

# **2012-2013 Academic Computing and Electronic Communications (ACEC) Final Report**

## **Committee Members:**

Chair: Ross Black, Geology, (2013)  
Faculty Senate Rep & Comm. Member: Sara Morris, Libraries (2014)  
Leslie Hasche, Social Welfare, (2013)  
Perry Alexander, EECS (2015)  
Allison Reeve, Wheat Law Library, (2015)  
Darcy Fowler, Student, Vice Chair  
Seyool Oh, Graduate Student, Student,  
Paul Espinosa, IT, Unclassified Staff (2015)  
Laura Green, Provost Office, Unclassified Staff (2014)  
Brent Schultz, Applied Behavioral Science, University Support Staff (2014)  
Ex-officio: Ann Ermev, IT Services  
Jane Rosenthal, Director, Privacy Office

## **Standing charges:**

1. Monitor current and proposed policy concerning security of information, intellectual property rights and responsibilities, and other matters relating to information technology. Identify issues for which policy should be developed or revised. Report issues and any recommendations for action to SenEx. (ongoing)

## **Specific charges:**

1. Monitor the development of ACEC purview with respect to Changing for Excellence and Bold Aspirations
2. Monitor developments in file storage platforms for both administrative and research purposes.
3. Monitor progress in installation of wireless around campus
4. Monitor reliability of wireless system vis-à-vis hardwired ports
5. Recommend a policy for granting elevated rights to users which are required by their positions. Report to SenEx by 2/25/2013.
6. Monitor the progress of “one campus” initiatives for IT and identity.

## **Specific Charge 1:**

### ***Monitor the development of ACEC purview with respect to Changing for Excellence and Bold Aspirations***

There are several aspects of academic computing and electronic communications that are being addressed as specific tasks under CFE and BA. The tasks, with their definitions, benefits, and latest updates are available at the web site [technology.ku.edu/progress-bold-aspirations-and-](http://technology.ku.edu/progress-bold-aspirations-and-)

changing-excellence-it-projects'. Progress on the CFE tasks are also updated on the CFE web site every two weeks at 'cfe.ku.edu'.

The tasks addressed on these web sites include:

#### **For Changing for Excellence**

Software Licensing issues focused on the Lawrence and KUMC campuses.

Networking issues associated with the disparate networks for Lawrence, KUMC, Edwards, and Wichita campuses.

Identity Management systems unification for Lawrence, KUMC and Edwards

Server centralization and virtualization

IT staff centralization

Multifunctional device (MFD) utilization, such as network printing

#### **For Bold Aspirations**

Early Warning System addressing undergraduate student retention

Customer Relationship Management System addressing recruitment

Transforming Organization addressing IT staff reorganization

IDS merged with IT addressing classroom technology improvement

#### **Specific Charge 2:**

***Monitor developments in file storage platforms for both administrative and research purposes.***

This is a specific charge for ITS under Changing for Excellence. KU ITS is working to provide storage that is compliant with specific requirements for administrative and academic uses, and research uses. Both uses have different models, and different cost structures.

The Administration and Academic system is named Central File Storage (CFS). This has been adopted by over 200 KU Units and is very successful. The features include:

- Storage at no cost

- Central administration, with Local Unit control

- Local Tech Liason (TL) has control

- Facilitation of the centralization of many file servers – files transferred to CFS

In general, the migration to CFS has gotten very good reviews and it appears to have been a technical success and is being well received by the community it serves.

The Research file system (RFS) is newer and not as well established. The RFS service delivery model is the same as that for CFS, with central administration and local research group control. The system was designed by RGS, ITTC and ITS. At our November meeting Jeff Perry noted several specific details of the project:

- RFS ordered and installed

- Dec. 2011 first users

- Cost as low as it can be and meet NSF/NIH standards

- Storage costs can be written into grant

- Cost -250 gig free – if you have a grant (this meets the needs for 80% of grants)

\$1/gig /yr w/backup or \$0.70/gig/yr w/no backup

The system is designed to store data. It is not a relational database, nor does it directly support metadata.

ITS has gotten some positive feedback on the system so far, but there has also been a general feeling among potential users that the cost is too high. ITS says that, if all real costs are factored in, the RFS charges are realistic. There is also concern about long term storage. Even if a researcher can structure the RFS charges into a successful grant, RFS ceases to be an option as soon as the grant expires.

There is now no plan for long term central archive. When grants are over there is no money to pay for a central system archive. That problem has not been addressed as a University. Long term curation is not addressed in the current plan. Jeff Perry has told ACEC that ITS is working on super low cost storage with a rate of \$ 0.08 /gig/yr., possibly using tape storage robotic systems.

