

## **South Dakota Board of Regents Human Resources – Financial Information Systems (HRFIS) Project**

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## **Abstract**

### **Human Resources – Financial Information Systems (HRFIS) Project**

The mission statement of the HRFIS project is to create an efficient human resources, payroll, and finance operating environment for the South Dakota Regental System by implementing an integrated database, sharing services where efficiencies can be realized for the system as a whole, utilizing new software that will further enable the adoption of common business practices, providing new and enhanced services as identified in the South Dakota Board of Regents' Opportunities for South Dakota, and implementing an integrated suite of software to better achieve economies of scale.

## **Introduction of the Organization The South Dakota Board of Regents**

The South Dakota Board of Regents has constitutional authority to govern the system of public higher education in the State of South Dakota. Supported by an Executive Director and staff, the Board provides leadership and sets policies for the programs and services delivered through its six universities, the University of South Dakota (USD), South Dakota State University (SDSU), South Dakota School of Mines and Technology (SDSM&T), Northern State University (NSU), Dakota State University (DSU), and Black Hills State University (BHSU), and two special schools, South Dakota School for the Blind and Visually Impaired (SDSBVI) and South Dakota School for the Deaf (SDSD). Dynamic and progressive leadership is cultivated at the campuses through the presidents, superintendents, faculty, and staff.

The primary mission of the institutions in the Regental System is to utilize available resources to provide an environment in which students are encouraged and supported in their intellectual, cultural, and ethical development through interaction with the scholarly communities at the institutions. The System and its institutions must assist students in their search for knowledge, in understanding themselves and their cultural and physical environments, and in developing the wisdom and skills necessary to function as responsible citizens in a democracy.

The Board recognizes its responsibility for appropriate stewardship of financial resources from the state, from students, and from sources external to the institutions. While the Board recognizes the diversity of the institutions and the desirability of such diversity, the six

universities function as a part of a system of higher education where the collective use of resources is focused for maximum common good.

## **Statement of the Initiative**

The purpose of the project was to develop one integrated software suite and database for Human Resources, Payroll, and Finance and to reconfigure best practices and to establish shared services wherever efficiencies can be created for the Regental system, as a whole, while maintaining and enhancing customer service. Four shared services centers, the Account Payable Shared Services, Purchasing Shared Services, Shared Payroll Services and Shared International Employment Services Center were established to ensure:

- Common business practices for all Regental institutions,
- Administrative efficiencies and improved customer service,
- Economy of scale in software and consulting cost,
- Elimination of “shadow” systems and duplication of effort in all cases/areas where common business practices have been identified, and
- Reduction in total time required from staff in Human Resource, Finance, and IT in implementation and future operation of the system.

## **Project Design**

The review of the HRIS/Finance system began in 2003 as a Title III grant proposal. Well into the review, which included documentation of the shortcomings of both systems and enhancement needed, it was determined that the project was not sufficiently student-focused to be considered for federal funding. The personnel involved in the Title III project were able to review current system capabilities when four potential vendors presented their software systems. All of the time and effort expended on the Title III project were invaluable to moving the HRIS/Finance System Replacement Project forward at a quickened pace. The committee

members involved in the Title III project became part of the HRIS/Finance Systems Replacement Project.

The goal of the project was to move to a single database for all administrative systems and not six or eight separate databases. Common business practices and standard data element use for all business functions needed to be implemented. This all was done with buying a product off the shelf with minimal enhancements or modifications. The goal is to gain efficiencies using technology.

### **Project Implementation**

A steering committee, guided by a Project Director, Project Manager, Technical Project Director and the vendor project manager, was established for the oversight of the project. The project steering committee members presented recommended policy changes to the Board of Regents and various Regental councils, Council of Presidents and Superintendents, Business Affairs Council, Academic Affairs Council and Technology Affairs Council. Separate finance, purchasing, budget, research accounting, human resources/payroll and technology modules, guided by a member from the steering committee, were setup to perform a thorough business system analysis and implementation of their respective areas. Memberships to the modules were personnel representing each university, the special schools and the central office.

