Appendix B

California State University, Chico
Office of the Vice Provost for Information Resources

Aligning with the Future
2008-2009 Action Plan

August 2008
Vision Statement

“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.”

CSU, Chico’s Strategic Plan Priority 3

Aligning with the Future, the California State University, Chico strategic plan for information technology, connects the university strategic plan to the continuous development of technology to support high quality learning environments and effective business processes. Our vision is to align technology with the vision, mission and goals of the University through support for faculty and staff development, the investment in our technology infrastructure, and the wise selection of technological opportunities.

The CSU, Chico technology plan envisions an environment that provides:

- opportunities for innovations in teaching and business practices
- consideration of diverse teaching and learning styles
- online instruction and collaboration free of time and space limitations
- support for the Seven Principles of Good Practice in Undergraduate Education
- flexible state-of-the art learning spaces
- access to training and curriculum development options
- continuous improvement of campus business practices
- tools, training, and resources to assess institutional effectiveness and student outcomes
- capacity for lifelong university connections
- confidence in the value of our electronic learning community

Background

The IT Strategic Plan builds on a ten year foundation provided by the Target 2000 and Beyond 2000 strategic technology plans. Chico has a rich history of leadership in technology and continues to strive for excellence in delivering services and infrastructure while providing relevant and sustainable technology to support and enhance our teaching and learning environment. Assuring the evolution of our electronic learning community by building and renewing the critical technology infrastructure will continue to be a priority during the next five years.

Technology Planning Themes

The IT Strategic Plan contains five main themes focusing on the areas of teaching and learning, information literacy, electronic learning infrastructure, enterprise information management systems, and information and knowledge management. These themes consider the natural progression in products and services necessary to provide a sustainable technology model for the campus learning environment.
Theme A – Teaching and Learning

Provide support for the redesign of curricula to maximize our investment in technology and assure students access to the electronic resources that support curricula.

Enhance the teaching and learning experience by supporting diverse and innovative use of a state of the art learning management system.

CSU, Chico’s Strategic Plan Priority 3

Create a high quality learning environment focused on student success by providing faculty with the technology tools and support necessary for the delivery of instruction.

Time Saving Strategies

Leverage technology to reduce faculty, staff, and student time required by non-learning activities

Service Level Objectives

- Provide tools and services that improve time management for faculty (grading, rosters, assignment alerts, etc.)
- Provide training and self-service applications that reduce the time required for non-learning activities (registration, advising, travel, etc.) for faculty, staff, and students
- Deliver support and training that reduces the “technological overhead” (classroom setup, course material preparation, etc.)

Action Plan

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<thead>
<tr>
<th>Projects</th>
<th>Time frame</th>
<th>Status</th>
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<tbody>
<tr>
<td>Complete LMS Blackboard (Bb) Vista implementation</td>
<td>Fall 2007</td>
<td>Complete</td>
</tr>
<tr>
<td>Develop BbVista metrics</td>
<td>Summer 2008</td>
<td>In Progress</td>
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<tr>
<td>Implement BbVista Self Service application</td>
<td>Fall 2008</td>
<td>In Progress</td>
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Performance measures

- Use of/satisfaction with the Learning Management system
- Use and satisfaction of CMS/PS Student Administration system
- Utilization of online learning tools (e.g., online syllabus, tests grades, etc.)
- Utilization of self service tools
Theme A – Training Strategies

*Train faculty, staff, and students on learning technologies, productivity tools, and associated support services*

**Service Level Objectives**
- Support faculty use of technology resources with LMS functionality training
- Provide desktop productivity technology training for campus users
- Deliver training that supports administrative activities (CMS/PeopleSoft)
- Support professional development training opportunities for technology staff to maintain currency on technology tools
- Provide students with technology and library training
- Maintain 90% plus Overall Satisfaction with IT Training/workshops
- Maintain a satisfaction rating of Very Good or better for overall attendee satisfaction

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<tr>
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<tbody>
<tr>
<td>Training management tool for cross campus training programs</td>
<td>Spring 2009</td>
<td>In Progress</td>
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<tr>
<td>Redesign and refresh the Library Education Room (Meriam Library 226)</td>
<td>Summer 2008</td>
<td>In Progress</td>
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</tbody>
</table>

**Performance measures**
- Faculty, staff, and student participation in training
- Faculty, staff, and student satisfaction with training
- IT Training courses offered
- Professional development spending for IT staff
- Student Computing workshop survey data
- IT Training class evaluations and IRES Survey data
**Theme A – Design Strategies**

*Promote the successful integration of pedagogy and technology through faculty development opportunities*

