

SIUC Computing Advisory Committee

Law School Conference Room

November 22, 2013

Opening

The regular meeting of the SIUC Computing Advisory Committee was called to order at 9:04 a.m. on November 22, 2013 in the Lesar Law Building Courtroom Conference Room by Thomas Imboden.

CAC Members and SIU IT Employees in Attendance

- Tom Imboden (ISAT)
- Imani Hudson (ISAT - assistant)
- Rich Beach (Library Affairs)
- Narayanan Iyer (Faculty Senate)
- Themistoklis Haniotakis (Graduate Council)
- Norman Carver (Graduate Council)
- Blaine Tisdale (Graduate and Professional Student Council)
- Andy Wang (Dean's Council)
- Tom Furby (Law School)
- Bill Burns (Civil Service Council)
- Jason Phillips (Civil Service Council)
- David Crain (Information Technology)
- Jim Jones (SIU Auditor)
- Chet Langin (Information Technology)
- Michael Shelton (Information Technology)
- Eric Olson (Information Technology)
- Jerry Richards (Information Technology)
- John Ahrens (Information Technology)
- Kelly Cummins (Information Technology)

CAC Members Not in Attendance

- Kelly Glassett (Faculty Senate)
- Michael Cubley (AP Staff Council)
- JP Dunn (AP Staff Council)
- Mehrdad Nojournian (Computer Science)
- Undergraduate Student Government - no representative appointed

Member Introductions

Each CAC member and attendee introduced themselves and announced the constituency they represent.

Banner, AIS, & Mobile Dawg

John Ahrens discussed initiatives within the Banner team to improve reporting and increasing integrity of the data. They are working with a program called Academic Works to integrate with Banner and show students a wide range of scholarship opportunities they are eligible for. Banner interfaces with many (35+) third party apps and systems and is the system of record for student information.

A consultant will be hired to examine AIS and ensure industry best practices are being followed.

The Mobile Dawg project began in April 2013 and was rolled out in August 2013 along with the deployment of new Dell tablets to incoming freshmen students. The team partnered with Dell and Dub Labs to put out a Windows 8 enabled app. The Mobile Dawg was deployed August 7, 2013 and is available for free from Google, Apple, and Windows application stores. The ability to check residence hall washer and dryer status has been very popular. An application for helping students navigate campus (Faner Hall for example) is in the works and was requested by SIU PSO.

Four team members focusing on custom applications are being moved to John Ahren's team.

Desktop Replacement

Kelly Cummins discussed desktop replacement. A new technology fee was implemented in which the funding would be used to provide the university with upgraded hardware. All in production machines are currently being inventoried. There is a campus wide five year replacement cycle plan in effect. The new tech fee will cover the distribution of a standard **Dell 7010** machines with I7 CPU and 8 GB of RAM. Higher end hardware would also be available for order for extra charges. Currently there are 4,000 systems inventoried with an approximate number of 1,700 that need to be replaced. Systems should be replaced as Windows XP no longer will be supported by Microsoft in 2014 and that presents a security risk to the university. Installation of software is responsibility of respective LAN admins. IT will provide systems with standard Windows 7 64bit images or they can be deployed differently by LAN admins. The responsibility for communicating with employees regarding replacements falls on the LAN admins. David Crain stated that computers become too costly to operate once they are 5+ years old. Some old systems might be able to be repurposed. Kelly Cummins shares his view on best practice of replacement and how the waterfall method with hardware needs to

eliminated. David Crain shares, “any computer connected to the network that is outdated causes security and support concerns and should be put through the disposal process”.

Campus IT has a limited stock of available PCs for new hires.

Norman Carver inquired as to whether the standard Dell systems would function with Linux operating systems.

Group Policy is not currently set with Windows 8.1 but is being tested by Randy Greer and should be implemented by the end of Spring 2014. Members have concerns about distribution process of newer PCs. Bill Burns and Richard Beach explained how distribution will be made within their areas.

Members have concerns about older model PCs and the applications on the devices and possibly being able to keep older devices.

