CASE STUDY EXERCISE

Context

The case study exercise provides you with the opportunity to work with colleagues, as a member of a team, on an issue related to information technology services in higher education. You'll have the opportunity to explore that issue from a different perspective than you normally would in the course of your current position. Specifically, we ask that you:

- Put yourself in the role of someone outside the IT organization or in a role that is different from your current role in the IT organization – you should see things from a different perspective in addressing the case study issue.
- Work as a member of a team to evaluate the issue and plan a solution.
- Obtain useful results quickly, on an issue with which you may not be intimately familiar, by sharing experiences, perspectives, and ideas with colleagues in a context that demands rapid analysis and decision making.
- Communicate the results in a manner that is concise, persuasive, and engaging.

The case study exercise will be most helpful to you if it has at least *some* relevance to your current working environment. However, you'll learn more if you don't work on a case that's similar to your daily job – better to work on a case that would require you to develop an understanding of a different type of IT issue. We have provided six case studies, and we ask that you indicate your top three preferences in rank order (1-2-3). We will assign you, as best we can, to a team that will work on your preferred case.

IT Leadership Case Study

The case studies:

- Describe a university's or an IT organization's external and internal conditions and raise issues concerning the IT organization's mission, strategies, objectives or policies;
- Set a context with background information that is combination of mostly facts and some opinions or personal judgments;
- Portray a scenario that is a snapshot taken at a particular point in time;

- Provide an opportunity for learning by doing and serve as the focal point for discussions with colleagues who may face similar circumstances;
- Provide the opportunity to consider the issue from a different perspective than you might in your own job context.

Analysis

The following points may make your team's analysis of your case a little easier to approach.

- The background information in a case study is incomplete – just like the real world.
- You'll need to make reasonable assumptions about unknowns; state assumptions clearly in the analysis as the bases for decisions. Various of the team members will have some experience or familiarity with similar situations to bring to the discussion – that's one of the major points of the exercise: to share perspectives.
- There is no "best" solution to the issue – the rationale and process of arriving at a decision are the most important factors. On the job, you generally don't get to solve the same problem several times until you get the best solution. You need to learn from your successes and … "learning opportunities" based on your decision-making process will help develop your intuition about how to arrive at optimal solutions.
- In your analyses, include advantages and disadvantages of several solutions – again, there is no single or "right" solution, so the rationale for arriving at your solution, out of the universe of possible solutions, is important.
- You'll need to be realistic about solutions. IT is generally not the highest priority in higher ed, so expecting dramatic increases in resources to be allocated to solve a problem is probably unrealistic.
- Be specific in details – use percentages, dollar values, FTE, etc., where feasible.
- The analysis should be collaborative team processes, reflecting the process generally used in higher education administration.

Case Study Solution Steps

As appropriate:

- Draw upon your own experiences, or situations you've read or heard about, to fill out the context and discuss the case with team members

- Identify the institution's vision, mission, strategies, and objectives – you'll need to make this up, just as you might in real life.
- Develop a vision and mission for IT organization consistent with the institution's mission.
- Identify strengths, weaknesses, opportunities, and threats associated with the case.
- Brainstorm alternative approaches to a solution; rank in matrix form against strength, weaknesses, opportunities, threats, and evaluate congruence with IT mission.
- Recommend specific strategies and implementation steps; note risks associated with steps that will require close management monitoring to ensure success
- Describe results you expect and possible or even likely alternative results.

Teams are welcome to ask questions of the case study exercise leader about the case or about individual roles, though you are welcome to make up your own assumptions and build those assumptions into your solution.

Case Study Solution Presentation

- Your team will present your decision to the President's Cabinet or to the Board of Trustees of your hypothetical institution (as appropriate) for approval (faculty and ELI participants will represent the President and Board or senior administration colleagues, interested state legislators, etc.)
- Use flip charts or Powerpoints to present the background, your analyses and judgments, and decisions.
- Leave time for questions and comments.
- The order of presentations will be posted on Tuesday.
- Time is scheduled on Wednesday afternoon for teams to meet to develop their analyses and presentations.
- The presentations will be made on Thursday morning.
- Presentations will be limited to 15 minutes per team.
- Prizes will be awarded in several categories. Judging will be based upon the soundness of the analysis, coherence of the working assumptions, and quality of the presentation – and humor will likely win some points, too.