**Service Level Objectives**

- Support faculty efforts in redesigning their curriculum (course building, design, assessment, and evaluation)
- Encourage faculty to make their course syllabus accessible to all students
- Support and encourage faculty use of the Rubric for Online Instruction when building courses with online components
- Provide monthly Technology and Learning and Teaching Symposia (TILT)
- Support large course redesign through training and other resources
- Support Exemplary Online Instruction program with training, support services, and facilitation of presentations, feedback, and awards
- Support the redesign and refresh of campus Web sites as needed

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<tr>
<th>Projects</th>
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<tbody>
<tr>
<td>Accessibility Camps</td>
<td>Fall 2008</td>
<td>In Progress</td>
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</table>

**Performance measures**

- Utilization of LMS technologies
- Satisfaction with access to IT resources to support teaching
- Perceptions that technology benefits/quality of teaching, student learning, creativity in presenting material
- Increased use of best practice learning models (e.g., Exemplary Online Instruction)
- External recognition of CSU, Chico best practice learning models
- Completion rate of accessibility training
Theme A – Connection Strategies

Create a strong connection between classroom and online learning environments

Service Level Objectives

- Provide high quality Smart Classroom learning environment
- Provide high quality online learning environment
- Provide one-on-one training within 24 hours of request
- Install/refresh Smart Classrooms as funding provides
- Provide improved Smart Classroom set-up time and ease of use through standardization of technologies
- Promote the use of library resources/Merlot, shared course materials, streaming media, chat
- Provide support for classroom technology and introduce tools that increase student participation/engagement

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<tr>
<td>Develop standard reports on teaching &amp; learning tools used in Vista</td>
<td>Summer 2008</td>
<td>Complete</td>
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<tr>
<td>Implement interactive response systems (clickers) into classrooms</td>
<td>Fall 2008</td>
<td>In Progress</td>
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Performance measures

- Faculty satisfaction with smart classrooms
- Faculty use of Smart Classrooms
- Perception of availability of Smart Classrooms
- Perception of advantage of technology in student learning
- Most used teaching &learning tools in Vista
- Perception that faculty have access to Smart Classrooms when needed
- Student access anytime, anyplace perceived benefit
- Perceived benefit of technology in overall quality of teaching
- “Clicker” adoption/satisfaction
Theme A – Access Strategies

Expand and enhance the distributed learning environment

Service Level Objectives

- Ensure that origination rooms are ready for daily scheduled classes with all computers, lighting, audio and video equipment operational and properly prepared for live instructional distribution over the Internet
- Deliver 99% error-free distribution of 50-80 hours of streaming media per week
- Provide faculty training, consultation, and assistance during class
- Provide facilities preparation and technical support for scheduled videoconference and satellite events

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<tr>
<td>Distance Learning and Infrastructure needs assessment</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Develop standards and implement new campus Media Server</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Develop Web interface for University photo archives</td>
<td>Fall 2008</td>
<td>In Progress</td>
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</table>

Performance measures

- Number of non-classroom-based students
- Active LMS classes/students
- Class delivery success rate
- # of total hours streaming media delivered
- Student satisfaction
- Faculty satisfaction
Theme A – Resource Strategies

Provide electronic resources in all formats to meet the teaching, learning, and research needs of the campus community

Service Level Objectives

- Provide access to electronic journals including the CSU Electronic Core Collection which support the curriculum
- Encourage increased use of electronic reserves both through the library and the Learning Management System
- Continue to build an historic map and photograph collection
- Provide multisearch capabilities to electronic resources across the collection
- Provide listening and viewing facilities for multi-media materials
- Offer email and live chat reference services (maintain membership with Question Point consortium) to enable 24/7/365 online reference services
- Where possible, create all electronic reserves according to ATI requirements

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<td>Electronic Theses – Phase I Design / Phase III - testing</td>
<td>Fall 2008</td>
<td>In Progress</td>
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<tr>
<td>Implement Single-Sign-On for library access from Portal</td>
<td>Fall 2008</td>
<td>In Progress</td>
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<tr>
<td>Convert obsolete media formats to CD and DVD</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Work with SEIR to add collection of PBS videos to Electronic Core Collection</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Work with Library Advisory Committee and Book Chairs to assess how book funds are allocated.</td>
<td>Fall/Spring 2008</td>
<td>In Progress</td>
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</tbody>
</table>

Performance measures

- Use of/satisfaction with Library
- Use of electronic resources (# of total searches in electronic databases, # of journal abstracts consulted, # of articles retrieved)
- Use of reserve materials (paper vs. electronic)
- Library data (ReSEARCH Station hits, core statistics)
- LibQUAL+™ and QI survey analysis (3 year cycle)
Theme B – Information Literacy

Assure that all students achieve basic and discipline-based information literacy skills and that students understand their responsibilities related to the ethical use of information.

