

**MINNESOTA STATE COLLEGES AND UNIVERSITIES
BOARD OF TRUSTEES**

Agenda Item Summary Sheet

Committee: Technology Committee

Date of Meeting: June 22, 2011

Agenda Item: 2011 Office of the Chancellor Performance Report-Technology Division

- Proposed Policy Change Approvals Required by Policy Other Approvals Monitoring
- Information

Cite policy requirement, or explain why item is on the Board agenda:

The Board of Trustees requested that this report be developed and presented annually in each of the Board's committees

Scheduled Presenter(s):

Darrel Huish, Vice Chancellor and Chief Information Officer

Outline of Key Points/Policy Issues:

The performance report includes four sections that provide information about the current and projected budget of the division; the functions performed by the division and how they differ or complement those of the institutions; a listing of major goals and accomplishments for FY 11 and preliminary division goals for FY 12.

Background Information:

This report is part of a larger report on the performance of the Office of the Chancellor for FY 2011. It was developed in response to the Office of Legislative Audit recommendation in the 2010 Office of the Chancellor Evaluation that suggested greater Board oversight of the office.

This is the second annual report in this format; the first report was presented in June 2010

Office of the Chancellor Performance Report
Information Technology Services Division

I. Multi-year Financial and Personnel Data

Cost Category / Financing	2010-11 Biennium		2012-13 Biennium	
	2010 Actual	2011 Estimate	2012 Projected	2013 Projected
Salaries & Benefits	\$17,264,576	\$18,096,760	\$18,054,726	\$18,054,726
Consulting Contracts	3,248,269	3,724,247	2,702,000	2,702,000
Other Administrative Costs	17,246,634	15,049,851	17,400,900	17,400,900
Total Administrative Costs	\$37,759,479	\$36,870,858	\$38,157,626	\$38,157,626
Less: External Funding (1)	(4,800,000)	(4,800,000)	(4,115,000)	(4,115,000)
General Fund Financed Costs	\$32,959,479	\$32,070,858	\$34,075,626	\$34,075,626
<u>Distribution of General Fund Activities</u>				
Direct Services to Colleges/Universities	\$31,700,218	\$31,151,874		
Systemwide Services	1,259,260	918,984		
Division Employee FTE (2)	170.07	170.72	174.0	174.0

(1) Learning Network of MN funds administered 100% to partner groups

(2) Information Technology Division had 191.5 authorized FTE's at the beginning of FY 2011. Authorized FTE count was reduced during the fiscal year to 174.

II. Explain the structural distribution between the functional duties performed by this division and similar activities performed by the colleges and universities.

ITS is, in essence, a shared service for the colleges and universities. Collectively we share a single enterprise administration system, a single elearning system, a single hardware infrastructure on which the systems operate and a single Wide Area Network to access the systems and provide Internet to students and faculty. We also share a single security program and a single warehouse of information for their use. Colleges and universities do not perform these functions. Instead, the college and university role is to populate the systems with college specific data or instructional content.

ITS functions that are not shared services to campuses use a very small percent of IT resources. The Office of the Chancellor specific functions are desktop support, email, telephone support and webmaster services. Each campus also has IT staff and uses resources to provide desktop support, email, telephone and webmaster services and local infrastructure at the campus level. Since the campuses do not need to operate individual enterprise administration, eLearning, Wide Area Network, enterprise servers, information warehouse and security programs, their efforts are directed to these unique, campus specific needs. Some institutions also support small development staff groups to extend the shared enterprise administration system to meet campus needs for specific functionality.

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III. Cite any recent or planned redistribution of costs or personnel between this division and colleges/universities for this functional area.

There are no plans to redistribute costs to the colleges/universities for IT support functions. Please note there are several discussions that may lead to even more IT related shared services. The end result of the discussion may be redistribution of campus functions and costs. For example, campus IT staff would like to explore whether their own data backups could be more cost effectively handled as a shared service. Another example is an emerging discussion about providing email as a shared service.

IV. Cite performance metrics and major accomplishments from the past year (tie to prior year division/committee work plan, if possible).

Students First

Provide Students First functionality for faculty to enter grades in “real-time” so that students will be able to see grades sooner and complete activities that are dependent upon a satisfactory grade.

Provide Students First functionality for faculty to enter last date of attendance (LDA) at the time of grade entry.

Provide Students First functionality for a student to search for courses at other Minnesota State Colleges and Universities that are equivalent to a course at their home institution. This functionality is provided as part of the web based course search and registration application. The equivalency of a course is determined based on data within the DARS system.

As requested by Students First, automated the paper-based, labor intensive process campuses used for students to accept federal direct loans.

Automated the tedious and lengthy campus loan certification process. This Students First system will result in a dramatic reduction in the need for manual data entry by campus financial aid staff, as well as quicker delivery of funds to students.

Completed and deployed for pilot a new Students First ePayment application. The new functionality supports payment to multiple institutions with a single credit card or eCheck transaction.

Launched a new Students First communications module to allow marketing, admissions and registration offices the ability to create re-usable messages, identify the type of recipient for the messages, and schedule the messages to generate letters that can be mailed to the recipients.

