



**Supplemental Project Reviews
2015-2017 Biennium**

December 22, 2014

**NEBRASKA INFORMATION
TECHNOLOGY COMMISSION**

SUPPLEMENTAL PROJECT REVIEWS

Project #	Agency	Project Title
13-01	DEPT OF EDUCATION	Nebraska eLearning Project
13-02	DEPT OF EDUCATION	Education Data Systems Capacity Building
13-03	DEPT OF EDUCATION	Instructional Improvement Systems
27-01	DEPT OF ROADS	Mainframe Migration
27-02	DEPT OF ROADS	Stock Supply System
27-03	DEPT OF ROADS	ARMS Enhancements

NOTE: The projects reviewed in this report were received by the Nebraska Information Technology Commission (NITC) after the ordinary biennial budget review process had been completed. Consistent with the normal review process, these projects were scored and commented on by three reviewers; the submitting agencies were then given an opportunity to respond to the reviewer comments; all projects were then reviewed by the Technical Panel; and finally, the projects were reviewed by either the State Government Council (Department of Roads projects) or the Education Council (Department of Education projects). However, unlike the ordinary review process, the NITC did not review or comment on these projects.

PROJECT SUMMARY SHEETS

Each summary sheet contains the following information:

- Summary of the Request
- Funding Summary
- Project Score
- Reviewer Comments
- Technical Panel Comments
- Advisory Council Comments (if any)
- Appendix: Agency Response to Reviewer Comments (if any)

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #13-01
Page 1 of 5

Project #	Agency	Project Title
13-01	Department of Education	Nebraska eLearning Project

SUMMARY OF REQUEST (Executive Summary from the Proposal)

[Full text of all proposals are posted at: http://nitc.nebraska.gov/commission/project_proposals/2015-2017.html]

The Nebraska eLearning Project would center on the creation and procurement of high quality electronic learning objects for distribution to PreK-12 public schools at no cost to schools, in support of the statewide BlendEd Initiative, the NITC committee's digital education goals and as an enhancement to the Data Dashboard currently being developed by NDE, while providing an in-depth, hands-on professional development process for Nebraska teachers, pre-service teachers and content specific undergraduate students.

FUNDING SUMMARY

	Estimated Prior Expended	Request for FY2016 (Year 1)	Request for FY2017 (Year 2)	Request for FY2018 (Year 3)	Request for FY2019 (Year 4)	Future	Total
1. Personnel Costs		\$ 88,000.00	\$ 90,000.00	\$ 92,000.00	\$ 94,000.00		\$ 364,000.00
2. Contractual Services							
2.1 Design							\$ -
2.2 Programming							\$ -
2.3 Project Management							\$ -
2.4 Other							\$ -
3. Supplies and Materials							\$ -
4. Telecommunications							\$ -
5. Training							\$ -
6. Travel							\$ -
7. Other Operating Costs		\$ 2,500,000.00	\$ 2,500,000.00	\$ 2,500,000.00	\$ 2,500,000.00		\$ 10,000,000.00
8. Capital Expenditures							
8.1 Hardware							\$ -
8.2 Software							\$ -
8.3 Network							\$ -
8.4 Other							\$ -
TOTAL COSTS	\$ -	\$ 2,588,000.00	\$ 2,590,000.00	\$ 2,592,000.00	\$ 2,594,000.00	\$ -	\$ 10,364,000.00
General Funds		\$ 2,607,000.00	\$ 2,607,000.00	\$ 2,607,000.00	\$ 2,607,000.00		\$ 10,428,000.00
Cash Funds							\$ -
Federal Funds							\$ -
Revolving Funds							\$ -
Other Funds							\$ -
TOTAL FUNDS	\$ -	\$ 2,607,000.00	\$ 2,607,000.00	\$ 2,607,000.00	\$ 2,607,000.00	\$ -	\$ 10,428,000.00

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
Goals, Objectives, and Projected Outcomes	9	12	7	9	15
Project Justification / Business Case	15	17	18	17	25
Technical Impact	5	14	2	7	20
Preliminary Plan for Implementation	5	7	6	6	10
Risk Assessment	5	7	6	6	10
Financial Analysis and Budget	10	14	13	12	20
TOTAL				57	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
Goals, Objectives, and Projected Outcomes	<ul style="list-style-type: none"> - The project overview provides some specific and, ultimately, measurable goals in the form of project deliverables. The project outcomes are desirable within the larger context of what is needed to assist K12 schools moving forward with a digital conversion. - Vision: State-wide LOR System with Open Content with content that supports NE Ed needs. - Goals are laudable, but I question the need for 	<ul style="list-style-type: none"> - The evaluation plan is sketchy beyond the specific deliverables and some mention of working with Brightbytes. Goals, partners and measures of success are loosely correlated without necessary specifics to tie them together. - Cost Savings not specified. Can IRR/ROI be determined? - Metrics are provided, but vague. What does successful mean? Better metrics might be LOR

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Section	Strengths	Weaknesses
	<p>yet another LOR just to have one special for Nebraska. Many LORs are already started, could we not work with someone who has begun this work already?</p>	<p>has X number of learning objects available for faculty use in year 1, Y number in year 2, etc.</p>
<p>Project Justification / Business Case</p>	<ul style="list-style-type: none"> - Components of the project are consistent with desired outcomes and stated project goals. Components of the project do provide an indication of the process for development, implementation/adoption, and technical integration. - Content creation teams config for K-6 projects and Fellowship program - Adoption of OER, training for faculty in OER acquisition and development and contributing back to the OER community is a wonderful set of goals. 	<ul style="list-style-type: none"> - The specifics associated with each component do not provide insight into the scalability, feasibility or sustainability of the project. There are clearly tangible benefits, however, there is much less clarity as to whether those benefits can be achieved. - Plan is lacking sufficient detail. Administrative and LOR system support? Size and configuration of physical space.. multi-media production and editing resources (equipment and support) for content teams? Development of Fellows? Consider a competitive pool for advanced content creation to address K7-12 needs. - No evidence was provided that existing LOR efforts in other states (or for that matter, in higher ed) could be partnered with to facilitate a broader content pool and lower cost. Why must we build our own?
<p>Technical Impact</p>	<ul style="list-style-type: none"> - High quality digital learning content that is highly accessible, standardized and packaged in a modular format conducive to inclusion and presentation via learning management platforms is desirable. - Vision of centralized LOR. 	<ul style="list-style-type: none"> - Beyond mention of the support for a number of current projects, the balance of this section was cast in the context of cost savings/cost avoidance. The assertion that a LOR with high quality content will reduce the need for districts to purchase student devices is utterly groundless and nearly senseless. It will, in all likelihood, have just the opposite effect. As a device becomes a necessary condition for the delivery of instructional content the assertion that a device is to digital content what a backpack is to books, demonstrates reckless disregard for the technical realities of delivering digital content to 100s of thousands of learners across the state. - BYOD has its own set of challenges and cost implications that need to be addressed. Age and quality of devices and components. Technical support (operating systems, drivers, software versions...) compliance, security implications. Is the infrastructure ready for additional devices? Content standards and tools should be included to ensure a uniform experience for users. - No technical implementation details were provided. While claims are made that this will reduce costs, no data is provided to indicate what current costs are.
<p>Preliminary Plan for Implementation</p>	<ul style="list-style-type: none"> - A timeline is provided with some indication of scope and sequence. - While the details of the implementation plan are weak, the overall timeline appears to be reasonable. 	<ul style="list-style-type: none"> - There is very little in the way of specific outcomes and the impact they might have on student achievement and teacher effectiveness. - There is a ton of work being done in this area already nationally, but little evidence in implementation of a market survey or other means of determining best practice/potential partnerships, other than a tacit mention of "establishing needed partnerships". Demarcation of roles is not clearly spelled out.
<p>Risk Assessment</p>	<ul style="list-style-type: none"> - The author outlines the foreseeable risks including solution fragmentation resulting from an inability to achieve stakeholder consensus, and the potential of budget overrun based on improperly scoping the project or having to over promise in an attempt to achieve sufficient adoption velocity to keep the project moving forward. 	<ul style="list-style-type: none"> - No specific mitigation strategy beyond the hope that a dedicated eLearning Project director can sprinkle sufficient magic dust to build and maintain a partnership coalition. - What happens to project funding if State-wide LOR cannot be agreed upon? Can LOR selection and agreement be contingent upon and completed prior to project start? What is the risk

Section	Strengths	Weaknesses
		for low quantity, low quality or relevant content? How will this be mitigated? - One significant risk not identified is reluctance of faculty to move to OER from commercial sources.
Financial Analysis and Budget	- Project proposal, in total, does provide a breakdown of anticipated costs.	- The costs, as indicated in the attached summary document, show that less than 7% will be spent on content, whereas, nearly 20% will be spent on creation/curation. Moreover, the single largest expenditure constituting nearly 35% of the total is for data dashboard integration leading the reviewer to conclude this is miscast as a content/LOR project when, in actuality, it is much more about the data dashboard. - Can cost savings projections for state-wide LOR be provided? Can an IRR/ROI be established for the project?

TECHNICAL PANEL COMMENTS

Technical Panel Checklist				Comments
	Yes	No	Unknown	
1. Is the project technically feasible?	✓			
2. Is the proposed technology appropriate for the project?			✓	- The specific, agreed upon, technology to be utilized for this project is unknown at this time.
3. Can the technical elements be accomplished within the proposed timeframe and budget?			✓	

EDUCATION COUNCIL COMMENTS

1. The Council recognizes that a significant amount of work has been done by ESUs (e.g. Safari Montage), NET (e.g. PBS Learning Object Repository), and other Open Education Resources (e.g. NROC-National Repository of Online Courses), inside and outside the state to develop readily accessible digital content. The Council feels that full stakeholder engagement will be essential for a successful, efficient and effective implementation of a state-wide e-learning initiative for k-12. As such, this project must involve all stakeholders in the strategic development of the effort to capitalize on the opportunity for shared resources and prevent the chance of duplicate efforts.
 - a. Project 13-01 is very ambitious and may be under-resourced in a couple areas, in particular teacher development, instructional support and content development.
 - b. The element that appears to be missing is a content portal that permits federated searching of existing content repositories that aligns with Nebraska State Standards.
 - c. The potential promise of replacing printed textbooks with digital content would permit cost avoidance and a continuously updated textual base to align and support Nebraska's academic standards.
 - d. The professional development and training of teachers to use the content portal and learn to upload teacher-produced and student-produced content will be a critical component and will dependent on leveraging school district and ESU partnerships.
 - e. The instructional support and real-time assistance for teachers to move their content to a digital format will also be a critical consideration.
 - f. Higher education needs to be engaged in the full spectrum of teacher training, from pre-service teachers to graduate credit and summer content development institutes for teachers, if this initiative is to be successful.

2. The Education Council recommends that these projects, if funded, be designated by the NITC as Enterprise Projects, with monthly project updates and continuous monitoring, at least initially.
3. The Education Council also would welcome quarterly updates of these projects before the Council.

APPENDIX: AGENCY RESPONSE TO REVIEWER COMMENTS

The following clarifications are being submitted in response to the comments generated during the NITC review process for the Nebraska eLearning project.

1. Project status: Based on several of the comments concerning budget provided and detail it is important to note that what was presented to the NITC committee is a concept with three clear project tiers or goals only at this point. The remaining details are simply the best guess of the departments, if this project were to be funded, the department would work very closely with partners from ESU's, K-12, Higher Ed and State Agencies to fully develop and implement that project. At that time clearer and more detailed budgets and risk assessments can be developed and provided to the NITC committee.