_**CSU, Chico’s Strategic Plan Priority 3**_

Ensure student success throughout their university experience, promote critical thinking skills, and create life-long learning behaviors by providing the basic skills and training necessary to expose students to available sources of information, its relevance and reliability, and the ethical use of that information.

**Skills Strategies**

_Incorporate fundamental information literacy skills and concepts into the first-year experience and facilitate integration of information literacy into academic programs_

**Service Level Objectives**

- Provide instruction in Introduction to University Life (UNIV001C), CMST 011, English 1, and other large-enrollment general education course(s)
- Deliver self-paced information literacy training (Web-based tutorials) to ensure point-of-need instruction
- Deliver point-of-use/time-of-need library reference services
- Foster departmental and faculty partnerships to incorporate Information Literacy into curriculum.
- Provide information literacy training workshops for instructors

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<tr>
<td>Refresh ReSEARCH Station page to simplify access to electronic resources</td>
<td>Fall 2008 / Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Introduce clickers to IL programs to improve delivery and assessment</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Support revised IL curriculum in University 101</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Investigate methods to integrate assessment of information literacy into targeted courses</td>
<td>Spring 2009</td>
<td>In Progress</td>
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**Performance measures**

- # of Information Literacy Sessions/student enrollment
- Assessment of information literacy component of University 101
Theme B – Knowledge Strategies

Assure all graduates are confident and competent in their ability to use information resources in their chosen career and are prepared for life-long learning

Service Level Objectives

- Provide discipline specific information tools and resources for upper division students in required courses in the major, and in Writing Proficiency courses
- Tie information literacy to research methods courses and/or offer separate courses in disciplinary information literacy
- Deliver library instruction to faculty/students as requested and provide information literacy topics/materials to faculty for use within the curriculum
- Provide current discipline-specific subject Web pages
- Provide major-specific workshops upon faculty request

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<tr>
<td>Approach faculty about incorporating information literacy into upper division and WP courses</td>
<td>Fall 2008 Spring 2009</td>
<td>In Progress</td>
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Performance measures

- Faculty or faculty/librarian assessments of student ability to retrieve, evaluate, and synthesize information into knowledge about the chosen field
- Number of departments and courses that request workshops in upper division courses
- Faculty perception that graduates of program are prepared/use of technology
- Faculty perception of computers and student learning
Theme B – Ethics Strategies

**Ensure understanding and application of the ethical principles of authorship, academic honesty, intellectual property, and fair use of information**

**Service Level Objectives**
- Provide active programs throughout the curriculum to educate students about the principles and requirements of ethical information use, including appropriate citation use and plagiarism
- Support the campus honor code. Provide uniform enforcement of academic honesty and intellectual property issues
- Communicate campus procedures on intellectual property and the rights of use and ownership and provide updates and maintain the copyright information Web site
- Actively engage in the Academic Integrity Initiative, development of campus policy, and continue presence on the Academic Integrity Board
- Support faculty use of Turnitin application to detect plagiarism

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<tr>
<td>Offer training and assistance in new release of Turnitin</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Incorporate ethical use of information as a question in the CSU QI survey</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Specifically address information ethics in University 101</td>
<td>Fall 2008</td>
<td>In Progress</td>
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**Performance measures**
- University 101 assessment
Theme C – Electronic Learning Infrastructure

Assure that all students, faculty, and staff have access to appropriate information and instructional technology both inside and outside of the classroom.

CSU, Chico’s Strategic Plan Priority 3

Accommodate the technology needs of faculty, students, and staff by implementing, maintaining, and continuously refreshing the basic building blocks of the technology environment.

Access Strategies

**Guarantee faculty, students, and staff access to secure and maintainable networked personal computing devices**

**Service Level Objectives**
- Assure all new computers acquired are purchased with a three-year warranty. Deliver standard desktop tools image (tools) on centrally managed machines
- Provide supported hardware and software procurement guides and communicate clear standards for supported/non-supported hardware and software purchases
- Use transparent tools to centrally manage 85% of Windows computers. Implement Macintosh management

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<tr>
<td>Implement limited desktop refresh – extend special prices to campus community</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Replace LANDesk with MS Systems Center</td>
<td>Fall 2008</td>
<td>In Progress</td>
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<tr>
<td>Implement Apple Desktop Management for Macs – Phase I</td>
<td>Fall 2008</td>
<td>In Progress</td>
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**Performance measures**
- Percentage of faculty/staff computers which are managed centrally
- Quality of centrally supported computer workstations (% computers meeting standards)
- Faculty and staff satisfaction
Theme C – Support Strategies

Provide software, hardware, and networking support for faculty, staff, and students

Service Level Objectives

- Provide single point of contact (help desk) for all areas of technical support (computing, networking, telephone, software, accounts, etc.). Maintain help desk service request/support call averages at a level sufficient to provide satisfaction with services and limit downtime
- Maintain 80% or higher overall faculty, staff, and student satisfaction with Help Desk
- Deliver on-site technical support for setup/repair/maintenance of computing equipment and printers based on a field services priority classification system
- Deliver centralized support for Smart Classrooms and provide evening hours help desk support to enhance distance and online education
- Integrate library systems with campus administrative systems
- Provide administration and maintenance for a subset of departmental servers through established co-hosting service agreements
- Deliver/upgrade/maintain portal functionality with high availability and response time for access to online services (CMS/PS, LMS, announcements, student email, etc.)

