ACEC FY2020 Final Report

The committee covered most of the charges in early meetings. We had a third meeting online in which we discussed potential future issues related to the shift to online instruction in Spring 2020.

Charges

- Follow up with CIO on the status of an IT Town Hall.
- Monitor the implementation of multifactor authentication (MFA) for single sign-on. Determine if there are faculty, staff or students for whom the requirement caused a significant burden. Ensure that faculty, staff, and students who want a token are receiving them at no cost. With the implementation of MFA, are other changes to password policy desirable, e.g. a longer retention period?
- Review the effectiveness of the "safelinks" substitution of links in in Exchange emails. Is there a way to allow users to easily view the original URL?
- 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)

Follow up with CIO on the status of an IT Town Hall.

The committee discussed the issue with Mary Walsh (KU CIO). She described the efforts IT will be undertaking to engage with the KU community. Notes from that discussion follow.

KU IT will be engaging the communications team in upcoming projects earlier than it has in the past. IT is developing mechanisms to have more engagement with faculty, staff, and students through, for example, advisory groups.
The new engagement mechanisms include:

- A CIO advisory Council comprised of 11 faculty and staff members from the Lawrence and Edwards campuses.
- A CIO Student Advisory council comprised of 12 students representing a diverse set of majors, student organizations, and backgrounds.
- A Faculty Forum: a one time listening session planned for early December.

From Mary: the Provost had developed several strategic priorities. The KU IT team initiated an effort to create several internal working groups, on a voluntary basis, to explore potential solutions to support these priorities. The Provost has reviewed our progress and is enthusiastic about our ideas and next steps.
I am inviting any and all input, positive and negative, from the community to help us improve our processes and communication.
IT is developing a strategic plan. This will follow the University Strategic Plan, development of which is under way.

Hong noted that IT has been very responsive to his department. He asked whether KU could consider Google email, the primary issue is that this would give larger inboxes.

Mary pointed out that IT is looking at moving email off premises (e.g. Microsoft in the cloud). The advantages would be: business continuity, avoiding server hardware updates, larger mailboxes, and compliance (MS in the cloud is HIPAA

and FERPA compliant). Switching to Google would be a big change but is not out of the question. Issues like compliance would need to be worked out.

Jeff noted that current users running out of space can use the archive feature of Exchange to move larger old emails offline (to, for example, the Central File Storage system).

Mary mentioned that users can also request larger mailboxes.
Specifically addressing town halls she noted that last year, there were lots of town halls over the budget. Adding another didn't seem advisable.
Angela noted that it might be more useful to have a town hall focused on a topic. Another suggestion was to have a town hall to present the IT strategic plan when ready. Also suggested, present the results of the upcoming IT internal retreat for developing a 3-5 year technical roadmap.
Mary noted that IT and senior administrators are looking at long-term secure curation of research data.

Monitor the implementation of multifactor authentication (MFA) for single sign-on. Determine if there are faculty, staff or students for whom the requirement caused a significant burden. Ensure that faculty, staff, and students who want a token are receiving them at no cost. With the implementation of MFA, are other changes to password policy desirable, e.g. a longer retention period?

The MFA rollout had good progress in August and September. As of Oct 1 there were still 500-600 needing enrollment. Overall, IT has received good feedback on the implementation of multi-factor authentication. Committee members agreed.
Larry asked- Once the rollout is complete, will IT be looking at making the password policy more in line with current NIST recommendations? This could include loosening complexity requirements, lengthening the retention time, using blacklists of known bad passwords to validate new passwords.
Jeff Noted- Legislative Post Audit may not agree with a change.

Review the effectiveness of the "safelinks" substitution of links in in Exchange emails. Is there a way to allow users to easily view the original URL?

Mary handed out some suggestions for working with the obscured links.

- It may be possible to mouse over and see the wrapped link; however, this may not work every time
- Users can go to https://www.o365atp.com/ and paste in the obfuscated link to get the real link.

Email in the cloud

KU is working toward migrating KU Email to Outlook in the Cloud. This is being pursued to improve security and business continuity and to take full advantage of our Microsoft licensing.
If this occurs and if users migrate to Office 365, a mouse over will show the original address of a link.

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)

Committee members suggested future meeting topics.

Wireless network

IT governance (July 2020)

Lecture capture software

SharePoint future

Cloud computation

Controlled unclassified information (Carl Taylor, and Mike Hewitt have been looking at this. An example would be security enclave compute and storage in Azure)
Mary noted that IT is also looking at Amazon server.

KState's experience with putting things in cloud after the fire that impacted their data center resulted in a rushed decision, implementing administrative computing with Amazon and educational computing with AZURE. Their experience might be informative to KU.