2. Learning Object Repository: For the success of this project NDE feels that it is imperative that Nebraska have a true state wide LOR instance which allows all students and staff to access the very same content. Currently the ESU's have worked diligently to implement a LOR system across the state but it is currently limited based on storage size, state level content would have to be approved by regional administrators which would not guarantee all students and staff access to all content. It is the goal of this project to provide funding for the expansion, or adoption of a single state LOR system that is supported by k-12, and ESU's. NDE feels that the decision for the correct LOR adoption is best left to a committee of stakeholders made up of K-12, ESU, NDE, and Higher Ed representatives. This may be an expansion of current LOR systems, an adoption of a National LOR system or a highbred of the two. NDE also feels that it is important that this money be used to help establish the LOR chosen by the committee as a service on Network Nebraska that can then become sustainable by participants fees versus continued state funding.

3. Content creation: It is the intention of this project that content would be created for all levels of education from prek to 20 representing all subject areas. The funding for the content creation or procurement would, as currently envisioned, increase as other project goals were successfully implemented.

4. Dashboard integration: This project is about a complete content system for schools from the creation of the content, the storage of the content and finally the access of the content. The dashboard component is an essential piece of the over all success of this project and for value to Nebraska schools. As currently envisioned this portion of the project will take substantial funding for the second, third and possibly fourth year, this money will help establish any support systems and programming required to connect the ed-fi based dashboard currently being developed for student achievement monitoring to the state LOR and school LMS. If developed correctly this would let teachers see where their students are struggling with learning based on Nebraska Standards and from the Dashboard they would find learning objects or content that addresses the students needs and assign the content to the student for relearning. While this is the over riding goal it will take a committee to clearly define the details and to clarify budget and timeline for the dashboard integration. Once this goal has been achieved the money would be reassigned for additional content creation or procurement. The dashboard would again be something we envision as possibly being a service of Network Nebraska.

Project #	Agency	Project Title
13-02	Department of Education	Education Data Systems Capacity Building

SUMMARY OF REQUEST (Executive Summary from the Proposal)

[Full text of all proposals are posted at: http://nitc.nebraska.gov/commission/project_proposals/2015-2017.html]

The recent Nebraska Education Data Systems study, in response to Legislative Resolution 264, found that Nebraska spends an estimated \$100 million annually for technology systems, software systems, and accountability data submissions by the public school districts and the Nebraska Department of Education (NDE). The systems and applications are largely focused on satisfying Federal and State accountability reporting requirements and do not directly contribute to supporting teaching and learning. The districts submit annual collections of data to support accountability to the state using a combination of automated and manual methods. An estimated 655,200 hours are spent by districts preparing the required collections for each year's accountability data submission.

Each district has selected its own set of administrative, teaching and learning, and back office applications and there is a large disparity in the number of applications available in small districts versus larger districts due to budget, staff, and capacity. Outside of Nebraska's largest districts, the digital tools are poorly integrated, there is little support for data-driven decision-making, and modern tools are not available to support instructional improvement necessary for the state's education initiatives of blended learning, teacher and principal evaluation, career readiness, and continuous school improvement.

Nebraska's network of Educational Service Units (ESUs), the ESU Coordinating Council (ESUCC), and Network Nebraska are all contributing to improving the capabilities and the efficiencies of the data systems for the districts. However, the coordination, support, and access for systems can be dramatically improved and serves as the basis for this multi-faceted approach to develop a statewide data system that builds long-term capacity, efficacy, and efficiency for the system of education. The study established 10 recommendations that included five work streams; leverage work conducted using the federal \$4.3 million SLDS grant scheduled to end June 2015.

The proposed implementation roadmap for the Nebraska Education Data System estimates a three-year investment of \$41,960,110, roughly evenly split across the three years. The rollout plan targets a phase in process over three years that could include 50 districts the first year, 150 the second year, and 245 during the third year resulting in cost savings and efficiencies that will also provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts. The projected cumulative net return for the investment over five years is \$44.8 million. However, the primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success.

FUNDING SUMMARY

[Next page]

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #13-02
Page 2 of 11

Nebraska Department of Education Infrastructure Activities						
	Year 0 FY 2015 SY 2014-2015 9 Districts	Biennium Budget Request	Year			
			Year 1 FY 2016 SY 2015-2016 50 Districts	Year 2 FY 2017 SY 2016-2017 150 Districts	Year 3 FY 2018 SY 2017-2018 245 Districts	
1 Nebraska Education Infrastructure		Activities and Objectives				
<i>NDC will leverage the Ed-Fi infrastructure to connect source systems and drive down costs.</i>	Pilot Initial SIS vendor Ed-Fi interfaces	Identify and collectively procure state-sponsored SIS(s)				
	Pilot assessment vendor interfaces	Support SIS Vendor Ed-Fi interfaces	\$ 166,667	\$ 166,667	\$ 166,667	
		Support assessment vendor Ed-Fi interfaces	166,667	166,667	166,667	
		Other source system interfaces to Ed-Fi (i.e. SSS, applications)	250,000	250,000	250,000	
		Support transfer to state supported systems in years 2 and 3	166,667	166,667	166,667	
		Develop identity management solution for statewide single sign-on	100,000	100,000	100,000	
		ESUCC Infrastructure	500,000	500,000	500,000	
		Infrastructure scaling and security audit activities	250,000	250,000	250,000	
		Total Contractual Expenditures	1,600,000	1,600,000	1,600,000	
		New Positions				
		Chief of Staff	60,523	60,523	60,523	
		Chief Technology Officer	60,523	60,523	60,523	
		Lead	60,523	60,523	60,523	
		Senior	55,047	55,047	55,047	
		Analyst	50,099	50,099	50,099	
	Analyst	50,099	50,099	50,099		
	Total Salary Expenditures	364,793	364,793	364,793		
	Benefits Expenditures	165,254	165,254	165,254		
	Operating Expenditures	23,805	23,805	23,805		
	Travel Expenditures	10,395	10,395	10,395		
	Equipment Expenditures	60,360	-	-		
	Nebraska Education Infrastructure Total	\$ 2,204,617	\$ 2,244,287	\$ 2,244,287		
2 NDE Data Collection System		Objectives				
<i>NDC will reduce the burden of accountability data submissions on districts through automated process leveraging the Ed-Fi infrastructure.</i>	Accountability Pilot - Integrate CDC, Staff, NSSRS	Statewide rollout with dual submissions (rollout plan based on SIS vendor)	\$ 500,000	\$ 500,000	\$ 500,000	
		Develop and validate state accountability reports	500,000	500,000	500,000	
		Develop business rules and validation for automatic accountability submissions	250,000	250,000	250,000	
		Develop and validate federal accountability report submissions	500,000	500,000	500,000	
		Develop district review and approval infrastructure	250,000	250,000	250,000	
		Total Contractual Expenditures	2,000,000	2,000,000	2,000,000	
		New Positions				
		Director, Accountability Data Systems	68,502	68,502	68,502	
		Program Specialist III	55,047	55,047	55,047	
		Database Analyst Lead	60,523	60,523	60,523	
		Database Analyst Senior	55,047	55,047	55,047	
		Database Analyst	50,099	50,099	50,099	
		Database Analyst	50,099	50,099	50,099	
		Total Salary Expenditures	339,217	339,217	339,217	
		Benefits Expenditures	164,380	164,380	164,380	
	Operating Expenditures	23,805	23,805	23,805		
	Travel Expenditures	14,070	14,070	14,070		
	Equipment Expenditures	37,680	-	-		
	NDE Accountability Data System Total	\$ 2,578,252	\$ 2,541,572	\$ 2,541,572		
3 NDE Education Intelligence System		Objectives				
<i>NDC will create education intelligence access to actionable insight through a warehouse, business intelligence tools, and increased internal capacity.</i>	Pilot SLDIS Student-Level Dashboard	Dashboard statewide rollout	\$ 200,000	\$ 200,000	\$ 200,000	
		Dashboard updates and extensions	500,000	500,000	500,000	
		District data warehouse and reporting layer	333,333	333,333	333,333	
		District data warehouse security layer (with and without de-identification)	250,000	250,000	250,000	
		NDE data warehouse cubes and BI layer	166,667	166,667	166,667	
		Total Contractual Expenditures	1,450,000	1,450,000	1,450,000	
		New Positions				
		Chief Privacy Officer	79,873	79,873	79,873	
		Director, Data Research and Evaluation	68,502	68,502	68,502	
		Database Analyst Lead	60,523	60,523	60,523	
		Database Analyst Senior	55,047	55,047	55,047	
		Database Analyst	50,099	50,099	50,099	
		Database Analyst	50,099	50,099	50,099	
		Total Salary Expenditures	364,143	364,143	364,143	
		Benefits Expenditures	168,387	168,387	168,387	
	Operating Expenditures	24,510	24,510	24,510		
	Travel Expenditures	17,680	17,680	17,680		
	Equipment Expenditures	60,360	-	-		
	NDE Education Intelligence System Total	\$ 2,065,080	\$ 2,015,720	\$ 2,015,720		
4 Help Desk & Support		Objectives				
<i>NDC, along with the ESUCC and ESU/1, will provide technical support for Nebraska education data systems through a virtual help desk and coordinated knowledge transfer.</i>	Virtual Help Desk Pilot - Dashboards PD Curriculum	Expand help-desk support to include Year 1, 2 & 3 systems	\$ 50,000	\$ 50,000	\$ 50,000	
		Develop professional development curriculum on Year 1, 2 & 3 systems	50,000	50,000	50,000	
		Integrate statewide ticketing system for "virtual help desk"	166,667	166,667	166,667	
		Level 4 Support and Contracts	500,000	500,000	500,000	
		Total Contractual Expenditures	766,667	766,667	766,667	
		New Positions				
		Director, Project Management Office	68,502	68,502	68,502	
		IT Help Desk Specialist Senior	50,099	50,099	50,099	
		IT Help Desk Specialist	41,706	41,706	41,706	
		IT Help Desk Specialist	41,706	41,706	41,706	
		Project Manager	50,099	50,099	50,099	
		Project Manager	50,099	50,099	50,099	
		Total Salary Expenditures	302,211	302,211	302,211	
		Benefits Expenditures	158,393	158,393	158,393	
		Operating Expenditures	23,805	26,555	26,555	
	Travel Expenditures	10,395	10,396	10,397		
	Equipment Expenditures	43,350	-	-		
	Help Desk & Support Total	\$ 1,304,821	\$ 1,284,223	\$ 1,284,223		
	Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,985,772	\$ 7,985,774		
115 NE Instructional Improvement System		Objectives				
<i>NDC will build the capacity of Nebraska educators to continuously improve the quality of instruction for students through integrated, efficient systems. This will serve as an application store.</i>	Identify key systems:	Identify and collectively procure state-sponsored systems				
	- learning management	Support vendors in integrating with SSO and state data systems	\$ 166,667	\$ 166,667	\$ 166,667	
	- blended learning	Provide PD for districts	83,333	83,333	83,333	
	- teacher/principal evaluation	System licenses paid by state	5,000,000	5,000,000	5,000,000	
	- school climate	App Store				
	- career readiness	Survey Resources and Tools				
		Total Contractual Expenditures	5,250,000	5,250,000	5,250,000	
		New Positions				
		Director, Instructional Improvement System	68,502	68,502	68,502	
		Education Specialist IV	68,502	68,502	68,502	
		Program Specialist III	60,523	60,523	60,523	
		Applications Developer Lead	60,523	60,523	60,523	
		Applications Developer Senior	55,047	55,047	55,047	
		Applications Developer	50,099	50,099	50,099	
		Applications Developer	50,099	50,099	50,099	
	Total Salary Expenditures	413,295	413,295	413,295		
	Benefits Expenditures	194,538	194,538	194,538		
	Operating Expenditures	28,360	28,360	28,360		
	Travel Expenditures	22,475	22,475	22,475		
	Equipment Expenditures	66,640	-	-		
	NE Instructional Improvement System Total	\$ 5,975,358	\$ 5,919,718	\$ 5,919,718		
	Total NDE DRE Budget Issue Requests	\$ 14,149,128	\$ 13,905,490	\$ 13,905,492		