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Developed and released a new Students First eApplication system.

Data Center

This year technology had successful semester startups; better than any two startup in operational history.

Improvements to the Integrated Statewide Records System (ISRS) include the development and implementation of a Performance Testing /Quality Assurance Database refresh process with full integrity checks.

Major data security improvements in ISRS web application were achieved when the ISRS staff began using Identity and Access Management authentication to access Financial and Security web applications.

Significant improvements in the development process have been achieved by separating the ISRS development environment from the production environment.

Completion of Unix / Oracle Input/output performance tuning.

A major expansion of the test lab was completed; this will be used to test technology prior to implementation. The lab emulates two data centers and one standard campus.

While working in the systems testing environment the technology team identified bugs in Solaris/Oracle. As a result, patches and upgrades have been developed that are used across the world.

Completion of Oracle 10.2.0.5 upgrade resulted in security, stability, backup and recovery improvements. The technology staff is working on planning, testing and partial completion of the Oracle 11g upgrade.

The roll out of eFolio 2.0 is complete; this uses a simplified architecture from past versions and will improve the user experience.

Two new applications were developed: Program Navigator and a content and document management system called Legal Files.

A complete redesign of the West Bank Office Building / Data Center Upgrading and reconfiguring the network infrastructure (e.g. switches, wiring, fiber connects) brings the wiring infrastructure into compliance.

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Wide Area Network (WAN) redundancy project is complete. The result is significant improvements including redundancy and increased bandwidth across the entire system. Should the network, that most of our students use, experience a failure like a fiber cut or circuit failure the students would not experience an interruption in service.

Implementation of vulnerability scanning and event logging has resulted in identifying roughly a billion events per day

Enterprise – Storage and VMS System Mangers

Continued work on the Data Center II project, which includes upgrades to infrastructure and redundancy between enterprise data centers.

Upgraded Tape Drives and implemented encryption process for secure offsite back up tape storage.

Enterprise – Network Operations Center Staff

Work with the University of Minnesota to increase physical security at the data center: access to the data center now requires a fingerprint and a U of M Picture ID.

Continued support for ongoing operations and backup for the Tier 1 help desk staff.

LAN/Desktop Support

Provided technical support to the Quarry Center and Granite Falls offices to conduct staff moves. This group continues to provide technical support for staff movies.

Implementation and improvements to wireless technology at the Office of the Chancellor and two other locations.

Significant virtualization of the Office of the Chancellor server environment resulting in cost savings, increased redundancy and availability of services.

Completed installation of the Virtual Desktop Interface in the Training Center. The result is cost savings, easier patch management and allows select staff to securely connect to their desktops from remote locations.

Installation and implementation of follow you printing (Equitract) project for the Facilities unit to reduce printing costs.

Installation of Active Directory and Windows print servers in preparation for Novell to Microsoft conversion.

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Completed the Internet Protocol Telephone project for all Office of the Chancellor staff, including remote sites. Resulting in system office costs savings and increased functionality.

Completed Citrix server upgrade which allows remote secure access and will be used for telecommuting.

Security

PCI (Credit Card Data Security)

Established a system wide contract to provide cost-effective service for participating institutions in order to assist campuses to meet the requirement to scan networks quarterly. Developed PCI handbooks for institutions as a helpful guide to address requirements. The Office of the Chancellor IT security staff continues to provide PCI consulting for institutions.

Application Security

Procured a service provider, Veracode, for code and web based scanning of selected enterprise applications. Through the Enterprise Application Security Program the security team continued work in partnership with enterprise application development and architecture staff to advance secure development processes and practices. Through the Campus Application Security Programs provided campus visits to evaluate current application security programs and practices, advise and assist in establishing or advancing institution application security programs and promote secure coding practices. Held a two day Secure Application Coding Course for campus and enterprise development staff.

Provided a process framework for identification, assessment and impact of risk. Risk assessment conducted on Student Direct Deposit project.

Created a contract for secure file transfer services. This will enable staff and faculty to securely send and receive files within the systems and with third parties.

Created a contract for independent penetration testing of enterprise data center. This will examine computers and networked devices to identify and verify weaknesses in configuration and implementation.

Added two information security training courses: Threat Modeling & Fuzz Testing. The total number of courses available to campuses is eighteen.

Data backup guideline completed and posted to Board policies.

The three core security awareness courses have been refreshed with release anticipated this summer.

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Implemented monthly vulnerability management reporting with reports sent out to all institution CIOs.

Established a master patch management contract, which allows institutions to purchase a cost-effective patch management solution.

Worked with business analysts, developers and campus contacts to assist with rollout of the new security administration module.

Closed 14 audit findings.

Development

Completed a 20-month project to implement a federal program known as “Year Round Pell,” and then deactivated the changes after Congress revoked the Year Round Pell program.

Completed the conversion of all schools to Direct Lending.

Created technology to allow recalculation of the State Grant for students to address a surplus in the Minnesota State Grant Award program.

Created a more secure and automated process for processing and transmitting private loan data.

