Information Technology Services (ITS)

Strategic and Operation Plan

Fiscal Year 2012 - 2013
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1.0 Introduction

As budgets become more constrained, even in the midst of increased campus community dependence on technology, ITS addresses university needs through a collaborative, open, and transparent allocation of resources that fosters the Eight Shared Strategic Commitments and helps fulfill the Institutional Learning Outcomes for California State University, East Bay.

This 18 month strategic and operational plan is meant to engage stakeholders in a dialog to determine the most effective use of Information Technology in increasing effectiveness and efficiency in teaching, learning, research and administrative support services.

Your feedback and continued interaction in this process is greatly appreciated.

2.0 ITS Organization Overview

The ITS division is led by Borre Ulrichsen, who serves as Associate Vice President of ITS.

![Figure 1 - ITS Organizational Chart](image)

ITS division is comprised by the following departments and groups:
Communications and Service Coordination

**IT Business Services** - front office administration for the ITS

**IT Special Projects** - The team is responsible for coordinating software licenses, hardware purchases, information security training (SARF).

**Web Services / Communication / IT Policy** - The Web services team designs, builds and maintains university Web pages and Web applications. It administers account access, upgrades and training for the university-wide Web content management system (Hannon Hills’ Cascade Server). The team manages compliance 508 accessibility evaluations for Web pages and Web applications, for internally and externally hosted Websites. The team handles updates and troubleshoots Web incidents.

Data Center & Server Operations Services

**Data Center Operations** - maintains the operational environment of equipment and facilities assets in the data center, such as hardware troubleshooting and replacement, as well as monitoring room temperature and power consumption. The team provides general administration of email and NetID accounts. Additionally, the team is responsible for backup operations, which includes server backups, file restores and employing disaster recovery processes.

**Server Operations Services** – the team supports team builds, including implementing and maintaining server resources up to the installation and patching of the operating system. The team implements and maintains the university’s centralized data storage. Operational responsibilities include monitoring system performance and troubleshooting server incidents, as well as investigating root cause and resolution to server issues. Additionally, the team is responsible for the standardization and design of the server and storage infrastructure.

**Identity Management Systems** - the team supports faculty, staff and student digital identities and their lifecycle. The team maintains and administers NetIDs and the directory servers that manage application access, as well as the interfaces from applications that require NetID authentication to those systems. Additionally, the team manages the authentication interface and protocols to systems provided by the Chancellor’s Office.

Network Operations

**Telephone Services** -the telephone support team implements and maintains the telephone system, wiring and services including the 911 EAC system and emergency call boxes. They have administration duties for the voicemail system and the PBX system (main telephone line into campus). They support and program CSUEB call center and work with vendors to ensure phone circuits are properly working.

**Classroom and Event Services** -the team supports faculty, students, staff and visitors using Smart Classrooms and presentation rooms. They maintain and test all computer and audio video equipment and connectivity (network and internet) in these rooms. They are first level support for all Smart Classrooms and Campus Events.
Audio Video Infrastructure – this team provides installation and support for all audio video needs in smart classrooms and presentation rooms, including control systems, projector, DVD/VCRS, lecture capture on all three campuses (Hayward, Concord, and Oakland). The team provides all the designing and installation of control systems, projectors, DVD/VCR, TV monitors, video conference, and PA systems.

Connectivity Infrastructure – The structured wiring team installs and maintains all fiber and copper wiring throughout the university connecting all wiring within our buildings and connecting those buildings to each other.

Network Operations Center - the network operations team maintains and is responsible for the integrity and availability of the network and wireless services on campus 24 hours a day, seven days a week. They ensure through Dynamic Host Configuration Protocol (DHCP), Domain Name System (DNS) and IP addresses that all computers on the campus network can get to data, servers, and the internet. They monitor the network traffic for performance and security, and firewall issues, as well as troubleshooting any incidents.

Academic and Administrative Technology

Online & Hybrid Support Center - Promotes and supports online course development using Blackboard or another university designated Learning Management System (LMS). The online & hybrid support center assists faculty members in creating course materials, program design, training and best practices in online teaching and learning.

Media & Academic Technology is responsible for aiding the faculty with their academic, curricular and pedagogical needs through the use of technological tools, techniques, and applications in order to support the University’s overall mission, namely:

- Blackboard Support-assist faculty in setting up and troubleshooting incidents with their courses in Blackboard.
- Media-uploading videos/rich media for web viewing with captioning, converting print materials to an online format, and converting outdated media types to new media types. Help with miscellaneous print options, such as large format printing.
- Lecture Capture-maintain equipment and software to record classroom content for later review in a digital format.
- Workshop presentations.