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
Goals, Objectives, and Projected Outcomes	15	12	11	13	15
Project Justification / Business Case	20	18	24	21	25
Technical Impact	18	15	18	17	20
Preliminary Plan for Implementation	8	7	6	7	10
Risk Assessment	8	6	6	7	10
Financial Analysis and Budget	18	14	15	16	20
TOTAL				80	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
Goals, Objectives, and Projected Outcomes	<ul style="list-style-type: none"> - Detailed plan that accounts for systemic change by increasing human, technical and fiscal resources. The proposal has clear goals, technically feasible deliverables and a rich set of milestones to gauge project progress. - Vision: State-wide access to timely, consistent and actionable business intelligence. Improved economies of scale by centralizing resources and standardizing systems and processes. - Goals are well defined 	<ul style="list-style-type: none"> - The scope of the project is considerable requiring a great deal of communication and stakeholder involvement. - Did we consider vendor SAAS particularly as it relates to state sponsored SIS? Did we consider outsourcing Helpdesk Services to take advantage of the economies of scale? - Metrics for several of the goals (cost savings for example) are missing or poorly defined.
Project Justification / Business Case	<ul style="list-style-type: none"> - The proposal delineates three credible benefits including reduced accountability costs through standardization of data exchange, reduced technology costs through an enterprise approach to data warehousing/business intelligence and improved decision support through the equitable provision of data analytics to all school districts. - A grand idea with good architectural decisions. Open data standards to allow multiple vendors to play in the space, giving flexibility for schools to select solutions based on software scope or value add. Using collaborative purchase power to drive down costs. 	<ul style="list-style-type: none"> - The project deliverables are highly dependent upon a level of data standardization never achieved across the 100s of K12 school districts in Nebraska. - It would be helpful to have more insight into how the investment return is calculated and where these funds are redirected too. If the resources remain in the districts working on other initiatives it should not be reported as a savings.
Technical Impact	<ul style="list-style-type: none"> - The proposal constitutes a systemic consideration of data gathering, warehousing, analysis and reporting. - Other states have implemented a similar model. - Strong use of open data standards and the resulting implementation flexibility are major strengths of this project. 	<ul style="list-style-type: none"> - The greatest concern of the reviewer is achieving the operational success necessary to a leverage the functional capacity. - Availability of experienced and quality staff to perform the key functions.
Preliminary Plan for Implementation	<ul style="list-style-type: none"> - The author provides a clear operational/functional roadmap while identifying key stakeholder partners. 	<ul style="list-style-type: none"> - The specific roles of stakeholder partners is vague and does not, in all cases, match their current capacities. - Recruiting, developing and retaining key talent at established salary levels. - There are a significant number of moving parts in this project and many of the critical milestones have external dependencies beyond the control of the project team. The project plan as proposed does make nominal attempts to plan around these risks, but the critical date issues could easily compound and place the project budget at significant risk by extending the implementation by a significant margin.
Risk Assessment	<ul style="list-style-type: none"> - Risks have been identified and key dependencies recognized. 	<ul style="list-style-type: none"> - Dependencies associated with the work of stakeholder agencies cannot be fully mitigated

Section	Strengths	Weaknesses
	- Risks are well identified.	within the context of the proposed project. This is less a failing of the proposed and more a recognition of the difficulties associated with interagency projects. - Hiring and Retaining Key talent. - The mitigation strategies for external risks (vendor responsiveness to implementation timelines) seem to be optimistic enough to put the project at significant risk.
Financial Analysis and Budget	- Costs and overall budget is clearly defined. - If all goes well, the budget seems very reasonable.	- Proposed salaries for key personnel look very low and will make attracting qualified applicants difficult. - Detailed Justification of Staffing levels and source for Compensation benchmarks. - If the project is significantly delayed by external risks, additional funding could be required to extend the project timeline.

TECHNICAL PANEL COMMENTS

Technical Panel Checklist				Comments
	Yes	No	Unknown	
1. Is the project technically feasible?	✓			
2. Is the proposed technology appropriate for the project?			✓	- The specific, agreed upon, technology to be utilized for this project is unknown at this time.
3. Can the technical elements be accomplished within the proposed timeframe and budget?			✓	

EDUCATION COUNCIL COMMENTS

Projects 13-02/13-03

1. The Education Council recognizes the value of Project 13-02 and 13-03 and encourages the appropriate funding to move these projects forward to improve the Nebraska educational system. Benefits include significant capacity building, a much better integration of data, and increased usability for teachers and administrators.
 - a. The Council feels that the projects may be under-resourced as proposed.
 - b. The Council has concerns that the resulting projects may not be inclusive of all public and nonpublic students.
 - c. Five years is incredibly ambitious to implement such a significant project(s)
 - i. Key failure points include dependencies on outside vendors to become EdFi and single sign on compliant.
2. The Education Council recommends that these projects, if funded, be designated by the NITC as Enterprise Projects, with monthly project updates and continuous monitoring.
3. The Education Council also would welcome quarterly updates of these projects before the Council.

APPENDIX: AGENCY RESPONSE TO REVIEWER COMMENTS

The following are responses provided by the Nebraska Department of Education to NITC Proposal 13-02.

The Nebraska Department of Education offers the following comments in response to NITC reviewer remarks for Proposal 13-02. As some of concerns raised by reviewers appear to be similar despite raised in different categories, we grouped those remarks in order to best respond in full. The thematically similar concerns we identified are:

- 1) NDE's ability to attract talent and build capacity for staff to meet project requirements
- 2) Need to clarify the return on investment calculation
- 3) NDE's and partners' ability to manage the project scope and deliverables

Where concerns appear to "stand-alone," we addressed them individually. It is our hope that the Agency response prepared here will unite the NITC reviewers in their assessment of the project as ambitious but appropriate. NDE is confident in its ability to execute on this plan through effective staff development and detailed project management. NDE will succeed and Nebraska students and education organizations will realize instructional, financial, and professional benefit.

Staffing/Personnel referenced in multiple sections**Weaknesses**

- Proposed salaries for key personnel look very low and will make attracting qualified applicants difficult.
- Detailed Justification of Staffing levels and source for Compensation benchmarks.
- Availability of experienced and quality staff to perform the key functions.
- The greatest concern of the reviewer is achieving the operational success necessary to a leverage the functional capacity.
- Hiring and Retaining Key talent.
- Recruiting, developing and retaining key talent at established salary levels.

Agency Response:

The budgeting requirements establish the use of 33.3% of the pay grade range and reflect the current negotiated salaries for these positions. While it is true the competitive nature of the salaries is low, they are reality for state government at this time. There are still highly skilled staff available to fill the positions that are interested in supporting Nebraska Education in ways that systemically can make a difference.

The proposed implementation plan balances contractor time with NDE staff. To achieve the highest level of sustainability, contractors are fully engaged in building the initial infrastructure and on-going knowledge transfer with existing NDE staff. These staff have the benefit of institutional knowledge of the department and Nebraska education context, and are rapidly developing the skills needed to sustain a system of this scale.

Preliminary Plan for Implementation/ Risk Assessment**Weakness:**

- There are a significant number of moving parts in this project and many of the critical milestones have external dependencies beyond the control of the project team. The project plan as proposed does make nominal attempts to plan around these risks, but the critical date issues could easily compound and place the project budget at significant risk by extending the implementation by a significant margin.
- Dependencies associated with the work of stakeholder agencies cannot be fully mitigated within the context of the proposed project. This is less a failing of the proposed and more a recognition of the difficulties associated with interagency projects.
- The mitigation strategies for external risks (vendor responsiveness to implementation timelines) seem to be optimistic enough to put the project at significant risk.
- If the project is significantly delayed by external risks, additional funding could be required to extend

Agency Response:

The nature of supporting a systemic change is unprecedented in Nebraska. The risks will naturally be present with a project that has a large scope. The project map and number of critical milestones are interdependent and identified in a manner that ensures coordinated teams approach the work streams with strategy and integrated well defined goals. The importance of a strong team, clear expectations and goals and building from the momentum of existing leverages projects through the use of federal resources all provide a unique opportunity to provide leadership for K12 education and the systems of support for the future. Data use and technology will not diminish in coming years and the time is right to a systemic and strategic approach moving forward.

The prototype of part of the system supporting through nine districts has been further catalyzed by another 37 districts interested in the Early Adopter Program (EAP). These districts will serve as partners in establishing the foundation, tools, resources, and experiences that will support the broader statewide rollout and implementation.

Finally, Nebraska is uniquely positioned to leverage the support and work of other states that have in place or are simultaneously leveraging development work together. The number of states involved in the Ed Fi Alliance has expanded to 24. This alliance of states working collaborative to share development strategies, code, and insights also is supported through a new Education CIO Network sponsored by the Council of Chief State Schools Officers. The Network was developed primarily because states are all facing similar issues with data standards, leveraging costs, reducing burdens on school districts, and ensuring privacy and security is addressed to the highest standards with student based data.

Goals, Objectives, and Projected Outcomes**Weakness:**

- The scope of the project is considerable requiring a great deal of communication and stakeholder involvement.

Agency Response:

As concerns about the scope of the project were addressed in the group above, the following discusses the Agency's confidence in the active engagement of many enthusiastic and capable stakeholders

Communication and collaboration with stakeholders are critical aspects of any systemic initiative. The need for critical communication among stakeholders was one of the core reasons the entire Education Data Systems study was a collaborative effort. The study engaged the membership of the Nebraska Council of School Administrators (NCSA), Nebraska State Education Association (NSEA), Educational Service Unit Coordinating Council (ESUCC), Educational Service Unit staff, engagement of the Nebraska Educational Technology Association members (NETA), the Nebraska School Boards Association, staff of University of Nebraska, insight from Network Nebraska, as well as the support of the State Board of Education.

Ongoing communication with stakeholders and future engagement of school districts continues as elements of the implementation of prototypes systems, piloting of concepts, and planning for scaling efforts continue as well. Currently nine districts are involved with prototyping elements of the process and 39 districts have signed up for consideration of an Early Adopter Program for Limited Production Releases of pieces of the system.

The Education Data Systems Legislative Study demonstrated that while ambitious, coordination of this type and caliber is possible. Functionally, response rates and participation in the study efforts were very high. Over 200 educators participated in the study through a survey of leaders' needs and preferences, focus groups, financial interviews, and direct outreach to teachers. Their input represents over 80% of the students in Nebraska.

