provided by previous strategic plans; Target 2000 (1995-2000), Beyond 2000 (2001-2005) and Aligning with the Future: The IT Strategic Plan (2006-2011).

This proposed plan provides a summary of the strategic goals and initiatives for information and technology at CSU, Chico over the next five years. The plan's near term objectives will be updated annually and the entire plan will be updated every five years. This plan serves as a guide for the future delivery of information and technology services to the CSU, Chico community.
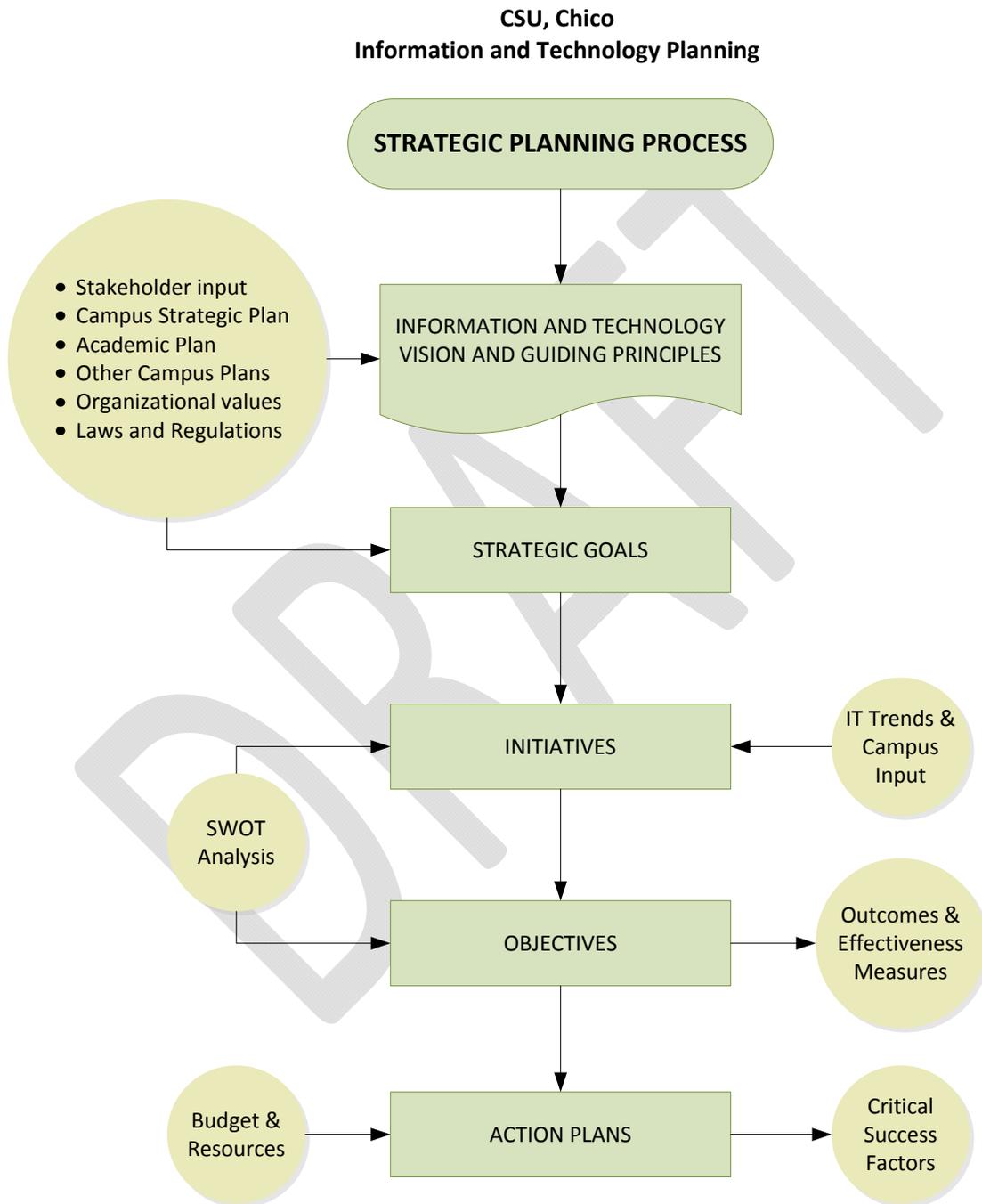
Methodology

The information and technology strategic planning process aligns information and technology objectives with the University mission. The process involved three major phases:

1. **Assessment**: A series of meetings and discussions were held with faculty, staff, and students to discuss technology trends and needs.

