Third Party Review of Information Technology Systems at La Verne University

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Third Party Review of Information Technology Systems at La Verne University

The Information Technology Department at La Verne University is functioning at a high level of competence. The department also contains all the essential elements of a functional department. The moral of the department seems to be good. Below are some recommendations to further improve the operations of the department.

Staffing:

1. The Information Technology (IT) Department should consider to using more student workers to help support the end users of technology. Typically, a university IT department would hire a large number of student workers to reduce some of its operating expenses.
2. There is only one Banner programmer this condition is not adequate with the amount of work that is required to maintain a university ERP system. The recommendation would be to add three to five programmers and move the Bi-Tek application to Banner.
3. The IT department appears to use contract help instead of recruiting permanent or temporary workers in most instances contract work is more expensive than hiring employees from both a cost and a continuity perspective.
4. The IT Systems Group has two Windows administrator, two Linux administrators, and two network administrator. Given the overall size of the IT staff, this Group seems disproportionately large compared to other universities. The recommendation would be to overlap the work of the all the systems administrators.

Budget:

1. The IT capital budget does not appear to be well planned and project for future needs of the university; this makes it very difficult to plan for multi-year technical projects that support the university's long term strategy. The recommendation would be for the CIO to work closely with the CFO to establish a long-term strategic plan, which would advance the university in using available technology. The university is not keeping pace with technology offered at other universities of comparable size, at some point lack of technology will impact student enrollment.

Technology:

1. Recommend the use of server virtualization technology to consolidate physical computers; server virtualization will also be an integral part of any disaster recovery plan in the future.
2. The IT department needs to work on a disaster recovery plan. The plan should cover server backup strategies, desktop backup strategies, secondary data center, emergency communications, and redundant network connectivity.
3. The IT department has consistently increased the availability of critical systems such as Internet Connectivity, Library Systems, Student Systems, and Student Self-Service. Recommend that the department also audit for e-mail, portal, and website systems. During a disaster these system will be critical to communicate with the university's constituents.

4. While the university has purchased a number of very functional systems, the systems lack integration; as a result, the university uses more labor than normally would be expected to transfer information from one system to the other.
5. The amount of e-mail space provided to both the staff and faculty seem low in comparison to other university e-mail systems.
6. The university has installed CampusEAI to deploy and manage its portal system. CampusEAI has had a good history of successfully implementations. The next step, full implementation of a cohesive portal service; the recommendation is that the university implements a Single Sign-On System.
7. The data center is in dire need of improvement. Recommend that the university purchase a Universal Power System (UPS) system that will provide power for at least 45 minutes, if commercial power is lost, to allow for proper shutdown of systems. Provide a consistent and redundant climate control system; recommend a second air conditioning unit. The data center also requires a fire suppression and water detection system immediately; this is human safety factor that needs remedy. Recommend the installation of a key-card security system an audit trail being part of best practices of the movement of personnel in and out of the data center exist.
8. The industry accepted computer systems replacement cycle is five years, best practices is three years. The recommendation is the IT should investigate the use of a virtual desktop solution to decrease the number of computers that will require replacement.

9. Recommend that the university explore the use of Linux as the operating system for the Banner system and purchase the Oracle Database Management System, to save money over the long term.
10. There are some very old versions of software in some of the computer labs. Recommend that the university purchase newer versions of the software.
11. Many files are stored as paper, the university has a plan to implement an Electronic Data Management System which should reduce the cost of locating lost documents and freeing physical space currently taken by filing cabinets.

Security:

1. It was revealed that Microsoft Access has been used extensively as a tool to obtain reports. The use of MS-Access could be very problematic as it is both a privacy and security weakness. Recommend using a tool such as eVision's Argos to help with reporting and data analysis. The university needs to invest in providing a Report Writer to produce ad-hoc, routine, and other necessary reports.
2. Recommend a master security strategy be developed that would automatically analyze and act upon logged events appearing in, for applications, services, and security logs to prevent security breaches in real time. Such security appliances as those offered by TriGeo would be an example, of an easy to use automated security alert and detection system, from desktop to router and all devices and software in between.

General IT Management Recommendations:

1. IT department morale appeared to be low for a time several comments alluded to the perception that that senior management did not support the IT department and their initiatives, rather viewing the department as a necessary expense rather than a valuable long-term asset. The IT department can demonstrate value to the university by computing ROI of each IT project, current or planned.
2. The university appears willing to invest in systems and software but not does not seem to value or want to make the investment in the resources required effectively deploy and maintain the systems. A good example is the purchase of the Cognos and ODS system but did not provide enough personnel and training to fully deploy the system. As a result, the system is unused.
3. Recommend that IT create a bilateral Service Level Agreement (SLA) where both the university and IT Department understand the targeted service levels, for an SLA to be effective, the university must agree to provide the resources to IT necessary to maintain and continue the agreed upon level of service.