

TAB Meeting, October 19, 2011

Attending: Mark Alexander, Mark Baggett, Greg Billings, Tim Boruff, Louis Davis, Robert Fuller, Steve Keys, Jonee Lindstrom, Joanne Logan, Jerry Riehl, Mike Stanley, Scott Studham, Michael Wirth, AJ Wright, Kevin Zabel.

Welcome

Jerry Riehl and Louis Davis

- Blackboard and Photo Roster issue: Immediately engaged security office. The photo roster itself wasn't public, given that to access it, a user would have to log into BB. Security is examining log files, and systems will be implementing a permissions code change in the building block.
- Printers in HSS: SGA resolution requesting those. Riehl met w/Robin McNeil to discuss best strategies for location and other issues. Largest issues would be security and supplies (where to store them). Will be moving on that quickly.
- Departmental visits and video regarding technology: Riehl has had conversations with Instructional Development and Training regarding 50 visits to departments to talk about teaching and learning with technology and strategies for innovation. This would be in partnership with TENNTLC. Will also discuss proposed video, a short "here's what's available and how to," in a fun, quick, "viral" format.
- Faculty training lab in Hoskins: Needs to be upgraded; computers are five years old. This was included in last year's budget for this FY.
- START program computer refresh: Requesting refresh of six MacBook Pro computers. Thinks that's in the budget, but didn't see a specific line item, so wanted to confirm.
- Other student initiatives:
 - Online course syllabi: this is an academic issue more than a technology issue. **Billings:** Student committee working on it. **Riehl** would like to visit with this committee. Stanford has a really good online course syllabus database initiative. Code may be available. **Fuller:** College of Business has an org site with all the syllabi. **Riehl** states that is an organization site that is available to faculty only. **Studham:** Would this be a place for students to maintain syllabi? **Davis:** SGA committee ideal is either to have all faculty supply syllabi to SGA and have SGA maintain the database, or to have a centralized mechanism to have faculty update their own syllabi. **Billings:** The committee is just trying to get syllabi together. **Studham:** Is the intent for students to review historical syllabi? **Davis:** Yes, just a resource where they don't have to log in. Any person would be able to search by class or teacher and see syllabi for that class or that teacher. **Studham:** So this website would be public-facing, and maintained by SGA or faculty. **Davis:** Yes. Some issue with teachers not wanting to publish their syllabus, because they have content they don't want to be public-facing. **Studham:** As hears more about the scope, this sounds like an SGA initiative that wants TAB funding. Encourages SGA committee to get input from Faculty Senate committee. **Logan:** Sounds like there are two options. One – just scan in the syllabi and have PDFs out there; Two – have a tool for faculty to go in and create their syllabus, and then be able to print or whatever. The template could include all the recommended disclaimers and information from TENNTLC as template.
 - Smokey's list, online similar to Craigslist – no new info.

BATS / Apps@UT

Mike Stanley

- Apps@UT will do a lot of things – the next generation computer lab on campus will provide better, more-efficiently managed labs on campus. Ideal is to move eventually to providing remote access from own devices. This will provide anytime, anywhere, any device access to your applications. (Assuming some kind of internet connection).
- This is a big project. Have received hardware – joint project for integrated computing stacks in both data servers; 40% generalize virtualization and 60% Apps@UT. Built on Citrix product (like analysis.utk.edu).
- Just completing the original statement of work on the core system. From here, the next few weeks will be installing all the applications currently on analysis.utk.edu; hope to have that out well before winter break. Hope to have in labs – most likely Commons – in January; will roll out to OIT staff at same time. Will work with LANMan Exec over summer, more customers in fall (Athletics and Ag Extension have both asked for early adoption).
- As we continue to maintain apps on campus, Apps@UT will simplify software distribution and availability for specialized software (English, Engineering, Mapping).
- As the project scales up, have budget plan with numbers of servers. By summer 2013, all students on campus will have access to all applications.
- This is not remote desktop or desktop virtualization, this is app virtualization. Demonstrated login at apps.utk.edu. **Logan:** Is ArcGIS working? **Stanley:** Yes; in fact, ESRI's preference is for virtualization and they have a handout on how to optimize it. **Logan:** It's not running on the lab computers. **Stanley:** Paul is working on that. **Logan:** We have one graduate class that's

stopped because can't teach ArcGIS.