2. **Strategy Development**: A high level plan including a vision, guiding principles, strategic goals and initiatives was developed and reviewed with over 20 campus departments and committees. The document was then updated based on these discussions to include high level initiatives and proposed tactical objectives to focus on over the next five years.

3. **Implementation Planning**: Over the next year, tactical objectives, critical success factors, and timelines will be developed for each information and technology initiative.

4. **Fiscal Alignment**: Careful consideration will be given to aligning and prioritizing the information and technology initiatives with University capital and operating budget considerations.

PROCESS

The following framework was used to guide the Information and Technology Strategic Planning process. Stakeholder input, various campus strategic plans, and IT and higher education trends/challenges all served as input to the process.   Next steps include conducting an assessment to identify strengths, weaknesses, opportunities, and threats as part of further defining the IT initiatives, tactical objectives and action plans.

CSU, Chico
Information and Technology Planning

STRATEGIC PLANNING PROCESS

- Stakeholder input
- Campus Strategic Plan
- Academic Plan
- Other Campus Plans
- Organizational values
- Laws and Regulations

INFORMATION AND TECHNOLOGY VISION AND GUIDING PRINCIPLES

STRATEGIC GOALS

INITIATIVES

IT Trends & Campus Input

SWOT Analysis

OBJECTIVES

Outcomes & Effectiveness Measures

Budget & Resources

ACTION PLANS

Critical Success Factors

VISION STATEMENT

Chico State will be recognized as an innovative and dynamic campus that integrates technology into the fabric of the institution by providing students, faculty, and staff with the information, tools, and services needed to accomplish the University mission.

GUIDING PRINCIPLES

These guiding principles are designed to provide an environment where information and technology are used to support high quality learning environments, effective business processes, and excellent service.

- Information and technology contribute to the breadth, depth, and transformation of the University experience.
- Information and technology are strategic University assets.
- Collaboration, communication, and an open exchange of ideas inform superior solutions.
- Wise use of information and technology solutions can help mitigate fiscal challenges.

STRATEGIC PLANNING CHALLENGES

This plan serves as a blueprint for achieving the organization's vision and creating a campus information and technology environment that nurtures innovation and creativity; offers efficient and timely collaboration and communication tools to students, faculty, and staff, both on and off campus; enables the highest levels of research and scholarly collaboration; supports the Chico community and the North State; ensures accountability, security, and trust without breaches of personal information; provides the campus community access to services and each other, and offers a flexible and future-oriented set of services and architecture. Like most universities, however, we face a number of challenges, including:

- Declining fiscal support
- Deferred maintenance needs
- Lack of appropriate data center space while needs are increasing
- Difficulty in funding innovation in addition to maintenance
- An increased focus on outcomes versus innovation
- The globalization of technologies, information and knowledge
- Customer expectations for more sophisticated programs and services

- An IT investment process that is often disconnected from the budgeting process
- Decreasing federal research funding
- Non-competitive IT compensation in some areas
- An environment where salaries are constrained
- An environment where travel for professional conferences, training, and networking among CSU institutions is significantly limited

TIMELINE

During the next year, additional planning will be conducted to further define and elaborate on the IT initiatives, tactical objectives and action plans needed to implement the goals outlined in this plan. Going forward, annual efforts will ensure that we continue to align our objectives with changing campus needs. Below is a high level timeline indicating our next steps in completion and implementation of this plan.

ID	Task Name	2012		2013				2014				2015				2016				2017				2018	
		Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
1	Publish High Level Strategic Plan	★																							
2	Validate Identified Goals																								
3	Validate Supporting Initiatives																								
4	Conduct SWOT Analysis																								
5	Develop Supporting Tactical Objectives																								
6	Identify Outcomes & Measures																								
7	Identify Funding Sources																								
8	Present Detailed Plan to Campus For Review & Feedback																								
9	Publish Detailed Strategic Plan			★																					
10	Goal Planning & Implementation for 2013/14																								
11	Goal Planning & Implementation for 2014/15																								
12	Goal Planning & Implementation for 2015/16																								
13	Goal Planning & Implementation for 2016/17																								
14	Goal Planning & Implementation for 2017/18																								
15	Begin New Strategic Planning Cycle																								★

CSU, CHICO'S INFORMATION AND TECHNOLOGY STRATEGIC GOALS

Goal 1: Advance the Learning and Teaching Environment

Provide high-quality physical and virtual learning environments by developing the technology tools, information resources, consultation, and spaces necessary to support instruction, research, and scholarship.