The storage systems are currently for employees only (including GRA's, GTA's, etc.) due to legal issues and the expectation of privacy by students. The committee also had extensive general discussions about University file space, sharing issues, the ID management system, legal issues such as illegal downloading and student and University liability.

### **Specific Charge 3:**

#### ***Monitor progress in installation of wireless around campus.***

An actively updated report on campus wireless installation is available on the web at 'wireless.ku.edu'. This website includes progress shown on campus maps. This year wireless installations for 16 primary buildings were finished by ITS. The planned work for next year includes 20 buildings. The work is being performed as quickly as is feasible, since there are no additional companies working in the Midwest for ITS to hire to do installations.

Outdoor mesh wireless networking has been installed fountain to fountain on Jayhawk Blvd. Mesh is an outdoor wireless system with adaptive probabilistic routing. They are identifying outdoor space to target for next year. The corridor between Summerfield, Haworth, Anschutz, and Budig Halls is likely to be next. They have already installed the mesh at the top of the hill along that corridor.

### **Specific Charge 4:**

#### ***Monitor reliability of wireless system vis-à-vis hardwired ports***

Wireless reliability is always poor compared to wired networking. Wired networks are more reliable because, in a shared wireless network environment, the slowest device governs the speed at which the access point moves the data. It slows down to accommodate the slowest device on the network. This is an IEEE standard. This usually affects all devices for 150 feet in any

direction. Most people do not realize this. In a classroom or any University environment, when a student turns on a device it affects all system responses in that room. KU ITS will only use wireless for typical, standard, non-critical uses. For example KU won't use wireless for telephony because it won't meet all standards such as reliability for 911 calls.

People want to use wireless for many activities simply because it doesn't cost them anything, whereas ports currently have charges associated with them. However, this can lead to unforeseen networking problems for other users. ITS wants campus users to use networking technology correctly. This is a strong argument for having the hardwired ports be available for free in the future.

**Specific Charge 5:**

***Recommend a policy for granting elevated rights to users which are required by their positions. Report to SenEx by 2/25/2013.***

This charge was discussed extensively during both our November and March meetings. We were not able to come up with a policy recommendation due to the apparent breadth of the issue, and lack of data on the subject.

ITS is seeking a solution with existing technology. In our March meeting we received a demonstration of a pilot project being undertaken by ITS and the Business School. Faculty can submit forms to apply for administrator rights. The forms ask for KU ID, Service Tag number of the computer, and the reason for needing such rights. The reason should include information about the software for which they need administrative rights. The KU ID and Service Tag number of the computer allow them to find specific user and specific desktop on KU network. The forms also ask for signatures of the faculty member and the Unit Chair, Dean, or Director, on a statement of best practices that includes information on viruses, spyware, and unlicensed software. After the paperwork is signed the specific machine on the network is set up with a 'group policy'. This creates a local account for the specific user on the user machine, and turns the account from user to administrator and back again as appropriate. Whenever a legitimate need for administrator rights occurs, a system box pops up, allowing the user to type in the administrator username and password to get admin rights. This works only with a combination of authorized user and authorized computer.

The general view of the committee at the end of the March meeting was that this issue is actually part of a larger issue. Most members of the committee seem to feel that ITS is now doing a great job managing 'Enterprise' computing at KU. This type of computing lends itself perfectly to centralized management. It relies on commercial hardware and software, available as stable products from large corporations. However, a large segment of research computing does not fit into this model. The role of research at the University of Kansas may not be adequately represented in the current model of computing administration at the University. While this is not an issue on the front burner of the IT community, it seems to be both a sore point for some researchers, and somewhat of a thorn in the side of ITS.

The ACEC Committee felt that there was a need for a more quantitative study of the extent of the problem, technical issues, and possible solutions. However, because this issue cuts across units

and includes both academic and administrative concerns, such a study may have to come forth from the Provost level at the University.

**Specific Charge 6:**

***Monitor the progress of “one campus” initiatives for IT and identity***

ITS and the Med Center staff are currently working on unification of the locations under one network. Progress on the network unification is going well.

The implementation of one identity group, or one identity system is proving much more complex. The main difficulty is that most departments are using technology that is 5 years old, so the equipment and software was designed 12 years ago before large identity-sensitive systems were being designed.

At our November meeting, Larry Hoyle, from the standing Research Committee, brought up the issue of simplifying the ability to give grad students, versus staff, adequate access to resources. The need for a formal relationship with the research group seemed to be a bottleneck.

Jeff Perry from ITS stated that this is really not a technical issue. Users need to have a legal relationship with the University to have network access, period. For any type of VPN access there needs to be a formal agreement, a formal relationship, between the student and the University. The relationship can be that of GA, GTA, or GRA. The GA status was created to generalize the formal relationship for those that needed access but did not have GTA or GRA appointments.