COMMITTEE ON COMPUTING AND TELECOMMUNICATIONS
Annual Report, 2011 - 12

To the Academic Senate, Santa Cruz Division:

The Committee on Computing and Telecommunications (CCT) met bi-weekly as needed this year to work on several issues, in addition to routine business. Issues this year included the Information Technology Services (ITS) External Review, the campus Telecommunications Master Plan, Cloud Services, Google Project and Drive, ITS Forums, the Academic Personnel Office online Biobibnet Database and the campus Wi-Fi Policy review.

Information Technology Services (ITS) External Review

ITS underwent a self-study last fall as part of its external review process which occurred in late spring. CCT made recommendations for the external reviewers to consider when reviewing ITS. Senate Chair Gillman asked committees to review and comment on the final report received in September. CCT members had a strong consensus that the issues raised by the external review are important and timely. CCT felt that for purposes of forward planning, the most important issue was governance with faculty senate. CCT agrees that a campus-wide review of IT/ITS governance structure would be helpful. The CCT, however, does not agree with the assertion on page 9 under Observations from the perspective of Governance:

"It was not clear whether there was full agreement or understanding on the mechanisms for ITS to interact with the Senate or the Senate with ITS."

CCT addressed this assertion in its response to the external review on October 20, 2011:

The committee felt that it had made strong efforts at oversight. The CCT has worked closely with Vice Chancellor of Information Technology (VCIT) Mary Doyle (who attends the majority of our meetings) on a number of initiatives. Though our charter is limited, the CCT is quite well informed on issues of IT infrastructure review, planning and implementation. With respect to the communication between ITS and CCT, we have difficulty imagining what "stronger and more regular involvement and communication" would look like. In particular, we have spent quite a bit of time over the past two years reviewing a number of ITS "shared service delivery" strategies, including: a) the large scale review of core network infrastructure and services with Western Communications Consultants (WTC), which are foundational to research and instruction; b) meeting with Jim Phillips, Director of Learning Technologies, regarding eCommons service agreements and implementation; and, c) the transition to Google, among others. We have engaged in very long discussions and extensive "examination of the risks associated with [outsourcing] dependencies."

The CCT is especially concerned that UCSC find a way to invest in more staff to support the significant research base at the university. We believe there is a strong case for supporting ITS staff development and expansion, and we agree with the following sentiment voiced in the report (p. 6, line 9): "Even though this is recognized and ITS has been taking steps to maintain distributed support staff, we want to emphasize that not only maintaining but also building the university's research base will probably mean additional staff to support local research needs

directly and to support groups of researchers." The CCT believes that the report's discussion of consolidation/distributed staff/centralized staff does not merit an immediate change in the University's course of action, and that this part of the report seemed least coherent. The position espoused (among several that appear to contradict one another) that we most agree with is that the ITS consolidation should not be unwound ('deconsolidated'). With regard to determination of staff assignments, Mary Doyle stated that, in fact, local ITS staff projects and priorities are determined by the divisions by virtue of the fact that other than staff salaries, all IT budget is within the divisions.

The committee felt that the section of the review that deals with Information User Assessment (IUA) was the most concrete part of the report, and that it identifies a problem that both appears to need fixing and is plausibly fixable. End users appear to have difficulty understanding the IUA, and there are issues related to the fairness of its implementation. The CCT felt further discussion is needed about the way in which this IUA fee scales with FTE, and whether a fairer model can be found. The current model potentially leads to a great disparity between the divisions in which the staff/FTE ratio is relatively low (e.g., Humanities) or where it is relatively high (e.g., PBSci). The CCT understands that this issue is recognized by ITS and the EVC.

Finally, we note that the External Review Committee chose to focus on three areas: (1) Central versus distributed resource allocation; (2) the assessment of user fees; and, (3) IT governance issues. These topics are indeed key. The CCT feels, however, that the review team seems to have overlooked several additional issues of importance: proliferation of Cloud based applications and services, campus phone network transition to voice over IP model and associated costs, and the data center infrastructure for campus. We would like to understand the longer term strategy for data center size, location, cost, and support. This would include not only on-campus facilities, but also use of the San Diego Super Computer Center, other regional, shared, or Cloud facilities.

ITS Forums on External Review for UCSC Community Members

CCT and ITS sponsored two open forums during Winter quarter giving the campus community an opportunity to discuss technology issues for teaching, learning, research, students and administrative business for the University. Both forums had the same agenda and format and were well attended but very different discussions ensued. The discussion from the first forum focused on issues relating to Google, shared Cloud apps, social media, storage and security. The second session focused on the need for support for faculty in instructional media and resources available on campus. Issues were discussed about online classes, learning tools, and storage capacity in eCommons. Another topic related to instructional needs was the availability of Wi-Fi in classrooms. Here a diversity of opinions was expressed from those who disliked it to those who want Wi-Fi everywhere on campus.

The forum conversation touched on matters regarding improvements in webcasting, and a product called Matterhorn was recommended. Matterhorn is a lecture-capturing environment and is being looked at carefully. There was concern expressed over the CCLP FileMaker Pro database and it constraints regarding performance as well as future longevity. ITS has plans to rewrite the CCLP in a more modern format and it was suggested that UCSC approach other campuses and see what we can share in terms of software, etc., and request one time funding

from the central administration. Lastly, campus community members who attended the forums felt ITS needs to communicate more effectively with the campus and to hold future instructional technology forums on a more regular basis.