IT Fee

David Crain leads discussion of new IT Fee. He explains more in detail about the tech fee by saying, “the tech fee pays only 20% of the actual cost of hardware”. Members have concerns about how the tech fee will be distributed properly and equally. David Crain assures that colleges with lower budgets will be provided with fewer computers. Change in the tech funding should not dramatically affect most departments with limited exceptions. Those that replaced equipment least often likely see largest increase.

David Crain explains that depending on the college, the department is responsible for keeping up with technology. Different colleges and units shuffle the fee to subunits, departments, and schools. There was no consistency in how fees and technology costs were paid across university hierarchy: college, school, department, etc... Fundamental changes need to take place to sustain university technology, move forward with replacing aging systems, and avoid security issues. The existing aging phone system must be phased out. VoIP system requires newer switches supporting QoS, new fiber. IT fee will support this project.

Leveraging economies of scale in purchasing of PCs has saved hundreds of thousands of dollars. David explains the tech fee cost is less than half of the services cost. College level costs are being pushed to departments. Although there is a budget challenge it will save money in the future. The previous IT and technology strategy was unsustainable.

Dr. Iyer says the fee is impacting the Journalism department and the technology fee is wiping out OTS budget.

David Crain summarizes that SIU has ignored technology for decades. Tech fee doesn't bring us to state of the art but puts us closer to where we should be.

Network Infrastructure

Michael Shelton lead the discussion about network infrastructure improvements and projects. The core network has been upgraded to 10 Gb. Wireless connectivity exists in almost all indoor spaces. Wireless is a 3 stage project. First phase is classrooms. Second phase is academic areas and the third phase is the outside of the building. David mentioned a study showing that not having universal wireless on a campus is a factor in keeping students from attending an institution. IT is working on enhancing outdoor wireless by expanding to the running path around campus and creating a guest wireless with 1mg per user.

Campus DNS & DHCP servers have been upgraded.

The fiber optic project will be to run fiber optic cable to any building without any fiber connectivity. Fiber has been added to Davies Gym, Evergreen Terrace, and The Glove Factory to improve connectivity. Core network upgrade at Wham and Student Center will support 10 GB to distribution layer switches. Eventual goal is to provide 1 Gb connectivity to each desktops. CAT 6 cabling must be installed in many locations eventually.

Data Center Upgrade

Jerry Richards discussed the status of the data center. Wham data center had a 40+ year old air conditioning unit that was breaking regularly and required the manufacturing of replacement parts and constant adding of coolant. The cooling unit has been replaced. A hot aisle configuration is being implemented to increase cooling efficiency.

IT is building a new secondary site in the basement of McLafferty storage annex. A "Smart Row" consisting of 4 cabinets was installed to start building redundant virtual systems and capabilities.

IT is encouraging the moving of departmental servers to data center in many cases.

Active Directory Centralization and Migration

Jerry spoke about the move of all campus systems to a single, centralized Active Directory domain. This is a long project and nearly 90% of campus will be migrating. Migrating will allow for more efficient support and improve security.

Mail Migration

Jerry discussed ongoing mail migration projects. The Exchange migration is a 6 month project and has been going very well but has been slower than hoped. Approximately 1750 users have migrated. By February 18, 2014 all remaining staff will be migrated. Sub-domains moved by March 4, 2013. Google Docs and other Google services will still be in available until a replacement has been found but email will no longer appear in GMail accounts. Across SIU there was over 30 different mail servers and services operated by various campus units and departments.

Office 365 suite for students allows self-migration. Tablet users were migrated already and emails were sent out for self-migration to the rest of students. Around 2000 have taken advantage of self-migration. After grades are finalized in December remaining students will be migrated and old GMail account will be inactive after December 26, 2013. Alumni and retirees will migrate in January 2014. Nearly 20,000 accounts need to migrate over. One difficulty is that the max allowance per day for migration is 2.5 GB per mailbox, extending some users' migration duration.

