SENATE COMMITTEE ON INFORMATION TECHNOLOGIES (SCIT)
MINUTES OF MEETING
MARCH 6, 2012

[In these minutes: Bulk Storage Initiative, Update on Transition to Moodle, Welcome to Scott Studham]

[These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions or actions reported in these minutes represent the views of, nor are they binding on, the Senate, the Administration or the Board of Regents.]

PRESENT: Ted Higman, chair, Allison Jacobsen, James McDonald, Benton Schnabel, Sue Van Voorhis, Noel Phillips, John Butler, Scott Studham, Billie Wahlstrom, David Arendale, Sean Conner, Brent Larson, Yuk Sham, Bonnie Westra

REGRETS: Susan Geller, Shashi Shekhar, Mary Vavrus, Nolan Shen

ABSENT: Luqman Anshuur, Tiffany Beauford

OTHERS ATTENDING: Ann Hill Duin, Bernard Gulachek

GUESTS: Chris Ament, project manager, CMS transition to Moodle, Office of Information Technology; Patton Fast, senior manager, Enterprise Operations & Infrastructure, Office of Information Technology; Mark Hove, manager, Active Directory Services, Office of Information Technology

I). Professor Higman called the meeting to order and welcomed those present.

II). Professor Higman welcomed Patton Fast, senior manager, Enterprise Operations & Infrastructure, and Mark Hove, manager, Active Directory Services, who were invited to provide information on the Office of Information Technology's enterprise file storage initiative.

Mr. Fast began by highlighting the problems that needed to be solved:
- Active Directory file services limitations. The current technology is limited to one terabyte (TB) data volume. In 2006, the per person allocation was 10 gigabytes (GB) per person and this really has not changed over the years. The technology is reaching its end of service life.
- Institutional limitations. Long lead times for service expansion and on-boarding of new requirements in the Active Directory file services and the inability for users to purchase additional storage is problematic for the research community as well as administrative and academic units.

The Enterprise File Storage Initiative RFP was issued in the fall of 2011, and EMC Isilon was selected. Board of Regents approval was granted in February 2012. The PO was recently

issued, and the equipment is expected to arrive in approximately two weeks. Testing and other on-boarding activities will begin in May 2012.

As currently planned/designed, the service will have a 20 GB per person allocation, which means the promised allocation has doubled. Additional storage will be available for purchase at $1,500 per TB (this is a replicated TB) and will be broken up into two parts, 800 GB for data storage and 200 GB backup via twice daily snapshots. The fee, stated Mr. Patton, is based on a five-year lifecycle.

In response to a question about whether individuals need to buy the backup via the twice daily snapshots, Mr. Patton explained that the data protection is automatically included in the baseline allocation. He noted that the primary storage is located in one data center and the replicated is in another data center in order to back-up and protect the data. By replicating the storage, OIT is able to give back to the University community better coverage for unplanned or planned outages. Therefore, if access to the primary storage fails, individuals would still have access to their files.

Regarding a question about the user experience, Mr. Patton stated that the user experience will be very similar to the Active Directory. The storage will be NFS mounted, which is network attached storage.

A member commented on the cost of the additional storage, which is expensive compared to what can be purchased in the open market. Mr. Patton stated that there are benefits to purchasing the additional storage through the University. For example, there are audit requirement benefits and long-term care and feeding of the stored data. However, the real value comes back to the University community in the refresh.

Is the University going to be in the business of storing data in perpetuity, asked a member? Mr. Butler noted that there is an archiving role, which is to provide for preservation of the data for the purpose of long-term access and reuse. There are a number of policy questions around this storage initiative. At an institutional level, these issues will need to be grappled with and there will also need to be some level of institutional commitment to address the forthcoming mandates.

Are there any increments smaller than a TB that people can purchase, asked a member? OIT should investigate the data storage requirements on AHC research projects. Mr. Patton stated that the TB was chosen as a starting point, and, technically, could be carved out into smaller increments. He noted that it will be important to add increments that make sense and to avoid adding too many increments that only add to maintenance, time and costs. The TB was chosen based on OITs Active Directory experience as well as feedback from the academic and administrative IT directors.   In terms of the AHC specifically, Mr. Patton proposed that theoretically the AHC, as a collective, could be the purchaser and manager of storage sets, and provide support. The cost could then be reduced further by breaking it down by administrative and/or academic units.

A member asked about the indirect costs on grants and what they cover with regard to a service like this. Mr. Patton stated that he did not know, but would find out and report back.

How long will it take to back-up the Active Directory data, asked a member? Mr. Patton stated that on the back end of the new service there will be four 10 GB links that will connect the two storage units across the data centers. The snaps will be moved over and replicated quickly. The file servers will be gone in the new technology and moved into the storage itself.

A member asked whether the AHC will use the same system for back-up or a different system. The service, stated Mr. Patton, will be provided and addressable by all academic and administrative units within the University. There are some slight nuances that still need to be resolved with the Privacy Office to deal with PHI, but as far as non-PHI data, there are no issues.