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<th>Action Items</th>
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<tbody>
<tr>
<td>Remedy Replacement</td>
<td>Spring</td>
<td>2009</td>
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<tr>
<td>Library E-Commerce (fines, ILL transactions, bills)</td>
<td>Fall 2008</td>
<td>In Progress</td>
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</table>

Performance measure

- Faculty, staff, and student satisfaction with support
- Help desk phone response time
- ACD performance statistics
- Service requests/support calls per FTE faculty/staff/student
- Co-hosted server availability
- Critical enterprise server availability (E-mail, Portal, Directory)
Theme C – Training Strategies

**Invest in staff and faculty by providing technology training to develop exceptional skill sets and encourage innovative ideas**

**Service Level Objectives**
- Deliver just in time desktop office and Web development training for campus users
- Provide funding support for professional development opportunities (e.g. conferences, meetings, users groups, seminars, etc.) for campus technology staff
- Promote and provide funding for new technology training to keep technical staff current on tools and systems and prepared for future technology needs.
- Promote and fund training for knowledge management, CMS, LMS, security, enterprise systems, applications development, project management, etc.

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<tr>
<td>New administrative application for training programs</td>
<td>Spring 2009</td>
<td>In Progress</td>
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</table>

**Performance measures**
- Training numbers/dollars/courses
- Professional development statistics
- Faculty/staff satisfaction with training
Theme C – Lab Strategies

Support effective design and use of both centralized and decentralized computer labs

Service Level Objectives
- Reduce hardware and software costs by leveraging purchasing power
- Develop methods to share lab management and provide support for departmental labs
- Maintain a 4-year refresh cycle for central lab computers
- Maintain 100% of central lab computers at or above baseline functionality
- Maintain 100% satisfaction level with contracted department labs
- Reduce costs and maintain quality of lab computers within and across colleges

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<tbody>
<tr>
<td>Redesign and refresh the Library Education Room (MLIB 226)</td>
<td>Summer 2008</td>
<td>In Progress</td>
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<tr>
<td>MLIB 450 Computer Lab Expansion</td>
<td>Spring 2008</td>
<td>In Progress</td>
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</table>

Performance measures
- Faculty and student satisfaction
- Central lab computers purchased
- Inventory of central lab computers meeting baseline standards
- Contracted department lab support satisfaction survey
- Open access labs usage statistics
Theme C – Classroom Strategies

Provide reliable and quality classroom technology that meets the needs of students and faculty

- Maintain and support a standard set of hardware/software for Smart Classrooms
- Provide wireless connectivity in classrooms as required for instruction need
- Maintain 98% or greater uptime for all classroom media equipment
- Respond to help desk calls within 15 minutes
- Provide 85% or greater user satisfaction with help desk resolution
- Provide public address system set up and break down
- Service and repair A/V equipment as needed

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<tr>
<td>Build scheduled Smart Classrooms, refresh scheduled classrooms</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Mediate designated classrooms and conference facilities in the new Student Services Center</td>
<td>Summer 2008</td>
<td>In Progress</td>
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<tr>
<td>Roll out Turning Point “clickers” for general use</td>
<td>Fall 2008</td>
<td>In Progress</td>
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</table>

Performance measures

- Faculty and student satisfaction
- Number of Smart Classrooms as a percent of total centrally scheduled classrooms
- # of Help Desk calls/average time of resolution
- % of classrooms that are considered Smart Classroom (equipped to support the use of multimedia instructional resources) based on ITS baseline standards reported to the Chancellor’s Office (MOS)
Theme C – Network Strategies

Expand and manage the network to meet future expectations for voice, data, wireless, and video needs

Service Level Objectives
- Maintain and support a highly available and reliable voice and data network
  - 99.9% availability of the network core elements and network access elements
  - 99.9% availability for the wireless network access elements and wireless authentication
- Respond to all individual telephone and network repairs within 24 hours
  - For repairs affecting 24 or more users, the response time will be within 4 hours
  - For repairs affecting an entire building, the response time will be within 1 hour
  - All response times are Monday through Friday