Reminders

As you're working through your case study, please keep these points in mind:

- Refer to the Learning Pyramid model in developing your case analysis.
- Remember that it is the process rather than the product that is important in doing these case studies.
- Review the roles carefully; plan what to do with no-shows, extra roles, etc.
- Check all documents and materials ahead of time.
- Educause staff are not tasked with assisting in case study presentation development; the case study exercise leader can advise on assumptions, process, presentation, etc., but staff cannot provide assistance with presentation logistics other than arrangements already prepared.
- Team processes, team meetings, and the full engagement and involvement of all team members are important factors in maximizing your value from the case studies.
- Work on your case study only during the assigned period; review and contemplate alone if you can, but don't work with another individual.
- The presentation summarizes your analyses and conclusions and provides the opportunity for members to reflect the perspectives others on campus might have – playing a variety of roles. Use the opportunity to play a different role and broaden your perspective in the process.
- Most importantly: *have fun!*

Overview – The Six Cases

CASE 1: New CIO Assignment

You are the new CIO at Oskaloosa State U -- OSU. OSU is a public university that has grown from 6000 FTE students to 10,000 FTE students over the last decade. Its traditional mission has been its teaching focus, but with its recent growth, a number of new faculty have an interest in and ability to do research that is competitive at the national level. State funding in support of OSU has decreased from 20% of the operating budget to 10% of the budget as the budget has increased over the last decade … the funding was cut slightly but the university's budget almost doubled. IT has not been well funded, and like most other areas of the university, it is understaffed, with only 60 FTE staff serving all academic, administrative, telecom, networking, and media services roles.

Your president has given you the charge to put IT on the map at this institution. She wants to see research grants increased, a total wireless campus, national and international partnerships, reengineered information systems for the campus offices, updated classroom technology, a modern CMS, life cycle replacement for all workstations and servers and more.

1. How would you approach this charge?
2. List concrete steps you would take to initiate and carry out planning to accomplish these goals. Identify resources you'll need. What internal partnerships will be critical (deans, facilities, etc).
3. Describe how you would implement these plans. Cover all aspects of implementation from working with faculty, staff and students to acquiring and managing the funds, to evaluating success, etc.
4. Identify and evaluate risks, critical decision points, etc.

Your team of senior leaders from across campus will present to the President and Board your plan for fulfilling the President's goals.

CASE 2: P2P Networking Issues

Big Sur University (BSU) a small (4000 FTE students) residential public institution that has access to high-speed connections, both LAN and wireless, throughout campus. There is widespread and increasing use of music and video downloading among students. There has also been open access to any web site, including pornographic and other sites that could not be considered "for academic use" by any stretch of the imagination. The President, the dean of students, and other college officials have been getting complaints from state legislators, trustees and others about the use of computing resources by students. Trustees fear a lawsuit from movie and music companies.

The Director of Residence Life believes that ResHall occupancy levels rely upon easy access to P2P services and has been lobbying quietly not to impose restrictions. The bond debt for the new ResHall construction of just ten years ago is substantial and will not be retired for another fifteen years. It relies upon a 90% occupancy rate to fully fund payments each year. In fact, students have easy access to inexpensive housing in the nearby beachfront communities in which space is readily available during the academic year, and occupancy has been about 95% recently. The Associated Students' Technology Committee has been actively promoting the P2P services and working within the AS to oppose any changes.

Meanwhile, BSU's IT director has been receiving complaints from faculty and staff that they are experiencing significant delays as they try to use the Internet during the day for class, scholarly work, or administrative purposes. Attempts to moderate P2P traffic through the external connection have been only partially successful as the P2P traffic shifts to Port 80, masquerading as http traffic. The IT director reports that a doubling of bandwidth, at an incremental cost of $100K per year, would help but not relieve the traffic problems.

How would you address this problem? Think about all aspects of this, including what the students expect, financial considerations, legal considerations, etc. What technology engineering, social engineering, legal, political, etc., factors do you need to incorporate into your solution?

Your presentation is to the President's Executive Council (President, Provost, VP for Finance and Administration, VP for Student Affairs, VP for University Relations) on a plan for dealing with this.

CASE 3: Legal Music Sharing

Karl Zeiss University (KZU) is a private R1 university with a music school. The new KZU provost wants to guide KZU to be a national leader in developing a system for P2P file sharing that avoids copyright infringement. He has asked the IT staff to educate him and other senior university officers on the issues and to help develop a plan for achieving that leadership position.

