Managing IT Initiatives at the Largest University System in North America

David Liu
California State University - Northridge, david.liu@csun.edu

Mark Crase
California State University, mcrase@calstate.edu

Spencer A. Freund
California State University - Sacramento, spencerfreund@csus.edu

Barry Pasternack
California State University - Fullerton, bpasternack@exchange.fullerton.edu

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David Liu, California State University, Northridge <david.liu@csun>
Mark Crase, California State University Chancellor Office <mcrase@calstate.edu>
Spencer A. Freund, California State University, Sacramento <spencerfreund@csus.edu>
Michael Mahoney, California State University, Long Beach <mahoney@csulb.edu>
Barry Pasternack, California State University, Fullerton <bpasternack@exchange.fullerton.edu>

Problems

- Management of shared technology infrastructure across 23 campuses
- Coordination and collaboration on IT initiatives across multiple campuses
- Challenges of a synchronized ERP implementation across 11 campuses
- Impact of ERP implementation to ongoing IT access, support and upgrade projects
- Control: campus autonomy and academic freedom versus economy of scale

Background

The California State University (CSU) is the largest system of higher education in the country. CSU is made up of 23 campuses and five off-campus centers extend from Arcata in the north to San Diego in the south. The oldest university is San Jose State University, founded in 1957. The newest university -- CSU Channel Islands -- became a full campus just last year. The size of the student population within each campus varies. As of Fall of 1998, the aggregate enrollment for the system is approximately 350,000 students (which excludes continue education students). CSU employs over 40,000 people, approximately half of which are faculty.

Key Issues

The fundamental issues related to management of information technology initiatives at the California State University are size, rapid technological changes and governance structure. Given the sheer magnitude of the CSU geographical expanse, the size of the work force and the enormous student population, any planning and management endeavor is inherently complex.

In general, the decision making process takes longer in the public, higher education sector because it tends to be consensus-driven. However, rapid rate of change in information technology (IT) requires the opposite, i.e. nimble planning and agile execution. The time-compression effect of the Internet further compounds the situation.

The CSU governance structure exacerbates the dilemma. CSU operates in a highly decentralized and distributed governance environment. Each campus operates almost autonomously, however the Office of the Chancellor manages system-wide initiatives.

The Office of the Chancellor has established a system-wide advisory committee structure to address common issues, set normative operating policies, sponsor various initiatives, etc. These advisory committees are comprised mostly of campus representatives along with some Chancellor’s support staff, and are intended to address specific administrative, academic and technology issues.

Below is a sampling of the current CSU initiatives:

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
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<tbody>
<tr>
<td>Calstate TEACH</td>
<td>Academic program to accelerate the training of K-12 teachers for certification.</td>
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<tr>
<td>CBT (Computer-based Training)</td>
<td>Program that coordinate acquisition of CBT courseware and carried out a decentralized campus-based deployment.</td>
</tr>
<tr>
<td>CDL (Center for Distributed Learning)</td>
<td>“Center of Excellence” for creating distributed learning technologies and communities.</td>
</tr>
<tr>
<td>CENIC</td>
<td>A collaborative wide-area network with other major research institutions in North America.</td>
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<tr>
<td>CMS (Collaborative Management System)</td>
<td>A phased implementation of the PeopleSoft ERP system. The “first wave” includes 11 CSU campuses.</td>
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<tr>
<td>Cornerstones</td>
<td>System-wide effort that created the CSUs vision statement on education. Cornerstones articulates the values, priorities, commitments, and expectations of the CSU and advocates ways to pursue and implement these recommendations.</td>
</tr>
<tr>
<td>E-commerce</td>
<td>An exploratory implementation of B2B solutions. The initial focus is on making the procurement process more cost effective.</td>
</tr>
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Network Hardware Alliance | Project to enhance campus network electronics.
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Network Infrastructure Build-out | Project to enhance intra-campus network infrastructure.
IT Operation & Support Services Review | Project to establish uniform metrics for assessing campus operation and support services.
PBX (private branch exchange) | Project that coordinate the acquisition of PBXs for four campuses.
Pharos | Project to develop and deploy an interoperable library information system across the CSU.
UMS (unified messaging system) | Project to integrate and standardize data, voice and other messages across the CSU. This project is inclusive of a system-wide security mechanism.
Workstation environment | Program to periodically review and establish workstation standards.
4CNet | Management of the CSU inter-campus wide-area network. 4CNet also serves the California Community Colleges.

Most initiatives, at a minimum, have technological implications. Technology is either needed to support the initiative or it is the wedge of the initiative itself. Take the Collaborative Management System (CMS) for example, the underlying objective is to achieve operational efficiency by the standardization of business processes across all campuses. The implementation of the PeopleSoft enterprise resource planning (ERP) software became the lever for establishing standardized business processes.

Each one of the other initiatives is complex enough, however overlaying a system-wide ERP implementation simply drives home the point that there is a need for an enterprise architecture. The implementation of a system-wide ERP is so all encompassing that it touches on many issues related to infrastructure, workstation standards, software standards, security, operation and support services, etc. Many opportunities exist for duplication of effort. As the IT costs continue to grow and bear down on an already strained operating budget, executives have begun to clamor for greater clarity in how these IT initiatives fit into an overall design. The panel discussion is intend to address the issues stated above from the perspective of the Chancellor Office, campus administration and faculty.

**Discussion Topics**
- What are the current approaches toward sharing best practices?
- How effective is the newly revised governance model?
- What works in addressing campus autonomy versus centralized management concerns?
- How is duplication of effort minimized in such a large and complex organization?
- Are e-Commerce initiatives being handled at the campus-level or at the system-level?
- Security, should it be address as a campus issue or a system-wide issue?