Second Meeting

At a second meeting the committee discussed several issues with staff from KU IT

ACEC Perspectives for KU IT Strategic Plan (Suzie Johannes)

Suzie Johannes presented to the committee. Her PowerPoint is saved in the Committee's documents folder
https://kansas.sharepoint.com/:p:/t/governance/ACEC/EfxTaxp_mS9Krw-SeE1ZiTABAsfwb2Ol4XpuTE9veSuOaQ?e=MGJmIK
with the name 2020_KUIT_ACEC_v1.pptx

KU IT is developing a 2020 Vision roadmap for technology at KU. They are asking for input from ACEC along the lines of the summary from the Student perspectives document. KUIT would prefer a summary of 3 points.

The student perspectives document had 3 main points:

1. KU students value a well-designed and student-centric digital experience.
2. KU students are champions of equity and inclusion, including in the digital realm.
3. KU students are savvy and make sense of a variety of different sources of information but welcome online resources that would help.

KU IT requested input from the ACEC perspective before their 24th of February draft.
ACEC sent a response (included here as an appendix).

Facilities for archiving data at KU, in particular data from "completed" projects.

The committee also discussed the new Research Archive Storage (RAS) facility. https://technology.ku.edu/services/research-archive-storage with Riley Epperson.

This system is not for sensitive data. Data are not encrypted in the storage. We did not discuss the possibility of users encrypting files to be stored. The Office of Research purchased the system. It is managed by KU IT and the Office of Research (OR). This system offers Globus access and each file can have its own unique Globus.org link. This means that people outside of KU may be given access to archived files through Globus.

The system currently has a quarterly fee. Committee members suggested that for archiving data generated as part of a grant, an up-front fee for the time period promised for making project data publicly available would be important. This would allow PIs to write into their grants the cost of archival storage. Office of Research is working on this, but current accounting rules may make this a challenge.

Jamene Brooks-Kiefer from KU Libraries also attended the meeting. With her, we discussed the possibility of integrating the archiving of research data with the ScholarWorks system. Having a landing page for data on ScholarWorks would allow for the issuing of an immutable locator for access to the data (a Handle or a DOI). The landing page could be a place for structured metadata, searchable by engines like Google Scholar. KU researchers might well appreciate the increased visibility of their data as a citable scholarly output (and the inclusion of metrics available from these search engines.

Jamene pointed out that such a system would be only for the publishable version of the datasets and that the archive shouldn't include information like personnel records, or other information accumulated during a research project (like personal playlists etc.)

How does data on RAS accommodate search from researchers outside of KU? Could integration with ScholarWorks better meet the expectations of granting agencies (like NSF) for making data publically available at the termination of a project? This would be for a publishable version of the dataset, not interim working files which might include material not intended to be public.

We also noted that a system like this would require researcher training, both for how to prepare data for archiving as well as how to actually set up the archive. Researchers might also need assistance in organizing their materials for publishing. This might be a role for KU Libraries.

A pilot project to test the feasibility of the combined use of ScholarWorks and RAS would be useful.

Riley pointed out that so far the main use case for RAS has been for cheaper High Performance File Storage. One issue he raised is that no quotas are enforced in advance. It would be possible for a researcher with a huge dataset to fill the whole system.

Presentation on storage options at KU (Alex Wong)

Alex Wong presented a description of the data storage options available through KU IT. These include

- OneDrive for Business
- SharePoint
- CFS/CFS-Cat1
- ResFS/ResFS Cat1

A table of the attributes of each type of storage is included in the PowerPoint referenced above.

The committee had questions about the conflicting messaging from KU IT about the suitability of OneDrive for Level 1 data (in particular for HIPAA data). One concern was the ease with which sensitive data could accidentally be made open under OneDrive.

Alex noted that there is Globus access to ResFS. This means that projects with participants external to KU could share secure data without requiring a KU identity for KUAnywhere VPN.

EMAIL to the Cloud

Alex also described the upcoming move of KU Exchange email to the cloud.
The move will mean that users will have much larger quotas (100GB default?). Alex noted that Outlook will maintain an index on the user's machine that can get large for large accounts.
Mail.ku.edu will still work but there will also be a Microsoft site URL to access KU email via the Web.

Exchange currently has 24 servers on site.
There are 50 K mailboxes – moving will take a transition period. A complication was that accounts that are linked by, for example, proxy needed to be moved at the same time. Shared calendars, etc., break when one account is moved to the cloud and an entangled one is not. KU IT employed an entanglement tool to move connected accounts together.

The move began with a technical proof of concept where KU IT staff accounts moved. All of KU IT moved the week of Feb 3. As of this report it seemed to be moving smoothly for the rest of campus.