Learning Management System (Blackboard) Support & Web Apps – The Blackboard and Web Applications team provides for the administration, maintenance and development of the Blackboard learning management system (LMS) and several CSUEB-developed web applications (employee directory, eFAF/eSAF, eSARF, etc.). They are the first level of support with the vendor (Blackboard) for any incidents and upgrades related to the software. The team provides routine weekly maintenance
and troubleshooting 24 hours a day, seven days a week. The team works closely with the Media and Academic Technology Services group to support students and faculty.

**PeopleSoft Technical Services** – The PeopleSoft Technical Services team provides for the administration, maintenance, development and security of the University’s PeopleSoft systems. The team works to enable system integration with third party applications and collaborates with the Chancellor's Office and other CSU campuses on projects.

**Data Warehouse Technical Support** – This team provides technical support for the CSUEB data warehouse.

**User Support Services**

**Service Desk** – This is the customer’s first point of contact for all their technology needs. The service desk team reviews, coordinates and handles all incidents, along with escalating tickets to second and third level support technicians when needed. The service desk team also manages the IT knowledgebase and coordinates end-user training and documentation.

**Desktop Support** – supports the users and seeks to prevent and minimize desktop incidents. The team is responsible for imaging new desktops, re-configuring current desktops, installing software, printer set-up, providing consulting on desktop issues and resolving desktop incidents. The team also contributes documentation for the knowledgebase and participates in projects related to desktop computing.

**Learning Environment Computer Support (LECS)** – optimizes functionality of general access learning environments in support of faculty and student use of computers in those spaces. The LECS team supports computers in the university computer labs, smart classrooms and other instructional areas. This team works with faculty to ensure appropriate software is installed in the labs for instructional needs.

**Virtual Projects & Security**– maintains and administers access to the virtual computing lab and virtual desktops, as well as managing and configuring server applications related to virtual needs. They create images for virtual desktops and images for the virtual computing lab based on requests from faculty.

The team ensures that all computers on the university network have the most updated anti-virus software, security patches to the operating system and other relevant security patches.

**Campus information services (CIS)**

**Business Analysts** - the business analyst team provides business process improvement services, employing a systematic approach to help CSUEB optimize its underlying processes to achieve more efficient results. The team advises functional areas on how to update needed business processes to realize the institutions’ goals. This team includes business analysts, business partners (dotted-line individuals, reporting to various business units within the university), and student assistants.

**Project Management Office (PMO)**- The PMO defines and maintains project management standards and metrics on the practice of project management and execution, and centralizes the establishment
and maintenance of project-related software tools. Additionally, this team provides project management services (either as full-time PMs or on a part-time basis) to ITS projects.

**Specialized Technology Services** - the STS team provides the administration, maintenance, project management and security of the University’s specialized applications, databases and servers.

### 3.0 ITS Mission

**ITS Mission:**
- To enhance teaching and learning by providing access to innovative and reliable technology,
- To facilitate business effectiveness and efficiency, and
- To enable information access anytime and anywhere for our constituents.

### 4.0 ITS Core Functions

#### Improve the Customer Experience

ITS engages in continuous improvement in the customer experience by:
- Balancing clients’ service expectations with our campus technology needs
- Focusing efforts on fulfilling requirements in a timely and efficient manner
- Bridging gaps between campus expectations and what can actually be delivered through structured communication mechanisms
- Measuring customer satisfaction and gathering feedback to continuously improve processes and efficiencies
- Making “satisfied customers” a measure for success in all IT operations and projects - in addition to quality, time and budget
- Reporting, communicating and ensuring appropriate information is shared with all stakeholders effectively
- Having processes that inform and include campus stakeholders when making changes
- Having a mechanism for capturing the “voice of the customer” and making this a part of all IT projects and processes

#### Optimize Effectiveness of Operations

“Operational Effectiveness refers to any number of practices that allow an organization to better utilize its inputs by, for example, reducing defects in products or developing better products faster” – Michael E. Porter.

ITS Management engages in continuous improvement of operational effectiveness through the following processes:
- Measuring and managing functional performance for all units of ITS

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1 Project Management Institute (PMI)
• Consolidating, maintaining, and improving effectiveness through constant learning and innovation, as a result of measuring and improving IT services
• Leveraging personal and process expertise in ITS and related units by constantly seeking opportunities to improve quality and simplify service delivery
• Continuously improving service availability and delivery for all units of ITS
• Establishing, maintaining, and growing technical breadth and knowledge to enhance ITS’ function as the university’s resource for technical solutions

Reduce Technical and Security Risks
ITS is implementing a five step risk analysis model:
• Define the scope and identify risks
• Identify controls
• Identify vulnerabilities
• Adjust controls
• Estimate Reduction of Risk (ROR)

