



December 17, 2014 Meeting Agenda

Wednesday, December 17, 2014 at 9:00AM CT

Host site: NDE Board Room, 6th Floor, 301 Centennial Mall South, Lincoln

Remote sites: ESU 13, 4215 Avenue I, Scottsbluff, NE; ESU 9, 1117 East South St., Hastings, NE; Metro Community College, Omaha, NE; Schuyler Community Schools Administrative Office, 401 Adam St., Schuyler, NE

[Open Meetings Act](#) (PDF - 7 pgs, 81kb)

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|----------------|--|------------------|
| 9:00AM | 1. Call to Order, Electronic Posting, Location of Open Meeting Law Documents, Roll Call, Introductions | Co-Chair |
| 9:05AM | 2. Consider approval of the Agenda for the December 17, 2014 meeting* | Co-Chair |
| 9:08AM | 3. Consider approval of the Minutes from the October 15, 2014 meeting* | Co-Chair |
| | 4. Project Proposals - 2015-2017 Biennial Budget - Supplemental Review of three projects from the Dept of Education | |
| 9:10AM | A. Project Summary Sheets and Agency Response
B. Full text of the project proposals
C. NITC Tiers (for background only)
D. Consider Review Comments on behalf of the Education Council* | Co-Chairs |
| | 5. Network Nebraska Update | |
| 10:00AM | A. Project Management Report (12/1/2014)
B. NNAG Meeting Notes (12/10/2014)
C. E-rate Modernization | T. Rolfes |

	D. RFP 4862	
	6. NITC Action Items	
10:15AM	A.Task Force Membership	Co-Chairs
	B. Review of 2014-16 Action Items	
	7. Subsector Updates	
	A. State colleges	
	B. Community colleges	
10:55AM	C. Independent colleges	Co-Chairs & Council members
	D. University of Nebraska	
	E. K-12 public & private	
11:20 AM	8. Agenda Items for the 2/18/2015 Meeting	Co-Chair
11:25 AM	9. Consider location(s) for the 2/18/2015 Meeting	Co-Chair
11:30 AM	10. Adjournment	Co-Chair

* Indicates an expected action item.

The Council will attempt to adhere to the sequence of the published agenda, but reserves the right to adjust the order of items if necessary and may elect to take action on any of the items listed.

The NITC Education Council wishes to thank OCIO, NDE and NET staff for helping arrange the December 17, 2014 meeting.

NITC/Education Council [Homepage](#)

Meeting Notice Posted to the NITC Web site 12-12-2014

Meeting Notice Posted to the [Nebraska Public Meeting Calendar](#) 12-12-2014

Agenda Posted to the NITC Web site 12-12-2014

EDUCATION COUNCIL
of the
Nebraska Information Technology Commission
Wednesday, October 15, 2014 at 9:00AM CT
Host site: NET, 1800 N. 33rd Street, Lincoln
[Open Meetings Act](#)
MINUTES

MEMBERS PRESENT:

Mr. Derek Bierman, Northeast Community College
Mr. Burke Brown, District OR-1 Palmyra/Bennet
Mr. Mike Carpenter, Doane College
Mr. Matt Chrisman, Mitchell Public Schools
Mr. John Dunning, Wayne State College
Mr. Steven Stortz, Alt. for Stephen Hamersky, Daniel J. Gross Catholic High School
Mr. Steve Hotovy, Nebraska State College System
Mr. Gary Needham, Educational Service Unit 9
Mr. Mary Niemiec, University of Nebraska
Mr. Darren Oestmann, Johnson Brock Public Schools
Mr. Randy Schmailzl, Metro Community College

LIAISONS/ALTERNATES PRESENT: Kathleen Fimple, Brent Gaswick, and Gary Targoff

MEMBERS/LIAISONS ABSENT: Brenda Decker, Dr. Dan Hoelsing, Yvette Holly, Dr. Mike Lucas, Greg Maschman, Dr. Bob Uhing

CALL TO ORDER, ELECTRONIC POSTING, LOCATION OF OPEN MEETING LAW DOCUMENTS, ROLL CALL, INTRODUCTIONS

In lieu of Council Co-Chairs, Mr. Tom Rolfes called the meeting to order at 9:00am CT. The meeting notice was posted on the NITC website and Public Meeting Calendar on 8/29/2014. The agenda was posted for review on the NITC website on 8/29/2014. The Open Meeting Statutes were located on the southeast corner of the NET Board Room. Ms. Lopez-Urdiales called the roll and found 10 voting members or alternates present. A quorum was reached in order to conduct official business. Members and guests introduced themselves.

For the new council members, Mr. Rolfes provided a brief history of the NITC and the Education Council.

CONSIDER APPROVAL OF THE AGENDA FOR THE OCTOBER 15, 2014 MEETING*

Mr. Dunning moved to approve the October 15, 2014 meeting agenda. Mr. Carpenter seconded. Roll call vote: Bierman-Yes, Brown-Yes, Carpenter-Yes, Chrisman-Yes, Dunning-Yes, Stortz-Yes, Hotovy-Yes, Niemiec-Yes, Oestmann-Yes, Schmailzl-Yes. Results: Yes-10, No-0, Abstained-0. Motion carried.

CONSIDER APPROVAL OF THE [MINUTES](#) FROM THE APRIL 16, 2014 MEETING*

Mr. Stortz moved to approve the April 16, 2014 minutes as presented. Ms. Niemec seconded. Roll call vote: Brown-Yes, Carpenter-Yes, Chrisman-Yes, Dunning-Yes, Stortz-Yes, Hotovy-Yes, Niemiec-Yes, Oestmann-Yes, Schmailzl-Yes, Bierman-Yes. Results: Yes-10, No-0, Abstained-0. Motion carried.

Mr. Needham arrived to the meeting.

NEBRASKA P-16 INITIATIVE [WEBSITE](#)

Dr. Gabrielle Banick

Dr. Banick provided a brief biography to the council. She stated she liked the collaboration that the Education Council has successfully initiated and hopes to learn from the Council. She complimented Nebraska on their groundbreaking work in the areas of a longitudinal data system, increased graduation requirements, and developing a statewide unique identifier which could assist in federated identity management. She has been in her position for only two months and has been working on the following P-16 initiatives:

- Development of a Transfer Portal. This would be a one stop portal for students to see how their credits would transfer to other public post-secondary institutions. Currently, a commercial product is being reviewed. At this point, only public institutions have been involved but private institutions have been invited.

- Reverse Transfer Program for University, State and Community Colleges. Community colleges have been very instrumental in this effort. It is anticipated that there will be 120 programs by end of the year.

Council members were given an opportunity to ask questions and provide input. TES and Transferology, both from College Source, were recommended as possible products for the Reverse Transfer Program. The goal is have a final decision on the product by the end of December. Approximately 5000 of the 7000 institutions nationally have given permission for the course catalogues to be included in Transferology. Data standards will be vital to the effort. Dr. Banick has met with several school superintendents and college administrators in her first 60 days.

Mr. Rolfes shared the NITC's strategic initiatives with Dr. Banick and thanked her for her time with the Council.

