July 26, 2004

TO: Gene Lucas
        Executive Vice Chancellor

FROM: Mark Aldenderfer
         Director, Office of Information Technology

RE: Campus Information Technology Priorities, 2004-05

UCSB is growing in stature due to its ever-increasing research portfolio, enrollment of top students and recruitment of world-class researchers. The campus has an obligation to provide appropriate information technology (IT) services to support research and teaching activities.

In this memo I present my recommendations for IT funding for the coming academic year. These recommendations are based upon the activities of the Information Technology Planning Group (ITPG) and the Information Technology Board (ITB) regarding those IT services they have deemed critical for funding. The ITPG spent almost six months evaluating different proposals. The ITB reviewed these, and made its own recommendations for support.

The ITPG proposal process provides an opportunity for IT staff to discuss IT projects that they consider from their perspective necessary for UCSB to provide excellent service to its faculty, staff and students. In turn, the ITB process provides some review of these proposals by senior campus leaders in both academic and administrative areas. Appendix 1 provides you with a complete picture of the rankings of all proposed projects by both groups. As you can see, there is considerable consistency between the rankings of the two groups.

Before discussing my specific recommendations, I wish to make a number of points. It is obvious that our campus does not fund IT at an appropriate level. Further, each of the projects listed in the appendix is worthy of funding and consideration. What the process reflects is a grass-roots approach to IT planning and while it has worked well in the past, it is clear that we also need top-down direction from a senior-level position. Only in this way will the campus truly be in a position to move forward to fill the gaps in our IT services.

Two projects not included as a part of either the ITPG or ITB process are the current Intrabuilding Wiring Project (IBW) and the Wide Area Networking (WAN) funding process. Participants in the ITPG process deemed these initiatives as operational aspects of the OIT and thus to be discussed as a part of the OIT budget process.

In considering my recommendations, I examined two factors: whether the proposal would have campus-wide impact and at what level, and the time the proposal would take to bring to fruition. As you will see when you examine the proposals in detail, some are quite complex, and will require a major investment of campus resources to bring them to a satisfactory conclusion. Many will also require more senior-level leadership than is currently in place. I did not directly consider cost, although I recognize that this is a major limiting factor. Table 1 provides you with a list of the recommended projects and their costs while Appendix 2 provides you with a list of all projects and their costs.

Table 1: Proposals Recommended for Funding				
	FY 04/05	FY 05/06	FY 06/07	Ongoing beginning FY 07/08
Software Licensing Support	123,000	91,000	91,000	91,000
Campus Course Management System	95,500	90,500	90,500	80,500
Future GUS Support, Development, and Training	143,500	181,500	168,100	166,100
	362,000	363,000	349,600	337,600

Priority 1 Software Licensing Support
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/software_licensing.asp

Software license management is a core element of IT infrastructure on many campuses. Typically, these organizations provide legal copies of software to campus departments, maintain comprehensive databases of the owners of the software, and respond to queries by software providers. They usually offer software at discounted prices, thus saving departments scarce resources An efficient organization can help a campus avoid potentially expensive audits by software providers intent on protecting their products.

The current service at UCSB, Software Depot, has been funded on a limited basis by Instructional Computing (IC), a division of the Office of Academic Programs. Over the past four years, the Software Depot has saved campus departments ca. $400,000 per annum, a significant sum in tight times. However, due to budgetary erosion over the past few years, IC has reduced the range of licensing activities, and may well have to consider further reductions in FY 04/05. Already some license processing has been shifted back to departments, and the cost of some software has increased.

To maintain this critical service and to continue to save ever-scarce resources, I recommend that the campus provide core funding to fund an Office of Software Licensing. The proposal outlines a two phase process. Phase 1 requests an FTE to be housed temporarily at IC. This will provide continuity for the existing process as we transition to a more permanent office. Phase 1 also includes the upgrade and revision of the database structures required to run the service. Phase 2 envisions the transformation of the service into a true office, and as a part of the ongoing campus IT reorganization process, a permanent home for the office will be considered by an advisory committee or other appropriate campus decision-making body.

Priority 2: Campus Course Management System
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/course_management.asp

UCSB has no campus-wide course management system to provide basic functionality to all faculty and advanced functionality and integration for cutting-edge faculty. According to Kenneth Green's "13th National Survey of Computing and Information Technology in American Higher Education" report" more than one-quarter of all classes offered in the academy are integrated by a course management system and over 80% of campuses have established a single product standard for these systems,

predominantly the commercial products Blackboard or WebCT. UCSB is the only UC campus that does not employ a course management system. I believe, as do other campus IT leaders, this lack of a comprehensive course management system will ultimately affect the campus' ability to enroll top students, and will certainly discourage innovative faculty from using IT in their classes.