- One awesome thing for students is file storage on TStorage. **Riehl:** How much? **Stanley:** Not setting quotas, exactly. **Studham:** Moving toward "less expensive to buy in bulk" than for departments to buy individually. **Logan:** Any bells and whistles like Dropbox, where can share folders? **Stanley:** Technically possible; haven't really been considering that. **Studham:** Dropbox is not certified to store university information; it's only for personal information. Can't use it for work files.
- **Logan:** as move toward Apps@UT, departments and labs have historically been buying powerful workstations; can we move toward lower end? **Stanley:** For general purpose labs, yes; all of this works virtually on the back end with thin clients in the labs. For what you're talking about, in the near term, we have quite a few lab machines that still have two-to-three years' warranty. Great things about Apps@UT is that you can take a physical machine and turn it into a thin client that boots off the network, has access to all apps virtually, but uses all the power and good graphics cards of the workstation. In the long term, will get server blades with high-end graphics cards and can use lighter clients.
- **Riehl:** Also helps with version control, updated software (e.g., most recent browser updates). **Stanley:** Example, Argos reporting client requires IE on Windows, so Mac users go to virtual.
- Another awesome thing – IRIS / SAP client is huge, clunky, takes a while to install, and is a pain to keep updated on hundreds of desktops. Tested virtualized version on OIT Business Office and it works great.
- Would prefer not to demo ArcGIS because this is not an optimized copy.
- **Logan:** Will there be redundancies? **Stanley:** Should be able to survive anything except local network issues. Will have two to four copies of everything, in multiple data centers. Apps@UT will be mirrored in two data centers.
- Can also run a full Win7 virtual desktop. We have some labs that will always be Mac (media center) and would be awesome to be able to run Mac apps virtually. It's possible in terms of technology, but Apple doesn't allow it.
- **Logan:** Would be glad to be guinea pigs for ArcGIS. **Stanley:** We include the labs we take care of, as well as the ones we "own," so your lab will be included.
- Question: Can you do video in Apps@UT? Yes, depending on existing client. Suboptimal in iPad because of how Flash gets rendered – Citrix sends it to the local client to render. Looks decent on Mac, better on Windows, not good on iPad because of Flash. Will get better.
- Questions: contact mike@utk.edu

Wireless network, questions about beginning of semester issues

Steve Keys

- Back in August we installed a new version of software that ran great until everyone came back, and then it stopped connecting; overtaxed. Brought vendor (Aruba) in for two weeks, found code issues. Code modified and stabilized.
- Have 75,000 users (devices) registered to the wireless network, average 10-12k concurrent. Last semester was 8k. For example, we have 15-20 people in this room, but probably 30-40 wireless devices.
- Aruba is watching the core code and considers it repaired. Haven't had APs (access points) shutting off. Some individual APs have been replaced; more have been added in large lecture halls.
- Have upgraded core to 10Gb input. Not seeing widespread outages or large-scale complaints.
- Continuing to upgrade areas as possible. UC at lunch and dinner are about as saturated as we can get; same as at football games.
- Largest problems behind us. Watching closely to improve.
- Dorms are being upgraded –Dorms are hard to do wirelessly because they're all concrete, but North and South Carrick were upgraded over summer and we have more happy people in those dorms. If that works, we're going to work on other dorms. Still having to tweak ends of hallways.
- Vendor has new access point coming out that will allow a wireless AP in each room and may let us start testing after first of year. We know there's a bandwidth issue; it's simply the nature of how many people are trying to get on the network at the same time.
- There is a limit to how many APs we can place – there has to be a certain distance between each AP to keep from overlapping, getting white noise.
- We do block bit torrent. We ask gaming stations to plug into wired network rather than wireless.
- **Billings:** Problem is only two ports in each room, and not in every room. Wireless in Andy Holt is unusable. **Keys:** Andy Holt is our next step, with Morrill. **Billings:** Every meeting of tech committee has discussions of wireless not working. Have seen slight but not significant improvement. **Studham:** Do we have a supported way to allow more than one device per port? **Keys:** No, it's a security issue. We'd have to provide a managed device. **Billings:** Would prefer going to better wireless; devices don't even have wired ports any more. Maybe should outsource to a company whose entire job is creating wireless. Student opinion of OIT is negative because can't get on Facebook, watch videos, connect to Blackboard consistently. Wireless is the number one issue.
- **Riehl:** What about the issue of wireless printers in residence halls? **Keys:** Not familiar with that issue; we don't support wireless printers because of security issues. Defer this question to Philippe Hanset.
- **Davis:** What is biggest problem in keeping up -- money, technology? **Keys:** So much more use of wireless; in group with other universities and all are struggling. Deals a lot with AT&T and Verizon; they are throttling their networks and