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<tbody>
<tr>
<td>Implement Campus Notification System</td>
<td>Spring 2008</td>
<td>Complete</td>
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<tr>
<td>Install building electronics – Student Services Center</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>ITRP II - Aruba wireless deployment</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>ITRP II – deploy advanced wireless services</td>
<td>Spring 2009</td>
<td>In Progress</td>
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<tr>
<td>Implement Asset Management (Network) system</td>
<td>Fall 2008</td>
<td>In Progress</td>
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</table>

Performance measures
- Average network reliability (access layer, core services)
- Percentage of ports meeting baseline standards
- Number of wireless users
- Percentage of campus covered by wireless
- Availability reports
- Remedy service requests database
**Theme C – Accessibility Strategies**

**Provide adaptive technologies that meet accessibility guidelines**

**Service Level Objectives**
- Improve accessibility within the learning management system and support course redesign that includes accessibility components
- Integrate CSU system wide accessibility priorities, best practices, and tools when building/revising instructional materials
- Improve accessibility of instructional materials by providing information, training, tools, and support for the Universal Design for Learning (UDL) curriculum framework
- Provide appropriate technologies for students with physical and learning disabilities through the Assistive Technology Center
- Support Web page compliance as required by the Accessible Technology Initiative
- Reduced training and support costs for Web site developers/contributors by providing tools and Web standards that allow for self-service use of the Web content management system

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<tr>
<td>Web Content Management System roll out</td>
<td>Fall 2008</td>
<td>In Progress</td>
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<tr>
<td>Implementation of Web accessibility monitoring (ATI Yr 2 plan)</td>
<td>Fall/Spring 2008-09</td>
<td>In Progress</td>
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</table>

**Performance measures**
- Progress report to CO yearly
- Sites migrated to WCMS
- Accessibility rating of critical campus Web sites (defined in Year 2 ATI plan)
- Ease of use for students in their course work
Theme C – Security Strategies

Sustain a secure electronic infrastructure that protects services and information

Service Level Objectives

- Reduce the risk to confidential data by identifying/protecting data residing on central servers
- Provide/maintain current security software/hardware at the network, server, and desktop levels
- Ensure Microsoft security updates are deployed – 80% coverage within 3 business days of release, 90% within 5 business days
- 90% of Windows computers managed centrally
- 80% of managed computers have current anti-virus updates.
- Macintosh OSX set to Auto-update and Virex installed and set to auto update

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<tr>
<td>Vulnerability Management campus wide rollout</td>
<td>Summer 2008</td>
<td>In Progress</td>
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<tr>
<td>Address security audit findings</td>
<td>Fall 2008</td>
<td>In Progress</td>
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Performance measure

- Number and type of events/incidents, vulnerabilities handled
- Number and percentage of systems with border/port-based firewall exceptions
- Number and percentage of systems storing Level 1 protected information
- Number of desktop and server events/incidents (ePO reports, WSUS reports, etc.)
- Number/percentage of Windows desktop computers with current anti-virus updates
- Number and percentage of systems with completed System Security Worksheets
- Enterprise and Department risk assessment scores
**Theme D – Enterprise Information Management Systems**

Assure that all learning and business processes and administrative services are supported by an effective and reliable information technology infrastructure.

Assure that our student services and other university services are continuously improved through the wise use of technology.

*CSU, Chico’s Strategic Plan Priority 3*

Information systems that support the university community will be maintained and enhanced to meet academic and business process requirements, provide technology tools that maximize faculty, student and staff time, provide access to institutional data for effective decision making, enable access to student services, and employ security standards that protect the privacy and confidentiality of all data.

**Systems Strategies**

*Support reliable standards-based enterprise-wide administrative and academic systems and services that provide the campus community with effective business processes*

**Service Level Objectives**

- Promote continuous functionality improvements by supporting upgrades and enhancements of administrative and learning systems (CMS, BbVista etc)
- Provide planning and funding support for the introduction of new technologies
- Support and maintain secure e-mail system(s) for electronic communication, calendaring, tasks, etc.
- Monitor performance and stability of warehouse hardware/software and maintain currency with upgrades and patching

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<td>Student Email Replacement</td>
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<tr>
<td>Exchange 2007</td>
<td>Spring 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>CMS/PS Finance 9.0 Upgrade</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>HCM Core modules completion</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Information Lifecycle Management Phase I, II</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

**Performance measures**

- All new projects go through project review and scoring process
- Availability of CMS, LMS, and email
Theme D – Information Strategies

Develop a warehouse architecture to collect, store, and deliver campus information while increasing data security and reducing use of shadow systems

Service Level Objectives

- Develop and maintain a warehouse hardware/software that ensures institutional information security and increases functionality for the user
- Provide analysis of campus databases for content, and campus users need for confidential/sensitive data to provide enhanced security of confidential/sensitive information
- Support reporting tools and reports from a secure data warehouse to reduce the need for multiple databases
- Act as the central collection point for warehouse information, address data needs that cross functional areas, deliver and support standardized reporting tools, and direct requests/issues to the appropriate area or group on campus for report development

