

Information Technology Review Results and Recommendations

California Maritime Academy

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Background:

The California State University (CSU) system has a strong commitment to the strategic importance of information technology (IT) to further its academic mission and increase the efficiency and effectiveness of its administrative services. As one of the 23 CSU campuses, the California Maritime Academy (Cal Maritime) shares this commitment to the prudent use of IT to further the campus mission and objectives.

Over the past year the campus has initiated strategic planning activities which are designed to engage the campus community in charting a course for academic programs, administrative support services and facilities into the future. A key component of this planning is the role IT support should play to facilitate and further the larger campus strategy. As in other areas, constrained resources have hampered the proper investment in even basic services and maintenance for technology let alone larger scale expenditures for needed new services.

Given the need to ensure proper organization of and investment in IT and for IT to be in synch with other campus planning, consulting assistance was engaged. The former CIO for the CSU system was asked to conduct a review of the current state of IT on the campus as well as identify options and provide recommendations for maintaining or improving IT services and support going forward.

Review Methodology:

Using a common set of discussion topics, the consultant held in-person and a few telephone meetings with over 50 faculty, students and staff “customers” as well as members of the IT department. The discussion topics grew as more information was supplied by the various campus stakeholders. These meetings took place during March and April of 2014. Given the summer cruise and hiatus, the consulting report and recommendations were held for review until the fall 2014 semester to maximize participation by the campus community.

Current State Observations:

General:

- The comparative smaller size of Cal Maritime to other CSU campuses provides a somewhat different environment in which to operate. Certainly there is a strong sense of community on the campus which is a significant asset. Hand in hand with that positive is the fact that news (both good, bad, and inaccurate) travels fast and provides challenges to departments like IT in the business of providing services.
- There is a very strong campus-wide work ethic and “can do” attitude which drives a very positive focus on outcomes
- Years of inadequate budgets have driven a culture characterized in multiple interviews as “doing things on the cheap”

IT Staffing:

- The competition for competent IT staff is very strong in the Bay Area due to the abundance of well-paid IT jobs. In addition, the lean budgets of the past several years have resulted in Cal Maritime’s salary levels being at the lower end of the scale— particularly in the IT arena. The result has been high IT staff turnover which makes it difficult to address important long term projects. In fact, current staffing levels, while improving, have allowed little more than “fighting fires” and moving from one crisis to another.
- Cal Maritime has been sharing a Chief Information Officer (CIO) with Sonoma State University for the past one and a half years in an effort to stretch scarce resources and take advantage of the capable CIO already in place at Sonoma State. While the sharing arrangement has had some benefits, it has made the need for a full-time CIO seem more apparent to the campus. The importance of the IT work that needs to be done and the level of leadership needed to effectively match IT support with campus plans is not diminished due to the smaller size of Cal Maritime. In fact, one could argue that a full-time, “working in the trenches” CIO is even more important on a campus like Cal Maritime.

IT Issues:

- A number of IT issues were voiced by the campus community during the period of information gathering and among those that were articulated the most often were:
 - Despite recent investment to make headway in the area of deferred IT infrastructure maintenance and replacement, this continues to be at the root of many user complaints

- Recent failures of key IT systems have weakened user confidence. The problems with email and the Moodle course management system, while currently being addressed, were most often cited.
- From the user perspective, the IT department needs to improve communication with the campus community and be more sensitive to the academic calendar in planning technology upgrades and maintenance.
- Faculty and students share a concern that the transfer of IT services to the ship during the annual cruise(s) seems to have the same problems year after year. Examples cited were requirements for password changes and personal technology devices not working on the ship

IT Strategic and Project Planning:

- A key component of effective IT support of and integration with campus goals and objectives is a written and regularly updated multi-year IT strategic plan. No such plan exists for Cal Maritime that ties IT direction and investment to the strategic outcomes and objectives of the campus.
- A companion attribute of an effective IT environment is a process which engages campus stakeholders in the setting and recommendation of IT project priorities which drives investment, budget, staffing and the setting of campus IT expectations. While the campus IT Governance Committee could be leading and engaging in such a process, attempts to date have not been successful.

Desired Future State:

A distillation of the feedback from faculty, students and staff as well as from senior management and IT staff mapped against common attributes of effective IT operations yields the following set of desired target attributes for Cal Maritime:

- The IT department is staffed to provide a planned and agreed-upon level of service and support to the campus including the ship.
- A regularly updated IT planning and priority-setting process is in place which involves all stakeholder groups.
- The campus user community both is and *believes* it is well informed about IT operations, events, and plans.
- The IT organizational structure and staff roles and responsibilities are well-known and understood across the campus.
- The IT maintenance and software/hardware upgrade scheduling is coordinated with the campus academic and event calendar.

- There is seamless IT service and support for the ship while docked and on the annual cruise(s.)

Organization:

Organizational changes will be required to achieve the target environment. The changes are not all apparent at this time and alternatives will need to be considered based on immediate needs and the development and evolution of the IT strategic plan. Three attachments depict the current IT organization as well as a proposed organization designed to address those requirements which exist today. Attachment 1 is the organization as it was from 2006 until 2013. Attachment 2 is the organization as it exists today. Attachment 3 is the proposed new IT organization.

Two organizational techniques that should be actively considered and are in wide use in IT both inside and outside of higher education are shared services and outsourcing. While shared services involves two or more organizations sharing a single service provider, outsourcing involves one organization contracting with another to provide a service which it no longer wants to or can provide itself for whatever reason. Example services that could be candidates for consideration at Cal Maritime are support for the CMS/PeopleSoft administrative systems currently in use and some of the Help Desk functions.

Essential Tasks:

Several activities will be required to implement the recommendations of the consulting report (below) which are designed to achieve the target environment.

- A comprehensive inventory of campus hardware and software currently in use including age and version should be conducted in order to develop a replacement and upgrade plan which would include priority choices, investment required and consequences of not taking action.
- An assessment of IT services and capacity required for implementation of the Facilities Master Plan and other campus planning should be conducted in order to ensure that proper lead time and resources in IT are included in the overall effort.
- A short and medium term IT staffing and resource plan is needed to address immediate requirements as well as those that may develop before an IT strategic plan can be completed.
- An IT communications strategy and plan should be developed as soon as possible to build campus understanding and support for IT efforts that will be required to achieve the target environment.

- A review of potential existing and new sources of funds for the highest priority IT projects and programs should be conducted with an eye toward innovative funding strategies that have worked elsewhere such as a campus technology fee.

Recommendations:

In order to garner campus-wide support and demonstrate the commitment to the achievement of a set of IT services worthy of Cal Maritime's high expectations of itself, the IT Review and Recommendations for Action should be actively considered by the appropriate campus advisory and management groups. With the understanding that other action recommendations will derive from the following list, these actions are recommended for immediate implementation:

- Charge the IT Governance Committee to oversee and advise on the implementation of the IT Review and its recommendations.
- Recruit and hire a full time, "sleeves up" CIO.
- Fill any vacant IT positions and develop a staffing plan for the next year.
- Initiate an IT strategic planning process to coincide with the timetable and content of the Facilities Master Plan.
- Develop and initiate an IT project and service review and priority process.
- Conduct an IT project inventory including projects backlogged, underway, pending and planned.
- Engage students and key stakeholders in consideration of a campus technology fee as other campuses have done.
 - Identify which existing or new IT services are best candidates for technology fee funding and develop the associated rationale.