



Information Technology Strategic Plan and Review

Colorado State University Pueblo
2013-2018

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Introduction

Mission

Colorado State University - Pueblo's Information Technology (IT) resources provide the highest quality technology-based services and systems, in a cost-effective manner, to support the university's mission and goals as they apply to student learning, academic research, and community service.

Vision Statement

To achieve its goals, Colorado State University - Pueblo must continue to take advantage of the latest information technologies to remain competitive among its peer universities and to meet students' expectations. We strive to be a highly integrated, extremely reliable, using best practices for our IT infrastructure, ultimately providing first class academic and administrative services and systems, is our vision.

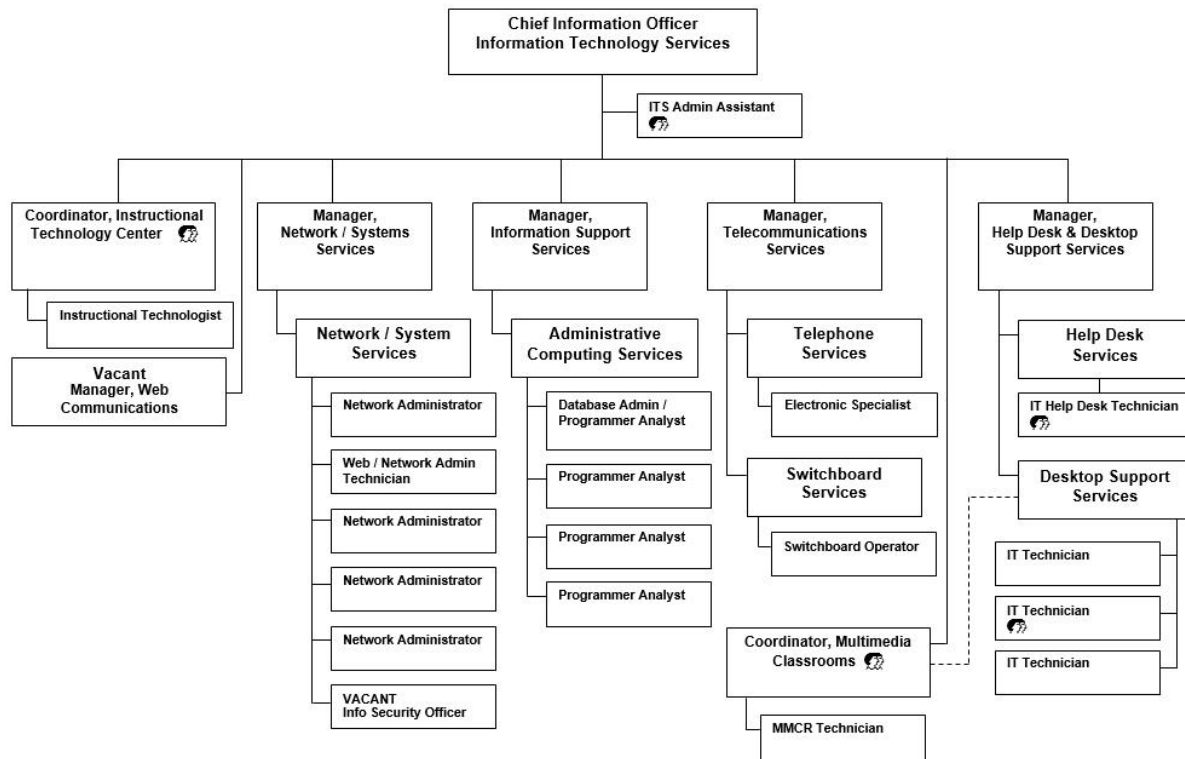
Colorado State University - Pueblo's IT infrastructure environment consists of a variety of information, computing, and telecommunication systems designed to meet the needs of a complex higher education institution. The University envisions an electronic learning community that meets the needs of on-campus and extended campus students, faculty, and programs while supporting outstanding teaching and learning, research, and efficiently managed administrative systems.

As Colorado State University Pueblo's "digital utility," our administrative and academic systems employ web-delivered solutions that are user-friendly, promote a self-service capability, and support the better use of data for decision-making. Such systems will make important information more readily available, thereby improving access to the University's information resources and enhancing the effectiveness of information analysis across university departments. Our administrators, faculty, staff, and students expect the University's IT systems to be like other utilities...always available. This level of service requires our systems to be built using high reliability and redundant techniques. Colorado State University - Pueblo is committed to providing such "always on" services.