Action Plan

<table>
<thead>
<tr>
<th>Projects</th>
<th>Time frame</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>SharePoint pilot (report distribution)</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Insight (MS Reporting Service) roll out</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>MS Reporting Service Analytics review</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>RDS (enterprise warehouse) hardware replacement</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Dimensional model building (FIN/SA/HR) tables</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Field Trip Waiver Web services pilot</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Account Review (privileges granted) of RDS</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Upgrade/develop Finance 9.0 reporting tables</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures

- Reduction in shadow systems
- High reliability of warehouse
- Availability of reporting tables
Theme D – Integration Strategies

Maximize integration of enterprise academic and administrative systems to ensure data reliability and consistency, improve security, and reduce shadow systems

Service Level Objectives
- Improve end user (faculty, student) functionality and reduce technological overhead by integrating administrative and academic systems. Reduce time required for non-learning activities (rosters, grading, etc.)
- Improve the functionality of the portal by adding content including links to material outside the portal, and by developing new channels to help categorize information
- Integrate library services and systems with enterprise systems

Action Plan

<table>
<thead>
<tr>
<th>Projects</th>
<th>Time frame</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combine Finance and HR/SA tables</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Absence Management implementation (central)</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Field Trip Waiver electronic signature</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures
- Reports/audits of accuracy of pay
- Portal use statistics
- Satisfaction
Theme D – Collaboration Strategies

Work together to effectively use technology to improve workflow and business processes across campus

Service Level Objectives
- Encourage participation in project planning by delivering templates and processes to analyze, prioritize, and document technology projects
- Support technology planning and funding processes in support of campus and IT strategic priorities
- Encourage and support business process improvements in administrative and academic units

Action Plan

<table>
<thead>
<tr>
<th>Projects</th>
<th>Time frame</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facilitating Graduation project</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Degree Checkout process – clean-up substitutions/waivers</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Student Timesheet self-service roll out</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Student Voice Phase II (survey tool)</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Absence Management self-service roll out (employee view)</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Field Trip Waiver, self-service implementation</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures
- Increased effectiveness (time/$’s saved, risk reduction, etc.)
- Funding
- Campus benefits
Theme D – Service Strategies

Expand Web based technologies to enable self service functionality for campus administrative and student activities

Service Level Objectives

- Provide support for development and enhancement of self service functionality for faculty, staff, and students
- Provide self-service password management for faculty, staff, and students
- Maintain portal software that is responsive to campus needs
- Provide tools and Web services that provide options for business process improvements
- Provide campus employees tools to view and update personal information and improve their effective use of university data
- Promote development and use of wiki knowledge bases for self-help resolution of questions/problems

Action Plan

<table>
<thead>
<tr>
<th>Projects</th>
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</thead>
<tbody>
<tr>
<td>Web Content Mgmt system implementation</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Absence Management/Leave Accounting self service build out</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Remedy Replacement</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>USRV End-User Knowledge Base (wiki)</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures

- Improved self-service opportunities
- Satisfaction
Theme D – Pathway Strategies

Deliver a portal and pathways to guide users to relevant teaching, learning, and business resources

- Provide enterprise portal software that is responsive to campus needs and integrates with other campus administrative systems
- Build and customize channels within portal to provide access to content/systems that meet business/academic needs
- Deliver Web services to campus offices/departments that improve functionality and provide for business process improvements

Action Plan

<table>
<thead>
<tr>
<th>Projects</th>
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<th>Status</th>
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<tbody>
<tr>
<td>Parent Portal Phase I</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Single Sign-On Access to new Student Mail System from Portal</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>New Campus Event Calendaring System</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures

- Faculty, staff, student use/satisfaction with portal
- Portal utilization statistics
- Google Analytics (outbound link tracking)
Theme D – Contact Strategies

Provide technologies that enable information sharing and collaboration via email, internet, and telephony

Service Level Objectives

- Support communication systems currency and responsiveness and deliver reliable, stable campus telephone, voicemail, and network infrastructure
- Design and deliver wireless connectivity throughout campus to enhance any time-any place network connectivity
- Quickly accommodate the infrastructure needs of enterprise systems/servers by minimizing delays when deploying new enterprise systems/servers, maximizing the effective use of space, and minimizing downtime of other enterprise system/servers
- Review telecommunications infrastructure for new and remodeled construction projects to ensure campus standards are being met
- Deliver and support network security hardware/software to deter unauthorized use of networking resources and attempted hacks of systems
- Ensure reliability and availability of network core and access elements, as well as wireless access elements and network authentication