The study also revealed overwhelming support for the vision offered by NDE: districts view data use as critical to upcoming initiatives in their districts. In addition to the enthusiasm for building local capacity for data-driven instruction and planning documented in the Legislative Study, see the table below for district superintendent responses to the question, "How important is data use for the following strategic initiatives in your district?":

How Important is Data Use for the Following Strategic Initiatives in Your District?					
Initiative	Not Important at All	Not Too Important	Somewhat Important	Very Important	Extremely Important
Measuring Success of Early Childhood Providers	2%	9%	27%	41%	22%
Implementing a Teacher Effectiveness Framework	1%	3%	16%	56%	24%
Measuring Student Perceptual Information	0%	3%	29%	50%	18%
Improving Special Education Services	0%	1%	20%	54%	25%
Offering Credential-based Career Education	0%	5%	37%	47%	11%

Measuring the college-going and college-success rates of district graduates	0%	4%	33%	47%	16%
---	----	----	-----	-----	-----

NDE believes that the demonstrated need for an improved system and a sense of efficacy in the process will drive stakeholders to participate. If stakeholders are as responsive to the implementation of a system as they were in the process that designed it (or perhaps, *because* they were active in designing it) then the project will succeed. This is a new and unique opportunity for the state of Nebraska.

Weakness:

- Did we consider vendor SAAS particularly as it relates to state sponsored SIS? Did we consider outsourcing Helpdesk Services to take advantage of the economies of scale?

Agency Response:

This comment is addressed in parts below:

Did we consider vendor SaaS as it relates to state-sponsored SIS?

Yes, Software as a Service (SaaS) offerings were considered as it relates to a state-sponsored Student Information System. However, vendor hosting of student data will come with additional selection criteria and scrutiny to ensure that security, privacy and state/district control of sensitive data is maintained. The coordination, creation, and leveraging of the SaaS options all provide an opportunity to support student privacy and security, ensure integration of services, and create a unique an opportunity to allow the market forces to provide value to school districts in Nebraska.

Did we consider outsourcing help desk?

Yes, however outsourced help desk comes with special issues relating to the privacy of student data. Many of the daily help desk questions are about the quality and accuracy of student data. Many of these questions must be answered with deep knowledge of Nebraska education practice and policies and clear understanding of the laws supporting privacy and security of student data. Many of these questions require access to student records and personally identifiable information (PII). For this reason, keeping the help desk function as part of the NDE-ESU collaborative is recommended.

Project Justification / Business Case

Weakness:

The project deliverables are highly dependent upon a level of data standardization never achieved across the 100s of K12 school districts in Nebraska.

Agency Response:

Absolutely correct, but rather than a weakness, this further echoes the K-12 school districts in Nebraska.

- "Please help us reduce the burden of reporting and provide tools to more effectively use the data."
- "Please provide leadership on all of these different systems,"

- “Please help us provide access to the tools and resources that are safe, secure, and aligned to the standards”
- “Please give us a choice and reduce the burdens of selecting tools, contracting, and then it not meeting the state needs”
- “We are in the education business, not in technology business, please help provide access and tools for us so we can make a difference with students.”
- “Can we get more timely assistance from the help desk?”

These represent just a few of the consensus comments from over 200 school district administrators, teachers and others that participated in the development of strategy and continue to be echoed by school personnel as communication and outreach efforts about the concept expand across the state of Nebraska.

In addition, as the reviewers pointed out the proposal delineates three credible benefits including reduced accountability costs through standardization of data exchange, reduced technology costs through an enterprise approach to data warehousing/business intelligence and improved decision support through the equitable provision of data analytics to all school districts.

Further, they identified this as a grand idea with good architectural decisions. Open data standards to allow multiple vendors to play in the space, giving flexibility for schools to select solutions based on software scope or value add. The districts can leverage collaborative purchasing power to drive down costs.

Technical Impact

Weakness:

The specific roles of stakeholder partners is vague and does not, in all cases, match their current capacities.

Agency Response:

The vagueness of the stakeholder can be cleared up by the following:

School District: Choose from a series of preapproved applications that are cheaper and more effectively integrated than anything they could do in isolation.

ESUCC: Continue to manifest the statutory responsibility of ensuring quality and efficient engagement of resources for the districts they serve. Provide leadership and implementation of the identity management solution through the single sign on initiative.

ESU: Collaborate and support a coordinated effort across the state to support districts and students realizing that all Nebraska students are our responsibility. Students move from district to district and providing quality experiences for requires a focus to coordinate and support all.

NDE: While historically focused on compliance the broader objective of the NDE is to ensure the support systems for all schools to succeed is job one.

Education Partners: Communicate efforts and progress around the well-defined goals, including the features, benefits, timing, and opportunities gained through the efforts.

The purpose of this proposal is to create capacity, coordinate the efforts, and provide effective coordinated professional development through the highly effective network of ESU staff developer and School district personnel.

Financial Analysis and Budget

Weakness:

- It would be helpful to have more insight into how the investment return is calculated and where these funds are redirected too. If the resources remain in the districts working on other initiatives it should not be reported as a savings.
- Metrics for several of the goals (cost savings for example) are missing or poorly defined.

Agency Response:

The proposed investment is intended to limit the funds and time districts spend on compliance-driven activities, and return those resources to districts. In the case of FTE time (655,200 hours per year, valued at \$25M/year), this time could be better spent in local research and evaluation, longitudinal analysis, school improvement planning, and innovating for better data-driven instruction.

In the case of data systems (\$246/student/year at \$75M), districts will leverage the Ed-Fi infrastructure for more favorable relationships with vendors, to spend less on administrative and back office systems, and to purchase data applications more relevant to Teaching and Learning.

Accountability costs will be reduced by unifying and moving accountability computations to state from a single fine-grained data collection. The estimated 455 FTEs are involved in the current data collection process at districts, representing an annual cost of \$22.75 million. NDE spends an additional \$2.5M per year on licensing, IT personnel and help desk supporting the accountability submissions.

The recommended NEDS, when fully implemented, can re-direct at an estimated 50% of the district FTE time related to accountability submissions to focus on other initiatives that impact can more directly improve student performance and success. This value is estimated at \$12.6 million annually once fully implemented.

It should be noted that the remaining 50% will be involved in a larger mission of improving data quality across the all types of data (not just accountability) that are more directly contributing to the mission of continuous education improvement.

Technology costs will be reduced for districts as a result of several factors, including:

- Reduced investment in data system costs by having a centralized capability that uses valuable
- Ed-Fi components obtained without license costs
- Negotiated statewide costs for licensing to allow pricing as with largest districts – “cooperative purchasing”
- Reduced integration costs because vendors are supporting native Ed-Fi interfaces to the statewide system
- Reduced number of different systems reduces integration and maintenance costs

- Increased stability of systems over time, reducing transition costs
- Reduced costs to increased competitiveness because of reduced vendor lock-in
- Reduced district costs maintaining their own data warehouse
- Savings on procurement costs
- Savings on contracting and legal fees

Based upon the district surveys, Nebraska districts spend roughly \$74.7 million per year on IT and systems.

The project, when fully implemented, will save an estimated 25% on the districts' systems cost a year or \$18.7 million. The 25% was determined as a factor based upon comparing license costs associated with different sized districts and anticipating a broader statewide leveraging of the purchasing options and market forces to reduce district costs.

If redirecting resources from administrative activities to activities more focused on teaching and learning cannot be categorized as "savings" then perhaps we should be using words such as "improving the efficiency and effectiveness of education system to achieve improved student success."

Project #	Agency	Project Title
13-03	Department of Education	Instructional Improvement Systems

SUMMARY OF REQUEST (Executive Summary from the Proposal)

[Full text of all proposals are posted at: http://nitc.nebraska.gov/commission/project_proposals/2015-2017.html]

The recent Nebraska Education Data Systems study, in response to Legislative Resolution 264, found that Nebraska spends an estimated \$100 million annually for technology systems, software systems, and accountability data submissions by the public school districts and the Nebraska Department of Education (NDE). The systems and applications are largely focused on satisfying Federal and State accountability reporting requirements and do not directly contribute to supporting teaching and learning. The districts submit annual collections of data to support accountability to the state using a combination of automated and manual methods. An estimated 655,200 hours are spent by districts preparing the required collections for each year's accountability data submission.

Each district has selected its own set of administrative, teaching and learning, and back office applications and there is a large disparity in the number of applications available in small districts versus larger districts due to budget, staff, and capacity. Outside of Nebraska's largest districts, the digital tools are poorly integrated, there is little support for data-driven decision-making, and modern tools are not available to support instructional improvement necessary for the state's education initiatives of blended learning, teacher and principal evaluation, career readiness, and continuous school improvement.

Nebraska's network of Educational Service Units (ESUs), the ESU Coordinating Council (ESUCC), and Network Nebraska are all contributing to improving the capabilities and the efficiencies of the data systems for the districts. However, the coordination, support, and access for systems can be dramatically improved and serves as the basis for this multi-faceted approach to develop a statewide data system that builds long-term capacity, efficacy, and efficiency for the system of education. The study established 10 recommendations that included five work streams; leverage work conducted using the federal \$4.3 million SLDS grant scheduled to end June 2015.

The proposed implementation roadmap for the Nebraska Education Data System estimates a three-year investment of \$41,960,110, roughly evenly split across the three years. The rollout plan targets a phase in process over three years that could include 50 districts the first year, 150 the second year, and 245 during the third year resulting in cost savings and efficiencies that will also provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts. The projected cumulative net return for the investment over five years is \$44.8 million. However, the primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success.

FUNDING SUMMARY

[Next page]

