

Information Technology Committee
Rich Lehn, Assistant to the CIO, NDUS
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Mr. Chairman and members of the Committee, my name is Rich Lehn, Assistant to the CIO, North Dakota University System.

I am here today on behalf of the System to report and inform you of IT initiatives the State Board of Higher Education has identified be undertaken to maximize results through efficiencies. Also, I will update you on a recently completed PEPP project and the current status of the NDUS IT Facilities being constructed on the UND campus.

SBHE IT Initiatives – “Maximizing Results Through Efficiencies”

The State Board of Higher Education (SBHE) has identified several IT initiatives that working in consultation with the campuses, the Chancellor will pursue a strategy to implement System-wide services that are cost-effective, easily integrated and consistently improving.

An action plan for each initiative will be developed with an eventual recommendation on direction to be taken and seek the Board’s approval for implementation. An Oversight Committee consisting of several SBHE members has been formed to oversee workgroups as they develop the plan for each initiative. Dates provided are subject to change based on Oversight Committee member’s availability.

Lecture Capture and Content Management

An action plan for the first initiative, Lecture Capture, is underway and was presented to the Oversight Committee on March 30th for their review and recommendation. The Oversight Committee approved the action plan and it will now go before the Board. Board approval is being requested at their meeting in Williston on April 12th.

The lecture capture system includes common software; hosting; and, content delivery, when appropriate. It is an online technology that can readily and easily record video, audio and content that will provide a vast new opportunity for teaching and learning across the System.

Faculty, as desired and course appropriate, could incorporate recorded tutorials or lab assignments into their curriculum or they could choose to record their daily classroom lecture. In turn, students would have the ability to watch the recordings at any time on almost any PC or mobile device while being afforded the opportunity to review critical content from a classroom lecture, presentation, or lab experience, increasing overall retention and academic achievement.

Learning Management System (LMS)

At the April 30th meeting of the Oversight Committee, background information will be presented on the learning management systems used within the NDUS. An action plan is

under development and scheduled to be presented to the Chancellor's Cabinet at their May 30th meeting and will be presented to the Oversight Committee for review and recommendation at their meeting on May 31st. If approved by the Oversight Committee, the plan will be presented to the Board for their action at the June Board meeting.

The learning management system initiative includes a consistent software approach; shared curriculum content, when appropriate; content repository; and, consistent mobile device interfaces.

Today, students are forced to use various online learning systems with individual interfaces and multiple login-passwords. Systems are not consistent in supporting System-level authentication, integration with ConnectND or other third party supported applications. Students also tend to pay premium prices to take online courses. With fewer systems to purchase, implement, interface and maintain and with increased System purchasing power, the need for extra fees should be reduced with savings being put directly into the support of instruction rather than going to software vendors. This will enhance the ability for online classes to become a more strategic part of the regular academic service and build the foundation for further efficiencies. The shared environment will provide institutions with new opportunities to mutually develop and share common components of online curriculum.

Document Imaging Scanning

A document imaging scanning initiative will follow the same timelines for presentation of background information, action plan recommendation and eventual Board action as the learning management system. Both, the LMS and document imaging scanning action plans are currently scheduled to go before the SBHE at their June 14th meeting.

The document imaging scanning system includes common software and hosting. Most institutions use document-scanning software for some current business functions, such as invoice processing, contract management, electronic personnel files and student records. Most of these currently used systems are departmental-based and departmental-housed which do not provide operational efficiencies or sound security practices. They are not scalable as needs grow and opportunities arise.

Recommendations to improve efficiencies and provide for a common administrative approach are needed as well as use of consistent software and hardware accomplished through leveraging the overall NDUS buying power.

Unified Communications System

During the May 31st Oversight Committee meeting, background information will be presented on a unified communications system initiative. The action plan for this initiative will be presented to the Oversight Committee for review and recommendation at their June 29th meeting. If approved by the Oversight Committee, the action plan will be brought to the SBHE at their July meeting.

The unified communications system initiative is to deliver a consistent set of services and integrated voice mail, e-mail, instant messaging and phone to mobile devices and personal computer interactions.

A unified communications infrastructure with appropriate links to the state ITD infrastructure is needed. Employees would benefit through use of this technology and students would have better access to integrated services for academic use. A reduction in cost of equipment and some operational costs will be realized through use of unified communications.

