CSUN IT Support Assessment
EXECUTIVE SUMMARY

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Northridge

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MORAN TECHNOLOGY CONSULTING

I. EXECUTIVE SUMMARY

California State University, Northridge (CSUN) is a major state university that has historically made major investments in information technology to improve the instructional and administrative environment for its students, faculty and staff. The funding for these investments has come from direct state funding for projects, internal redirection of budget dollars and funds from its extensive auxiliary services units. Despite the major campus redevelopment impact of the 'Northridge Earthquake' in 1994, the campus has developed a robust technology infrastructure.

The wide array of technology-enabled services has resulted in:

- A modern, high-speed and pervasive local area network, providing extensive directory services to improve CSUN's network security environment
- A new ERP system for the administrative services areas of the campus (Finance, HR/Payroll and Student Administration)
- Over 9,000 personal computers to support CSUN's students, faculty and staff

As CSUN extended the breadth and depth of its technology over the past 20+ years, the types and quantity of support work needed to effectively utilize this technology have increased significantly. The number of technology support staff deployed across the campus has grown to provide this needed support to each unit, resulting in a large number of single and multi-person support groups within various campus departments. The good news is CSUN has one of the broadest demonstrations of the importance of technology to learning, teaching and research in the CSU – there are IT support staffs virtually in every unit. These IT staff positions were developed by departments and colleges through the reallocation of their funds and department positions. CSUN's departments are truly committed to providing IT support to their stakeholders.

At the same time, with the deployment of this broad range of technology, concerns have arisen across higher education about information privacy and security. The broad access to technology and information has increased the opportunities for both the use and abuse of user information.

While the breadth and depth of technology has extended across the campus, CSUN does not have a clearly defined set of IT support roles, responsibilities and accountabilities. CSUN's IT support groups have grown in size and 'power' to the point that one needs to question whether economies of scale are available to more efficiently and effectively support some areas of the campus technology fabric. This lack of structure results in CSUN not having clear and efficient processes for the necessary decision-making and leadership choices needed today.

CSUN must begin to clearly define those elements of its technology infrastructure which require 'industrial strength' standards and controls and those areas where ultimate flexibility for technology choices are needed to support the academic and research missions of the university.

Assessment Conclusions

Our assessment of CSUN's technology environment has identified many impediments and risk factors that impact CSUN's ability to meet these user expectations. The organic growth of IT support staffs across the campus has, in the short term, been highly successful in helping departments drive the use of technology. However, this growth has resulted in 'silo-ed' resource pools that, at their best, may be inefficient and, at their worst, run counter to CSUN's need to deliver 'industrial-strength' networks and systems. It's time to re-think some of CSUN's IT organizational structures and IT and Business processes to provide improved and economical IT support.

Our core conclusions from this assessment are:

- Having multiple organizations managing different segments of CSUN's network has resulted in multiple security interfaces and processes being deployed. This increased complexity significantly raises the security risks that face CSUN.
- PeopleSoft technical support is located in two different organizations, increasing the organizational disharmony and the risk of conflicting strategies within a single integrated software environment.
- There is no cohesive IT Support strategy or plan that documents the roles of the many organizations that are involved in supporting CSUN stakeholders. This has resulted in user confusion on whom to call and a lack of clarity on the role each support member should play.
- The ITR organization appears to be functioning as a series of stand-alone silos, rather than an integrated support team.
- There is no agreed upon long term technology vision or project plan to guide the support staffs and set the expectations of the users.
- There are a wide variety of committees across CSUN whose 'charters' include involvement with technology decisions. However, there appears to be no on-going process to involve the stakeholders in an effective IT governance structure and process.
- CSUN did an outstanding job of consolidating its e-mail servers. With the help of A&F, they reduced the number of servers from 44 down to three. This consolidation has significantly reduced the complexity of CSUN's e-mail environment and solved a variety of user problems. It is time to consolidate the three remaining servers into one.
- ITR is making attempts to consolidate the number of directory service environments and establish their Active Directory domain as the primary and sole directory for desktop authentication, file management, and desktop management.
- A quick requirements study should be done to determine which workstation management capabilities S&T needs to replace ZENworks and help them get a software package installed, tested and deployed that meets these needs. At that point, S&T should migrate their network resources into the global directory and Active Directory environments.