Telecommunications Master Plan with WTC Services

UCSC contracted with WTC consulting services to develop a strategic telecommunications plan to improve the reliability of the campus infrastructure. The plan provides a roadmap to ensure that the availability, services, and bandwidth of the campus' telecommunications infrastructure, keeps pace with campus growth and needs, and "future-proofs" the campus from stranded infrastructure investments. CCT was updated during the year by VCIT Doyle on the telecommunications master plan. Work started on fiber and copper paths for the campus backbone and the ability to build in some redundancy and resiliency that the campus is currently lacking. This project is expected to be finished by 2013. Features of this project include upgrading cable and closet electronics, replacing 400 switches, changing 802.11 from G to N (this includes updating wiring) and removing phone service from resident halls, which are rarely needed or used by students. Part of the Telecommunications Master Plan includes a plan for voice over IP in the very near future

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The Corporation for Education Network Initiative in California, (CENIC), which operates high bandwidth, advanced internet based networks for CS K-20 research and education (R&E) communities. It has a three-tiered architecture with national and international exchanges, public and private infrastructure partnerships. The services they offer are Basic and Premium lines, including voicemail, local and domestic long distance sage, SBC's, SIP trunks, and e911. Average costs are $7/line/month, for fully redundant, diversely connected, high availability, multitenant North/South hubs. Average features plus support are for Unified Communications: call centers, fixed mobile convergence (e.g. smart phone integration), and Microsoft Lync integration (for voice and mail).

CENIC and UCSC partnered to obtain UCSC's initial fiber optic connectivity to CalREN. CENIC is now partnering with UCSC to find a second, diverse, fiber-optic path to the CalREN backbone network. CENIC, UCSC ITS and WTC analysis of UCSC's Tele Master Plan found that the university can save substantial costs using CENIC's Cloud VoIP Service.

CENIC will be responsible for all the external services, but UCSC will be responsible for the internal services including moves, adds, changes, deletes, purchasing, and training. ITS will do a pilot test soon with around 150 lines, then have a full rollout in 2013.

Cloud Services

ITS consulted with CCT on outside vendors for Cloud storage considerations, ITS is currently researching solutions for future Cloud services and is looking at Windows Files Service, UCSC/SDSC Remote storage , SDSC Cloud storage, Google, DropBox and Boxnet as possible vendors. The primary focus at this time is departmental and end user storage requirements and considerations based on cost, performance, recovery, security, control as well as future expansion. The campus back end storage architectures will require campus input around user storage needs from the desktop to mobile computing devices.

Google Projects and Drive

UCSC has adopted Google Mail and other services that the company provides. There will be standard apps available: Docs, Sites, Talk, Groups, Email and Calendar. Email and Calendar will be fully supported by IT staff, for all other apps, users will be sent to Google web support. Email was launched in fall quarter for Faculty, Staff, and Students; the calendar function will require some scripting and should be launched in summer. Google Drive will provide the same security as with email and give each user 25 gigabyte storage allotment; this feature will be activated in late spring. Google Drive allows Cloud based synchronization of the file structure to be maintained. There is encryption but not as robust as recommended by industry standards. VCIT Doyle reiterated the UCSC policy, that no personally identifying information (PII) should be sent through the UCSC e-mail system.

Biobibnet Database Consultation with the Academic Personnel Office (APO)

Campus policy requires a standard format for use in reviewing faculty cases and has been in place for 20 years. The original project (10 years ago) was intended to introduce some order into the format and process. The Biobibnet system is intended to provide the Committee on Academic Personnel (CAP) a consistent, and easy procedure to manage faculty cases. However, faculty are not required to use this system so there is inconsistency among the five divisions. CCT did not support faculty being required to use this system as all information must be manually entered into the system, such as the CV. Using a Word document is easier at this time to update . The information can be exported from the system as a Word document after initial entry. The Academic Personnel Office (APO) will enter the initial information for faculty in the system but Faculty would need to keep their own file updated with new information. CCT members had other concerns with the system such as ease of managing their CVs and control over their own information. Members would like a written policy on how the data in the system will be used, ownership and why the data needed to be contained in a central database versus maintaining it locally and uploading information as needed. Further, members would like standardizing of date fields versus historical use of text fields. CCT suggested APO consult with department managers when entering data for various disciplines that require more nuance.

UCSC Campus Wi-Fi Policy

The committee reviewed and endorsed the official UCSC policy that private Wi-Fi access points (for instance, as installed in the laboratories of UCSC Principal Investigators) do not interfere with official access points. Additionally, if interference does occur, then the University retains the right to shut them down or otherwise modify them so that they do not interfere with the campus-maintained system. The committee reviewed the requirement that installed equipment needs to conform to current Wi-Fi standards (with WPA2 being the most current). The committee agreed that Wi-Fi standards as discussed in the official policy guidelines adhere to industry best practices. The overarching principle behind the UCSC wireless policy is to give the campus administration a clear mandate to have university-owned antennas taking precedence on the campus. CCT endorses the Campus Wireless Policy, and recommends that the guidelines be adequately communicated to the UCSC Faculty and other interested stakeholders.

Respectfully submitted,
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