Engage and Develop Employees
ITS is partnering with Human Resources in developing a program for professional development for all employees. The program consists of four components:
• Mandatory skills training
• Personal enrichment
• Advanced skills (including supervision and management) training
• Leadership development

5.0 ITS Strategic Priorities

ITS Strategic Priorities:
• Keep the systems up and running
• Deliver Services that are reliable, cost effective and constantly evolving to support innovative and future technology
• Strengthen the Customer Connections and expand partnerships
• Help CSUEB interact and make sense of its Data
• Develop ITS’ Capabilities through broadening of skills and implementation of simple, clear, consistent processes that make it easy to follow through and get things done
• Help our People grow: improve collaboration, responsiveness and accountability across the organization
• Support cost effective technological advancement

6.0 The Planning Process

In November of 2011 the development process began, gathering data from the CSUEB community utilizing the following strategies:

Outreach to the campus community
- Meeting with more than 120 members of the campus community including: Deans, department chairs, faculty members, staff and students
- Collecting data directly through surveys from faculty and staff
- Conducting listening sessions for faculty and staff to discuss their concerns and expectations regarding selected technology
- Attending division and committee meetings

Requests from campus community
From November 2011 to April 2012, ITS received more than one hundred and sixty (160) project requests from the CSUEB campus community.

The division continues to analyze all requests and meet with campus stakeholders to understand needs and priorities. Integrating feedback from these sources, ITS developed this strategic and operational plan.

ITS heard from customers that they want easy-to-use, cost-effective and reliable IT solutions that are available anytime from anywhere. The goal is to improve the ITS customer experience, optimize effectiveness of operations, reduce technical and security risks, and engage and develop employees.
7.0 FY12-13 ITS Operational Plan

In the spring of 2012, ITS management conducted a risk assessment exercise to determine which IT infrastructure improvements are most important to support day-to-day operations for IT. The group came up with a list of 15 areas and developed a list of projects and funding requirements to address each area.

The following table lists those projects that are funded as of August 2012.

<table>
<thead>
<tr>
<th>Project</th>
<th>Purpose / Outcome</th>
<th>Timeline</th>
<th>Estimated Project Cost</th>
<th>Ongoing Annual Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT Governance (IT related Policies)</td>
<td>Conduct assessment of existing policies and procedures, update and define new policies as needed. Communicate and implement new policies.</td>
<td>Ongoing</td>
<td></td>
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<tr>
<td>Identity Management System Enhancement (IDM)</td>
<td>Increase security and productivity while decrease cost, downtime, and repetitive tasks for CSUEB users’ identity management (IDM) system. Upgrade Identify Management System (IDM) to MS Forefront. *IDM manages individual identities, their authentication, authorization, and privileges/permissions within CSUEB systems. Cost savings = $80,000 in annual Sun license fee elimination.</td>
<td>May 2012 to December 2012</td>
<td></td>
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<tr>
<td>Service Desk Ticketing System Implementation</td>
<td>Implement a new Service Desk Ticketing system and enhance current support processes to improve the user experience with incident management and request fulfillment. Implement transparency in ticket processing and provide a more user-friendly interface for requesting IT support services.</td>
<td>2012 - 2013</td>
<td></td>
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<tr>
<td>Microsoft Outlook</td>
<td>Assess Microsoft Outlook client integration issues. Develop alternative strategies and present recommendation to Cabinet.</td>
<td>December 2012</td>
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<tr>
<td>Project</td>
<td>Purpose / Outcome</td>
<td>Timeline</td>
<td>Estimated Project Cost</td>
<td>Ongoing Annual Support</td>
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<tr>
<td>Computer Labs (Learning spaces) Assessment</td>
<td>Conduct an internal assessment of computer labs in terms of usage, hardware and software needs. Draft a Computer Labs proposal which includes recommendations for improving the effectiveness of the labs on campus for students and faculty, as well as for the IT staff that need to support them. (Next step would be to define, communicate and implement CSUEB Computer Lab policies.)</td>
<td>December 2012</td>
<td>FY12-13</td>
<td>Overall</td>
</tr>
<tr>
<td>Virtual Desktop Infrastructure (VDI)</td>
<td>Implement virtual desktop infrastructure (VDI) to streamline the management and maintenance of desktop computing environments, by hosting desktops from a server which will include the latest software that is needed for the campus users. This software would not be able to be used by the many users who currently have old computers. Replace desktop computers used by students, faculty and staff with virtual desktops when appropriate to increase productivity, decrease support time/costs, and improve desktop security. Define, communicate and implement VDI policy. Note: FY12-13 cost is based on 900 concurrent licenses. Overall project cost is based 1,500 on licenses and required hardware.</td>
<td>2012 - 2016</td>
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</table>
The following table lists those projects that are NOT funded as of August 2012.