EDUCATION COUNCIL CHARTER REVIEW

Mr. Rolfes reported that the NITC advisory councils have grown from four councils to six councils. The Education Council, one of the original four, is responsible for advising the NITC on education technology-related project proposals and other issues of importance. The Council typically makes recommendations to the NITC and the NITC has the final approval. There will be a couple of information technology projects the Council will need to review at the December meeting.

Members were asked to review the Council's Charter and responsibilities.

During discussion, the Council members asked whether the Education Council or NITC have ever applied for grant funding. Mr. Rolfes reported that originally the State Government Council and Community Council each had \$250,000 grant funds to administer to eligible entities. The Education Council helped oversee the NEB-SAT grant funds administered by the Nebraska Educational Telecommunications Commission. When those grant funds were eliminated during the recession of the late 2000s, no funding was ever restored. However, the NITC has been the fiscal entity for the Electronic Health Records grant of \$6.2 million in 2010, and a collaborator with the state Broadband Mapping Initiative.

The Nebraska Department of Education had submitted a federal grant to look at how technology can impact academic performance but Wisconsin was awarded. Since the Council has discussed funding as an issue to get things accomplished, perhaps the Council should explore Gates NextGen grants. Their grants require a grantee which could be the OCIO, NDE, CCPE, or the University of Nebraska, for example. Independent Colleges expressed interest in involvement. A majority of members thought it would be a good idea and recommend looking at these opportunities. It was decided to establish a work group that would explore federal/private foundation grant funding to match the Education Council's mission and responsibilities. Members that volunteered included the following: Mike Carpenter, Mary Niemec, John Dunning and if Dr. Dan Hoelsing is not available to participate, SuAnn Witt said she would participate.

MEMBERSHIP UPDATE

Election of Co-Chairs*

Mr. Rolfes asked that the Council members recess into their K-12 and higher education sectors to caucus and discuss nomination of a K12 co-chair and a Higher Education co-chair.

Mr. Stortz nominated Gary Needham as the K12 Education Council Co-Chair. Mr. Brown seconded. More nominations from the floor were requested. There were no more nominations.

Mr. Carpenter moved to cease the nominations and conduct the vote in favor of electing Gary Needham as K-12 Co-Chair. Mr. Stortz seconded. Roll call vote: Carpenter-Yes, Chrisman-Yes, Dunning-Yes, Stortz-Yes, Hotovy-Yes, Needham-Abstain, Niemec-Yes, Oestmann-Yes, Schmailzl-Yes, Bierman-Yes, Brown-Yes. Results: Yes-10, No-0, Abstained-1. Motion carried.

Mr. Dunn nominated Mary Niemec as the Higher Education Council Co-Chair. Mr. Schmaizl seconded. More nominations from the floor were requested. There were no more nominations.

Mr. Carpenter moved to cease the nominations and conduct the vote in favor of electing Mary Niemec as Higher Education Co-Chair. Mr. Dunn seconded. Roll call vote: Chrisman-Yes, Dunning-Yes, Stortz-Yes, Hotovy-Yes, Needham-Yes, Niemec-Abstain, Oestmann-Yes, Schmailzl-Yes, Bierman-Yes, Brown-Yes, Carpenter-Yes. Results: Yes-10, No-0, Abstained-1. Motion carried.

The two newly elected Co-Chairs, Gary Needham and Mary Niemec, presided over the remainder of the meeting.

NETWORK NEBRASKA UPDATE

Project Management [Report \(9/1/2014\)](#). All enterprise projects submit a monthly report to the Technical Panel. The NITC also receives an update on all enterprise projects at their meetings. Network Nebraska finished the year with a positive balance to build escrow for future core infrastructure replacements. The budget is monitored by the Office of the CIO and the Network Nebraska Advisory Group. Membership is up to 94% of public K-12 and 100% of public higher education. Entities that have delayed joining have existing Internet contracts and obligations in place. It is possible that public K-12 will be at 100% by 7/1/2015. On July 1, 2014, an Internet2 Commercial Peering Service egress point was implemented with 3Gbps, and commodity Internet cost about \$.39/Mbps/month for K-12 after E-rate. The Internet2 CPS and commodity Internet is running at about half of its purchased capacity. Network Nebraska is looking at adding the following Commercial Peering Services:

- ESRI for K12. The Nebraska Department of Education has signed this agreement to provide this software free for K12 students to be exposed to GIS (Geographic Information Systems). Discussions are occurring for ESRI to use Internet2 to more directly serve Nebraska K-12 schools.
- Hudl Stats. Hudl, a Nebraska sports video analysis company, has approximately 95% of U.S. high schools as clients, and many college and professional sports teams. Schools are interested in faster uploading of video recordings of Friday night sports events. Discussions are occurring for Hudl to use Internet2 to more directly serve Nebraska K-12 schools.

E-rate Modernization. At end of July, the FCC issued a new funding initiative for schools and libraries to purchase internal connections equipment using E-rate funds. E-rate discounts and reimbursements are based on poverty and rurality levels. Approximately \$56 million in funding will be made available for routers, switches, wireless access points, and firewall gear for Nebraska schools and libraries. The Office of the CIO, in coordination with the ESUs, will be doing an Invitation to Bid for nine different types of eligible equipment. Once awarded, the OCIO will get information out to entities to participate in the purchasing off the state contracts to get best discounts for equipment. Nebraska has about 700 schools and libraries that would be eligible to participate.

Changing urban rural designation. Prior to the new initiative, schools' discounts were based on urban designations as determined by urban counties of the 2000 Census. With the new FCC designations using the 2010 Census, about 39 school districts will be designated as urban, dropping their discount by at least 10%. The FCC has been urged to reconsider these designations due to financial hardship for districts. The discount levels will now be calculated at the district level rather than school. Voice services will be phased out at 20% points per year which will affect budgets at the district level due to having voice services fully supported in the past.

LEGISLATIVE UPDATE

LB 1103. *FOR AN ACT relating to education; to state findings and intent; to provide for a strategic planning process; to provide duties for the Education Committee of the Legislature; and to declare an emergency.*

The Legislature's Education Committee scheduled three public hearings related to LB 1103. The first was held in Omaha with over 200 in attendance. The next hearing is this afternoon in Norfolk and then tomorrow (10/16/2014) in Broken Bow. Testimony so far has included issues of equity, early childhood education, BlendEd (technology), and charter schools. The Education Committee's report must be done by December 31st.

LB 497. *FOR AN ACT relating to education; to amend sections 9-812 and 9-836.01, Reissue Revised Statutes of Nebraska, and sections 79-8,137, 79-8,137.04, and 85-1920, Revised Statutes Cumulative Supplement, 2012; to change provisions relating to distribution of state lottery proceeds; to create the Nebraska Education Improvement Fund; to provide for a study; to change contract provisions relating to programs under the Excellence in Teaching Act; to terminate the Education Innovation Fund and the Nebraska Opportunity Grant Fund; to eliminate obsolete provisions; to harmonize provisions; to repeal the original sections; and to declare an emergency.*

The future of the lottery funding is being reviewed by the Education Committee. The current allocations all expire by July 2016. Annually, approximately \$16 million has been allocated for educational projects. A hearing for use of lottery monies will be held on November 19th, Room 1525, 1:30 p.m. The committee's report is due December 31st.