- With the critical role that technology plays at CSUN, the role of the Chief Information Officer, as a full-time, Cabinet-level position, should be an independent, dedicated position that reports only to the President.
- ITR has chosen and deployed several major strategic initiatives without sufficient participation of the campus community. For instance, ITR core strategies of using 'open standards' and 'open source' software did not appear to be widely deliberated.
- Although we find small pockets of project management skills within the ITR Applications Development team, we did not find a commitment to strong Project Management across CSUN's various IT organizations.
- In reviewing the deployment of OpenLDAP at CSUN, we found that the environment is stable and working. There are no 'emergencies' to be addressed with OpenLDAP, in the short run. However, we found that CSUN has deployed this technology with a very tiny (but strong) staff and is utilizing a core programming language (OCAML) for portions of the directory solution which is not well known by most of the IT community. Given that there is also virtually no documentation on how OpenLDAP has been deployed at CSUN and how the internal code works, we feel that CSUN faces a major technology and business risk through its use of OpenLDAP for such a critical function.
- CSUN has achieved a major success with the CMS/PeopleSoft projects. However, CSUN did what most other campuses did when they deployed PeopleSoft – they did not clean up and improve the business processes that are supported by PeopleSoft. CSUN needs to better leverage the power of PeopleSoft and to better serve their users.
- CSUN's IT organizational issues are exacerbated by the many 'silos' across the campus and CSUN's institutional culture that allows groups to avoid addressing their responsibility for problems. These cultural problems are campus-wide, not just IT-related – CSUN must begin to address them if it hopes to achieve long term improvements.
- Finally, when disagreements occur, there is no documented escalation path to getting them resolved. Obviously, most disagreements should be solved informally, but when they cannot, there should be a clear process to escalating them to the proper campus management to get them resolved fast.

Assessment Recommendations

The following recommendations summarize our thoughts on how to resolve the many IT Support challenges facing CSUN.

IT Organization Restructuring

- CSUN should make the CIO an independent, dedicated position that reports solely to the President. The role of the Chief Information Officer (CIO) should expand from being the Manager of Technologies to also being the enabler of University Strategy and Process Transformation.

- The ITR department should change its name to more accurately reflect its broader enterprise level responsibilities. We suggest the name Technology Planning and Support (TPS).
- The S&T PeopleSoft technical staff should be moved under the current Applications Development organization.
- A study of CSUN's requirements for an integrated collaboration suite (e-mail, calendaring and instant messaging) should be done quickly, working closely with all major campus groups, including A&F. Once completed, it should be included in the Strategic IT Planning process where it can be prioritized with other potential IT investments and scheduled as appropriate.

User Support

- CSUN should develop an IT Support Vision to serve as a driving force for transforming user support within its many IT support groups.
- A single campus-wide Help Desk tool should be used by all CSUN groups providing help desk support.
- S&T has done a great job of leveraging technology to help them deliver desktop and user support in a highly cost effective way. TPS should study what S&T has done, embrace and improve on their work and deploy similar support capabilities for its users and the campus.

Project Management

- CSUN should establish a Project Management methodology for all projects over a defined size to ensure that all tasks/costs/time frames are identified and users are aware of their roles and commitments.
- TPS should train its entire staff and other University department managers and key supervisors involved in projects on project management methodology and tools to make project management skills part of everyone's job.
- The TPS Applications Development Director should be responsible for managing the creation and use of detailed project plans for all PeopleSoft and web development projects.

OpenLDAP and Risk Management

- A plan should be developed to integrate or to migrate S&T's current Novell network into the campus enterprise directory solution.
- Detailed documentation and transition planning should be completed to insure against the loss of one or several of the current IdM administrators and to minimize the risk of TPS's being unable to support critical services.
- CSUN should purchase a vendor supported/Commercial Off-The-Shelf (COTS) directory solution.

- CSUN needs to develop a strategy to move all remaining campus machines (the 2/3 that are not currently managed by Active Directory or something else) under the umbrella of the campus security environment.

IT Governance Model

- CSUN needs to create an IT Governance Model that can efficiently and effectively provide guidance for IT investments and decisions. This governance structure should define an IT leadership and governance structure and processes that includes all major stakeholders: students, faculty and staff. Key attributes of this governance model include:
    - Active Leadership Participation
    - Governance Structure and Process

Process Reengineering / Transformation

- CSUN needs to undergo a transformation through reengineering its processes to take better advantage of the capabilities of the PeopleSoft system. A key component of CSUN's Process Transformation will be the use of PeopleSoft's workflow capabilities.
- The CIO position should play a major role in helping the campus stakeholders to do the Process Transformation.

Strategic IT Planning

- CSUN should develop, build and commit to an on-going university-wide IT planning process and structure, resulting in a university-wide technology investment plan that incorporates the high priority needs of all major stakeholders.

NOTE: The combination of the new IT Governance structure and a strategic technology planning process can go a long way toward helping the stakeholders and the IT support community to understand the strategic roadmap toward the vision.

Changing the Culture

- For CSUN to adopt a "culture of accountability", change must be modeled by leadership and examples pushed down through every layer of management. Displays of behavior that diverges from this standard must be immediately addressed.

With the implementation of these recommendations, we feel that CSUN can address the issues that we found during our assessment.