Goal 2: Enhance Campus Connectivity and Infrastructure

Provide continuous improvement of the information technology infrastructure to accommodate the technology needs of students, faculty, and staff.

Goal 3: Provide Effective Administrative Solutions

Provide reliable and secure systems that support University requirements for academic and administrative processes; provide business analysis and technology tools that maximize student, faculty, and staff time and collaboration; and support delivery of targeted communications and services.

Goal 4: Leverage Information and Knowledge Management

Provide continuous improvement in institutional effectiveness and student outcomes by implementing technologies that support academic and administrative assessment of programs, systems, and initiatives.

Goal 5: Improve Information and Technology Services

Provide continuous improvement of information technology processes to meet or exceed student, faculty, and staff expectations and to keep pace with increased demand for services.
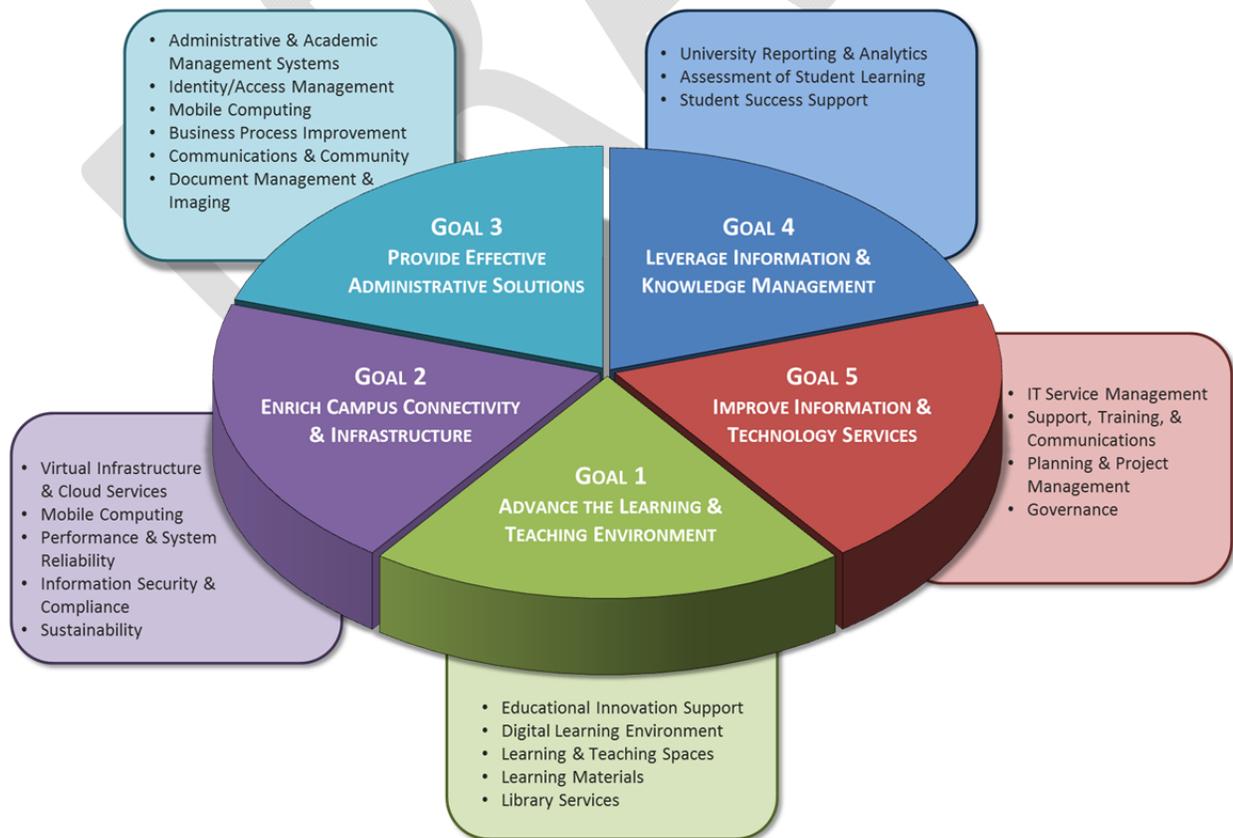
GOAL 1: ADVANCE THE LEARNING AND TEACHING ENVIRONMENT

Create high-quality physical and virtual learning environments by providing the technology tools, information resources, consultation, and spaces necessary to facilitate and sustain instruction, research, and scholarship.