I.T. PROJECT REVIEW

[NITC Timeline](#), [Project Proposal Format](#), [Project Links \(TBA\)](#), [Technical Panel Reviews](#)

Mr. Rolfes reviewed the biennial budget I.T. project review process for new members. There were no education-related I.T. projects submitted by the State budget deadline of September 15. The Budget Office informed NITC staff that there are at least three projects from the Department of Education that will be reviewed by the Technical Panel and Education Council in December. The Council will need to provide comments to the Legislature regarding funding of the projects.

SUBSECTOR UPDATES

State colleges. Mr. Dunning reported that the state college system has been discussing ways to make better decision making for their infrastructure system based on data. A position has been hired by the State College System to better coordinate the three state colleges and their P-16 data efforts.

Community colleges. Mr. Bierman reported the community college association meeting is scheduled for early November. The chief academic officer portion will be included with the CIO meetings.

Independent colleges. There was no report.

University of Nebraska. The Virtual Scholars Program application process was just completed with 221 course scholarships awarded from the University of Nebraska High School. Through an account established with the NU Foundation, the University will look to public/private funding for future scholarships. Most of the applications have been for STEM courses. Ms. Niemiec will have a final report by the end of the year. Early data suggests that 49% of the students at the University took at least one online course last year. This is a 27% increase for NU. Nationally, 33% of students have taken at least one online course at a higher education institution.

K-12 public & private. E-rate has been an ongoing item of discussion among K-12 schools. NDE and the ESUCC have identified three joint initiatives to work on over the next year: BlendEd, NDE Data Dashboard, and Teacher/Principal evaluation system.

CCPE. A new executive director, Dr. Michael Baumgartner, has been hired who is also new to Nebraska. SARA, the State Authorized Reciprocal Agreement, really wants states to sign-up to participate in the interstate credit transfer agreement. It will allow institutions to not have to seek individual approval from that state to offer online courses. Nebraska was the 8th of the 9 approved states. There are three pending applications from the eastern states. In Nebraska, there are already 10 institutions that have applied and have been accepted. There is an application fee involved to participate.

Mr. Rolfes distributed the work group assignments document. Since there are new members, the groups will need to be revised. Members who have resigned or retired: Terry Haack, Ed Hoffman, Jeff Johnson, Jeff Stanley, Lyle Neal, John Stritt, Jack Huck. New members were asked to consider which work group they would like to serve and let him know. A revised list will be available at the December meeting.

AGENDA ITEMS FOR THE 12/17/2014 MEETING/CONSIDER LOCATION(S) FOR THE 12/17/2014 MEETING (Video conferencing)

Agenda items for the December meeting included:

- EC Charter
- EC Work Groups
- IT Project Proposals
- Internet2 report
- External Funding Work Group Report

The Council asked Mr. Rolfes to help develop a fact sheet of what the lottery monies have helped accomplish relative to Network Nebraska for the LB 497 hearing.

ADJOURNMENT

John Dunning moved to adjourn. Steve Hotovy seconded. All were in favor by voice vote. The meeting was adjourned at 11:30am CT.

Meeting notes were recorded by Lori Lopez Urdiales and reviewed by Tom Rolfes, Nebraska Information Technology Commission.

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet
2015-2017 Biennial Budget

Project #13-01
Page 1 of 4

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?			✓	

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 1			Year 3		
			FY 2016 SY 2015-2016 50 Districts	FY 2017 SY 2016-2017 150 Districts	FY 2018 SY 2017-2018 245 Districts	FY 2018 SY 2017-2018 245 Districts	FY 2018 SY 2017-2018 245 Districts	
1 Nebraska Education Infrastructure		Activities and Objectives						
<p><i>NDC will leverage the Ed-Fi infrastructure to connect source systems and drive down costs.</i></p>	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, SIS, 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	344,793	344,793	344,793				
	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	\$ 2,144,257	\$ 2,144,257			
2 NDE Data Collection System		Objectives						
<p><i>NDC will reduce the burden of accountability data submissions on districts through automated process leveraging the Ed-Fi infrastructure.</i></p>	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	333,217	333,217	333,217			
		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						
<p><i>NDC will create education intelligence access to actionable insight through a warehouse, business intelligence tool, and increased internal capacity.</i></p>	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 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	\$ 2,035,726	\$ 2,035,726			
4 Help Desk & Support		Objectives						
<p><i>NDC, 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></p>	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	158,394	158,395			
		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	\$ 1,264,223	\$ 1,264,223			
	Total NDC DRE Capacity Building		\$ 8,173,770	\$ 7,985,772	\$ 7,985,774			
115 NE Instructional Improvement System		Objectives						
<p><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></p>	Identify key systems:	Identify and collectively procure state-sponsored systems						
		- blended learning	Support vendors in integrating with SSO and state data system	\$ 166,667	\$ 166,667	\$ 166,667		
		- teacher/principal evaluation	Provide PD for districts	83,333	83,333	83,333		
		- school climate	System licenses paid by state	5,000,000	5,000,000	5,000,000		
		- career readiness	App Store					
			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	194,588	194,588	194,588				
	Operating Expenditures	28,360	29,360	29,360				
	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 NDC 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?			✓	

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%
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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

Nebraska Department of Education Infrastructure Activities					
	Year 0 FY 2015 SY 2014-2015 9 Districts	Activities and Objectives	Biennium Budget Request		
			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 243 Districts
1 Nebraska Education Infrastructure					
<i>NDE 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(x)			
	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	344,793	344,793	344,793	
	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	\$ 2,244,257	\$ 2,244,257	
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>		Objective			
	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 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	339,317	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	\$ 2,578,252	\$ 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 SLDG 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	\$ 2,015,720	\$ 2,015,720	
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	158,393	158,393	158,393
	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	\$ 1,264,323	\$ 1,264,323	
	Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,965,772	\$ 7,965,774	
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 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	194,588	194,588	194,588	
	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 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?			✓	

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 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.

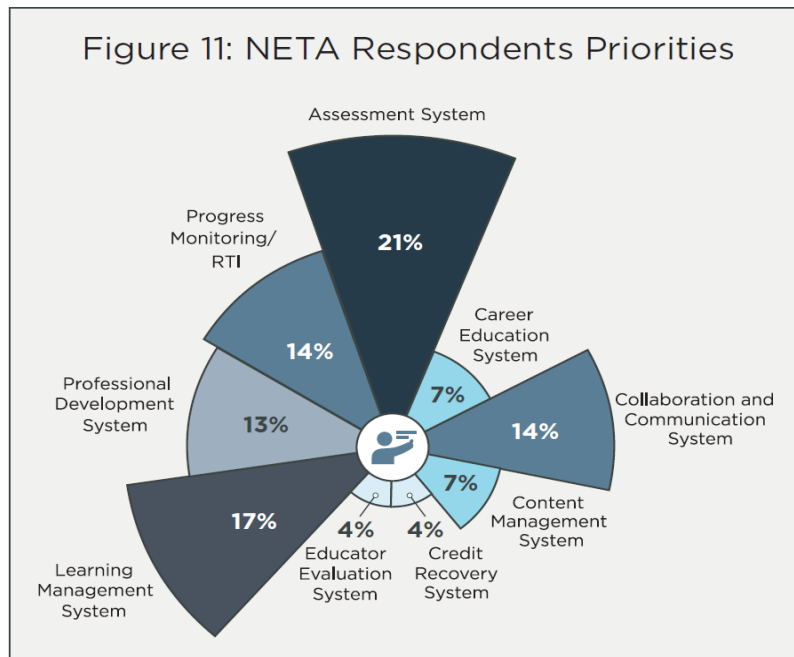
Agency Response:

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.