eliminating unlimited access. One university looking at spending 20M\$ on their network. UT trying to not throttle; would like to avoid rate-limiting and instead expand bandwidth. Wireless is a radio: if you have one access point and 30 devices, there's only so much throughput that each point can do. Applications are growing faster than manufacturers can get new products out. **Stanley**: Issue in Commons is people who check out laptops but can't log on. 300-400 people, each has phone, laptop, etc. If can get access point in every room, that would be very helpful.

- **Keys**: Similar to how phones don't work at football games. Verizon brings COW to game but even that didn't really solve the problem. Money isn't so much the problem as technology and traffic. It's a moving target. Trying to keep up with engineering the right solution. **Riehl**: Plan to address the stadium issue? **Keys**: Contract for Distributed Antenna System. 2-phase plan – cover stadium and 13 buildings with weak or poor cellular service, including Haslam and Min Kao (which is LEEDS certified and doesn't like RF). Looking at 16 nodes. Just awarded contract in August. Working on engineering drawings and vendor walks. Won't do anything for wifi but will help w/cellular. Suggests bringing Philippe Hanset in to present. **Logan**: Will the Trial Garden be covered? **Keys**: Yes, waiting for conduit, got that, should be done.

Good things going on

Louis Davis

- Banner, MyUTK, LIVE@EDU, APPS@UTK, wireless
- What other good things? Or other ideas? **Billings**: Tech Committee will be doing a student wish-list survey. Would like UTK to be leading edge, first place runner with new things coming out to appeal to students. **Wirth**: Keep in mind that leading edge is good, but bleeding edge is bad. **Billings**: Want to be in top 10, not the middle of the pack. **Stanley**: Talking about sides of the coin – small, targeted, bleeding edge projects can become scaled project. **Wright**: Would like to talk to SGA about OIT's technical strategy for the future, direction we'd like to go, get feedback.
- **Lindstrom**: SGA proposed last spring that they be able to see meal-plan balance on MyUTK. **Davis**: Yes, that would go into Phase II portal ideas. **Studham**: Fine; OIT is looking for ideas. **Davis**: Friends at different universities have been providing useful feedback about what's available to them. **Goode**: Will showcase existing services. **Billings**: Get SGA website, student ideas, what's going on.
- **Studham**: Encourages adding another bar to your chart for labs – roughly \$2M goes into that. Outlook Live being upgraded to Office 365, will be on par with faculty services. Faculty on Exchange 2010; will be moving to Office 365, as will portal structure – integrated portal, exchange, SharePoint.
- **Logan**: Any decisions about requiring mobile devices? **Studham**: Under discussion; Sally McMillan looking at next academic year.
- **Riehl**: Microsoft very interested in a large-scale student-directed event on campus; will discuss with Billings for a good day / date. **Studham**: Could we expand to other vendors? **Riehl**: Maybe, yes.
- **Goode**: TAB website still not updated. **Riehl**: Just got "keys". Gina Phipps was going to set up SharePoint site limited to committee; will work on that as well.

Meeting time

Louis Davis

- Is this a terrible time? Know it's hard to schedule; is it worth trying to change time? **Billings**: Yes, please. **Studham**: Do over email so people not in attendance can participate in selecting new time.