The Information Technology Strategic Plan for 2013-2017 reflects the mission of our university in the state of Colorado to provide both a premier residential campus and an extensive and growing distributed learning program for students throughout the state and the world. Our student population is becoming more diverse in technical ability, background, location, and learning experience and preference. In meeting these diverse and ever-changing students attributes, Colorado State University - Pueblo has developed a variety of synchronous and asynchronous course delivery methods to reach these non-traditional, and often underserved, students. In fact, our university has a long tradition of meeting the needs of students across the state, particularly in rural areas, with a variety of course delivery methods tailored to suit individualized needs. Online student services are an invaluable and cost-effective means of providing distributed learning students access to academic and administrative systems wherever and whenever needed. Our university is committed in providing all student services in an easy online, self-service fashion.

This plan strives to support the CSU-Pueblo Strategic Plan and its many goals. Details of specific connection to the university's Strategic Plan are described throughout this plan.

Organizational Chart



Student Employment

Strategic Areas

Instructional Technology



Information Support



Classroom Multimedia



Telecommunications



Network/Systems



Help Desk and Desktop Support





Goals/Objectives/Outcome by strategic area

Instructional Technology

Goal

Assist CSU-Pueblo faculty, students, and staff in meeting their instructional technology needs, and ensure that we support meeting those needs in the university's technology infrastructure.

Objectives

	Year(s)
• Maintain regular and updated technology training for faculty.	Ongoing
• Provide regular orientations for new and transfer students, faculty, and staff.	Ongoing
• Provide consistent communication via email, blog, video, podcast, and social media.	Ongoing 2014-2016
• Research and implement pilot testing of open source learning management systems.	2013-2014 Ongoing
• Develop self-paced online LMS training for new and current users.	Ongoing
• Create systematic processes for gathering information about instructor needs.	Ongoing
• Share information about our findings related to instructor needs.	Ongoing
• Base ITC program and service development on the needs we identify.	Ongoing
• Advocate for known and anticipated faculty needs when working on CSU-Pueblo technology infrastructure and service development groups.	

Outcome

- Annual IT survey should indicate 90% + (agree and strongly agree) that instructional technology support, resources, and training needs are being met.
- Self-paced online course should have 20+ active users per semester once deployed
- ITC staff interacts with faculty on a regular basis (i.e. Instructional Technology Board, training events throughout the year, faculty focus groups about tools and pilots, meetings with new faculty) and document those interactions on Instructional Technology Assessment Matrix (ITAM).
- ITC staff share information about instructor needs via email, social media, and other digital and analog methods.



Instructional Technology

Goal

Strengthen faculty knowledge of instructional technologies and how to use them via more customized, just-in-time information.

Objective

Year(s)

- Redesign ITC website to include technology tools for faculty to receive various forms of information. Ongoing
- Maintain up-to-date information and resources on the website.
- Reuse training materials as self-teaching guides.
- Provide options for faculty to request or participate in customized training.

Outcome

- ITC website information is reviewed, revised and expanded on a regular schedule.
- Increased numbers of face-to-face training sessions offered in the LARC 217 training lab.
- Use analytics to see the most popular training resource topics posted on our YouTube account.



Instructional Technology

Goal

Provide opportunities for faculty to discover new technology for teaching.

Objective

Year(s)

- Provide instructions in the use of various software and hardware to support instructors in exploring new technologies relevant to their teaching interests and goals.
- ITC consults with faculty on assessment options related to their projects.
- Carry out pilot projects with faculty of potentially valuable instructional technology tools (e.g., eLearning systems, web-based recording, and virtual worlds)
- Support Blackboard and enhance its functionality in ways that support innovative and effective teaching and learning.

Ongoing

Outcome

- ITC leads pilots involving instructors using a variety of academic tools including eLearning systems, web-based recording tools, and virtual worlds.
- ITC publishes reports about the faculty projects it supports.
- Blackboard system is upgraded at appropriate times.



Instructional Technology

Goal

Encourage collaboration, communication, and engagement with technology tools to strengthen relationships between faculty, students, and staff.

Objective

Year(s)

- Help faculty implement teaching practices that connect with priorities in the University strategic plan (e.g., course activities that deepen student engagement in the community, encourage student research in undergraduate courses).
- Research and report on creative and innovative ways to drive stronger engagement and retention within the classroom. (e.g. gamification, Wordpress, Mozilla Open Badges, and BadgeOS)

Year or
Ongoing

Outcome

- ITC will arrange or give at least one seminar in regard to collaboration, communication, or engagement each Fall and Spring semester.
- Attend meetings, events, and conferences that inspire new perspectives and the sharing of information that can help CSU-Pueblo strategic goals.