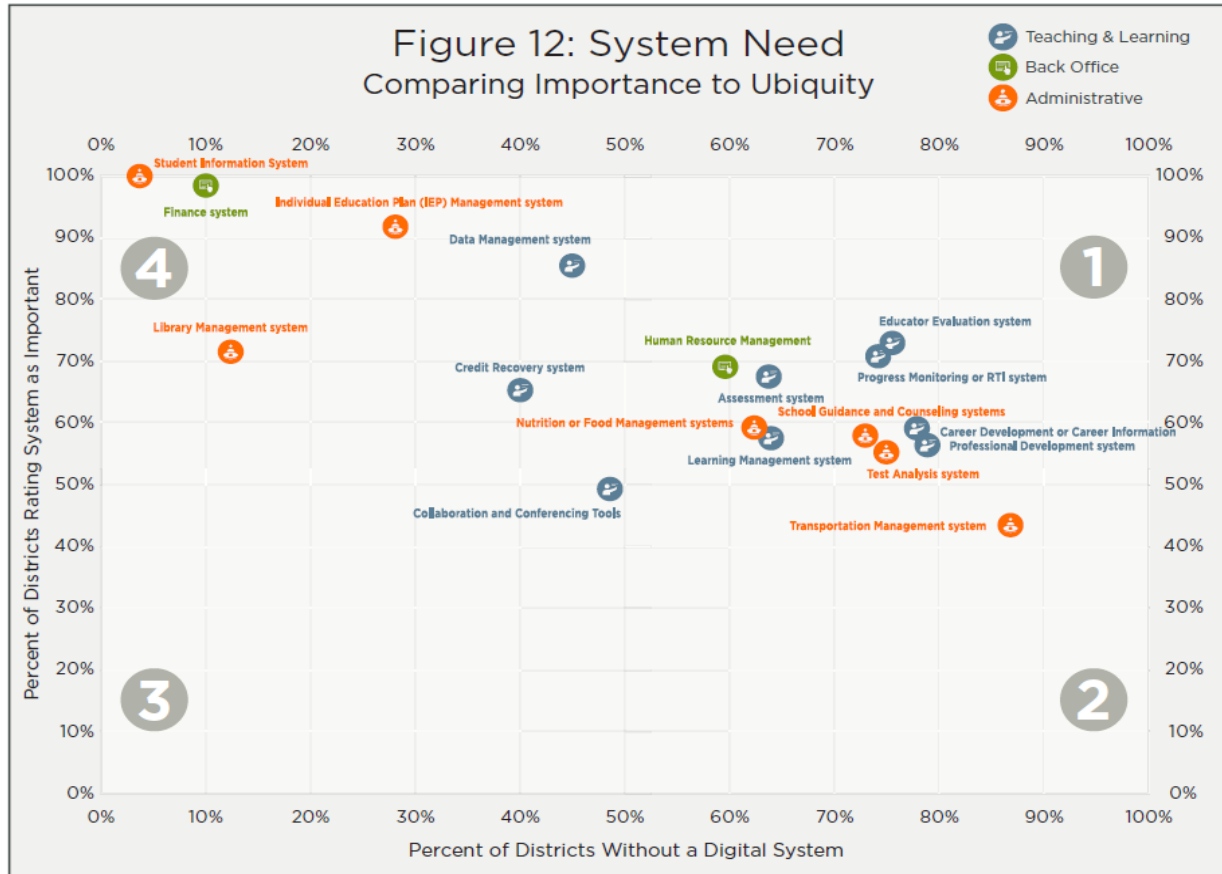
For convenience, Figure 11 and 12 from the education data systems are provided in this response.



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 Form

Funding Requests for Information Technology Projects

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. **ALSO NOTE** that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

Project Title	Nebraska eLearning Project
Agency/Entity	Nebraska Department of Education

**Project Proposal Form
2015-2017 Biennial Budget**

Notes about this form:

1. **USE.** The Nebraska Information Technology Commission (“NITC”) is required by statute to “make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel...” Neb. Rev. Stat. § 86-516(8). “Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions.” Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
2. **WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM?** See NITC 1-202 available at <http://nitc.ne.gov/standards/>. Attachment A to that document establishes the minimum requirements for project submission.
3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the “IT Project Proposal” section. The tabs in the “IT Project Proposal” section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. **ALSO NOTE** that for each “IT Project Proposal” created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.
4. **QUESTIONS.** Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

**Project Proposal Form
2015-2017 Biennial Budget**

General Information

Project Title	Nebraska eLearning Project
Agency (or entity)	Nebraska Department of Education

Contact Information for this Project:

Name	Brent Gaswick
Address	301 Centennial Mall S
City, State, Zip	Lincoln, Ne 68509
Telephone	402-471-3503
E-mail Address	Brent.gaswick@nebraska.gov

Executive Summary

Provide a one or two paragraph summary of the proposed project. This summary will be used in other externally distributed documents and should therefore clearly and succinctly describe the project and the information technology required.

Goals, Objectives, and Projected Outcomes (15 Points)

Project Overview: Nebraska eLearning Project

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.

The eLearning Project would be led by the Nebraska Department of Education in partnership with ESUs, NET, the University of Nebraska System, State College system, PreK-12 schools and additional State of Nebraska agencies.

This program is an investment to help reduce costs for Nebraska PreK-12 school districts by providing a high quality, extensive library of electronic learning objects to schools at no cost.

Provide real-world job experience for college students from multiple disciplines.

Make available intense real-world professional development activities for fellowshipped teachers.

Facilitate coordination and expansion of exemplar projects and resources already being done in individual or regional settings to provide equitable educational opportunities statewide.

Participants:

Certified preK-12 educators

**Project Proposal Form
2015-2017 Biennial Budget**

Pre-service education majors
Undergraduate computer science students/ IT students
Undergraduate graphic design students
Content specialists

Anticipated Partners:

NDE
ESUs
NET
University of Nebraska System
Nebraska State College System
Private College System
Community College System
Nebraska State Historical Society
Nebraska Library Commission
Nebraska Game and Parks
Network Nebraska

Goals:

Successfully integrate access to instructional content and professional development activities to student assessment data as part of an individualized learning platform. (Integrate the Data Dashboard with content).
Provide high quality learning objects, lessons or books equally to all Nebraska preK-12 schools at low cost or free of charge.
Develop and provide high quality professional development to current preK-12 Nebraska Educators and Pre-service education students.
Establish long term partnerships between preK-12 education, state agencies, post secondary institutions and ESUs

Measures of success:

Successful integration of a statewide Learning Object Repository system into the Data Dashboard system
Successful adoption of a state wide LOR system as part of Network Nebraska
Production and adoption of Nebraska aligned content for preK-12 schools
Successful adoption of statewide Meta tagging standardization guidelines
Explore utilization of a third party evaluation model such as Bright Bytes statewide

Deliverables:

Statewide Learning Object Repository
Nebraska specific Metadata standards guidelines
Nebraska specific Open Education Resources
High quality professional development resources

**Project Proposal Form
2015-2017 Biennial Budget**

High quality learning objects
Post secondary internship experiences
Free learning objects, courses and instructional tools
24/7 365 access to learning
equity of access

Project Justification / Business Case (25 Points)

Project Breakdown

eLearning Project Director

To ensure the success of this project, it is proposed that 1.0 FTE be created and assigned to NDE as part of the Technology Learning Center Team. The eLearning Project Director would be the only position added to NDE as part of this project and would be responsible for oversight of the project in cooperation with the Director of the Network, Education and Technology team currently employed by NDE. Responsibilities of this position would include coordination with partner agencies, oversight of funding awarded to contracting agencies and project management. This position is a critical role in the project, because they will be charged with fostering and maintaining partnerships that will ultimately determine the success or failure of the project.