Action Plan

<table>
<thead>
<tr>
<th>Projects</th>
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</thead>
<tbody>
<tr>
<td>Campus Notification System</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Aruba Wireless Deployment</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Secondary Data Center Expansion</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Vista Communities (LMS expansion to non-class use)</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures

- Network reliability (availability) Statseeker and Nagios reports
- Peak Bandwidth
- Number/percentage of users of outward facing technologies
Theme D – Identity Strategies

Develop an infrastructure that provides authentication and authorization to enterprise applications while protecting confidential personal and business information

Service Level Objectives

- Recommend and support the technical architecture for identity management in collaboration with CSU system wide efforts
- Expand the applications that use LDAP and CAS authentication to reduce the number of account credentials users must maintain
- Support security best practices for authorization and authentication to campus services to enhance security of personal data
- Improve the business logic for provisioning and de-provisioning services for core functional units

Action Plan

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<tr>
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<th>Time frame</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adopt EDU-Person standards in conjunction with Chancellor’s Office</td>
<td>TBD</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures

- Improved security for enterprise systems
- Minimize use of SSN’s for authentication (only services that require SSN)
- Reduced time for creation of accounts
- Readiness for joining CSU Connect Federation
Theme D – Security Strategies

Establish comprehensive data and technology standards supporting secure academic and administrative activities

Service Level Objectives
- Provide analysis, assessment, and recommendations for securing systems resources, network resources, and confidential data
- Strengthen network, server, and desktop computer security policies and procedures
- Document system and application management procedures and maintain a campus system/server inventory to increase the security maturity of the campus
- Establish baselines and measures for mitigating risks and recommend processes and procedures for protecting confidential information
- Provide incidence coordination and communication, and coordination of forensic investigations to facilitate the timely response to intrusions
- Provide communication and training about security and confidentiality best practices to increase campus information security awareness
- Provide security processes and technologies for remote/mobile/wireless users

Action Plan

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<tr>
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<tbody>
<tr>
<td>Security Risk Assessment – ISO17799 Compliance</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Transit Security, ISO 17799 Compliance – Foundstone Analysis</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Vulnerability Mgmt roll out</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Security Audit Response</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures
- Number, percent, and hours security training
- Faculty/staff awareness of confidentiality and security
- ISEC Customer Satisfaction Survey
- Number and type of events/incidents
- Response time for incident handling
- Enterprise and Department Foundstone (Risk assessment) scores
Theme E – Information and Knowledge Management

“… use technology to support the assessment of student outcomes and institutional effectiveness.”

*CSU, Chico’s Strategic Plan Priority 3*

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

Analysis Strategies

*Implement integrated technologies for decision support to assure institutional accountability and facilitate data driven analysis*

**Service Level Objectives**
- Promote data warehouse information sharing with sister campuses
- Support standard reporting solution to meet campus specific needs
- Provide business analysis to determine user need and data requirements
- Provide integrated campus management reporting (e.g., ad hoc, operational and decision making)
- Develop data warehouse tables to satisfy campus reporting needs

**Action Plan**

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<thead>
<tr>
<th>Projects</th>
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</thead>
<tbody>
<tr>
<td>Develop Class costing model</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>MS Reporting Service Ad Hoc Query pilot</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>MS Reporting Service Analytics pilot</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>RDS replacement – Warehouse architecture build out</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>SharePoint (data delivery) pilot</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

**Performance measures**
- Number/type of queries run
- Number/type of reporting service (Insight) users
- Satisfaction
Theme E – Outcomes Strategies

Provide technologies that support measurement of learning outcomes, progress towards degree, and institutional effectiveness

Service Level Objectives
- Develop campus specific views of reporting data for administrators, faculty and staff
- Customize standard warehouse tables to meet campus specific needs
- Support development of data views and provide tools for reporting management data that measures institutional performance

Action Plan

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Dashboard pilot</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>SISS ETL trial - Fact/Dimension table build</td>
<td>Summer/Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Build out Reporting Service offerings</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
<tr>
<td>Create performance measures library</td>
<td>Summer 2008</td>
<td>Complete</td>
</tr>
<tr>
<td>EHS Learning Management System feed</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures
- Usage of reports
- Report requests
Theme E – Measures Strategies

*Introduce technologies that support assessment of institutional performance as well as student learning in targeted courses, within departments and programs, and across campus*

**Service Level Objectives**
- Collaborate with campus constituents to develop campus standard data dictionary defining terms, data, views, and reports
- Promote and support Web-enabled data/information access and reporting
- Develop campus specific views of reporting data for departments, colleges, administrators
- Collaborate with planning groups for scorecard and dashboard development

**Action Plan**

<table>
<thead>
<tr>
<th>Projects</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Public facing Data Knowledge Base (wiki)</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Key Performance Indicators Wiki project</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>DATA Web page (one-stop shop for reports)</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Class costing model roll out</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>STEPS data integration project</td>
<td>Spring 2009</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