The Request for Information (RFI) was developed and used to communicate the project charge for integrated databases and eliminate those that do not offer a suite of products. A number of vendors were invited to South Dakota for vendor presentations to the Steering Committee, Module Groups and interested campus personnel. Ellucian, formerly known as Sungard Systems & Computer Technology, and its partner software SciQuest Higher Markets,

Sourcing Manager, Discoverer, E-Visions, IntelCheck, FormFusion, Xtender, and Visio were selected.

The tables below and on the following pages identify the project milestones

### HRIS/Finance Project Milestones

Milestone	Finance, Purchasing, Grants & Budget Modules & Shared Tables	LDI/SciQuest	X-tender Finance	ODS Finance
Hardware installed and available for Test/Business Continuity (BC) environment	1/17/2005	10/18/2005	11/30/2005	11/7/2005
Software installed and verified	1/17/2005	10/21/2005	12/30/2005	11/7/2005
Opportunity state business processes finalized	3/15/2006	3/15/2006	3/15/2006	3/15/2006
Configure and Test Prototype and perform gap analysis compared to final opportunity state	2/15/2006	2/15/2006	2/15/2006	2/15/2006
Reporting Gap Analysis & Third party integrations	1/31/2006	1/31/2006	NA	1/31/2006
System processes	2/15/2006	2/15/2006	NA	2/15/2006
Internal and external interface needs	1/15/2006	1/15/2006	NA	1/15/2006
Gap resolutions determined and implemented	4/1/2006	4/1/2006	4/1/2006	4/1/2006
Data conversion and integration and interfaces(Conversion, Integration/Interface, Reports)	5/1/2006	5/1/2006	5/1/2006	5/1/2006
Validation Tables/Crosswalks		4/15/2006	4/15/2006	NA
Rules	4/15/2006	NA	NA	NA
Security	4/15/2006	4/15/2006	4/15/2006	4/15/2006
Approvals	4/15/2006	4/15/2006	4/30/2006	NA
Identification of Documents Requiring Approval	1/1/2006	1/1/2006	NA	NA
Creation of Approval Queues for each Document Type	4/15/2006	3/1/2006	NA	NA
Approval Queue Testing Completed	5/1/2006	4/15/2006	NA	NA
System setup (All roll-up Steps Complete)	6/15/2006	4/30/2006	6/15/2006	6/15/2006
Testing completed and certified	5/1/2006	5/1/2006	5/1/2006	5/1/2006
End user training completed	6/15/2006	6/15/2006	6/15/2006	6/15/2006
Hardware & software installed and available for production environment	4/1/2006	4/1/2006	4/1/2006	4/1/2006
Production setup completed and certified (Available for production including Data Load)	6/1/2006	6/1/2006	6/1/2006	6/1/2006
Go-live	7/1/2006	7/1/2006	7/1/2006	7/1/2006

<b>Milestone</b>	<b>e~Print Finance</b>	<b>Form Fusion</b>	<b>IntelleCheck</b>	<b>Luminis Finance</b>
Hardware installed and available for Test/Business Continuity (BC) environment	10/10/2005	NA	3/17/2006	5/23/2005
Software installed and verified	10/10/2005	4/15/2006	3/17/2006	8/12/2005
Opportunity state business processes finalized	3/15/2006	5/15/2006	3/31/2006	12/1/2005
Configure and Test Prototype and perform gap analysis compared to final opportunity state	2/15/2006	5/15/2006	4/15/2006 4/15/2006	2/28/2006 2/28/2006
Reporting Gap Analysis & Third party integrations	NA	NA		
System processes	NA	NA	NA	N/A
Internal and external interface needs	NA	NA	4/15/2006	2/28/2006
Gap resolutions determined and implemented	4/1/2006	6/1/2006	5/1/2006	3/31/2006
Data conversion and integration and interfaces(Conversion, Integration/Interface, Reports)	NA	NA	5/1/2006	N/A
Validation Tables/Crosswalks	NA	NA	NA	N/A
Rules	NA	NA	NA	5/1/2006
Security	4/15/2006	4/15/2006	4/15/2006	5/1/2006
Approvals	NA	NA	4/15/2006	N/A
Identification of Documents Requiring Approval	NA	NA	NA	
Creation of Approval Queues for each Document Type	NA	NA	NA	
Approval Queue Testing Completed	NA	NA	NA	
System setup (All roll-up Steps Complete)	3/31/2006	6/15/2006	6/15/2006	6/1/2006
Testing completed and certified	4/30/2006	6/1/2006	5/15/2006	6/15/2006
End user training completed	5/31/2006	6/15/2006	6/1/2006	7/1/2006
Hardware & software installed and available for production environment	4/1/2006	4/1/2006	4/1/2006	5/1/2006
Production setup completed and certified (Available for production including Data Load)	6/1/2006	6/1/2006	6/1/2006	6/1/2006
Go-live	7/1/2006	7/1/2006	7/1/2006	6/15/2006