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #13-03
Page 2 of 11

		Biennium Budget Request				
		Year 0 FY 2015 SY 2014-2015 9 Districts	Year 1 FY 2016 SY 2015-2016 50 Districts	Year 2 FY 2017 SY 2016-2017 150 Districts	Year 3 FY 2018 SY 2017-2018 245 Districts	
1 Nebraska Education Infrastructure	<i>NDE will leverage the Ed-Fi infrastructure to connect source systems and drive down costs.</i>	Activities and Objectives				
		Pilot Initial SIS vendor Ed-Fi interfaces	Identify and collectively procure state-sponsored SIS(s)			
		Pilot assessment vendor interfaces	Support SIS Vendor Ed-Fi interfaces	\$ 166,667	\$ 166,667	\$ 166,667
			Support assessment vendor Ed-Fi interfaces	166,667	166,667	166,667
			Other source system interfaces to Ed-Fi (HR, SRS, applications)	250,000	250,000	250,000
			Support transfer to state supported systems in years 2 and 3	166,667	166,667	166,667
			Develop Identity management solution for statewide single sign-on	100,000	100,000	100,000
			ESUCC Infrastructure	500,000	500,000	500,000
			Infrastructure scaling and security audit activities	250,000	250,000	250,000
			Total Contractual Expenditures	1,600,000	1,600,000	1,600,000
			New Positions			
			Chief of Staff	60,523	60,523	60,523
			Chief Technology Officer	68,502	68,502	68,502
			Lead	60,523	60,523	60,523
			Senior	55,047	55,047	55,047
			Analyst	50,099	50,099	50,099
			Analyst	50,099	50,099	50,099
			Total Salary Expenditures	344,723	344,723	344,723
			Benefits Expenditures	165,264	165,264	165,264
			Operating Expenditures	23,805	23,805	23,805
			Travel Expenditures	10,395	10,395	10,395
	Equipment Expenditures	60,360	-	-		
	Nebraska Education Infrastructure Total	\$ 2,204,617	\$ 2,144,257	\$ 2,144,257		
2 NDE Data Collection System	<i>NDE will reduce the burden of accountability data submissions on districts through automated process leveraging the Ed-Fi infrastructure.</i>	Objectives				
		Accountability Pilot - Integrate CDC, Staff, NSRS	Statewide rollout with dual submissions (rollout plan based on SIS vendor)	\$ 500,000	\$ 500,000	\$ 500,000
			Develop and validate state accountability reports	500,000	500,000	500,000
			Develop business rules and validation for automatic accountability submissions	250,000	250,000	250,000
			Develop and validate federal accountability report submissions	500,000	500,000	500,000
			Develop district review and approval infrastructure	250,000	250,000	250,000
			Total Contractual Expenditures	2,000,000	2,000,000	2,000,000
			New Positions			
			Director, Accountability Data Systems	68,502	68,502	68,502
			Program Specialist II	55,047	55,047	55,047
			Database Analyst Lead	60,523	60,523	60,523
			Database Analyst Senior	55,047	55,047	55,047
			Database Analyst	50,099	50,099	50,099
			Database Analyst	50,099	50,099	50,099
			Total Salary Expenditures	339,317	339,317	339,317
			Benefits Expenditures	164,380	164,380	164,380
			Operating Expenditures	23,805	23,805	23,805
	Travel Expenditures	14,070	14,070	14,070		
	Equipment Expenditures	37,680	-	-		
	NDE Accountability Data System Total	\$ 2,579,252	\$ 2,541,572	\$ 2,541,572		
3 NDE Education Intelligence System	<i>NDE will create education intelligence - access to actionable insight - through a warehouse, business intelligence tools, and increased internal capacity.</i>	Objectives				
		Pilot SLDs Student-Level Dashboard	Dashboard statewide rollout	\$ 200,000	\$ 200,000	\$ 200,000
			Dashboard updates and extensions	500,000	500,000	500,000
			District data warehouses and reporting layer	333,333	333,333	333,333
			District data warehouse security layer (with and without de-identification)	250,000	250,000	250,000
			NDE data warehouse cubes and BI layer	166,667	166,667	166,667
			Total Contractual Expenditures	1,450,000	1,450,000	1,450,000
			New Positions			
			Chief Privacy Officer	79,873	79,873	79,873
			Director, Data Research and Evaluation	68,502	68,502	68,502
			Database Analyst Lead	60,523	60,523	60,523
			Database Analyst Senior	55,047	55,047	55,047
			Database Analyst	50,099	50,099	50,099
			Database Analyst	50,099	50,099	50,099
			Total Salary Expenditures	364,143	364,143	364,143
			Benefits Expenditures	168,387	168,387	168,387
			Operating Expenditures	24,510	24,510	24,510
	Travel Expenditures	17,680	17,680	17,680		
	Equipment Expenditures	60,360	-	-		
	NDE Education Intelligence System Total	\$ 2,085,080	\$ 2,095,720	\$ 2,095,720		
4 Help Desk & Support	<i>NDE, along with the ESUCC and ESU's, will provide technical support for Nebraska education data systems through a virtual help desk and coordinated knowledge transfer.</i>	Objectives				
		Virtual Help Desk Pilot - Dashboards	Expand help-desk support to include Year 1, 2 & 3 systems	\$ 50,000	\$ 50,000	\$ 50,000
		PD Curriculum	Develop professional development curriculum on Year 1, 2 & 3 systems	50,000	50,000	50,000
			Integrate statewide ticketing system for "virtual help desk"	166,667	166,667	166,667
			Level 4 Support and Contracts	500,000	500,000	500,000
			Total Contractual Expenditures	766,667	766,667	766,667
			New Positions			
			Director, Project Management Office	68,502	68,502	68,502
			IT Help Desk Specialist Senior	50,099	50,099	50,099
			IT Help Desk Specialist	41,706	41,706	41,706
			IT Help Desk Specialist	41,706	41,706	41,706
			Project Manager	50,099	50,099	50,099
			Project Manager	50,099	50,099	50,099
			Total Salary Expenditures	302,211	302,211	302,211
	Benefits Expenditures	151,393	151,394	151,395		
	Operating Expenditures	23,805	23,805	23,805		
	Travel Expenditures	10,395	10,395	10,395		
	Equipment Expenditures	43,350	-	-		
	Help Desk & Support Total	\$ 1,304,821	\$ 1,364,223	\$ 1,364,223		
	Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,985,772	\$ 7,985,774		
15 NE Instructional Improvement System	<i>NDE will build the capacity of Nebraska educators to continuously improve the quality of instruction for students through integrated, efficient systems. This will serve as an application store.</i>	Objectives				
		Identify key systems:	Identify and collectively procure state-sponsored systems			
		- learning management	Support vendors in integrating with SSO and state data system	\$ 166,667	\$ 166,667	\$ 166,667
		- blended learning	Provide PD for districts	83,333	83,333	83,333
		- teacher/principal evaluation	System licenses paid by state	5,000,000	5,000,000	5,000,000
		- school climate	App Store			
		- career readiness	Survey Resources and Tools			
			Total Contractual Expenditures	5,250,000	5,250,000	5,250,000
			New Positions			
			Director, Instructional Improvement System	68,502	68,502	68,502
			Education Specialist IV	68,502	68,502	68,502
			Program Specialist II	60,523	60,523	60,523
			Applications Developer Lead	60,523	60,523	60,523
			Applications Developer Senior	55,047	55,047	55,047
			Applications Developer	50,099	50,099	50,099
			Applications Developer	50,099	50,099	50,099
			Total Salary Expenditures	413,295	413,295	413,295
	Benefits Expenditures	194,588	194,588	194,588		
	Operating Expenditures	24,360	24,360	24,360		
	Travel Expenditures	22,475	22,475	22,475		
	Equipment Expenditures	66,640	-	-		
	NE Instructional Improvement System Total	\$ 5,975,358	\$ 5,919,718	\$ 5,919,718		
	Total NDE DRE Budget Issue Requests	\$ 14,149,128	\$ 13,905,490	\$ 13,905,492		

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
Goals, Objectives, and Projected Outcomes	15	7	11	11	15
Project Justification / Business Case	20	15	24	20	25
Technical Impact	18	10	18	15	20
Preliminary Plan for Implementation	8	6	6	7	10
Risk Assessment	8	6	6	7	10
Financial Analysis and Budget	18	0	15	11	20
TOTAL				70	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
Goals, Objectives, and Projected Outcomes	- Detailed plan that accounts for systemic change by increasing human, technical and fiscal resources. The proposal has clear goals, technically feasible deliverables and a rich set of milestones to gauge project progress.	- The scope of the project is considerable requiring a great deal of communication and stakeholder involvement that has not been historically in evidence. - Essentially a replica of Educational Capacity proposal
Project Justification / Business Case	- The proposal delineates three credible benefits including reduced accountability costs through standardization of data exchange, reduced technology costs through an enterprise approach to data warehousing/business intelligence and improved decision support through the equitable provision of data analytics to all school districts.	- The project deliverables are highly dependent upon a level of cooperation and agreement upon instructional methods not previously in evidence across the 100s of K12 school districts in Nebraska. - Same justification as Educational Capacity proposal
Technical Impact	- The proposal constitutes a systemic approach to engaging learners and instructors in a digital environment that honors teacher effectiveness as the key to gains in student achievement. The model calls for the foundation of guaranteed and viable curriculum supported by solid instructional design and evaluated through assessment for learning and of growth.	- The greatest concern of the reviewer is achieving the operational success necessary to a leverage the functional capacity. Moreover, this constitutes a fundamental shift in instructional delivery that represents 2nd order change for nearly all K12 teachers. It won't come easily, it won't come quickly, it won't come without leadership and it won't come without professional casualties. - Essentially a replica of Educational Capacity proposal
Preliminary Plan for Implementation	- The author provides a clear operational/functional roadmap while identifying key stakeholder partners.	- The specific roles of stakeholder partners is vague and does not, in all cases, match their current capacities. This is especially true in the area of professional development. - Essentially the same as Educational capacity proposal
Risk Assessment	- Risks have been identified and key dependencies recognized.	- Dependencies associated with the work of stakeholder agencies cannot be fully mitigated within the context of the proposed project. This is less a failing of the proposed and more a recognition of the difficulties associated with interagency projects - Essentially the same as Educational capacity proposal
Financial Analysis and Budget	- Costs and overall budget is clearly defined.	- Proposed salaries for key personnel look very low and will make attracting qualified applicants difficult. - Essentially the same as Educational capacity proposal

[Note: Reviewer 3 gave the same scores for both projects 13-02 and 13-03, with no comments on 13-03. The reviewer noted the similarities between the proposals and commented that they appear to be two facets of the same proposal.]

TECHNICAL PANEL COMMENTS

Technical Panel Checklist				Comments
	Yes	No	Unknown	
1. Is the project technically feasible?	✓			
2. Is the proposed technology appropriate for the project?			✓	- The specific, agreed upon, technology to be utilized for this project is unknown at this time.
3. Can the technical elements be accomplished within the proposed timeframe and budget?			✓	

EDUCATION COUNCIL COMMENTS

Projects 13-02/13-03

1. The Education Council recognizes the value of Project 13-02 and 13-03 and encourages the appropriate funding to move these projects forward to improve the Nebraska educational system. Benefits include significant capacity building, a much better integration of data, and increased usability for teachers and administrators.
 - a. The Council feels that the projects may be under-resourced as proposed.
 - b. The Council has concerns that the resulting projects may not be inclusive of all public and nonpublic students.
 - c. Five years is incredibly ambitious to implement such a significant project(s)
 - i. Key failure points include dependencies on outside vendors to become EdFi and single sign on compliant.
2. The Education Council recommends that these projects, if funded, be designated by the NITC as Enterprise Projects, with monthly project updates and continuous monitoring.
3. The Education Council also would welcome quarterly updates of these projects before the Council.

APPENDIX: AGENCY RESPONSE TO REVIEWER COMMENTS

NDE offers the following response to NITC reviewer comments regarding Project #13-03. One concern referenced in multiple sections – that this proposal contains redundancies with its companion proposal, 13-02, is addressed once at the beginning. NDE has a clear vision for the role of data and technology in helping to reach every student, every day. It is our belief that this Instructional Improvement System will return enormous benefit on the learning outcomes of Nebraska students.

Referenced in all Sections:**Weakness:**

- Essentially a replica of Educational Capacity proposal

Agency Response:

As described in the proposal the two projects (Educational Data Capacity and Instructional Improvement) are interlinked. These projects will naturally overlap because the plan for the agency is a cohesive. As indicated in the proposal, the inclusion of the Educational Data Capacity information in the proposal was primarily to ensure appropriate context that the Application Store and supporting systems approach were dependent upon the successful implementation of the infrastructure, supports, and integration work.

Providing two projects was initially recommended by budget officials to separate the pieces to assist with budget considerations and provide legislative options to consider.

Goals, Objectives, and Projected Outcomes**Weakness:**

- The scope of the project is considerable requiring a great deal of communication and stakeholder involvement that has not been historically in evidence.