**Performance measures**
- Usage of reports
- Report requests
- Table/view development
Theme E – Training Strategies

Employ standard analytical tools and functional training programs to broaden knowledge of effective use of measurement and reporting utilities

Service Level Objectives

- Develop reports using tools that meet campus standards, are easy to use, and provide maximum flexibility for developers
- Manage security roles in the reporting site and consolidate security tracking and logging to meet reporting requirements (e.g. FERPA, HIPAA, etc.)
- Work with campus report developers on standardizing reports to provide a common look and feel for campus report users
- Provide training opportunities for developers/report writers both on and off campus
- Promote warehouse visibility to the campus community and provide training and support to report users

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<tr>
<td>SharePoint pilot (data delivery)</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Report Standardization (common look and feel)</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>SharePoint training collaboration (CSU, Stanislaus)</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

Performance measures

- Number of trainings, number trained, hours of training
- Report requests
Theme E – Information Strategies

*Implement integrated technologies that provide timely and straightforward access to data and reports about campus, and the CSU*

**Service Level Objectives**
- Provide campus users with one-stop shopping for data needs through Web interface
- Serve as a central collection/distribution point for warehouse information/questions
- Maintain currency of warehouse tables/reports
- Ensure effective communication with user support teams and with the campus users about data, reports, and tools
- Respond to report requests and deliver support and consulting services to consumers of the campus related data in the warehouse
- Provide data consulting services and training for campus team members who build and support Web reports for the campus
- Ensure that all metadata has been provided and input into the system
- Develop and maintain documentation

**Action Plan**

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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Management Initiative team (KMIT) scorecard development and WASC reporting</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Finance 9.0 report development</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Dimensionally modeled table build (Finance, Security)</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>SharePoint pilot for report/dashboard delivery</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>Key Performance Indicators Wiki project</td>
<td>Summer 2008</td>
<td>In Progress</td>
</tr>
<tr>
<td>JIRA process for report writing distribution</td>
<td>Fall 2008</td>
<td>In Progress</td>
</tr>
</tbody>
</table>

**Performance measures**
- Tables and queries converted/built
- New tables/reports developed
- Usage of reports/# of unique users authenticated
Enterprise Technology Roadmap

CSU, Chico continually updates and expands the enterprise wide technology infrastructure to better support instructional, administrative, and strategic priorities. Due to the dependencies between projects, success requires careful planning and coordination of human and technical resources.

<table>
<thead>
<tr>
<th>CSU, Chico Enterprise Technology Roadmap</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Task Name</strong></td>
</tr>
<tr>
<td>-----------------------------------------</td>
</tr>
<tr>
<td><strong>Theme A Teaching and Learning</strong></td>
</tr>
<tr>
<td>Blackboard Vista</td>
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<tr>
<td>Distance Learning Infrastructure</td>
</tr>
<tr>
<td>Interactive Student Response systems (Clickers)</td>
</tr>
<tr>
<td>Electronic Resources</td>
</tr>
<tr>
<td><strong>Theme B Information Literacy</strong></td>
</tr>
<tr>
<td>Information Literacy Training (ILNV)</td>
</tr>
<tr>
<td><strong>Theme C Electronic Learning Infrastructure</strong></td>
</tr>
<tr>
<td>Integrated Library system</td>
</tr>
<tr>
<td>Security</td>
</tr>
<tr>
<td>Portal/Chico Web Presence</td>
</tr>
<tr>
<td>Accessible Technology Initiative (ATI)</td>
</tr>
<tr>
<td>Electronic Infrastructure Projects</td>
</tr>
<tr>
<td>Network Infrastructure Projects</td>
</tr>
<tr>
<td><strong>Theme D Enterprise Information Management Systems</strong></td>
</tr>
<tr>
<td>CMS BCM 8.0 Upgrade (ERSA)</td>
</tr>
<tr>
<td>CMS 4.0 Finance Upgrade</td>
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<tr>
<td>State Controller Payroll System - 21st Century Project</td>
</tr>
<tr>
<td>CMS 5.1 HERSA Upgrade</td>
</tr>
<tr>
<td>Identity Management</td>
</tr>
<tr>
<td>Information Lifecycle Management</td>
</tr>
<tr>
<td>Enterprise Data Warehouse Architecture</td>
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<tr>
<td>Enterprise Communication</td>
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<tr>
<td><strong>Theme E Information and Knowledge Management</strong></td>
</tr>
<tr>
<td>CMS Data Warehousing and Reporting</td>
</tr>
<tr>
<td>Enterprise Warehouse Development</td>
</tr>
<tr>
<td>BI Tools Dashboard/Scorecards Development</td>
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</table>