HR Electronic Workflow

The SBHE Oversight Committee will receive background information on a HR Electronic Workflow initiative at their June 29th meeting to be followed by review and recommendation to the Board at their July 31st meeting. If approved, the action plan will go before the SBHE at the Board's September 26th meeting.

The HR electronic workflow initiative is an expansion and enhancement to the human resources electronic workflow, including centralized payroll processing from one or more sites.

The intent is to adopt standard business processes to reduce the need for individual campus modifications. Workflow analysis will reduce the need for paper to flow from one office to another and provide for electronic approval where practical. Centralized payroll will create a hub of expertise and economies of scale that need not be replicated at each institution.

Integrated Approach to Delivering IT Services

Originally scheduled for the later part of 2012 as an initiative to develop an action plan for an integrated approach to delivery of IT services, this initiative's timeline has been moved up. As the SBHE studies the long-term plan for information technology services, a plan must be completed by June 30, 2012, with full implementation for the 2013-15 biennium.

The NDUS needs a more integrated approach to information technology planning and service delivery, including minimizing locally developed software and hosting service and instead move to implement broadly accepted and supported applications and services. The action plan to be developed needs to take into consideration that planning, contracting and oversight of System-wide services that are delivered to some or all of the institutions be governed at the System level and should not be under the purview of any one institution. An Enterprise level approach needs to be taken.

Projects Recently Completed

PEPP

A PeopleSoft Environments Partitioning Project (PEPP) has recently been completed. This project was a joint NDUS/ITD project to separate the combined State and NDUS database for HR and database for Finance into separate databases for each entity. It was becoming more and more difficult to find appropriate time to perform upgrades and fixes to the HR and Finance systems that met scheduling needs of the state and those of the NDUS. It had

been determined it would be more effective if the databases were separated; although, the state still hosts these services at the ITD data center.

NDUS IT Facilities Update

Before I continue, I would like to take a moment to personally thank you for the funding towards this facility and the approval to construct. I feel this will make a vast difference in how the NDUS provides IT services going forward.

As you may remember, the NDUS IT facility was originally planned as two attached functional facilities with one being the data center and the other an office type function. Design/engineering work had placed this facility at \$17.6M. During the last legislative session the IT facility was approved with an appropriation of \$12.5M and authorization to add up to another \$5M from internal funds through found efficiencies. Through the process of finding identifiable efficiencies, the Chancellor and SBHE approved \$3M toward this facility. Additionally, a determination was made to separate the data center from the office building and construct the data center in an existing, hardened-wall warehouse on the UND campus. The office building would be constructed as a new building on the west edge of the UND campus bounded by the existing Hilton Garden Inn on the south, Skalicky Technical Incubator on the east, University Avenue on the North and Interstate 29 to the west.

The data center will consist of approximately 10,000 gross square feet of space with approximately 5,000 sf of raised floor machine room of which 3,000 sf will be occupied day-one. The remaining approximately 2,000 sf will be used for growth and to back up equipment at other NDUS institutions.

Approximately 40,000 gross square feet of space will be the office building consisting of mostly cubicle space for the majority of NDUS SITS and UND ITSS staffs along with team rooms, an administration area and office support space.

While we had some “give and take” in separating the two functional spaces, most of the staff will be located under the same roof and efficiencies will be gained. While efficiencies will be gained through staff being located within the same building, other efficiencies will be gained either directly or indirectly. As an example, having the two buildings separate allowed the office building to use geothermal heating that would have over-heated the geothermal well system trying to dissipate the large heat load from the data center. On the other hand, having the data center located in this existing warehouse space allows for that heat load to be recovered for use within attached warehouse space, thus reducing the need for heating from other sources. This is just one example of how the give and take of separating the two facilities gained some efficiency, and I feel that we have achieved the best combination of facilities to match available funds.

At the present time, the buildings are going through final design phase and construction bid document development. Current office construction timelines are for:

- Bid documents out by mid April
- Responses back in May
- Break ground late May/early June

- Building out of the ground in August
- Floors in place in Sept/Oct
- Building enclosed late Fall/early Winter
- Brickwork placed in Spring 2013
- Occupancy July/Aug 2013

The data center will follow a similar timeline.

This concludes my testimony. Thank you and I will answer any questions.