Addressed audit findings and created a more cost effective solution to automate loan disbursement notification to students.

Significantly reduced the student frustration of delays and mistakes resulting from duplicate records by developing new automation and process tools.

Provided student advisors with access to a new, web based version of the Degree Audit so advisors can access the interactive reports for all their advisees via the faculty portion of the ISRS eServices portal.

Launched Vets, a first of its kind nationwide system providing veterans an automated tool to cross-walk military training and experience into actual credits.

Created technology to automate the admission to major/program process.

Developed automation needed to support Board of Trustees policy changes for visiting students.

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Created a new registration edit to help colleges and universities control registration in courses based on Accuplacer test scores and pre-requisite courses.

Released a final version of a web based security administration module allowing campus users to request and manage security clearance for various applications and allowing campus administrators to review and recertify system approximately 100,000 approved security roles each year.

Virtually eliminated manual payroll processing on campus and at the OOC by automating the interface of payroll timesheets to MMB. All schools except Mankato will be using this new interface by June 30th, 2011. Mankato will join in August.

Enable all ISRS Administrative applications (e-timesheet, accounting, etc.) to use StarID as login credential.

Provide functionality for Colleges and Universities to enter additional information into Curriculum for course outlines and for students to retrieve a PDF of a course outline via the web.

Instructional Management System

Desire 2 Learn (D2L) the instructional management system had very good availability all year. Last summer, a change in the hardware and operating system used to support the instructional management system and changes to the database versions were completed. There were no performance issues and the strong internal monitoring prevented serious operational issues.

Realized a 10% to 15% growth in usage of the instructional management system this fiscal year.

Research and Data Warehouse

Completed extensive work on the Board of Trustees' Accountability Framework (Action Analytics) reports, including: Student Persistence, Student Enrollment, and Student Transfers between institutions.

In preparation for the Board of Trustees' Accountability Framework reports cited above, over 100,000 rows of student data with erroneous ethnic records were corrected. The correction process took over two months to complete.

To simplify work on the campuses designed specialized data tables to record the quarterly expenditure of federal economic stimulus funds available to MnSCU in FY2011. The expenditures, summarized by specialized reporting categories, were sent to the State of Minnesota Office of Management and Budget, and then forwarded to the federal government.

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Developed a new report for MnSCU and the State of Wisconsin to record MnSCU students, their courses, and the amount of tuition paid by each student. The report is sent to Wisconsin, and is used to calculate the amount of tuition owed by Wisconsin to MnSCU colleges to make up for the differences in reciprocity tuition rates between the states.

To aid the campus business offices, new banking reports were developed to help simplify the reconciliation of the MnSCU accounting system with the state treasury accounts and local banks. The design and approval of the reports was managed by the OOC Campus Assistance Unit along with input from the campuses.

Throughout the year, we offered 28 on-site data and report training sessions to 189 trainees. The average rating on a scale of 1 to 5 with 5 being "excellent", was 4.5. WebEx support sessions were also offered for one-on-one training and to campus groups. The training skill level ranges from beginners to advanced students. An estimated 50 total WebEx sessions were offered in FY2011.

To meet new federal reporting standards, the entire Carl Perkins grant datasets were redesigned and implemented. This affected all two-year MnSCU students.

During the year, about 40% of needed documentation was completed. Work has begun on a new data dictionary.

Learning Network

Established a process for consolidating and sharing infrastructure and management components of the six regional communications networks in order to reduce redundancies, increase standardization when desired, seek state-wide licensing and resulting savings, and collaborate on operations. These efforts will result in significant cost efficiencies across the six regions.

Completed the first year of a successful collaboration among the six communications regions involving the shared acquisition and use of a high definition codec.

Completed a streaming pilot study and moved the project into an RFP phase, with negotiations on the RFP currently in process. Upon completion of the RFP (expected by the EOY), the three partners supporting the streaming project—the University of Minnesota, the Minnesota State Colleges & Universities, and the six communications regions—will convene to address the future steps of the project.

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V. Identify major division/committee work plan activities planned for upcoming year.

Advance the Service Delivery Strategy that was developed with input from several stakeholder groups throughout MnSCU and endorsed by the Trustees.

Develop and implement a process to allocate scarce IT resources to advance the institution's agreed strategic priorities

Explore the possibility of a set of measurements to assess the quality of IT services at the various campuses

Complete the Students First Project initial rollout and build upon the success of Students First project by persistently facilitating adoption of these new services by colleges and universities.

Begin the conversion off of VMS. This effort will take two or three years and will include the planning, pilot and conversion.

Complete strategic ITS organization modifications and make effective hiring decisions with leadership vacancies.

Launch and complete a project to consolidate Tier 1 (first contact) help desk support.

Rollout and promote use of Identity and Access Management to move towards single (or at least fewer) sign-on.

Assist with the shared services concept throughout MnSCU.

Proactively respond to IT security issues, and in particular take action with PCI compliance.

Implement Microsoft Outlook/Exchange as a more compatible and interoperable productivity tool for Office of the Chancellor (replace GroupWise).