Project #	Agency	Project Title
50-01	Nebraska State College System	Student Information Administrative System

SUMMARY OF REQUEST (Executive Summary from the Proposal)
[Full text of the proposal is posted at: http://nitc.ne.gov/nitc/documents/2008_deficit/50-01.pdf.]

The Nebraska State College System (NSCS) is requesting $8.9 million in one time funds and $605,000 in ongoing support for the purpose of purchasing and supporting a student information administrative software system and necessary supporting hardware. The existing student information system was purchased and implemented in 1987 and is now dated, lacking the necessary function to provide appropriate administrative support to students and faculty, and to provide necessary accountability reporting. Support for this aging product will cease on December 31, 2011. Requested dollars will provide for planning, software and hardware purchase, training, migration, and implementation to a modern system.

The request will allow the State College System to maintain its essential academic administration system. New software and hardware will provide online functions necessary to meet the needs of students, faculty, and administration. Among the components considered are: recruiting, admissions, registration, student accounts, financial aid, housing, grade reports, transcripts, student access to records, faculty advising, class scheduling, room assignment, departmental budgeting and accounting, key control, parking, and alumni functions.

FUNDING SUMMARY

Excerpt from Budget Division Form 520 for "ERP - Capital Outlay (One-Time)":

State of Nebraska - Administrative Services - Budget Division		REQUEST	01a ERP - Capital Outlay (One-Time)		
EXPENDITURE ACCOUNT	APPROPRIATIONS			ADJUSTMENTS	
	2007-2008	2008-2009		2007-2008	2008-2009
...					
580000 Capital Outlay					8,900,000
590000 Government Aid					
Total Expense	0	0		0	8,900,000
Means of Financing					
General Fund					8,900,000
Cash Fund					
Federal Fund					
Revolving Fund					
Total Funding	0	0		0	8,900,000

Excerpt from Budget Division Form 520 for "ERP - Ongoing Support & Maintenance":

State of Nebraska - Administrative Services - Budget Division	REQUEST		01b ERP - Ongoing Support & Maintenance	
EXPENDITURE ACCOUNT	**APPROPRIATIONS**		**ADJUSTMENTS**	
	2007-2008	2008-2009	2007-2008	2008-2009
Permanent F.T.E. Positions				6.0
511100 Permanent Salaries - Wages				291,000
511200 Temporary Salaries - Wages				
511600 Per Diem Payments				
511900 Supplemental (One-time payments)				
All Other Salaries				
Sub-Total Salaries	0	0	0	291,000
515100 Retirement Plans Expense				23,400
515200 OASDI Expense				22,500
515400 Life and Accident Insurance Expense				5,700
515500 Health Insurance Expense				46,200
All Other Personal Services				
Sub-Total Benefits	0	0	0	97,800
510000 Personal Services	0	0	0	388,800
520000 Operating Expenses				3,000
Software Maintenance	300,000	300,000	0	200,000
570000 Travel Expenses				4,200
580000 Capital Outlay				9,000
590000 Government Aid				
Total Expense	300,000	300,000	0	605,000
Means of Financing				
General Fund	300,000	300,000	0	605,000
Cash Fund				
Federal Fund				
Revolving Fund				
Total Funding	300,000	300,000	0	605,000

Additional information from project proposal form:

NEBRASKA STATE COLLEGE SYSTEM
ERP -- ONGOING
SUPPORT

DESCRIPTION	DB Admin 3 FTE	Applications Support Spec. 3 FTE	Maintenance Agreement	TOTAL
Permanent Salaries	171,000.00	120,000.00		291,000.00
FICA	13,200.00	9,300.00		22,500.00
Retirement	13,800.00	9,600.00		23,400.00
Life/LTD	3,000.00	2,700.00		5,700.00
Health	23,100.00	23,100.00		46,200.00
Total Personnel	224,100.00	164,700.00	0.00	388,800.00
Operating Expenses	1,500.00	1,500.00	200,000.00	203,000.00
Travel	2,100.00	2,100.00		4,200.00
Capital Outlay	4,500.00	4,500.00		9,000.00
	8,100.00	8,100.00	200,000.00	216,200.00
TOTAL	232,200.00	172,800.00	200,000.00	605,000.00