The Provost is interested in participating in a pilot program that would provide the students with legal music over the network. The service offered by commercial providers offers streaming and tethered downloads, as well as purchase for an added per song fee. The service is being offered at a cost based on the number of students on campus (or in the dorms), and the provost is willing to pay that fee during any pilot stage. Any cost of subsequent stages would be passed on to all students. Student opt-in is not an option at the negotiated discounted fee. The service is currently available only for Windows machines, and 25% of the students use Macintoshes or Linux.

The provost has asked the IT staff to implement this pilot in such a way so as to make it successful. The team should come up with a plan to do so, including a communication plan. The team should consider how this pilot would affect the technology infrastructure on campus. Many students, in initial discussions, have indicated they would use this service to listen to streaming music on a wireless device. The service provider has offered to put a machine on the university network to cache popular tracks.

The team should consider the implications of this offer:

- Political issues
- Equity issues (non-Windows constituents)
- Bandwidth implications
- Staffing and support implications.
-

The team should also detail how it plans to address other P2P use during the pilot, if at all.

Your presentation is to the President's Executive Council, on behalf of the Provost, as an institutional plan for addressing this issue.

CASE 4: Change in Direction at the Top

HardKnox University is a state university with 15,000 FTE students (undergraduate and graduate). It has a substantial research program and modest funding from the state. It has been successful in attracting and retaining good faculty, and it draws students both from within the state and from other states in the region because of the quality of its teaching and scholarship.

The administrative structure is a fairly standard one. The Provost and Vice President for Academic Affairs is, effectively, the chief operating officer of the university, and HKU has a new Provost following 12 years of service by the former Provost, who had also been a faculty member in Political Science. The CIO reports to the Provost.

The former Provost had a disinterested, hands-off approach to IT, but he made sure that IT was relatively well funded and so supported faculty reasonably well. The new Provost comes from an institution in which the CIO was very actively involved in academic affairs and was strongly allied with the Provost in support of his faculty. The new Provost expects the CIO at HKU to rise to that level of interactivity. The CIO is excited by the challenge, but is unused to operating at that level.

The IT Management Team includes the CIO and her direct reports. These latter are the Directors for infrastructure (servers, telecomm), administrative computing, academic computing, user support, and Web services.

The new Provost has presented the CIO with a "manifesto" to flesh out the new expectations. Key elements of the manifesto include: required routine consultation with the deans, Vice Provost for Research and Development, Vice Provost for Distributed Learning, and Vice Provost for Curriculum Development; establishment of measures of quality of service for faculty, staff, and student clients of IT services; and development of a strategic plan for IT, in collaboration with key elements of the academic community. (Many of these are in sharp contrast with the requirements of the former Provost.)

        The Provost is sensitive to the change in management style that he is requiring and has asked the CIO to work with her team to develop a response to the manifesto that shows how the CIO and her team will address it, note the problems that the new style may cause, and initiate a dialog on what's needed to make sure this new approach will succeed. The team presentation will begin that dialog.

Here are some questions that the Team could consider:

1. What were some of the likely characteristics of the IT organization under the hands-off Provost? In what ways are these challenged by the new Provost?
2. What roles can the current Directors play in supporting the CIO's success in meeting the challenges?
3. What can the IT organization promise, and in what timeframe?
4. What resources (in particular, people inside and outside the IT organization) can the IT Team draw upon to help ensure the CIO's and the IT organization's success?
5. What leadership skills will the CIO and each of the Directors need to develop and employ?
6. What professional development opportunities might be used to help facilitate this transition in management styles?
7. By what criteria will the CIO's success in meeting the new Provost's expectations be measured?

CASE 5: Career Planning

Mercy University is a not-so-well endowed, church affiliated, medium-sized (3000 FTE) university. It has a long and respected local reputation, but it's struggling. The enrollments have been flat or decreasing for the past few years, the local economy is suffering from a significant downturn in manufacturing and other blue collar jobs, and there is serious competition for its usual adult-aged students. A nearby branch campus of the University of Phoenix has just opened on the other side of town and two other "degree completion" programs are being offered from nearby colleges. Mercy U. is holding its own, but campus morale is declining and operational budgets are threatened. To make matters worse, the institution's president is in his early 60's, is noticeably lethargic about new initiatives, and is coasting to his retirement. The trustees have been exceedingly tolerant of him, but most people admit that it's time for a change.