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<thead>
<tr>
<th>Project</th>
<th>Purpose / Outcome</th>
<th>Timeline</th>
<th>Estimated Project Cost</th>
<th>Ongoing Annual Support</th>
<th>Comment</th>
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</thead>
<tbody>
<tr>
<td>Renewal of Backup and Recovery Technology (CommVault Backup)</td>
<td>Increase reliability and stability in CSUEB backup environment. Renew backup and recovery technology by installing new hardware components and upgrading software. Increase data backup capacity. Define, communicate and implement data retention and backup policy.</td>
<td>2012 - 2015</td>
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<tr>
<td>Increase Data Storage Capacity (Large Data Sets/Storage)</td>
<td>Expand data storage capacity to satisfy CSUEB’s increasing storage needs. Renew data storage technology by installing new hardware components and upgrading software. Provide faculty, staff and students with faster and secure access to relevant data information. Define, communicate and implement data storage usage and maintenance policy.</td>
<td>2012 - 2015</td>
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<tr>
<td>Virtual Computing Lab (VCL)</td>
<td>Chancellor's Office Synergy Project is in evaluation process. 2012-2013 will be a continuation of current state, with CO providing hardware. Assess define, communicate and implement VCL policy based on CO’s future direction for VCL</td>
<td>2012 - 2013</td>
<td></td>
<td></td>
<td>Future cost depends on CO’s future direction and CSUEB commitment to VCL</td>
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<tr>
<td>Project</td>
<td>Purpose / Outcome</td>
<td>Timeline</td>
<td>Estimated cost</td>
<td>Ongoing Annual Support</td>
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<td>Classroom Monitor and Control (Utelogy)</td>
<td>Conduct classroom technology assessment and propose a plan to keep technology current while aligning smart classroom technology with faculty needs. Implement Utelogy, a solution for classroom monitoring and control.</td>
<td>2012 - 2015</td>
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<td>Part of facilities classroom remodeling.</td>
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<tr>
<td>Classroom Technology Renewal</td>
<td>Renew Smart Classroom technology (projector, screen, sound, and microphone) to enhance student classroom experience and faculty effectiveness.</td>
<td>2012 - 2016</td>
<td></td>
<td></td>
<td>Part of facilities classroom remodeling.</td>
</tr>
<tr>
<td>System Monitoring Enhancement (Monitoring Systems / Operations Control)</td>
<td>Enhance system monitoring (data center, wireless and network) in order to improve responsiveness to IT issues and ensure timely and accurate communication to campus community. Implement system status webpage.</td>
<td>2012 - 2013</td>
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<tr>
<td>Wireless Expansion (NOC)</td>
<td>Expand wireless throughout campus areas. Improve user experience and enhance security.</td>
<td>2012 - 2013</td>
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<td>Part of facilities classroom remodeling.</td>
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<tr>
<td>System Architecture Assessment to Increase System Stability</td>
<td>Minimize service disruption by increasing system stability. Conduct assessment to identify which systems in data center need a hardware renewal. Upgrade hardware and server configuration as appropriate. Decommission servers as needed.</td>
<td>2012 - 2015</td>
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<tr>
<td>Project</td>
<td>Purpose / Outcome</td>
<td>Timeline</td>
<td>Estimated cost</td>
<td>Ongoing Annual Support</td>
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<td>My CSUEB Assessment</td>
<td>Conduct assessment of MyCSUEB Portal maintenance issues and propose a plan to enhance the MyCSUEB portal.</td>
<td>2012 - 2013</td>
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<td>Lecture Capture (“East Bay Replay”)</td>
<td>Build a production-ready lecture capture system that meets the quality and capacity expectations of students and faculty with the appropriate level of technical resources needed (staffing, hardware, software). Usage policies will also need to be developed to ensure sustainability of the system.</td>
<td>Ongoing</td>
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<tr>
<td>Disaster Recovery and Business Continuity</td>
<td>Develop and test a comprehensive disaster recovery and business continuity plan for most critical systems for CSUEB operations as identified by the Vice Presidents (2010).</td>
<td>Ongoing</td>
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8.0 FY12-13 ITS Operational Plan by Division

As directed by the Cabinet Technology Steering Committee, ITS has taken on the following projects to support business operations on campus. The following tables list FY12-13 operational projects by area. This document will be used to track progress against each of these projects quarterly. Projects are divided by division.

<table>
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<th>8.1 Academic Affairs</th>
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<td><strong>Project</strong></td>
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<tr>
<th>8.2 Administration and Finance</th>
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<tr>
<td><strong>Project</strong></td>
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<th>8.3 PEMSA</th>
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<tbody>
<tr>
<td><strong>Project</strong></td>
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<th>8.4 University Advancement</th>
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<tr>
<td><strong>Project</strong></td>
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