As we noted before the move to the cloud and adoption of Office 365 should also resolve the issue of the cryptic Safelinks URLs in our emails.

Web access through Mail.ku.edu will still work after the move.

Third meeting – KU Pandemic response

A small group of committee members met online to hold a discussion about the KU response to the pandemic. There were questions about the capacity of KU systems like Blackboard and Zoom or Skype for Business to handle the volume. Mary noted that licenses and physical capacity were being expanded. Mary also described the efforts by the response committee to plan for the onslaught. She pointed out the information at https://remote.ku.edu/. She suggested that this would be a good opportunity for faculty to brush up on digital skills. These include Kaltura streaming and more reliance on Blackboard features like wikis. She also noted that KanRen was confident in its capacity to handle the increased traffic.

Alternatively, the experience may reinforce a negative view of online teaching by the faculty.

We discussed the options for online synchronous vs asynchronous instruction, with the committee recommending asynchronous approaches.

Committee members suggested that governance will want to follow up on how the response went and implications for the future – will this produce a future push to offering online instruction? If so, what are the implications for faculty and staff?

IT response to the crisis

As of mid-April, KU IT systems seem to be doing well in supporting the transition to online work. In all KU IT has done a remarkable job in responding to an unprecedented situation.

Possible future issues

The pandemic and online instruction

This is an obvious issue for the FY 21 committee to review.

From Angela

The Library has encountered situations in which a provider has notified KU that a user has been abusing their service by downloading too much material. The Library is put in the middle by having to try to identify the user by IP number and notifying them of the vendor's complaint. The KU user may feel that the Library is accusing them of wrongdoing. The Libraries would like to better understand the activity in order to justify legitimate academic computing use to the vendor. At the same time the Library is under pressure from the vendor for immediate compliance/resolution. The question is whether this overlaps with any University response or policy to such a situation? Which University entities should be involved in formulating a potentially broader policy covering this issue?

Appendix

Academic Computing and Electronic Communications (ACEC) Committee Input to KU IT 2020 Vision

The ACEC was asked to provide input into the upcoming KU IT 2020 Vision Statement. The Committee's input falls into four broad categories:

- Maintaining reliable, secure, cost effective Information technology Infrastructure
- Providing tools to support faculty and staff work
- Promoting and responding to innovation
- Having transparent policies

Technology Infrastructure

It is essential for KU IT to maintain a reliable and secure technology infrastructure. The work of the University is increasingly reliant on a stable and accessible network. Web, voice, conferencing, email, classroom support (e.g. Blackboard), storage, computation, and administrative functions all have become more centralized and network reliant over the last couple of decades. The work of the institution grinds to a halt when this infrastructure fails. It is essential that efforts to improve the reliability and accessibility of the major systems continue.

KU should also keep aware of needs for new infrastructure. In recent years, common file storage facilities have been introduced and now are part of the essential infrastructure. There will be new needs that emerge. A current example is the need for publicly archiving data from funded projects in ways that meet the requirements imposed by funding agencies, and desired by faculty for whom citation is important.

Tools and Training

Access to the hardware and software tools needed for faculty and staff work is critically important. In some cases these tools have become part of the infrastructure mentioned above. Virtually every staff member has access to a computer that needs to be maintained. The campus is dependent on access to the suite of software commonly installed on University systems, the Microsoft suite, web browsers, Acrobat etc., for administrative and academic work.

Smaller sub-communities may need other hardware and software solutions. Some need specialized computing hardware, such as for digital video creation. For other groups access to specialized software is as crucial as for hardware. Examples include software from SAS, SPSS, MathWorks ESRI, Adobe, Qualtrics, Clarivate, QSR International, Atlas ti, and Oracle. Over the years ACEC discussions have noted that KU does not always make very good use of its ability to implement unlimited use contracts. This is mainly due to funding mechanisms that require charge-back to users, limiting the number of people who end up using the paid-for software.

Promoting and Responding to Innovation

Staff at KU IT will often become aware of possibilities before most of the rest of the campus community. A recent example is the need for, and implementation of, multi factor authentication. The community initially did not recognize this need. In other cases though, KU faculty or staff members first become aware of a need for some new facility. It is very important in these cases for KU IT staff to have the attitude of trying to *find a way* to accommodate the new approach. This is not always the case. Conflicting demands from established KU IT procedures may sometimes result in a quick "no". KU IT needs to find a way to balance the need for security and stability with the need for being responsive in an academic setting where unusual requests are sometimes important.

Transparent Policies

A frequent charge to ACEC has been to review policies proposed by KU IT. Policies are made better by broad community input before implementation. KU IT policies need advance input from KU faculty, staff, and students.