Proposed Tactical Objectives:

1.1   Educational Innovation Support
- Provide technology and support in the redesign of curricula to facilitate student success.
- Provide faculty development opportunities that encourage collaboration in the use of technology-enhanced learning pedagogies to engage the 21st century learner.
- Promote and support the use of creative approaches to assessment of student learning.

1.2   Digital Learning Environment
- Provide faculty and students consistent, high-quality access to electronic learning resources.
- Increase the degree of integration of our learning management system with e-repositories and other systems, both on and off campus.
- Accommodate a variety of learning styles, accessibility needs, and student-directed learning opportunities.

1.3   Learning and Teaching Spaces
- Improve student learning experiences with accessible, flexible physical and virtual classroom designs that accommodate a variety of learning and teaching styles.
- Drive the development of innovative, informal, collaborative digital learning spaces such as conference rooms, residence hall student spaces, informal drop-in collaboration "zones", outdoor spaces, library group and individual study spaces, and specialized training labs.
- Ensure that learning technologies are effective in meeting the varying needs of our students and faculty, both on and off campus.

1.4   Learning Materials
- Leverage the learning management system to integrate alternative learning materials.
- Promote opportunities to create and consume accessible digital/rich media such as electronic books/texts, journals, collections, streaming media, etc.
- Support the creation and use of publicly available, open educational resources.
- Continuously acquire, shape, and provide access to information and resources that support changing curriculum and research needs.

1.5   Library Services
- Identify, select, and maintain access to high-quality library collections in support of teaching, learning & research.
- Offer exemplary library services that meet user's needs.
- Design & improve the library physical building to create flexible learning spaces.
- Continually assess library collections, services, and spaces against needs and opportunities.

GOAL 2: ENHANCE CAMPUS CONNECTIVITY AND INFRASTRUCTURE

Provide continuous improvement of the information technology infrastructure to accommodate the technology needs of students, faculty, and staff.

Proposed Tactical Objectives:

2.1   Virtual Infrastructure and Cloud Services
- Align applications and computing services with the appropriate platform, regardless of the physical location of the server, to most efficiently meet the needs of the University.
- Offer methods of computing, storage, and networking that extend services without restrictions on location for high scalability and reliability.
- Offer physical and virtual data center hosting services which help meet both administrative and academic needs while improving data security, reducing energy consumption and maximizing the efficiency of support efforts and overall costs.
- Provide a virtual software environment to enable anytime/anywhere access to academic and administrative software applications.

2.2   Mobile Computing
- Continue to build out and refresh facilities to improve coverage for wireless networks in University buildings and across campus.
- Ensure the campus continually adapts the wireless network to meet the changing needs of our students, faculty, and staff.

2.3   Performance and System Reliability
- Continue to deploy robust, reliable, and redundant network, hardware, and software architectures that provide high availability across maintenance, data backup, and upgrade events. Engineer and manage our infrastructure to maximize performance, minimize energy use, and provide planning and operational information to support decision making.
- Adopt planning approaches and actions that ensure physical protection and reliable provision of utility services to critical IT facilities while minimizing single points of failure.
- Enhance the University's ability to manage and maintain IT-related aspects of disaster recovery and business continuity planning.

2.4   Information Security and Compliance
- Develop, communicate, and support information management, protection, and reporting obligations for compliance with regulatory requirements.
- Provide a secure and resilient information infrastructure to protect the security, integrity, privacy, and appropriate use of information.

2.5   Sustainability
- Continue to invest in green data center infrastructure technologies that encourage energy savings such as server virtualization, enhanced air handling, and progressive server racking.
- Increase deployment of centrally managed power management to desktop and lab computers.
- Continue to foster partnerships in an effort to improve general campus sustainability efforts by testing new technologies, refining consultation efforts, and identifying unsustainable business processes.