For many the cost of this service will be reasonable, however, for those that need a lot of storage space, e.g., 50 TB, the cost could be prohibitive. Additional storage may be hard to sell once it starts to scale to a large number. Mr. Patton stated that this issue has been raised, and it needs to be addressed within OIT but it really comes back to the refresh point. If the goal is to drive the adoption and value of a central storage service, the value comes in the refresh/update cycle. If the refresh can be part of the central service, it adds another level of value to the University community and the institution. It is important to keep the institution as a whole in mind and the liability it has for research data as well as the data retention, curation and data management for administrative needs. There is a tremendous amount of value in having an institutional data lifecycle management plan. Another important component of this service has to do with integration and being able to support research that is taking place at the Minnesota Supercomputing Institute.

What is the maximum capacity of this technology, asked a member? Mr. Patton stated that the maximum capacity of this technology today based on current drive sizes, etc., is 15 petabytes (PB).

What is the vision for this service, asked a member? Is the vision to provide a service to users or to put all University data into a central service? At least initially, stated Mr. Patton, the vision is not to provide storage for every piece of data at the University. The initial vision is to provide storage to support the needs of individual researchers, departments, and administrative and academic units. The goal is to fill the gap that currently exists as well as to provide an alternative to purchasing storage on the open market. Mr. Patton stated that he is personally worries about the liability for the University around the curation of research data.

Is there any long-term plan for Small Computer System Interface (SCSI), asked a member? There have been discussions about using SCSI; however, there have been limited requests for its use. The EMC Isilion platform will allow for SCSI.

Professor Higman thanked Mr. Patton and Mr. Hove for their presentation.

III). Professor Higman then welcomed Chris Ament, the project manager for the transition to Moodle 2.0, the University's course management system. Mr. Ament began by highlighting progress that has been made thus far and next steps in the transition. He noted that recently Turnitin, an anti-plagiarism service, was rolled out and the first pass of testing of distributed

support roles and capabilities was completed. Then, in the next three months the following will occur:

- Distribution of pilot distributed support processes for Moodle 2.0.
- Plan for and execution of the Moodle 2.2 upgrade.
- Roll out of a media management system integration with Kaltura.
- Integration with the non-credit, LMS system.

Then, in the next six months the following will occur:

- Full implementation of distributed support processes.
- Decommissioning of WebVista and Moodle 1.9.

Next, Mr. Ament turned members' attention to a chart with Moodle 2.0, Moodle 1.9 and WebVista adoption metrics. As of March 5, just under 60% of courses were on Moodle 2.0, 33% on Moodle 1.9 and 8% on WebVista. Mr. Ament noted that these figures do not include non-credit or collaboration courses, which represent about 25% - 35% of total courses. Every effort will be made in the near future to get these users to transition to Moodle 2.0 as well. From a student perspective, there has been very positive feedback regarding Moodle 2.0.

Moving on, Mr. Ament provided a status update on the various Moodle 2.0 projects starting with Turnitin. According to Mr. Ament, the University has negotiated a three-year contract with Turnitin, which was signed in early December 2011. Turnitin Assignment is currently available in Moodle 2.0. Soon, a technical analysis will be conducted to determine if it will be possible to do a Shibboleth integration to have Turnitin available as a standalone service as opposed to only an integrated service within Moodle 2.0.

In response to a question about how much Turnitin is used, Mr. Ament stated that it varies widely from discipline to discipline, but, on average, there are 300 – 400 faculty who use it regularly.

Regarding the media management system integration, testing of the Kaltura/Moodle 2.0 integration is underway. Several defects have been reported to the vendor and are pending resolution. Production release for Moodle 2.0 is planned for March 25, pending resolution of defects from vendor.

Distributed support, explained Mr. Ament, is the term being used to describe how local support staff are being empowered with selected administrative capabilities in Moodle. The objectives are threefold:

1. Increase efficiency by reducing the number of "hops" and wait time in the support chain.
2. Increase resilience and capacity by increasing the number of people that are able to perform routine support and administrative activities.
3. Improve the faculty and student experience by enabling local support personnel to assist faculty and students on-demand and resolve issues in real time.

Piloting the distributed support initiative will take place this spring, refined over the summer, and be fully implemented by fall 2012 for anyone who wants to participate.

The decision to move to Moodle 2.2, which was released in December 2011, has been made for the following reasons:
- Stay current. While the Moodle release cycle is every six months, the University plans to implement Moodle releases on a yearly basis rather than every six months.
- New features. Moodle 2.2 has native mobile device support as well as improved quiz functionality, improved block administration capabilities and advanced grading methods – rubrics.

The timeline for this transition has begun with the first pass of functional testing being completed this month. Then, beginning in late March through April, there will be an "insiders" evaluation and testing period. Moodle 2.2 will be officially rolled out on May 13.

Mr. Ament then noted where members can get more information about this project:
- Release notes: https://sites.google.com/a/umn.edu/moodle-upgrade-updates/release-notes
- Join the conversation on MoodleTalk:
  https://moodle2.umn.edu/enrol/index.php?id=1138

Finally, before concluding, he highlighted important dates to remember:
- Late March 2012, availability of Moodle 2.2 testing and evaluation environment.
- Sunday, May 13, Moodle 2.2 upgraded (4 – 6 hour service interruption).
- Friday, August 31, 2012, Moodle 1.9 and WebVista will be decommissioned. No data (course materials, grades, etc.) will be available on WebVista after this date.

IV). Professor Higman welcomed Vice President and Chief Information Officer Scott Studham. Mr. Studham stated that he looks forward to working with the committee and getting to know members.

V). Hearing no further business, Professor Higman adjourned the meeting.

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Renee Dempsey
University Senate

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