Tier 1 - Content Creation and procurement

This component of the project would need a physical office space dedicated to content creation work

- OER adoption
- Meta tagging standardization
- Produced Content Procurement
- Content Creation
- Gamification research and development
- Master course shells
- Learning objects
- Individual concept lessons

Content Creation Team

- 1 Fellowship teacher leader
- 1 Classroom teacher \$500 incentive per item
- 1 Programing intern \$10 per hour x 5 hours avg. = \$50
- 1 Design intern \$10 per hour x 5 hours avg. = \$50
- 2 Pre-service intern \$10 per hour x 5 hours avg. = \$100

Average cost per content item = \$700

Tier 2 - Professional Development

Fellowship program

- Partnership with post secondary institution(s), ESUs and school districts
- 5 or 6 Nebraska educators seeking a Master's degree

**Project Proposal Form
2015-2017 Biennial Budget**

- and on active sabbatical
- Duration of one year
- Each person receives \$40,000 per year fellowship
- Help supervise content creation teams, develop professional development courses and provide in-person professional development trainings

Training development and inservice

- Develop high-quality Nebraska-focused professional development content for use by any Nebraska PreK-12 school, free of charge
- Provide on-site or regional professional development opportunities for educators at no cost to them or the district
- Money will go to site fees, stipends for teachers attending, materials and content development and hosting

Tier 3 - Integration and Support

Dashboard Integration:

- Develop a process of integrating instructional content for students and educators into the Dashboard
- Single sign-on support and adoption
- Write customized API codes to allow communication between Dashboard and LOR
- Identify and deploy hardware required to support successful integration
- Statewide help desk support or development

Learning Object Repository:

- Creation of advisory team to explore and recommend a statewide content repository solution (NDE, NET, ESUCC, PreK-12, Post-secondary)
- Partner with Network Nebraska to provide the selected solution as a service of Network Nebraska to help develop a sustainable LOR system.

Technical Impact (20 Points)

Current Projects this will support:

- Teacher/Principal Evaluation
- A QuESTT- school accountability
- Statewide Longitudinal Data system
- Early Childhood initiatives, including Step Up to Quality
- NeSA - state accountability
- BlendEd Initiative
- Career and Technical Education

**This list is just a small sample of the projects that would benefit from the Nebraska eLearning project. Ultimately, this project, if funded and deployed successfully, has the potential to impact all Nebraska learners, PreK-20, public, private or homeschool.*

**Project Proposal Form
2015-2017 Biennial Budget**

Cost savings:

Reducing the number of LOR systems being implemented will result in cost savings to PreK-12 schools, ESUs and Nebraska State Agencies by allowing for single-point negotiations and reduction of per-user cost due to the scale of the project.

Development of a statewide LOR and high-quality content will reduce the need for school districts to purchase devices for students, as the access this project provides will allow for an expansion of “Bring your own device” programs. Students can access learning with their own devices anytime, anywhere.

With access to the LOR, schools will have access to a wide variety of high-quality, digital learning objects, ranging from digital textbooks to royalty-free graphics. This will save schools money by the reduction in the need to purchase these resources from a third party provider.

High quality digital professional development resources will reduce cost to districts in multiple ways; the first is the overall cost for the professional development content and instruction, second, it will allow the teacher to participate in high-quality professional content without leaving their classroom, which reduces district cost for substitutes.

In time, the State of Nebraska will build capacity for sustainability through a cadre of highly effective master teachers trained to effectively create Individualized Learning Environments for students which will provide their school districts with a local expert to help mentor other teachers without the need for bringing in expensive outside experts.

Preliminary Plan for Implementation (10 Points)

Proposed Project Timeline*

*The timeline anticipates one year of lead time prior to receiving actual funding. All dates are estimates and subject to change.

Prior to 2016:

Begin establishing needed partnerships for successful implementation of the eLearning project upon receiving funding.

2016-2017:

July

Hire Project Director at NDE
Make initial Fellowship awards
Award contracts to partnering agencies

August

Establish physical location for content creation and professional development activities
Establish LOR, OER and Metadata advisory groups

**Project Proposal Form
2015-2017 Biennial Budget**

September

- Begin work on OER, Meta tagging projects
- Initial internship positions filled for content creation teams
- Establish work group for data dashboard
- Integration work

October - May

- Development of custom content
- Development of professional development content
- Work on OER adoptions
- Work on Meta tagging standards
- Research on LOR

June

- Select statewide LOR and begin deployment

2017-2018:

August

- Provide Meta Tagging standards document statewide
- Provide LOR system statewide
- Deliver first round of OER, custom content and professional development on LOR

September - June

- Continue OER, content creation, and professional development activities
- Provide training to all partners on the new LOR, Meta tagging standards and content
- Begin work on integration of LOR content with the Data Dashboard
- Maintenance of support on LOR
- Complete initial project evaluation

2018-2019:

- Continue professional development activities and content development
- Continue OER, content creation and adoption projects
- Continue LOR utilization
- Begin integrating LOR content with the Data Dashboard
- Expand and complete second project evaluation

2019-2020:

- Continue professional development activities and content development
- Continue OER, content creation and adoption projects
- Continue LOR utilization
- Expand integration of LOR content with the Data Dashboard
- Expand and complete third year project evaluation
- Complete new project objectives and goals to guide the next four year project cycle.

**Project Proposal Form
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12. Describe the ongoing support requirements.

Risk Assessment (10 Points)

LOR adoption has several risks associated with it. The first is reaching a consensus among the committee on a centralized solution which could cause the whole project to fail or a continuation of an environment where multiple LORs are adopted on a regional or local level. The careful selection of committee members from a variety of organizations, clearly defining that this system needs to be a statewide solution that is part of Network Nebraska and the direction of the Department of Education's eLearning Project Leader will help ensure that this project does in fact succeed.

The cost of the LOR system is another area of risk as unforeseen problems and costs could be pushed outside the budgeted amount. The committee's provision of clear expectations for the system and adherence to the proper NITC RFP protocols will keep the cost of the system in line with expectations and ensuring that the system is effective.