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
3: Goals, Objectives, and Projected Outcomes	10	14	14	12.7	15
4: Project Justification / Business Case	19	24	23	22.0	25
5: Technical Impact	12	19	17	16.0	20
6: Preliminary Plan for Implementation	7	9	8	8.0	10
7: Risk Assessment	7	10	9	8.7	10
8: Financial Analysis and Budget	10	16	12	12.7	20
			TOTAL	80	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
3: Goals, Objectives, and Projected Outcomes	- Desired outcomes are clearly articulated and the goals are appropriate. - The project goals and objectives cover every area of service and support required of a college system. Having recently experienced the move from an older mainframe legacy SIS to a new system the benefits of change are worth the investment and the effort required. - The proposal aptly describes the need for, functions and beneficiaries of, the administrative software system.	-While the migration of data and services provide key indicators of progress no specific milestones were provided belying the complexity of the undertaking. - Measurement of acquisition are addressed but perhaps more should have been addressed regarding implementation outcomes. - It seems like the new software system will contain many new technical functions that are not currently being used by the State College System. It may be helpful to explain that contemporary software systems contain these functions as a matter of fact; that the technology and features have progressed greatly since 1987.
4: Project Justification / Business Case	- The authors make a strong point for the necessity of updating the current system that is scheduled to lose support in 4 years. - Speaking from experience support of an aging or end of life system is generally lacking and the vendor simply maintains the core product. Innovation and new technology gains are not available and the college is put at a competitive disadvantage and students are not served as they should be. Though one vendor may be favored the fact that three vendors with high marks of the Gartner group speaks highly of the efforts thus far. - The proposal explains specific systems and the justification for considering a new enterprise system.	- The requirement to update is clear, however, very little was included with respect to tangible benefits beyond that. Given the age of the previous solution and advancements in the intervening period, articulating tangible benefits to end users is expected. The lack of such descriptions is a serious oversight. - I assume that this will be a single instance of the software serving all three state college campuses. I also assume that a single instance is more cost-effective than three decentralized placements. The proposal did not speak to this approach. Will cost avoidance be realized as the three campuses retire their legacy systems? Also, will the new statewide network be a factor in enabling faster data flow between NSCS and the three campuses that did not exist before?
5: Technical Impact	- Clear indication that the existing system will be replaced with a modern Web-based system based on a three-tier architecture. - The web interface is not only critical for maintenance of data but delivery of information to today's students and faculty. - The proposal touched on each of the technical impact items.	- Very little specific information related to hardware or software to be implemented. For example, the author mentions large storage devices and storage consolidation but provides no specifics information. Will SAN technology be embraced? How will data be backed up and archived? The description was very general to the point of being vague. - The proposal did not describe the future server environment. Will this be an externally hosted application or will it be served and hosted within Nebraska? If servers are state-side, does NSCS have a secure server environment that provides for 24/7 mission critical support? Have these