Over the course of eighteen months, the Steering Committee and module members met at the University Center in Sioux Falls, South Dakota to work through the new business practices and application of new software.

Challenges to this project were numerous with one integrated system, yet were overcome:

- ✓ Separate financial statements and transaction data for each institution while operating under a single chart of accounts for the Regental system. This was accomplished by “smart” coding the funds, organization codes, activity codes, and location codes of the FOAPAL (fund, organization, account, program, activity and location codes) accounting



string. Common account and NACUBO program codes were also incorporated into the FOAPAL string.

- ✓ Data standards for FOAPAL elements, hierarchy levels, vendor maintenance, person and non-person names, address types, ship to codes, commodity codes, end-user IDs and passwords, and security classes, to name a few,
- ✓ Single log in to all SCT Banner and related projects for end-users,
- ✓ Fund/Organization security for end-users again utilized the “smart code” for funds and organization codes. Staff members at the Regents Board office, university controllers, purchasing agents and HR/payroll personnel were given “master” access to all funds and organization codes. (Master access is needed for system-wide reporting, purchasing and payroll processes.)
- ✓ Monthly financial reports (budget, operating and general ledger) meaningful to the end-user.
- ✓ End-user buy-in that the HR/FIS project and the adoption of common business practices is a good thing.

As previously stated, the focus of the HRFIS project on the finance side was to reconfigure the business practices to establish shared services wherever efficiencies could be created, boost service levels, eliminate inconsistent processes at the institution level, and to move from paper based to electronic processes. The Purchasing Shared Services and the Accounts Payable Shared Services Center (APSS) are showcased because of the interaction between the two services. In addition to the function of the two services, their benefits are described.

## **Purchasing Shared Services**

Purchasing services at an institution is comprised of a team of professionals who support the learning environment. They work with users to understand and articulate the needs of the institutions through the purchasing process.

The purchasing environment was one of the most onerous processes of all the business functions. It is riddled with duplicate effort and dual data entry – effort is duplicated by the State and university purchasing offices and data entry is done twice into the current BOR finance system and the state purchasing system. The purchasing process is highly regulated by South Dakota law and by policies of the State Office of Procurement Management (OPM).

The Board of Regents system expended approximately \$40M annually through purchase orders. Procurement offices issued about 17,000 orders annually and an additional 7,500 quick orders are issued locally. There were 8.75 FTE directly involved in purchasing including the directors and support staff. Many other people throughout the system are tasked with preparing requisitions, including specifications, and for garnering competitive bids. It's difficult to identify the total employee effort related to purchasing because of the number of people involved, ranging from researchers to department secretaries.

The Purchasing Shared Service model for procurement utilizes a system-level manager. Because of the high level of state regulation over Regental purchasing, it was felt that a centralized model would not reap tremendous benefits over this shared services model.