Successfully creating and sustaining a partnership between all parties needed for this project will be a major risk. The need for a single person to coordinate and lead this partnership will be essential to this project. The NDE eLearning Project director position will be charged with making sure that this risk is mitigated and the project is successful by sharing a single vision with all partners and overseeing and reporting on the project at all levels

**Project Proposal Form
2015-2017 Biennial Budget**

Financial Analysis and Budget (20 Points)

15. Financial Information

The “Financial” information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.)



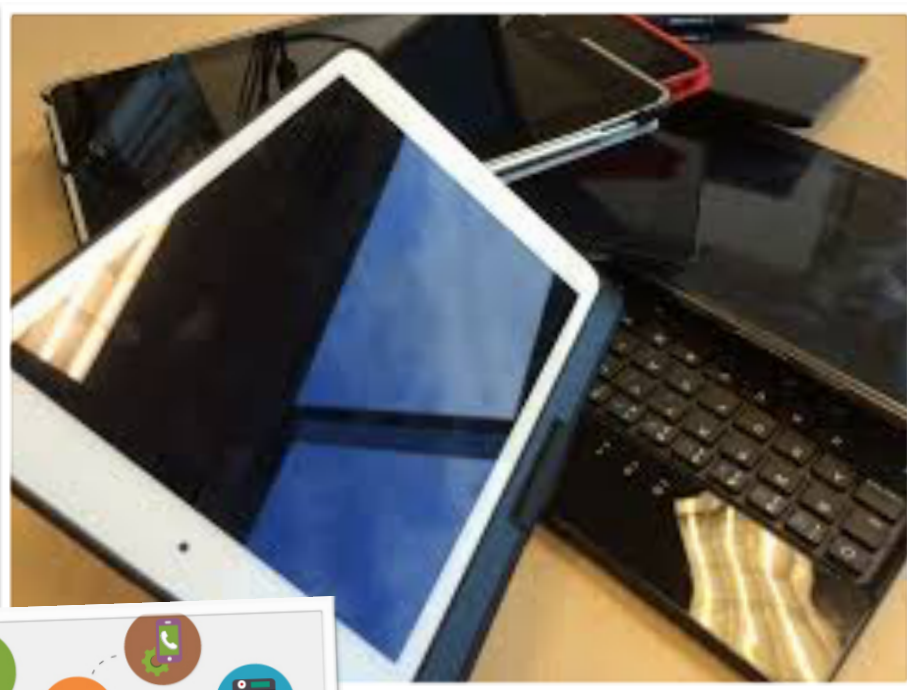
Worksheet in Project
Proposal Form.xls

Nebraska Information Technology Commission
Project Proposal Form
Section 8: Financial Analysis and Budget

(Revise dates as necessary for your request.)

	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

Nebraska eLearning Project



Systems
of Support for all
Nebraska learners

Nebraska eLearning Project

A cooperative effort to support personalized learning for all Nebraska learners

The Nebraska Department of Education is requesting additional budget authority to support the Technology Learning Center's mission under Nebraska statutory authority: Sections 79-1302, 79-1303, 79-1304, 79-1305, 79-1306, 79-1307 and 79-1310.

The Technology Learning Center was established to serve the State of Nebraska's PreK-12 schools with the following goals, and objectives:

- *To provide clearinghouse services for information concerning current technology projects as well as software and hardware development*
- *To serve as a demonstration site for state-of-the-art hardware appropriate to an educational setting*
- *To provide technical assistance to educators in working with hardware and software*
- *To provide in-service and pre-service training for educators, in conjunction with other public and private educational entities, in the use of computers, telecommunications, and other electronic technologies appropriate to an educational setting*
- *To sponsor activities which promote the use of technology in the classroom*
- *To serve as a liaison between business and education interests in technology communication*
- *To experiment with various applications or technology in education*
- *To assist schools in planning for and selecting appropriate technologies*
- *To design, implement, and evaluate pilot projects to assess the usefulness of technologies in school management, curriculum, instruction, and learning*
- *To seek partnerships with the Nebraska Educational Telecommunications Commission, the University of Nebraska, the state college system, educational service units, the Nebraska Library Commission, and other public and private entities in order to make effective use of limited resources*
- *To encourage sharing among school districts to deliver cost-efficient and effective distance learning*
- *To establish an electronic data network and access to appropriate databases for learners and educators through purchase of necessary hardware, software, and licenses for national data bases. The center shall provide assistance to schools for training communication costs and, through work with Nebraska educators and learners, shall develop state-level databases*
- *To identify, evaluate, and disseminate information on school projects which have the potential to enhance the quality of instruction or learning.*

The Technology Learning Center exists in statute and with 1.5 staff members, there is no funding assigned to the Technology Center to carry out any work. The Nebraska eLearning Project proposal is intended to provide the Technology Center with funding to work with partners in order to carry out its charge.

Project Overview: Nebraska eLearning Project

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.

The eLearning Project would be led by the Nebraska Department of Education in partnership with ESUs, NET, the University of Nebraska System, State College system, PreK-12 schools and additional State of Nebraska agencies.

- This program is an investment to help reduce costs for Nebraska PreK-12 school districts by providing a high quality, extensive library of electronic learning objects to schools at no cost.
- Provide real-world job experience for college students from multiple disciplines.
- Make available intense real-world professional development activities for fellowshipped teachers.
- Facilitate coordination and expansion of exemplar projects and resources already being done in individual or regional settings to provide equitable educational opportunities statewide.

Participants:

- Certified preK-12 educators
- Pre-service education majors
- Undergraduate computer science students/ IT students
- Undergraduate graphic design students
- Content specialists

Anticipated Partners:

- NDE
- ESUs
- NET
- University of Nebraska System
- Nebraska State College System
- Private College System
- Community College System
- Nebraska State Historical Society
- Nebraska Library Commission
- Nebraska Game and Parks
- Network Nebraska

NeBooks Project

The current NeBooks Project that is being facilitated by NDE is just one example of the content creation that can be achieved through this project. Currently, the NeBooks Project is an unfunded voluntary effort on the part of multiple state agencies, ESUs, and schools.

The participants create custom eBooks and provide them free of charge to anyone in the state that would like to use them. If the eLearning project was funded, this program could be quickly expanded to provide additional high quality eBooks to Nebraska schools free of charge. This funding would result in cost savings for districts in material procurement costs, and also provide a rich source of learning objects for students to explore and learn from independently.

To find out more visit:

<http://www.education.ne.gov/nebooks/>

Goals:

- Successfully integrate access to instructional content and professional development activities to student assessment data as part of an individualized learning platform. (Integrate the Data Dashboard with content).
- Provide high quality learning objects, lessons or books equally to all Nebraska preK-12 schools at low cost or free of charge.
- Develop and provide high quality professional development to current preK-12 Nebraska Educators and Pre-service education students.
- Establish long term partnerships between preK-12 education, state agencies, post secondary institutions and ESUs

Intel Teach Elements

The Nebraska Department of Education and the ESUCC cooperatively obtained a grant from Intel to implement the Intel Teach Elements courses in Nebraska. The grant was provided by Intel for the customization of the courses to fit Nebraska standards, to deploy the courses in an LMS environment accessible across the state, and to develop a cadre of trainers. These courses are free professional development courses for Nebraska educators provided in multiple formats from facilitated to self-paced online. Through the eLearning Project, NDE would work with multiple partners to individualize free content and develop Nebraska content for teachers to learn how to effectively implement personalized learning in their classrooms.