GOAL 3: PROVIDE EFFECTIVE ADMINISTRATIVE SOLUTIONS

Provide reliable and secure systems that support University requirements for academic and administrative processes; provide business analysis and technology tools that maximize student, faculty, and staff time and collaboration; and support delivery of targeted communications and services.

Proposed Tactical Objectives:

3.1   Administrative and Academic Management Systems
- Continue to support administrative and academic systems and services that provide the campus community with effective business processes.
- Maximize integration of administrative and academic systems to ensure data reliability, increase data consistency, enhance communications, and to deliver content and services more effectively.
- Evaluate and implement hosted services and software-as-a-service solutions when appropriate.

3.2   Identity/Access Management
- Provide users with efficient and secure access to the services they need based on their roles and responsibilities.
- Increase timeliness and automation of account provisioning and de-provisioning.
- Improve our ability to support targeted communications and services to well-defined groups and populations.

3.3   Mobile Computing
- Develop a strategy and a device-independent architecture to enable seamless mobile access to University information and processes.

3.4   Business Process Improvement
- Consult with staff and faculty to document existing business processes and understand process requirements.
- Identify areas where technology can be applied to increase efficiency, improve business processes, and deliver value to stakeholders.
- Deliver paperless solutions, self-service technology, automated workflow and electronic authorization/signatures.

3.5   Communications and Community
- Provide student, faculty, and staff users the ability to customize how university information is delivered to them via an integrated communications hub.
- Deliver cohesive and secure collaboration and communications services and technologies.

3.6   Document Management and Imaging
- Provide business process improvement opportunities by promoting document management technologies.
- Support campus sustainability efforts by reducing paper documents through the continued support and implementation of document management systems that include imaging, workflow, and records management.

GOAL 4: LEVERAGE INFORMATION AND KNOWLEDGE MANAGEMENT

Provide continuous improvement in institutional effectiveness and student outcomes by implementing technologies that support academic and administrative assessment of programs, systems, and initiatives.

Proposed Tactical Objectives:

4.1   University Reporting and Analytics
- Implement governance structures to prioritize data-centric initiatives and to document data stewardship.
- Collaborate with campus-wide data owners to continue development of our centralized data warehouse in order to support consistently defined data sets.
- Provide a single, centrally managed suite of business intelligence and reporting tools, through which all data from the central data repository is delivered to end users.
- Continue to develop frameworks that facilitate reporting, analysis, monitoring, and informed decision-making at all levels of the institution.

4.2   Assessment of Student Learning
- Provide technologies that support measurement of learning outcomes.
- Enhance campus ability to assess student learning in targeted courses, within departments and programs, and across the campus.

4.3   Student Success Support
- Analyze student performance data to assist in the early and on-going identification of student success indicators.
- Enhance reporting methods that inform students, faculty, and staff of academic performance issues in a timely manner.
- Continue to provide students with easy access to the information they need to help them make progress toward graduation.

GOAL 5: IMPROVE INFORMATION AND TECHNOLOGY SERVICES

Provide continuous improvement of information technology processes to meet or exceed student, faculty, and staff expectations and to keep pace with increased demand for services.

Proposed Tactical Objectives:

5.1   IT Service Management
- Use Information Technology Service Management (ITSM) best practices to improve IT service quality and staff efficiency.
- Plan and manage IT services with the priority of aligning with campus business and academic needs.
- Improve customer satisfaction by providing predictable and consistent access to information and technology services.
- Use metrics and key performance indicators to monitor, review, and update IT services to create a process of continual service improvement.

5.2   Support, Training, and Communications
- Provide a methodology for communicating information and technology-related strategies and plans to the University community.
- Provide training opportunities for faculty and staff to develop knowledge and skills in strategic areas to keep pace with evolving technologies.
- Enrich University communications to a variety of audience groups by providing effective visual and creative solutions.

5.3   Planning and Project Management
- Develop a unified and transparent project submission and prioritization process to align technology projects with University objectives and priorities.
- Standardize critical campus project management processes and methodologies to ensure effective management of information and technology projects, programs, and resources.
- Improve collaboration and resource utilization to deliver technology most effectively to the University.
- Function as collaborative leaders in facilitating information and technology strategies, priorities, and decisions.

5.4   Governance
- Continue to leverage effective governance and advisory structures and processes to ensure information and technology services and initiatives are meeting the needs of the University.