Agency Response:

Communication and collaboration with stakeholders are critical aspects of any systemic initiative. The need for critical communication among stakeholders was one of the core reasons the entire Education Data Systems study was a collaborative effort. The study engaged the membership of the Nebraska Council of School Administrators (NCSA), Nebraska State Education Association (NSEA), Educational Service Unit Coordinating Council (ESUCC), Educational Service Unit staff, engagement of the Nebraska Educational Technology Association members (NETA), the Nebraska School Boards Association, staff of University of Nebraska, insight from Network Nebraska, as well as the support of the State Board of Education.

Ongoing communication with stakeholders and future engagement of school districts continues as elements of the implementation of prototypes systems, piloting of concepts, and planning for scaling efforts continue as well. Currently nine districts are involved with prototyping elements of the process and 39 districts have signed up for consideration of an Early Adopter Program for Limited Production Releases of pieces of the system.

The Legislative Study demonstrated that while ambitious, coordination of this type and caliber is possible. Functionally, response rates and participation in the study efforts were very high. Over 200 educators participated in the study through a survey of leaders' needs and preferences, focus groups, financial interviews, and direct outreach to teachers. Their input represents over 80% of the students in Nebraska.

NDE believes that the demonstrated need for an improved system and a sense of efficacy in the process will drive stakeholders to participate. If stakeholders are as responsive to the implementation of a system as they were in the process that designed it (or perhaps, *because* they were active in designing it) then the project will succeed. This is a new and unique opportunity for the state of Nebraska and requires leadership and vision to achieve.

Project Justification / Business Case

Weakness

- The project deliverables are highly dependent upon a level of cooperation and agreement upon instructional methods not previously in evidence across the 100s of K12 school districts in Nebraska.

Agency Response

The Legislative Study surfaced districts' need for cooperation and collaboration on instructional methods and operational standards. Over 200 school district administrators, teachers and others participated in the development of the strategy proposed. The comments below represent their consensus, and continue to be echoed school personnel as communication and outreach efforts about the concept expand across the state of Nebraska.

- "Please provide leadership on all of these different systems,"
- "Please help us provide access to the tools and resources that are safe, secure, and aligned to the standards"
- "Please help us reduce the burden of reporting and provide tools to more effectively use the data." "Please give us a choice and reduce the burdens of selecting tools, contracting, and then it not meeting the state needs"
- "We are in the education business, not in technology business, please help provide access and tools for us so we can make a difference."
- "Can we get more timely assistance from the help desk?"

In addition, precisely because of the point raised by the reviewer, study researchers used the survey to ask districts about their likelihood of participating in systems that would leverage cooperative agreements, purchasing, or negotiation. Their response was overwhelmingly in favor of collaboration, thoroughly debunking the historical perception that Nebraska districts did not want to cooperate. The table below shows district responses when asked how likely they would be to participate in a cooperative option for systems related to administrative, back office, or instructional purposes:

How Likely Are You to Participate in a (Cooperative Option) of the Following Systems?						
System	Extremely Unlikely	Very Unlikely	Somewh at Unlikely	Somewh at Likely	Very Likely	Extremely Likely
Assessment System	3%	3%	5%	24%	39%	26%
Learning Management System	3%	4%	9%	49%	47%	32%
Professional Development System	2%	4%	11%	40%	26%	17%
Content Management System	3%	5%	11%	36%	29%	15%
Progress Monitoring/RTI System	3%	3%	13%	30%	36%	16%
Credit Recovery System	3%	4%	14%	36%	29%	14%
Collaboration/Communication System	2%	5%	11%	40%	28%	14%
Career & Technical Education System	1%	3%	11%	34%	36%	15%
Nutrition & Food Mgmt. System	4%	3%	11%	35%	30%	17%
Transportation System	8%	12%	22%	24%	20%	14%
Guidance/Counseling System	2%	5%	14%	32%	32%	15%
IEP Management System	2%	2%	7%	24%	34%	30%
Library Management System	4%	9%	14%	31%	28%	14%
Student Information System	6%	5%	9%	16%	36%	29%
Test Analysis System	3%	2%	11%	21%	39%	23%
Finance System	5%	6%	17%	28%	24%	19%
Human Resource System	7%	13%	17%	30%	22%	12%
Procurement System	7%	14%	21%	31%	17%	10%

In focus groups, educators shared that a hesitation to participate was more related to a lack of need for the system entirely than a reluctance to cooperate. This data is also notable merely because of its existence. NDE will be able to use data to focus on strategic priorities, rather than assumption or historical perception.

Figure 12 in the Education Data Systems Legislative Study further elaborates on districts' priorities for the development of cooperative options for applications. This compares the presence of systems in districts to their perceived importance. The study revealed that Teaching and Learning systems are generally the most important and the least ubiquitous. It is precisely those systems dealing with instructional methods that districts need most.

Finally, a quote from a district leader during the Teaching and Learning Focus Group sums up a key driver to the project, they leader indicated, "I think school districts are excited about the prospect of working together to strengthen the stat40e as a whole."

Technical Impact

Weakness:

- The greatest concern of the reviewer is achieving the operational success necessary to leverage the functional capacity. Moreover, this constitutes a fundamental shift in instructional delivery that represents 2nd order change for nearly all K12 teachers. It won't come easily, it won't come quickly, it won't come without leadership and it won't come without professional casualties.

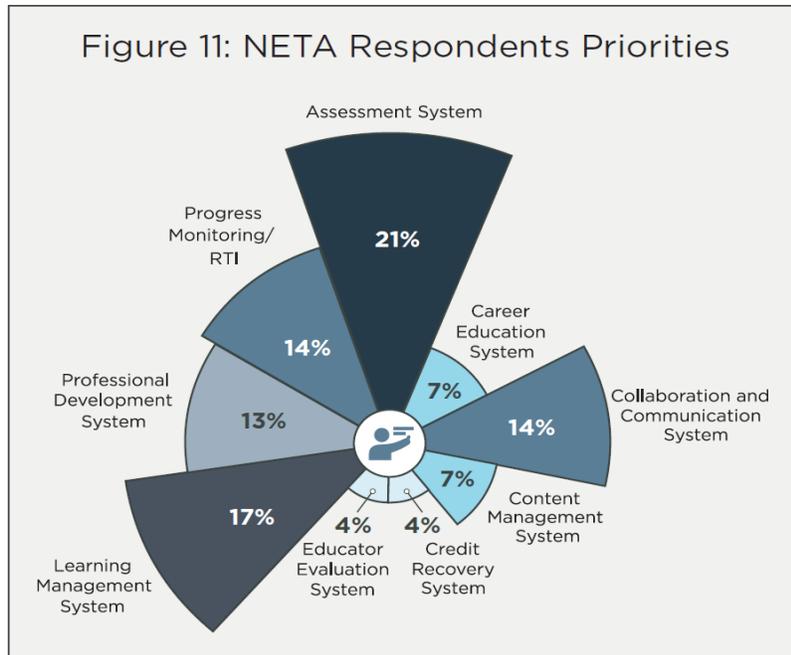
Agency Response:

While not completely clear about this concern, the focus of the application store is essentially to provide an opportunity to leverage the 300,000+ students, 245 school districts, and a set of education data standards for Nebraska to create services and vendor options for districts to choose. The model of *Network Nebraska* is an excellent example of districts working together to identify the lowest cost broadband service and the supporting the ongoing procurement, service, and support through fees. Essentially, the application store is intended to provide the same type of service and support for school districts. The ultimate goal is to reduce costs, ensure connectivity, and provide access to all districts the types of services they either are currently using or cannot access because of costs or capacity.

Figure 12 in the Nebraska Education Data Systems Study is also relevant to this comment. The graphic further elaborates on districts' priorities for the development of cooperative options for applications. Figure 12 compares the presence of systems in districts to their perceived importance, revealing that Teaching and Learning systems are generally the most important and the least ubiquitous. It is specifically those systems dealing with instructional methods that districts need most.

Figure 11 in the Education Data Systems Study also shows the priorities of 244 members of the Nebraska Education Technology Association. Members of that group, as instructors, are acutely aware of the demands of high-quality teaching and in focus groups expressed that high-quality systems would be extremely helpful.

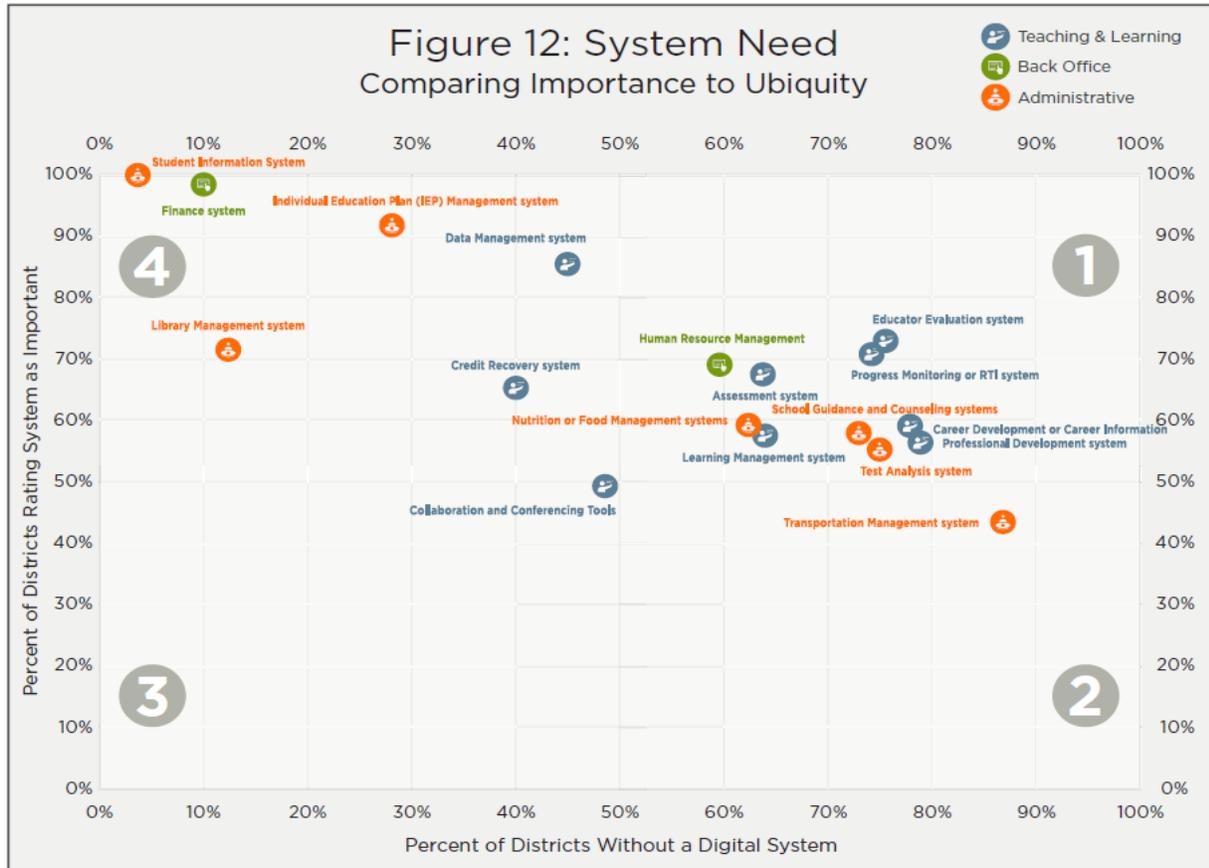
For convenience, Figure 11 and 12 from the education data systems are provided in this response.