Classroom Multimedia

Goal

Develop new tracking system or scheduling and analysis of the campus classroom multimedia technology.

Objective

Year(s)

- Develop a database of all classroom multimedia equipment. The database will contain the equipment make, model, serial numbers and date of purchase.
- Use database data to track inventory, analyze spending metrics, and anticipate replacement equipment more efficiently.

2013

Outcome

- Spot check on a weekly basis to correct any issues and inconsistencies with the Access database.



Classroom Multimedia

Goal

Develop a standards-based approach to ensure maintenance plans are current on all CSU-Pueblo distance and classroom technology to provide faculty and students reliable and consistent experiences.

Objective

Year(s)

- Develop an end of life (EOL) program for all classroom multimedia equipment Ongoing

Outcome

- The industry standard EOL for data projectors is six years.
- The audio, video equipment and control systems EOL is subjective.



Classroom Multimedia

Goal

Provide effective, easy to operate multimedia equipment in the classroom that enhances the teaching and learning capabilities of faculty, staff and students.

Objective

Year(s)

- Operation of the multimedia equipment should be intuitive.
- The multimedia equipment must fulfill the needs of the campus community.

Ongoing

Outcome

- Both the operation and the effectiveness of the classroom multimedia equipment will be determined by campus survey responses from the annual ITS survey.



Network/Systems

Goal

Using network management system to track unplanned downtime on mission essential systems.

Objective

Year(s)

- Provide redundant infrastructure for systems that are deemed critical to the operation of the campus. This includes servers, storage, network backbone, and internet connectivity. Ongoing

Outcome

- Provide 99.9 percent availability with only 0.1% of unplanned outages. This means that the network infrastructure would only have 8.76 hours of unplanned downtime during the year.



Network/Systems

Goal

Provide all campus customers either wired or wireless connectivity.

Objective

Year(s)

- | | |
|---|-----------|
| • Architect campus network to provide wireless service across the campus for indoor and outdoor classroom/common areas. | Ongoing |
| • Deploy outdoor wireless access points for coverage of central campus . | Ongoing |
| • Provide wireless coverage at satellite campuses equal to wireless coverage available at main campus. | 2014-2018 |
| | Ongoing |

Outcome

- Conduct wireless coverage evaluation based on customer feedback to determine wireless connectivity in each public location accessible by faculty, students, and staff.
- Conduct annual customer service IT survey to determine wireless access performance and coverage.
- Conduct wireless surveys (using state of the art equipment) to determine wireless coverage areas.



Network/Systems

Goal

Maintain and ensure a secure network.

Objective

Year(s)

- Provide systems that are secure for all ITS customers both on and off of the campus. 2013-2018
- Conduct security audits – AD audit for all security groups.
- Continue to develop an automated process that deletes old accounts.
- Develop a Computer Resource Application (CRA) process that is completely online for better efficiency/control.
- Research, test and deploy a non-Windows software patching utility to maintain and assure up to date software.
- Build, test and deploy an internal system that handles DMCA violations. Continue to work with Housing to educate students about DMCA.
- Control and audit physical security to datacenter.
- Identify all systems with Personally Identifiable Information (PII) and properly secure access to those servers.
- Implement the SANS 20 Critical Security Controls for Effective Cyber Defense as ITS deploys new infrastructure.
- Create a comprehensive Disaster Recovery/Business continuity plan for the entire campus, test annually, and maintain up to date information.
- Conduct annual mock incident drills.
- Research, test and deploy new antivirus software campus wide.
- Research, test, and deploy new University firewalls to meet existing traffic (250MB) and potential new traffic (10GB) from NSF grant.
- Continue to evolve the IT Security Awareness program to reach all faculty, staff, and students.
- Implement the InCommon methodology and determine implementation feasibility.
- Research, test and deploy a logging solution/Security Event and Incident Management (SEIM) system.

Outcome

- Ensure these systems are secure by conducting risk analysis and penetration testing.



Information Support

Goal

Support business operations with dependable, secure, flexible and scalable services and systems which ensure maximum efficiency and effectiveness.