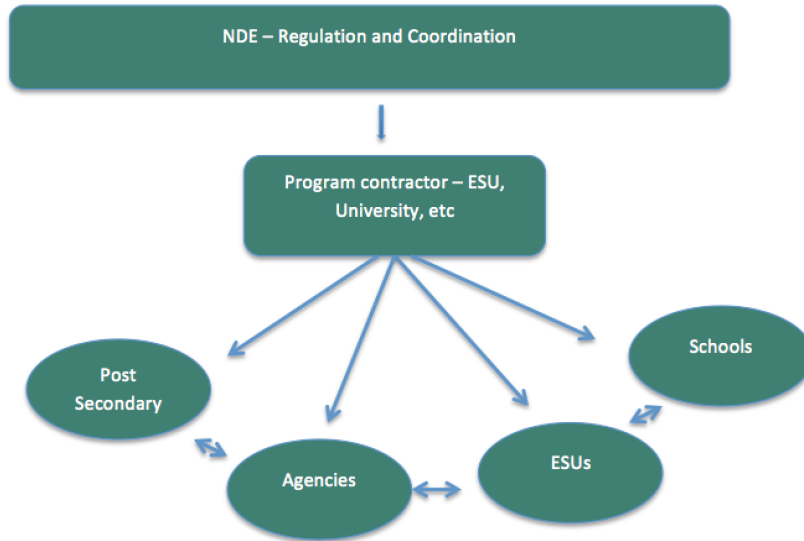
Measures of success:

- Successful integration of a statewide Learning Object Repository system into the Data Dashboard system
- Successful adoption of a state wide LOR system as part of Network Nebraska
- Production and adoption of Nebraska aligned content for preK-12 schools
- Successful adoption of statewide Meta tagging standardization guidelines
- Explore utilization of a third party evaluation model such as Bright Bytes statewide

Deliverables:

- Statewide Learning Object Repository
- Nebraska specific Metadata standards guidelines
- Nebraska specific Open Education Resources
- High quality professional development resources
- High quality learning objects
- Post secondary internship experiences
- Free learning objects, courses and instructional tools
- 24/7 365 access to learning
- equity of access

Organizational Structure of Project:



Open Educational Resources

(OER) are freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing as well as for research purposes. Although some people consider the use of an open file format to be an essential characteristic of OER, this is not a universally acknowledged requirement.

The OER portion of this project will be to find high quality OER content already available and align it to Nebraska State Standards and brand it as a Nebraska resource to help students connect with it.

Anticipated Costs:

Year 1 (2016-2017)

eLearning Director.....	\$88,000
Metadata Standardization.....	\$75,000
OER Adoption.....	\$180,000
Content Creation.....	\$250,000
Content Procurement.....	\$110,000
Professional Development.....	\$300,000
LOR Project.....	\$1.2 million
Dashboard Integration.....	\$300,000
Project Offices.....	\$90,000
Misc.....	\$14,000

Year 2 (2017-2018)

eLearning Director.....	\$90,000
Metadata Standardization.....	\$10,000
OER Adoption.....	\$180,000
Content Creation.....	\$285,000
Content Procurement.....	\$150,000
Professional Development.....	\$320,000
LOR Project.....	\$700,000
Dashboard Integration.....	\$800,000
Project Offices.....	\$50,000
Evaluation.....	\$10,000
Misc.....	\$12,000

Year 3 (2018-2019)	
eLearning Director.....	\$92,000
Metadata Standardization.....	\$5,000
OER Adoption.....	\$175,000
Content Creation.....	\$290,000
Content Procurement.....	\$150,000
Professional Development.....	\$300,000
LOR Project.....	\$300,000
Dashboard Integration.....	\$1.2 million
Project Offices.....	\$50,000
Evaluation.....	\$30,000
Misc.....	\$15,000

Year 4 (2019-2020)
*(complete reevaluation of project needs would be done during this year)**

eLearning Director.....	\$94,000
Metadata Standardization.....	\$0
OER Adoption.....	\$180,000
Content Creation.....	\$300,000
Content Procurement.....	\$260,000
Professional Development.....	\$300,000
LOR Project.....	\$150,000
Dashboard Integration.....	\$1.2 million
Project Offices.....	\$50,000
Evaluation.....	\$60,000
Misc.....	\$13,000

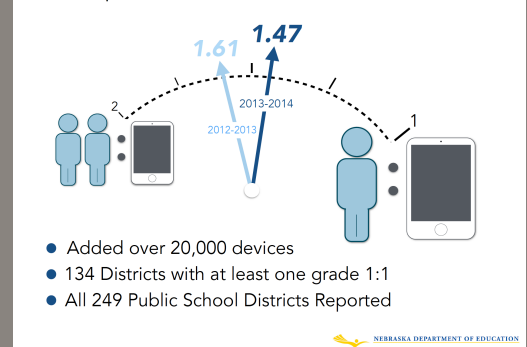
**Yearly reports will be made available to the public as to the use of funds as part of this project. An advisory group made up of representatives from the project partners will meet yearly to discuss project directions and to adjust goals, budgets and needs to be met as part of the project.*

Hardware vs. Content

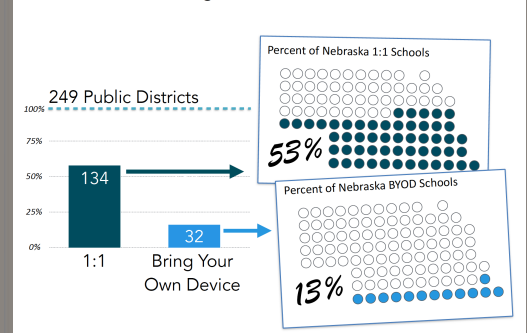
Nebraska schools have made an effort to purchase devices for students to use as indicated in the graphics showing Instructional Devices per student and 1:1 adoptions in the state.

Often times for schools, after spending money for the hardware, they don't have enough money for content to use with the devices. Free content, while widely available, is often difficult to find and organize for teachers and students. The Nebraska eLearning Project would help solve this by providing high quality digital content free of charge to the district in a single location.

Students per Instructional Device



One to One and Bring Your Own Device



**graphics created from 2013-2014 Technology Planning document data*

Project Breakdown

eLearning Project Director

To ensure the success of this project, it is proposed that 1.0 FTE be created and assigned to NDE as part of the Technology Learning Center Team. The eLearning Project Director would be the only position added to NDE as part of this project and would be responsible for oversight of the project in cooperation with the Director of the Network, Education and Technology team currently employed by NDE. Responsibilities of this position would include coordination with partner agencies, oversight of funding awarded to contracting agencies and project management. This position is a critical role in the project, because they will be charged with fostering and maintaining partnerships that will ultimately determine the success or failure of the project.

THE Gamification OF EDUCATION

Gamification* has tremendous potential in the education space. *How can we use it to deliver truly meaningful experiences to students?*

*Gamification [n]: the use of game design elements in non-game contexts

"Game players regularly exhibit persistence, risk-taking, attention to detail, and problem-solving, all behaviors that ideally would be regularly demonstrated in school." — *The Education Arcade at MIT*

1.2 MILLION STUDENTS in the U.S. fail to graduate from high school every year. According to Joey Lee and Jessica Hammer at Columbia Teachers College, "the default environment of school often results in undesirable outcomes such as disengagement, cheating, learned helplessness, and dropping out."