The implemented plan identified a purchasing manager with specialized buyers at the institutional level. The system-level purchasing manager oversees and provides direction and training to the institutional purchasing staff. The current purchasing professionals are well-trained and work together well. Because of the state regulation and duplication of effort

required, purchasing FTE would not be reduced. However, the procurement process is more streamlined; the model provides greater customer service; and, the savings is realized on the shared-service designated commodity purchases and new system-wide contracts.

**Buyer assignments were determined by areas of expertise as identified below:**

USD	Scientific & lab equipment/supplies Computer hardware and software Audio/video/photographic equipment Medical equipment & supplies
SDSU	Office supplies Printing & copying services Promotional items
SDSM&T	Maintenance repair & operating supplies
NSU	Cleaning equipment/supplies Transportation vehicles HVAC equipment & supplies
DSU	Food service equipment & appliances Maintenance repair & operating equipment
BHSU	Construction equipment & supplies Student housing furniture

Commodities are assigned to the buyers and it is the buyer's responsibility to manage the assigned commodities. This includes researching the best buying opportunities, soliciting bids, writing specifications, pooling orders to create the maximum discounts available and issuing purchase orders for other campuses. The buyers process all requisitions for the system within the commodities assigned to them. The buyer also scrutinizes buying opportunities, such as existing state contracts and others available to the Board of Regents.

Some of the specific efficiencies provided by the technology in the purchasing area are summarized below.

- All requisitions are processed electronically which eliminates paper requisitions. This created efficiencies in Purchasing as duplicate data entry work is eliminated.

- Higher Markets and Banner support requisition assignment to buyers by commodity, cost or description. This allows buyers located at one institution to process orders for another institution.
- Requisitions and purchase orders are created, tracked and approved electronically allowing departments to track orders. This feature decreases the amount of phone calls to Purchasing inquiring about the status of orders.
- With purchase orders being transmitted electronically to the vendor, the amount of staff time required compared to faxing or mailing the orders is drastically reduced.
- Orders are also received by the vendor almost immediately, which drastically reduces the time it takes for the order to be shipped.
- Pooled orders among the institutions created savings. Requisitions are routed by commodity; thus making it easier for the buyer to combine orders among the schools.
- Shopping the e-procurement catalogs is more efficient for departments to locate items and increases contract compliance.
- Sourcing Manager is the web based bid solicitation tool used and provides an efficient bidding process allowing a greater number of vendors to participate in the bidding process. Sourcing Manager also created efficiencies in the time it takes for a buyer to solicit quotes. Less time is spent with data entry and bid evaluation.
- Shadow systems, such as our small dollar purchase order system, were eliminated, reducing the amount of staff time required to maintain such a system.
- Going from the current eight vendor files to a single vendor file saved significant hours of maintenance and input into the vendor file.

## **Accounts Payable Shared Service Center**

The Accounts Payable Shared Services Center (APSS) is managed on the campus of the South Dakota State University (SDSU) for the Regental system. APSS' primary function is to process a daily single check printing cycle for the Regental system.

Activities include:

- creating and maintaining the single vendor file for the system,
- matching vendor invoices to receiving documents and purchase orders,
- entering regular pay invoices, those invoices associated with purchase orders on the accounting system,
- reviewing, approving, and processing direct and regular pay invoices daily,
- separating the Next Day Checks and Checks Requested to be Returned to Campus,
- preparing checks and/or ACH notifications for mailing,
- reconciling bank transactions and submitting ACH transaction file for processing,
- researching and resolving vendor and departmental payment issues, and
- managing the 1099 reporting process.

Based on those volumes and the ancillary services required to perform the centralized AP function described in this report, the APSS Center is staff includes the following:

.5 FTE AP Supervisor – This position has overall responsibility for the center.

Duties also include hiring and supervising staff, acting as liaison to the campuses and schools, and acting as the chief customer service representative.

2.0 FTE AP Assistants – These positions perform invoice processing, vendor maintenance, check processing and printing, document imaging, and customer service.

.75 FTE Staff Assistant – This position performs general clerical duties for the center, assists with mailing and stuffing envelopes, and backs up the other positions where needed and appropriate.