The quadrant in Figure 12 illustrates the concept of system need. The vertical axis shows the percent of districts rating the system as highly important (the top two ratings for importance combined). The horizontal axis shows the percent of districts that do not currently have a digital system available.

Therefore, the quadrants represent the following:

- Quadrant 1: Highly Important, Not Readily Available (Most Need)
- Quadrant 2: Less Important, Not Readily Available
- Quadrant 3: Less Important, Less Available
- Quadrant 4: Highly Important, Highly Available



The education data systems identified in quadrant 1 provide a significant opportunity to ensure equity of access to school districts in Nebraska and at the same time support a significantly identified need addresses through the goals of this project.

Preliminary Plan for Implementation

Weakness:

- The specific roles of stakeholder partners is vague and does not, in all cases, match their current capacities. This is especially true in the area of professional development.

Agency Response:

The vagueness of the stakeholder can be cleared up by the following:

School District: Choose from a series of preapproved applications that are cheaper and more effectively integrated than anything they could do in isolation.

ESUCC: Continue to manifest the statutory responsibility of ensuring quality and efficient engagement of resources for the districts they serve.

ESU: Collaborate and support a coordinated effort across the state to support districts and students realizing that all Nebraska students are our responsibility. Students move from district to district and providing quality experiences for requires a focus to coordinate and support all.

NDE: While historically focused on compliance the broader objective of the NDE is to ensure the support systems for all schools to succeed is job one.

The purpose of this proposal is to create capacity, coordinate the efforts and provide effective coordinated professional development through the highly effective network of ESU staff developer and School district personnel.

Risk Assessment

Weakness

- Dependencies associated with the work of stakeholder agencies cannot be fully mitigated within the context of the proposed project. This is less a failing of the proposed and more a recognition of the difficulties associated with interagency projects

Agency Response

The interagency projects of the past may not have engaged the critical leadership from the beginning. The role of the Educational Service Unit Coordinating Council (ESUCC) and the board along with the Nebraska Department of Education are crucial to the success. To ensure continuity and clarity of the expectations efforts to develop a Memorandum of Understanding along with the critical elements of governance continue to be a critical focus during the prototype engagement. The difference that exists today, versus the cynical nature and experiences of this reviewer, are the personnel and broader vision toward the future for the student of Nebraska.

Financial Analysis and Budget

Weakness:

- Proposed salaries for key personnel look very low and will make attracting qualified applicants difficult.

Agency Response:

The budgeting requirements establish the use of 33.3% of the pay grade range and reflect the current negotiated salaries for these positions. While it is true the competitive nature of the salaries is low, they

are reality for state government at this time. There are still highly skilled staff available to fill the positions that are interested in supporting Nebraska Education in ways that systemically can make a difference.

The proposed implementation plan balances contractor time with NDE staff. To achieve the highest level of sustainability, contractors are fully engaged in building the initial infrastructure and on-going knowledge transfer with existing NDE staff. These staff have the benefit of institutional knowledge of the department and Nebraska education context, and are rapidly developing the skills needed to sustain a system of this scale.

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #27-01
Page 1 of 3

Project #	Agency	Project Title
27-01	Department of Roads	Mainframe Migration

SUMMARY OF REQUEST (Executive Summary from the Proposal)

[Full text of all proposals are posted at: http://nitc.nebraska.gov/commission/project_proposals/2015-2017.html]

The mainframe has been a valuable tool for the NDOR over the last 40 years. But as with all technologies, things change over time and organizations should evaluate the state of their applications; are we providing our users the functionality they need, are we doing it in a cost-effective manner and are we able to support these needs not just over the next few years but in the next 10 years or possibly longer.

That is what the NDOR is doing. We talked with our users about their current systems and their future needs and then looked at our current workforce and the ability to support this environment in the future as we face retirements and the ability to find the skills necessary to support the environment. We determined that the best course of action for the NDOR is to migrate our applications off of the mainframe to a platform we believe provides the functionality our users are looking for and also something that we are able to support in the future. Our plan is to create an RFP to hire an outside source either re-host or convert our mainframe applications to a technology centered on Microsoft and hosted by the Office of the CIO. An RFI has been completed that received two responses, which helped us in determining what we should budget for this project.

FUNDING SUMMARY

	Prior Expended	FY2015 Appr/Reappr	FY2016 Request	FY2017 Request	Future	Total
1. Personnel Costs						\$ -
2. Contractual Services						
2.1 Design			\$ 300,000.00	\$ 300,000.00		\$ 600,000.00
2.2 Programming			\$ 700,000.00	\$ 700,000.00		\$ 1,400,000.00
2.3 Project Management			\$ 200,000.00	\$ 200,000.00		\$ 400,000.00
2.4 Other						\$ -
3. Supplies and Materials						\$ -
4. Telecommunications						\$ -
5. Training						\$ -
6. Travel						\$ -
7. Other Operating Costs						\$ -
8. Capital Expenditures						
8.1 Hardware			\$ 25,000.00	\$ 25,000.00		\$ 50,000.00
8.2 Software			\$ 25,000.00	\$ 25,000.00		\$ 50,000.00
8.3 Network						\$ -
8.4 Other						\$ -
TOTAL COSTS	\$ -	\$ -	\$ 1,250,000.00	\$ 1,250,000.00	\$ -	\$ 2,500,000.00
General Funds						\$ -
Cash Funds			\$ 1,250,000.00	\$ 1,250,000.00		\$ 2,500,000.00
Federal Funds						\$ -
Revolving Funds						\$ -
Other Funds						\$ -
TOTAL FUNDS	\$ -	\$ -	\$ 1,250,000.00	\$ 1,250,000.00	\$ -	\$ 2,500,000.00

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
Goals, Objectives, and Projected Outcomes	12	10	13	12	15
Project Justification / Business Case	20	15	23	19	25
Technical Impact	15	15	18	16	20
Preliminary Plan for Implementation	7	7	8	7	10
Risk Assessment	6	8	10	8	10
Financial Analysis and Budget	15	13	20	16	20
TOTAL				78	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
Goals, Objectives, and Projected Outcomes	<ul style="list-style-type: none"> - The goal of consolidating application platforms and languages does help with staffing by limiting skills required by staff. - Clearly states goal and the objectives of the project. 	<ul style="list-style-type: none"> - The expectation that this can be done with an existing COTS tool is not reasonable. The more likely outcome is the rewrite or replacement of the business system. - Measurement and assessment methods could use some fleshing out.
Project Justification / Business Case	<ul style="list-style-type: none"> - Based on the age of their applications, it is appropriate for NDOR to be exploring this to ensure they are where they need to be as an Agency in regards to their applications. - The plan recognizes the need to replace or update aging business systems. - Clearly defined tangible benefit of a significant cost savings. 	<ul style="list-style-type: none"> - This might be a difficult project to determine tangible benefits due to the size of it and not knowing if NDOR has already mapped out interdependencies between applications to see when and how all applications are tied together. - The return on investment will be 4 years using the \$1.4M estimate, 7 years if the costs are \$2.5M. I do not think the all of the cost to convert these applications has been identified and the ROI will be much longer. - Still evaluating other solutions - no mention of any solutions being rejected.
Technical Impact	<ul style="list-style-type: none"> - NDOR understands the implications of staying where they are unless something is done in the way of training and teaching students to ensure these applications can be supported in the language they are currently written in. This project could potentially have a huge technical impact on the users within NDOR as there might be a need for extensive training for their staff. - When completed technology will be consolidated for DOR applications. - Clearly describes replacement of technology / platform that is growing increasingly difficult to support due to limited available resources. 	<ul style="list-style-type: none"> - Unless applications are rewritten, you are just trading one dependency for another. - Complete reliance upon a single-vendor proprietary technology / platform. Does not address security related to the project objectives.
Preliminary Plan for Implementation	<ul style="list-style-type: none"> - NDOR has spent a considerable amount of time preparing for this possible change by issuing the RFI and researching as much as possible. - RFP has not been completed, but clearly describes intended plans, teams, resources, etc. 	<ul style="list-style-type: none"> - Understand no timeline yet but NDOR needs to make sure they recognize all of the potential interdependencies with a project of this size and have strong project management. Still so early in the project it is difficult to tell if the plan for implementation is solid. - Many of the resources required for this implementation are the same ones mentioned in other plans. Are there adequate staffing to implement this solution in a timely manner.
Risk Assessment	<ul style="list-style-type: none"> - Reasonable examination of the risks. - Good description of possible barriers and mitigation strategy. 	<ul style="list-style-type: none"> - Pretty generic risk assessment statements. Do not know how much time NDOR has spent on uncovering specific risks to any of their Division's as a result of this change. - There are multiple variables that could impact this project and many of them are outside of the control of the agency.
Financial Analysis and Budget	<ul style="list-style-type: none"> - RFI has been issued, some details have been identified. - Very clear, easy to understand, and quite reasonable to see the anticipated cost savings. 	<ul style="list-style-type: none"> - Because it is so early in the project, it is difficult to say for sure what the financial benefits will be or the costs may be once interdependencies are determined. - All costs have not been identified and details on what technical solution (convert or translate) will be implemented are not clear.

TECHNICAL PANEL COMMENTS

Technical Panel Checklist				Comments
	Yes	No	Unknown	
1. Is the project technically feasible?	✓			
2. Is the proposed technology appropriate for the project?	✓			
3. Can the technical elements be accomplished within the proposed timeframe and budget?			✓	

STATE GOVERNMENT COUNCIL COMMENTS

- The State Government Council adopted the following motion: “Mr. Dey moved to recommend funding all three projects [Department of Roads’ projects 27-01, 27-02, and 27-03] with ‘priority one’ for the ARMS Enhancements project [27-03] and ‘priority two’ for the Mainframe Migration and Stock Supply System projects [27-01 and 27-02]. Ms. Slone seconded. Roll call vote: ... Motion carried.”

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #27-02
Page 1 of 3

Project #	Agency	Project Title
27-02	Department of Roads	Stock Supply System

SUMMARY OF REQUEST (Executive Summary from the Proposal)

[Full text of all proposals are posted at: http://nitc.nebraska.gov/commission/project_proposals/2015-2017.html]

The existing supply system application is mainframe based and has been in production for over 15 years. This has been a useful tool for the Procurement section of the Operations Division and it has made it easier for all Divisions and District to order supplies necessary for them to do their day to day operations.

As with all software applications and with hands on day-to-day operations, there comes a time when users determine new needs, see opportunities to make improvements and take advantage of newer technologies. Moving applications off of the mainframe is but one of the Business Technology Support Division's (BTSD) goals. NDOR is a Microsoft based shop utilizing newer technologies such as C#.NET and SQL Server 2012 while our software development methodology follows the Agile practice.

The goal of this project is finding or developing a system to provide for a warehouse management system (WMS) of supplies that will replace the legacy Supply Inventory System (SUP). The goal is to have a system that will allow for inventory control/monitoring of stock, ordering, receiving, picking, replenishments, shipping and returns while utilizing Radio Frequency Identification (RF) devices or other similar electronic scanning functionality. The WMS should also provide substantial reporting features that will help with overall WMS management. I have attached a Business Process Modeling report produced in-house which outlines the current Stock Supply system and describes what NDOR had envisioned to be a suitable replacement for the current system.