Section	Strengths	Weaknesses
		ongoing costs been included in the $605,000?
6: Preliminary Plan for Implementation	- Solid breakdown of existing staff and relationships to the work of the project. - All of the bases have been covered and reflect the real task of converting from an old system to a new one. The vendor's estimate of implementation is perhaps more aggressive than what the reality will be. I would suggest additional staffing budget during the deployment to prevent burnout of end users and IT support. - The project proposal gave intermediate task detail for the Decision, Design, Development, and Deployment Phases.	- Only scant descriptions of project rollout strategy and training plans. For example, changing the core architecture will require very different skills from the technical staff. Such skill acquisition may not be possible within the scope of the project based on timelines. The description is much more a framework than a plan. - Perhaps more consideration to additional staffing. Running systems in parallel, training, testing, and go live require many extra hours of effort from key personnel. (I noticed this was addressed in the next section but will leave my comments for emphasis!) - On Question 9, please describe the stakeholder acceptance. Are the three campuses welcoming this enterprise system with "open arms" or "guardedness"? On Question 10, where is the timeline for the associated deliverables? Although the three vendors' timelines differed with "22 to 26 months" duration, it would have been helpful to provide an approximate duration for each of the Decision, Design, Development and Deployment phases.
7: Risk Assessment	- Strong indication of the relationship of training to project success. - Perhaps the best section of the project proposal. The risks are many but clearly anticipated and mitigated by a good plan. I would add regarding the "change agent" section that many institutional policies and administrative guidelines will be evaluated because the new technology and software may provide better tools for dealing with day to day tasks which may have been developed because of the limitations of the existing system. - Project management is key to keeping the project on time and at or under budget. "The colleges will work with either a vendor provided or third party implementation partner…" Do the three prospective vendors all supply this service and is it automatically included in the $8.9 million one-time and $605,000 or will it be an additional expense?	- There is an emphasis on the vendor responsibility for data migration and application customization. These are the areas of greatest concern for users of the existing system and the reviewer expected to see greater local ownership of the process. - Project management is key to keeping the project on time and at or under budget. "The colleges will work with either a vendor provided or third party implementation partner…" Do the three prospective vendors all supply this service and is it automatically included in the $8.9 million one-time and $605,000 or will it be an additional expense?
8: Financial Analysis and Budget	- Staff costs are clearly indicated. - Much better than the previous effort. The amounts seem to be reasonable. - Ongoing support budget detail and estimates very reasonable for a project of this size.	- It is very difficult to provide a response to the budget when the vendor has not been selected, no hardware is specified and there is no indication of whether the project will be negotiated as fixed price or time and materials. - An itemized list would have been nice but this is pre-RFP. Based on the budget amounts provided there is realism to the numbers based on my experience with a similar project at our college. - Capital outlay of $8.9 million still needing additional detail. ("Supporting hardware detail has been requested from vendors and will be available to the review panel when received.") An itemized list of hardware and software is needed. I would be happy to revisit this section and score, once vendor details have been transmitted.

Staff Note: The NSCS submitted a proposal for this project as part of the FY2007-2009 Biennial Budget process. Below are links to the project review documents from last year for this project:

2006 Project Proposal Form - http://nitc.ne.gov/nitc/documents/fy2007-09/ppf/50-01.pdf

Summary Sheet with Reviewer Scores and Comments - http://nitc.ne.gov/nitc/documents/fy2007-09/ss/50-01_s.pdf

TECHNICAL PANEL COMMENTS

Technical Panel Checklist	Yes	No	UNK	Technical Panel Comment
1. The project is technically feasible.				
2. The proposed technology is appropriate for the project.				
3. The technical elements can be accomplished within the proposed timeframe and budget.				

EDUCATION COUNCIL COMMENTS

- The Education Council recommends the project be designated as a Tier 1 Priority (mission critical for the agency) because of discontinuation of support of the existing student information system.
- The Education Council adds the following remarks:
    - o To commend the State College System staff on their efforts to operate as an integrated system of three colleges.
    - o To the extent possible, both the State College System and the University of Nebraska must synchronize their RFP processes and co-evaluate vendors.
    - o To require an analysis of cost-savings and an analysis of 'effect on students' for two pathways:
        - Centralization and cooperative hosting of Projects 50-01 and 51-01
        - Adoption of a single vendor for Projects 50-01 and 51-01
    - o To require a unified look at adopting the same vendor by both the State College System and the University of Nebraska; and if not the same result, to provide a justification for divergence.

NITC COMMENTS

APPENDIX

AGENCY RESPONSE TO REVIEWER COMMENTS

Section 3 – Identified Weaknesses

While the migration of data and services provide key indicators of progress no specific milestones were provided belying the complexity of the undertaking.

Response – The NSCS does not underestimate the "complexity of the undertaking" and has the benefit of having key personnel at each of the three colleges that were involved in the SIS Plus installation. The entire process will benefit tremendously because of that existing knowledge base.