Accounts Payable Efficiencies include:

- Electronic Approval Routing - Purchase requisitions are routed electronically for approvals in the Higher Markets system. Once approved, requisitions are electronically converted to purchase orders and processed by Purchasing. The vendor receives the purchase order via electronic fax or email. After campus receipting is complete, the vendor invoice will be “matched” by APSS Center personnel with the purchase order in Banner. Provided the invoice, purchase order and receiving document match, a check will be issued to the vendor.
- Direct Payment Invoices - Invoices that are not a result of the purchasing process are entered by the department requesting payment. The invoice is then imaged on Xtender. The invoice is routed electronically through the Banner approval queues. Once approval is completed, the payment is processed.
- Payment Combining - Multiple payments to a single vendor in the same check cycle can be combined into one check by Banner if that option is selected either at a system or transaction level. This combining occurs for the entire system, not campus by campus.
- Blank Check Stock – APSS Center uses the Evisions Form Fusions product in conjunction with Banner to print checks on blank stock versus preprinted forms. Form Fusion also allowed the customization of the check and stub.

- Electronic Storage, Routing & Distribution of Invoices – Xtender, the image partner used by Banner, reduces paper in the process of filing, storing, routing, and distributing invoices.
- Automated Workflow – The approval queues allows personnel to check compliance and appropriateness of the invoices.
- Customer Service – Vendor inquiries are routed to this central service center to quickly answer questions and resolve payment issues.
- Self Service – Accounts Payable end users are able to resolve questions, including status of transactions in procure-to-pay cycle, by accessing the data directly in Banner without contacting shared center.
- ACH Payments – Vendors are encouraged to receive payments via ACH because of the ease in processing.

### **Benefits of the Shared Services**

The foremost benefit of a single integrated software suite and database and the shared services is the economy of scale in software and consulting cost. The one enterprise system and the one common database support all institutions instead of having each institution maintain individual systems.

The purchase of an appropriate software system and partner software companies was based on the ability of the software to meet our multi-institution needs and to address significant shortcomings in our current systems. The software provides significant efficiencies and savings through the use of technology which allows the end-users to perform jobs smarter. The efficiencies include the elimination of shadow systems, reduction of paper reports, electronic

routing and processing of paperwork, the ability to buy on-line from catalogs, improved reporting and spending analysis, the management of a single vendor file.

Line balancing & specialization among AP staff which reduces total AP FTE required within the system. The central accounts payable center processes a daily single check printing cycle for the system and eliminates the need for sequencing of check printing cycles by individual campuses. Multiple payments within the system to a single vendor in the same check cycle are combined into one check. Vendors that service more than one campus will have one AP service point.

Institution compliance is more effective in contract compliance review because they are located at the individual campuses where the contract copies are maintained. Campus management and control of costs is improved due to the local review of vouchers. Staff is now able to work in part-time capacities for different functions.

The table below provides benchmarks for Purchasing Services and the APSS Center since the go-live date of July 01, 2006.

<b>Purchasing Services</b>						
	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>
Total # Purchase Orders Issued	22,099	21,279	20,039	21,128	24,819	24,058
Total \$ Amount	\$45,586,579	\$41,842,666	\$40,806,698	\$45,194,355	\$49,569,817	\$43,535,442
Average \$ per Order	2,063	1,966	2,036	\$2,139	\$1,997	\$1,810
<b>Accounts Payable Shared Services Center</b>						
	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>
Regular Pay Documents	23,447	26,594	23,107	24,677	29,000	28,817
Direct Pay Documents	90,130	97,834	91,717	95,425	102,621	104,490



## **Retrospect**

The South Dakota Board of Regents is in their seventh year with the Ellucian products. The Steering Committee and the module groups regularly meet via conference call to address regulatory and procedural changes, database upgrades or to implement new and/or improved best practices.

Many people at the institutions worked many hours, traveled long distances to attend training, gave up weekends with family and even missed family events to make this project a success. These staff members have gone above and beyond and proven their commitment again and again to their jobs and their institutions. This project would not have been successful without their dedication and providing outstanding leadership.