FUNDING SUMMARY

	Prior Expended	FY2015 Appr/Reappr	FY2016 Request	FY2017 Request	Future	Total
1. Personnel Costs						\$ -
2. Contractual Services						
2.1 Design			\$ 75,000.00	\$ 75,000.00		\$ 150,000.00
2.2 Programming			\$ 75,000.00	\$ 75,000.00		\$ 150,000.00
2.3 Project Management			\$ 30,000.00	\$ 30,000.00		\$ 60,000.00
2.4 Other						\$ -
3. Supplies and Materials						\$ -
4. Telecommunications						\$ -
5. Training						\$ -
6. Travel						\$ -
7. Other Operating Costs						\$ -
8. Capital Expenditures						
8.1 Hardware			\$ 20,000.00	\$ 20,000.00		\$ 40,000.00
8.2 Software			\$ 100,000.00	\$ 100,000.00		\$ 200,000.00
8.3 Network						\$ -
8.4 Other						\$ -
TOTAL COSTS	\$ -	\$ -	\$ 300,000.00	\$ 300,000.00	\$ -	\$ 600,000.00
General Funds						\$ -
Cash Funds			\$ 300,000.00	\$ 300,000.00		\$ 600,000.00
Federal Funds						\$ -
Revolving Funds						\$ -
Other Funds						\$ -
TOTAL FUNDS	\$ -	\$ -	\$ 300,000.00	\$ 300,000.00	\$ -	\$ 600,000.00

[Note: After the project proposal was submitted, NDOR received responses to their Request for Information (RFI) relating to this project. Costs estimates from the responses ranged from \$200,000 to \$1,400,000 for the project.]

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
Goals, Objectives, and Projected Outcomes	14	12	15	14	15
Project Justification / Business Case	21	25	25	24	25
Technical Impact	17	15	18	17	20
Preliminary Plan for Implementation	9	7	8	8	10
Risk Assessment	9	7	10	9	10
Financial Analysis and Budget	15	15	19	16	20
			TOTAL	87	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
Goals, Objectives, and Projected Outcomes	<ul style="list-style-type: none"> - It would appear a significant amount of time has been spent on documenting and determining what is needed internally by NDOR. - Project team has identified requirements and business users were involved. - Clearly defined goals, objectives, and expected outcomes. Measurement and assessment methods are in line with real world system functions, and seem reasonable. 	<ul style="list-style-type: none"> - Large systems with many users.
Project Justification / Business Case	<ul style="list-style-type: none"> - The justification is appropriate that if NDOR is able to successfully procure the right solution, the benefits they have listed are what should be realized. Department of Correctional Services is using a module in E1/JD Edwards for the same purpose so it might be beneficial to talk with them. - Time for mainframe solution to be replaced to enhance functionality. - Tangible (cost savings) and intangible benefits (better interface) seem reasonable and clearly defined. 	<ul style="list-style-type: none"> - At this point, it does not appear that NDOR is able to determine an economic return on investment with this project. - Requirements definition may be more challenging than described, limited internal resources to complete the project
Technical Impact	<ul style="list-style-type: none"> - It is appropriate for NDOR to be considering updating this based on the age of what they currently have and its apparent inability to meet their internal needs. Would encourage them to work with OCIO for the placement of any hardware into the State Data Center as well as using the wireless access points that the State has standardized on. - Team has spent time collecting business flow and some requirements. 	<ul style="list-style-type: none"> - Need to minimize the number of interfaces into the State ERP system so would encourage NDOR to utilize E1 if possible. - Technical interfaces with multiple financial systems will be complicated and require ongoing coordination and maintenance - Solution has not been selected, so technical descriptions are somewhat vague. Does not address security.
Preliminary Plan for Implementation	<ul style="list-style-type: none"> - The team that has been assembled to work on this project is diverse and represents NDOR business needs - Project team has worked with business clients to identify some requirements. - Teams and sponsors clearly defined. 	<ul style="list-style-type: none"> - Although the RFP has not been completed, there should be a reasonable timeframe that can be established to get this implemented. - Finding vendor with solution to meet needs without modification will be difficult. - No RFP issued yet, so details somewhat lacking in terms of plan, etc.
Risk Assessment	<ul style="list-style-type: none"> - Project team has worked with business clients to identify some requirements - Possible barriers, and mitigation strategies are clearly defined. 	<ul style="list-style-type: none"> - Solution is complex and requires interfaces to multiple systems.
Financial Analysis and Budget	<ul style="list-style-type: none"> - Financial information seems sufficient and reasonable. 	<ul style="list-style-type: none"> - Pretty generic estimates. - Cost estimate is seems low for application of this size.

TECHNICAL PANEL COMMENTS

Technical Panel Checklist				Comments
	Yes	No	Unknown	
1. Is the project technically feasible?	✓			
2. Is the proposed technology appropriate for the project?			✓	- Unknown until a specific technology is chosen for the project.
3. Can the technical elements be accomplished within the proposed timeframe and budget?			✓	

STATE GOVERNMENT COUNCIL COMMENTS

- The State Government Council adopted the following motion: "Mr. Dey moved to recommend funding all three projects [Department of Roads' projects 27-01, 27-02, and 27-03] with 'priority one' for the ARMS Enhancements project [27-03] and 'priority two' for the Mainframe Migration and Stock Supply System projects [27-01 and 27-02]. Ms. Slone seconded. Roll call vote: ... Motion carried."

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #27-03
Page 1 of 3

Project #	Agency	Project Title
27-03	Department of Roads	ARMS Enhancements

SUMMARY OF REQUEST (Executive Summary from the Proposal)

[Full text of all proposals are posted at: http://nitc.nebraska.gov/commission/project_proposals/2015-2017.html]

ARMS stands for Automated Right-of-Way Management System. In the late 90s, the head of our Right-of-Way (ROW) Division had this idea of a workflow solution to handle the ROW process from the time preliminary plans came to the Division until the purchasing of ROW had been completed and the project was to be archived. They worked with developers at NDOR to design a system that used Lotus Notes as the base, since at that time it was the e-mail system that was used by most State Agencies. In 2008, the Office of the CIO (OCIO) began to implement a statewide e-mail system based on Microsoft Outlook. Agencies were to eliminate other mail systems, which meant NDOR had to get rid of Lotus Notes. That being the case, we began work on developing an RFP to find a vendor who could provide a Commercial off the Shelf (COTS) system to replace ARMS. All of this, including the award of the RFP, was completed prior to the decision to implement OnBase as the Enterprise Content Management System (ECMS) for the State.

As with a number of software implementations, as the work was being done a number of enhancements arose once the ROW Division began testing the software. We also discovered a number of items that we overlooked in the RFP that should have been included. Also, change in leadership along with other key members in the Division has led to changes in their processes which need to be taken into account in the system. The implementation has been going on for over two years and final sign-off for the RFP is planned in June, 2015. Once that is done, we will be in maintenance mode and any enhancements or additional work must be done as separate statements of work. That is the reason for this project.

FUNDING SUMMARY

	Prior Expended	FY2015 Appr/Reappr	FY2016 Request	FY2017 Request	Future	Total
1. Personnel Costs						\$ -
2. Contractual Services						
2.1 Design			\$ 75,000.00	\$ 75,000.00		\$ 150,000.00
2.2 Programming			\$ 100,000.00	\$ 100,000.00		\$ 200,000.00
2.3 Project Management			\$ 75,000.00	\$ 75,000.00		\$ 150,000.00
2.4 Other						\$ -
3. Supplies and Materials						\$ -
4. Telecommunications						\$ -
5. Training						\$ -
6. Travel						\$ -
7. Other Operating Costs						\$ -
8. Capital Expenditures						
8.1 Hardware			\$ -	\$ -		\$ -
8.2 Software			\$ -	\$ -		\$ -
8.3 Network						\$ -
8.4 Other						\$ -
TOTAL COSTS	\$ -	\$ -	\$ 250,000.00	\$ 250,000.00	\$ -	\$ 500,000.00
General Funds						\$ -
Cash Funds			\$ 250,000.00	\$ 250,000.00		\$ 500,000.00
Federal Funds						\$ -
Revolving Funds						\$ -
Other Funds						\$ -
TOTAL FUNDS	\$ -	\$ -	\$ 250,000.00	\$ 250,000.00	\$ -	\$ 500,000.00

PROJECT SCORE

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
Goals, Objectives, and Projected Outcomes	12	10	15	12	15
Project Justification / Business Case	20	19	22	20	25
Technical Impact	15	16	15	15	20
Preliminary Plan for Implementation	6	6	7	6	10
Risk Assessment	7	6	10	8	10
Financial Analysis and Budget	15	13	18	15	20
			TOTAL	77	100

REVIEWER COMMENTS

Section	Strengths	Weaknesses
Goals, Objectives, and Projected Outcomes	<ul style="list-style-type: none"> - New systems moves away from Lotus notes and uses enterprise content management solution. - Clearly defined goals, objectives, outcomes, etc. 	<ul style="list-style-type: none"> - It is not clear on the division of work to be done in the ROW application or ECM.
Project Justification / Business Case	<ul style="list-style-type: none"> - The justification is appropriate. - Project makes use of enterprise solutions. - Automation and improved records management are reasonable justifications for a project such as this. 	<ul style="list-style-type: none"> - It would appear that this project is a result of missing items in the original RFP that was issued for the replacement of their automated ROW system. NDOR needs to ensure that this second attempt they are making will be all inclusive of their needs. - Scope of work is not clear - No indication of other solutions evaluated.
Technical Impact	<ul style="list-style-type: none"> - DOR has experience with solutions to be implemented. 	<ul style="list-style-type: none"> - NDOR needs to ensure they have a clearly defined scope to their "definition of change" comment otherwise this could become quite costly for them. - Scope of work to be implemented in ROW and ECM not clear. - Overall technical impact is vague. Does not address security.
Preliminary Plan for Implementation	<ul style="list-style-type: none"> - Teams and sponsors clearly identified. 	<ul style="list-style-type: none"> - Because the initial project is not completed, it is hard to evaluate the implementation for the phase 2 part of this project. It would appear, based on the comments in the executive summary, that strong project management needs to be put into place to ensure the deliverables are well defined and delivered in a timely manner. - Current project not completed scope of work not well defined. - No identification of plans.
Risk Assessment	<ul style="list-style-type: none"> - It looks like NDOR has a contingency plan to ensure that they are able to complete this project. - Reasonable description of possible barriers and good mitigation strategies identified. 	<ul style="list-style-type: none"> - ROW projected not implemented and ECM work not defined.
Financial Analysis and Budget		<ul style="list-style-type: none"> - Not too much detail - these are pretty generic categories. - Without scope of work defined, cost cannot be estimated. Information provided is a ball park number? - Difficult to judge the financial aspect when technical impact is vague, but seems likely reasonable with the provided information.

TECHNICAL PANEL COMMENTS

Technical Panel Checklist				Comments
	Yes	No	Unknown	
1. Is the project technically feasible?	✓			
2. Is the proposed technology appropriate for the project?	✓			
3. Can the technical elements be accomplished within the proposed timeframe and budget?	✓			

STATE GOVERNMENT COUNCIL COMMENTS

- The State Government Council adopted the following motion: “Mr. Dey moved to recommend funding all three projects [Department of Roads’ projects 27-01, 27-02, and 27-03] with ‘priority one’ for the ARMS Enhancements project [27-03] and ‘priority two’ for the Mainframe Migration and Stock Supply System projects [27-01 and 27-02]. Ms. Slone seconded. Roll call vote: ... Motion carried.”