Dr. Carver has questions about IMAP support, he a Linux user and is voting for open protocols in addition to proprietary Microsoft Exchange protocols for maximum flexibility. He doesn't want to be forced into using Microsoft Outlook. David Crain hasn't had a response confirming that IMAP will be supported but believes so.

David Crain explains the reason for the mail changes. With Exchange money will be saved. With Google there are e-discovery concerns and also issues with Google being unable to guarantee it is keeping all SIU data in the US.

Kelly Cummins explains that there are student workers available for migration support.

Information Security Concerns and Issues

David Crain leads the discussion on information security with input by Chet Langin. A consultant was brought in to provide recommendations on SIU's current security department, program, and posture. This was due in part to the state auditors recent and increased activity with SIU. The consultant assessed that there is not enough security staff.

David Crain explained further about ongoing state audits. There are three open audit action items. Two expected to be completed by the end of December and one at the end of January.

The creation of a security training program is due by the end of December and is already completed. Inventory of data is also required and IT purchased a subscription to search all systems on Active Directory for sensitive data and store the locations (not the data) in

a centralized database for campus IT. This system is being implemented and preliminary results are beginning to come in. Many systems contain potentially sensitive data. The third item the state requires is automated patching of systems. IT is working on implementing this through Microsoft admin tools.

There is an open issue with a system that was compromised and the state is examining and investigating the situation. Jim Jones mentioned that the average cost for a data breach is \$188 per compromised record. The compromised server, if the state finds against SIU, could total \$13.8 million in fines.

Bill Bruns wants clarification on patching every system. In the future all Microsoft and most of the common third party applications will be patched by campus IT.

In the future, SIU will be considering encrypting all sensitive databases and possibly all desktop hard drives. Several attendees voiced concern over a revelation that a student's Dawg Tag number can be considered a FERPA protected or sensitive piece of information if it is located in a document or on a system that contains other information that can be used to correlate the Dawg Tag to a specific student's name or identity. A list of Dawg Tags with no corresponding student names or details would not raise issues with FERPA but a homework assignment file or email containing a student's name and Dawg Tag number would. All agreed this was problematic and a potentially serious concern but one to be addressed and discussed further.

Students were hired to look for computers on a list of missing assets to locate them. There are approximately 140 systems on the SIU inventory that can not be located. A few may have contained sensitive information. Speculation is that the average age of missing hardware is around 10 years and missing systems have likely been disposed of improperly or scavenged for parts. Some missing systems are as old as 20 years. Approximately 2,500 hard drives were destroyed by shredding as part of the large scale surplus initiative earlier. More will be surplus and properly disposed of in the future.

Chet Langin discussed a recent threat seen on campus. Crypto Locker is a new variant of ransomware that restricts access to infected computers and demands the victim provide a payment to the attackers in order to decrypt and recover their files. Currently the demand is being made by emails containing malicious attachments. To protect, back data up and remove any means of accessing the media being used to backup those files after backup has taken place. The target is universities and the message has went from general to detailed.

DBAN is a useful tool to securely wipe a hard drive however it is not to be used in the event of a malware infection. A system that is infected and has the hard disk securely wiped has lost all forensic evidence that can prove whether sensitive data has or has not

been compromised. Incidents have resulted in audit findings. LAN Admins should contact the Info Security department when an infection has been discovered to ensure appropriate steps are taken to protect forensic evidence.

In January IT will begin a push to create university policies relating to technology practices and systems. David Crain wishes to have the CAC assist with providing feedback and assistance with this process.

Misc IT Items

Efforts are in progress to centralize several systems and services within IT. These include Sharepoint, file and print services, and copy machine administration and management. A gateway server to provide campus units with file storage services is in planning. Campus units paying the IT fee will be eligible for 20 GB of storage plus 2 GB for every user.

A research computing committee has been created to assist and facilitate technology and computing research at SIU.

A new model of tablet will be deployed to students in the future. It is an improved version. Transfer students may receive the tablets in the future.

Adjournment

Meeting was adjourned at 10:54 a.m. by Tom Imboden.

Minutes submitted by: Imani Hudson

Approved by: Tom Imboden (CAC Chair)