Objective

Year(s)

- Provide an employee online leave entry system. CSUP has had a paper process to manage employee leave that is data entered by Human Resource clerks. This is timely and inefficient. A service in the Employee Web Portal is being developed to improve the efficiency of this process. 2014
- Implement student registration wait list. Currently CSUP does not have a facility that students can identify interest in enrollment in a full section of course offerings. A wait list will provide the ability for students to fill seats as they become available and inform administration of courses that may need additional offerings. 2014
- Implement Quali Financial System (KFS). Collaborate with Fort Collins to utilize unified financial reporting system. A CSU System wide solution to consolidated and consistent financial reporting has been void. The Fort Collins campus is utilizing KFS; this solution is planned for CSUP. 2014
- Provide analytic solution for projections and administrative decision making. The growing need to project and forecast data for administrative decision making has revealed the need for an analytic solution. Ongoing
- Improve access to data for user daily reports and decision making. The existing process for information requests is cumbersome and limited to canned reports. There is need to expand the accessibility of administrative system information for user reference and reporting. Ongoing
- Upgrade user navigation and improve user functionality in Administrative Information System (AIS). The front-end interface of AIS is dated and can be improved to be more user friendly and intuitive. Consideration should be given to provide accessibility of more services via the web/off-campus. Ongoing
- Upgrade user navigation and improve user functionality in Administrative Information System (AIS). The front-end interface of AIS is dated and can be improved to be more user friendly and intuitive. Consideration should be given to provide accessibility of more services via the web/off-campus. Ongoing

Outcome

- Complete the project deadlines by 100%



Telecommunications

Goal

Maintain/upgrade campus infrastructure (wiring/cabling/jacks) at a level that meets the changing needs of the campus community.

Objective

Year(s)

- Complete cabling work requests in a timely manner.
- Complete larger special projects in a timely manner.
- Design and implement infrastructure upgrades that meet the needs of the campus community and conform to emerging technologies.

Ongoing

Outcome

- Meet project deadlines as listed on work orders or established by telecommunications manager.
- Meet customer expectations (90% positive results) for work completed in a timely fashion based off of annual IT survey results



Telecommunications

Goal

Provide telephone service that meets or exceeds the expectations of the campus community.

Objective

Year(s)

- Maintain telephone system to minimize/eliminate outages in order for business to be conducted without interruption. Ongoing
- Maintain parts stock so as to ensure immediate ability to effect repairs to telephone system.

Outcome

- System up-time 99.9% of the time.
- Show documented downtime information.



Help Desk and Desktop Support

Goal

Create and implement on-line training for Help Desk work study students using the University's Learning Management System (LMS).

Objective

Year(s)

- | | |
|---|-----------|
| • Identify areas of concern where additional training is needed and on-line training would be advantageous. | 2013-2014 |
| • Working closely with ITC, create training modules to address areas of concern. | 2013-2014 |
| • Implement on-line training for all work study students. | Ongoing |
| • Implement tracking for completion of training modules. | 2013-2014 |
| • As needed, incorporate new modules and change existing modules to add or change information. | Ongoing |

Outcome

- Internal tracking mechanism will provide reports on percent of work study students completing training modules and their overall scores, allowing us to provide remedial training as needed.
- Supervisor evaluations will give further input into the effectiveness of each training module.



Help Desk and Desktop Support

Goal

Expand Help Desk hours to provide services at later hours and on weekends.

Objective

Year(s)

- Initially provide work study students to cover all hours the LARC is open to students. Ongoing
- Initially provide work study students to staff an after-hours call center.

Outcome

- Using Spiceworks reports, track number and type of calls and what time of day they come in.



Help Desk and Desktop Support

Goal

Work to increase training opportunities for Desktop Support Technicians

Objective

- | | Year(s) |
|--|---------|
| • SpiceWorld attendance by one technician. | 2014 |
| • Identify other appropriate training or seminars. | 2014 |
| • Send each technician to at least one training/seminar per fiscal year. | Ongoing |
| • Have technicians that attend training, bring back and train others in what they have learned | |

Outcome

- Each technician that attends a training program or seminar will provide training to all other technicians. The trainings will be tracked and documented in Excel.



Help Desk and Desktop Support

Goal

Maintain an IT Help Desk that is knowledgeable, responsive to customer needs, and performs excellent customer service for faculty, students, and staff.

Objective

Year(s)

- Work closely with ITC to create training modules for Help Desk work study students. Ongoing
- Design IT Help Desk effectiveness survey that covers all departments in IT and implement it yearly.
- Based on feedback, create additional training modules to enhance work study training.
- Request IT departmental personnel make practice calls to Help Desk to evaluate effectiveness of training.
- As budget allows, increase available response hours (by telephone or online chat) of Help Desk.
- Identify appropriate training or seminars for each technician.
- Send each technician to at least one training/seminar per year.

Outcome

- 100% of work study students must complete online training.
- Request departmental personnel to assist in evaluations by making practice calls and providing feedback.
- Ensure high marks (90% +) on all IT survey questions.
- Each technician will provide training to all other technicians, who will help evaluate the value to the group.
- As appropriate, technician will work with ITC in creating a training module for work study students.