During the 2003/04 academic year campus IT leaders discussed the deployment of the SAKAI initiative, and developed initial budget requirements and sought some funding. The OIT, Office of Academic Programs, and Letters and Sciences Information Technology explored temporary funding sources and outlined a plan for evaluation and implementation of the software.

I recommend that core funding be provided to expedite this process and to provide a secure future for this essential functionality. Although the above-mentioned groups are ready to provide some resources to this end, I believe that the 1.5 FTE requested for evaluation and implementation should come from new funds since each organization is already stretched to breaking by current demand on their services in their respective domains. Permanence is necessary to ensure success.

We envision the implementation of SAKAI as a process that will unfold over the 2004/05 academic year. I propose that the new FTE be placed temporarily in the OIT, which will coordinate the implementation process. The permanent home of the system should be considered as a part of the ongoing IT reorganization process.

Priority 3 Future GUS Support, Development, and Training Proposal
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/GUS_development.asp

The campus needs to provide timely financial reporting for its research grants. The current campus financial reporting system is not capable of providing timely access to this information. Failure to track accurately grant finances could result in over- or under-spending grant funds, expense disallowances, and costly audit processes that have plagued many campuses.

Over the years, the campus has developed a "shadow" accounting system—GUS—that is currently used by over 20 academic departments. Together, these departments account for ca. 75% of all extramural fund management. Since GUS is home-grown, it has acquired a number of inefficiencies and problems that require urgent attention. In the long run, GUS will have to be replaced by a new, more flexible campus accounting system. However, the process required to evaluate and implement such a solution lies in the future once campus IT reorganization has been accomplished. A long term solution to this problem will also be very expensive. However, repairs and modifications to GUS cannot wait for this solution.

The requested resources will be housed in the Accounting Department, which will maintain close departmental involvement through a steering committee of users and developers.

The proposal ranked third by both the ITPG and the ITB is the Registration and Curriculum Data in the Data Warehouse project. Although highly ranked and important, I did not recommend this proposal because I believe this effort should be a part of a more broadly conceived effort to upgrade campus information systems from a campus-wide perspective. I believe strongly that the campus must avoid piecemeal replacement of these central information systems by individual campus

units. A campus-wide perspective on the selection and deployment of such an upgraded system is essential, and further, I also believe that the selection process must be managed and supervised by a central authority with oversight over budget and implementation. This has been advocated by the Budget IT Subcommittee, and this should become a campus priority. The ITPG has also recognized the importance of developing a campus-wide perspective through the planned efforts of their New Business Architecture (NBA) planning group. While this kind of grass-roots support is essential, in the long run, a more central organization with a clearly defined responsibility to implement new information systems will be required for the project to succeed. The ITPG should be encouraged to form their NBA group as quickly as possible, and to examine the curriculum data project as their first priority.

    cc.   Henry Yang
             Bob Sugar
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Appendix 1.

Table 2: Rankings and Costs of Proposals Requesting Funding						
	ITB Percent Points Allocated	ITPG Percent Points Allocated	FY 04/05	FY 05/06	FY 06/07	Ongoing beginning FY 07/08
Campus Course Management System	32.1%	23.7%	95,500	90,500	90,500	80,500
Software Licensing Support	23.8%	34.4%	123,000	91,000	91,000	91,000
Centralized Credit Card Processing	7.9%	5.9%	TBD	TBD	TBD	TBD
Registration and Curriculum Data in the Data Warehouse	11.4%	11.2%	163,790	133,540	133,540	133,540
Student Portal Project	6.7%	8.9%	60,000	15,000	15,000	15,000
Future GUS Support, Development, and Training	10.0%	9.6%	143,500	181,500	168,100	166,100
Funding for Open Access Resources	8.1%	6.3%	64,080	64,080	64,080	64,080
			649,870	575,620	562,220	550,220

Table 3: Rankings of Proposals Requesting Further Study		
	ITB Percent Points Allocated	ITPG Percent Points Allocated
Commodity Services	24.8%	22.6%
New Business Architecture	44.5%	57.1%
Building a Trusted Infrastructure	30.6%	20.3%

Appendix 2:

Campus Course Management System
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/course_management.asp
Costs: FY 04/05: $95,500, FY 05/06: $90,500, FY 06/07: $90,500, Ongoing
beginning FY 07/08: $80,500