I would also point out that section 10 provided a process outline with four project phases and significant activities within each phase. I have copied that outline for your consideration:

Decision Phase
- Installation of software
- Fit/Gap analysis
- Create project plan
    Document objective for project
    Define core resources needed
    Develop training plan
    Finalize initial project plan
  Design Phase
- Logical Design
    ID data integrity issues
    Create functional requirements for any mods, workflow, reports, & interfaces
    ID data validation criteria
- Physical Design
    Create technical requirements for modification and reports
- Finalize test strategy, go-live schedule
- Develop end user training plans

Development Phase
- Construction
    Configure and set up
    Build security hierarchy
    Unit testing
    Create a fully tested, production-ready system
- Confirm design and build
- Documentation and training
    Finalize end-user documentation & training plan
    Perform end-user training
    Finalize migration/installation documentation
    Finalize system architecture documentation
    Finalize user acceptance plans
   Finalize go-live cutover plans
   Complete validation process
- User acceptance testing
- Work with technical resource for test processes and peak processing
- Evaluate functionality and performance

Deployment Phase
- Go live
    - System wide deployment
- Final end user training
    - Transition support from project team to trained production team
- Post implementation support
    - Trouble shoot as necessary
    - Review production support
    - Consider additional training

Measurements of acquisition are addressed but perhaps more should be addressed regarding implementation outcomes.

Implementation outcomes will be far reaching, involving each functional element of individual colleges. Each college will be able to provide business operation functions with a comprehensive, fully integrated enterprise wide solution offering communication and workflow coordination for recruitment, student services, enrollment, financial aid, human resources, accounting and alumni development. The completed implementation will provide the colleges with a Web-based enterprise platform.

Additional outcomes to be realized include:
- Self service functionality for students to enhance enrollment
- Retention rate improvements by creating auto interaction with students that are unattended
- Automated recruiting processes for higher success rate and an expanded ability to reach out beyond current recruiting capacity
- Controlled expenses/spending
- Manage expenses control spending
- Directed procurement
- Adoption of best business practices
- Improved personnel recruiting
- Enhanced reporting capabilities resulting in data driven decision making

Technology improvements since 1987…

The existing SIS Plus software has historically provided support to the colleges in the areas including student information, financial records, alumni development, and reporting. Not all functions are currently being utilized at all colleges. A replacement product will provide the colleges with the opportunity to integrate function for student, financial aid, business, human resources, advancement, and reporting in a manner never before realized by the colleges. The system will provide the capability to merge information, workflow development, best business practices, and processing rules while improving data entry requirements (single rather than multiple entries), automating regulatory update, providing employee management tools, and analytic reporting. The enterprise solution will also provide students, faculty, and students with the ability to manage daily activities through a variety of self service functions, dynamic calendaring for academics, enrollment planning, advanced security options, identity management, and data mining.

Section 4 – Identified Weaknesses

Tangible benefits to end users…

End users should expect to realize:
- a reduced data entry load because of the centralization of data elements
- improved change and enhancement capabilities
- improved institutional decision making

- improved data analysis and reporting
- improved campus–wide progress toward shared goals
- enhanced services and support
- improved efficiency because users will be able to operate from a single system rather than involving multiple products and data bases
- greater potential to implement best business practices

I assume that this will be a single instance of the software serving all three state college campuses.

The NSCS is currently considering proposals for both central and decentralized data base systems. It is expected that regardless of the central vs. decentralized decision applications for each of the colleges will be discrete.

Will cost avoidance be realized as the three campuses retire their legacy systems?

Existing maintenance costs will be avoided once the legacy system is retired. Those costs have been considered and are being applied to offset (reduce) costs in the on-going funding request.

Will the new statewide network be a factor in enabling faster data flow?

We know the answer is yes for the Wayne campus. We assume the answer will be yes for the Chadron campus after bids are opened for NET 2, and we hope similar services will be available for the Peru campus in the near future.

Section 5 – Identified Weaknesses

Server environment -

Servers at each institution are currently in secure, environmentally controlled environment, but are not supported 24/7 by staff. Server requirements vary dramatically among vendors. At least one vendor will likely require support beyond the currently anticipated operating costs.