You've been at Mercy U. for 18 years, working first as an assistant in the budget office (right after graduation from a nearby liberal arts college), then as the University's institutional research officer, then as the assistant director for information systems (a.k.a MIS manager). You like working at Mercy and you are proud of your contributions.

And now – you've been promoted to IT director. Your recent promotion was not something you actively sought. Rather, you were asked to assume the position because you are competent, well liked by most everyone on campus, and dedicated to the University. The previous director was only moderately successful and recently left to follow his spouse to her new faculty job in another state. The IT department is at least marginally understaffed (by everyone's measure), but no more so than most other departments at the University. At first they gave you an interim title, but after three months the president declared you the permanent director. At least for now.

With a short staff, shaky budgets, and lack of clarity about short and long term institutional directions, you are in a dilemma. Your modest ERP implementation (5 years ago) was successful, but web-based services are now being forced on you by the vendor. The old data base is no longer supported. At the same time, the campus is clamoring for a course management system. You've been getting by with some tailored web sites, mostly constructed by faculty and their students. The faculty advisory committee has been supportive, and they don't blame you (well, a couple of them do), but they're demoralized by the lack of state-of-the-art systems and the lack of direction. So the heat is coming your way. The technical infrastructure is adequate but aging, the desktop replacement budget is reasonably healthy, but your predecessor made no attempts to add wireless capability to the campus. There just hasn't been time or money for this. In

general, the campus user community is tolerant about IT services and hasn't complained much (except when the e-mail server was down for 2 days early last month; your lead systems administrator was in Europe for a well-deserved 4 week vacation and something happened to the log files).

Your spouse has a great job at a nearby insurance company. Your aging parents are a 2-hour drive away. The kids are in junior high and love their school. Moving is not an (easy) option.

You report to the academic vice president, who is a pretty decent boss, but not too interested in IT.

So where do you go from here?

Your presentation will be in the form of a discussion with a small group of good friends as you try to work out a plan for your career path and/or your change in management style and plans.

CASE 6: To ERP or Not to ERP

With the state and national economic downturn, budget reductions are threatening the University of East Carolina. Several big campus projects and programs are in peril. While recognized as important by the campus, the new administrative computing system project, titled Chorizo, has sparked an intense debate about its continuation. UEC is a university of 8000 FTE students with moderate research programs – it is primarily a teaching institution.

The UEC administrative systems are based on the DB2 database system with most of the reports written in COBOL. While the system provides the core functionality needed to support finance, HR, student records, etc., its original design did not provide for interactive self-service applications such as student registration, etc. The campus community acknowledges that those kinds of services are increasingly critical if UEC is to be competitive for students. Rather than attempt to develop a new system, UEC decided to consider acquiring an ERP system, as many of its competitors have done. They recognized the risks of costs over-runs, staff overloads, etc., but they felt that a commercial ERP system was the quickest route to a solution.

The Chorizo administrative system project was budgeted for $15M, including ERP licenses from the HSS (Hot Sausage Software) Corporation, consulting, training, etc. After a little more investigation, UEC has found that the experiences of other schools suggests that the project is likely to cost $25M by the time it is completed. With the budget cuts underway in the state, the senior administration has asked the CIO and other key directors to re-evaluate options.

The East Carolina State Department of Administration has offered to help relieve the problem. They would provide administrative services for HR/Payroll and for Finance and integrate the student financial systems with the state system. Of course, the legislature endorses this approach and hopes to encumber salary savings from any vacant positions and return those funds to the state treasury. Unfortunately, the DoA has a history of starting projects that it does not complete according to specifications, so you have reason to be concerned that the interfaces with the campus-based student systems might never materialize. And the other state universities, which had already implemented another ERP product, would not be subject to this monitoring and would not be at risk of having student and other systems not integrated.

Oh, and the UEC President is a close personal friend of the Governor.

Your team was appointed by the President to evaluate options, and your presentation is to the President's Executive Council regarding your analysis and, if possible, recommendation. In doing so in this case in particular, it will be

important to consider the strengths, weaknesses, opportunities, and threats associated with each of the alternatives.

Your analysis might consider the following issues:

1. What are alternative approaches to providing the services that the Chorizo project was intended to provide?
2. What might be the budgeting and staffing implications of the alternative approaches?
3. How can this administrative system be developed to best serve the ultimate mission of UEC?
4. What are the primary causes of project failures and cost overruns, and what are the risks associated with this project?
5. What are the political risks associated with the offer by the DoA? What are the implementation risks, particularly with regard to service for UEC's primary customers, the students?