Problem: UCSB has no campus-wide course management system to provide basic
functionality to all faculty and advanced functionality and integration for cutting edge
faculty. According to Kenneth Green's "The 13th National Survey of Computing and
Information Technology in American Higher Education" more than one-quarter of all
classes use a course management system, and over 80 percent of campuses have
established a single product standard for these systems, predominantly Blackboard
or WebCT.
Solution: Evaluate SAKAI and then implement a campus-wide course management
system. The recommendation doesn't identify a home for this project, but I
recommend that the requested FTE be located in the OIT, which would allow for an
easier transition to a permanent home when the campus reorganizes IT.
Impact: At some point lack of a course management system will affect our ability to
enroll the best students who already expect us to provide such a system.

Software Licensing Support
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/software_licensing.asp
Costs: FY 04/05: $123,000, Ongoing beginning FY 05/06: $91,000

Problem: Software License management is a core element of campus IT
infrastructure that is currently unfunded; without funding the current service may be
terminated in response to budget cuts, resulting in a significant increase in software
costs. Since this service was not funded in the last ITPG proposal process,
management of several site licenses has shifted back to academic departments.
Solution: Core funding for FTE and resources necessary to provide for an Office of
Software Licensing.
Impact: Current Software Licensing efforts provide annual savings of $400,000
distributed across campus.

Centralized Credit Card Processing
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/credit_card_processing.a
sp
Costs: TBD

Problem: There should be a single centralized mechanism for processing credit card
transactions via the web such as there is via card-swiping terminals.
Solution: A workgroup should be formed consisting of functional and technical
stakeholders to determine and then implement a plan of action.
Impact: The campus centralizes and reduces the distributed risk that exists today.

Registration and Curriculum Data in the Data Warehouse
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/data_warehouse.asp
Costs: FY 04/05: $163,790, Ongoing beginning FY 05/06: $133,540

Problem: Student data is not easily accessible for analysis and reporting, or for
integrating with existing data warehouse data.

Solution: Integrate registration and curriculum data into the existing Data Warehouse.
Impact: This is an opportunity to have Student Affairs and Administrative Services work together to develop a service available to the entire campus.

Student Portal Project
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/student_portal.asp
Costs: FY 04/05: $60,000; Ongoing beginning FY 05/06: $15,000

Problem: Students experience inconsistent services, application delivery, and customer support.
Solution: Form a working group to define the project and develop a student web portal prototype that will be the basis for a recommendation to senior management.
Impact: This is the first step in providing better service to students.

Future GUS Support, Development, and Training Proposal
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/GUS_development.asp
Costs: FY 04/05: $143,500; FY 05/06: $181,500; FY 06/07: $168,100; Ongoing beginning FY 07/08: $166,100

Problem: The campus needs to provide timely financial reporting for its research grants that is not currently supported by the campus financial system. Failure to accurately track grant finances could result in overspending, under spending or expense disallowances.
Solution: In the short term, providing resources to develop and maintain GUS may be the best interim solution, but in the long term the New Business Architecture group should investigate a new campus financial system.
Impact: Twenty departments currently use GUS representing approximately 75% of UCSB extramural fund management.

Funding for Open Access Resources Proposal
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/open_access.asp
Costs: Ongoing beginning FY 04/05: $64,080 (this doesn't include wired ports or major infrastructure work)

Problem: Open Access Computing is an essential service for students that has neither ongoing funding support nor consistent implementations across campus.
Solution: Provide permanent funding for open access facilities including 24/7 staffing, printing, and authenticated network access for wired and wireless student computers.
Impact: As more and more student services are pushed to the web, we need to ensure that students have adequate access to use them.

Proposed for Funding for Further Study
The following proposals would be considered together for funding for further study.

Commodity Services
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/commodity_services.asp

Problem: IT Services with standardized basic features and protocols such as email, web, ftp, file serving and database are being provided by multiple organizations on campus.

New Business Architecture
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/business_architecture.asp

Problem: No process or mechanism currently exists to insure that ongoing efforts to maintain and enhance UCSB business systems will result in an effective and integrated Information Systems environment.

Building a Trusted Infrastructure
http://www.oit.ucsb.edu/committees/ITPG/2003_proposals/trusted_infrastructure.pdf

Problem: How do we protect the integrity of valuable and confidential information as it is input, used, stored, and transferred - both within the campus network and beyond? How do we establish sufficient confidence in a person's identity that we can grant them an appropriate level of access to computing systems or campus locations?