28 million people harvest their crops on *FarmVille* every day.

OVER 5 million play an average of 45 hours a week of games.

As a planet, we spend **3 billion hours a week** playing video and computer games.

What elements of gaming can we harness for educational purposes?

PROGRESSION – See success visualized incrementally

- Levels:** Ramp up and unlock content.
- Points:** Increase the running numerical value of your work.

INVESTMENT – Feel pride in your work in the game

- Achievements:** Earn public recognition for completing work.
- Appointments:** Check in to receive new challenges.
- Collaborations:** Work with others to accomplish goals.
- Epic Meaning:** Work to achieve something sublime or transcendent.
- Virality:** Be incentivized to involve others.

CASCADING INFORMATION THEORY – Unlock information continuously

- Bonuses:** Receive unexpected rewards.
- Countdown:** Tackle challenges in a limited amount of time.
- Discovery:** Navigate through your learning environment and uncover pockets of knowledge.
- Loss Aversion:** Play to avoid losing what you have gained.
- Infinite Play:** Learn continuously until you become an expert.
- Synthesis:** Work on challenges that require multiple skills to solve.

Tier 1 - Content Creation and procurement

- This component of the project would need a physical office space dedicated to content creation work
- OER adoption
- Meta tagging standardization
- Produced Content Procurement
- Content Creation
 - Gamification research and development
 - Master course shells
 - Learning objects
 - Individual concept lessons

Content Creation Team

- 1 Fellowship teacher leader
 - 1 Classroom teacher \$500 incentive per item
 - 1 Programing intern \$10 per hour x 5 hours avg. = \$50
 - 1 Design intern \$10 per hour x 5 hours avg. = \$50
 - 2 Pre-service intern \$10 per hour x 5 hours avg. = \$100
- Average cost per content item = \$700

Tier 2 - Professional Development

- Fellowship program
 - Partnership with post secondary institution(s), ESUs and school districts
 - 5 or 6 Nebraska educators seeking a Master's degree and on active sabbatical
 - Duration of one year
 - Each person receives \$40,000 per year fellowship
 - Help supervise content creation teams, develop professional development courses and provide in-person professional development trainings

- Training development and inservice
 - Develop high-quality Nebraska-focused professional development content for use by any Nebraska PreK-12 school, free of charge
 - Provide on-site or regional professional development opportunities for educators at no cost to them or the district
 - Money will go to site fees, stipends for teachers attending, materials and content development and hosting

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- Develop a process of integrating instructional content for students and educators into the Dashboard
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August

- Establish physical location for content creation and professional development activities
- Establish LOR, OER and Metadata advisory groups

Personalized learning is the tailoring of pedagogy, curriculum, and learning environments by learners or for learners in order to meet their different learning needs and aspirations. Typically, technology is used to facilitate personalized learning environments.

September

- Begin work on OER, Meta tagging projects
- Initial internship positions filled for content creation teams
- Establish work group for data dashboard
- Integration work

October - May

- Development of custom content
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- Maintenance of support on LOR
- Complete initial project evaluation

Content Creation Priorities

1. STEM Content
2. Nebraska Studies
3. Core curriculum
4. All other areas

Curricular Benefits

The content creation and procurement money will be able to provide instructional content ranging from early childhood to college and specific to Nebraska state standards and needs for all subject areas from core curriculum areas, high needs areas, special education, and gifted education.

2018-2019:

- Continue professional development activities and content development
- Continue OER, content creation and adoption projects
- Continue LOR utilization
- Begin integrating LOR content with the Data Dashboard
- Expand and complete second project evaluation

2019-2020:

- Continue professional development activities and content development
- Continue OER, content creation and adoption projects
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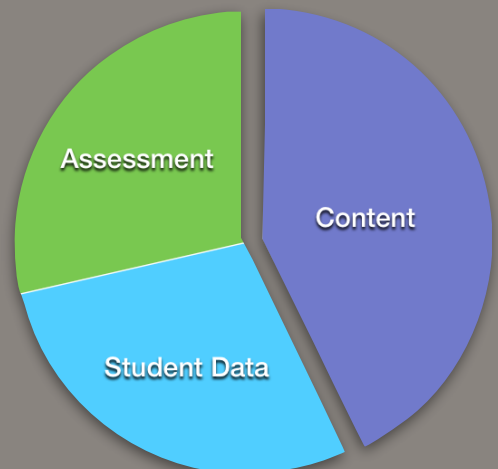
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In time, the State of Nebraska will build capacity for sustainability through a cadre of highly effective master teachers trained to effectively create Individualized Learning Environments for students which will provide their school districts with a local expert to help mentor other teachers without the need for bringing in expensive outside experts.

Dashboard Integration

Each component of this project is essential in having a long-term and lasting impact on student learning and success in Nebraska. The content creation and procurement portion of the project is important to assure all students and educators have equitable access to quality educational content to learn with and from. The LOR is imperative to help provide this equity of access regardless of geographical location or size of school. The dashboard integration is the final piece of the puzzle for school personnel trying to make learning truly personal for students. It will connect student assessment data with school level data and content tailored to the individual student’s learning needs, into one location in real time for the teachers to see and provide to students.



Risk Assessment

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Definitions:

Open Educational Resources (OER)

Freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing, as well as for research purposes. Although some people consider the use of an open file format to be an essential characteristic of OER, this is not a universally acknowledged requirement.

Metadata

The main purpose of metadata is to facilitate in the discovery of relevant information, more often classified as resource discovery. Metadata also helps organize electronic resources, provide digital identification, and helps support archiving and preservation of the resource. Metadata assists in resource discovery by "allowing resources to be found by relevant criteria, identifying resources, bringing similar resources together, distinguishing dissimilar resources, and giving location information."

Learning Object Repository (LOR)

A type of digital library that enables educators to share, manage and use educational resources.

Application Programming Interface (API)

An API is a software intermediary that makes it possible for application programs to interact with each other and share data. It's often an implementation of REST that exposes a specific software functionality while protecting the rest of the application.

For further information Contact:

Brent Gaswick
Director Network, Education and Technology Team
NDE
(402) 471-3503
brent.gaswick@nebraska.gov

Nebraska Information Technology Commission

Project Proposal Form

**Funding Requests
for Information Technology Projects**

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the "IT Project Proposal" section. The tabs in the "IT Project Proposal" section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. **ALSO NOTE** that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an "IT Issue" in the NBRRS to request funding for the project.

Project Title	Education Data Systems Capacity Building
Agency/Entity	Nebraska Dept. of Education

**Project Proposal Form
2015-2017 Biennial Budget**

Notes about this form:

1. **USE.** The Nebraska Information Technology Commission (“NITC”) is required by statute to “make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel...” Neb. Rev. Stat. § 86-516(8).
“Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions.” Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
2. **WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM?** See NITC 1-202 available at <http://nitc.ne.gov/standards/>. Attachment A to that document establishes the minimum requirements for project submission.
3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the “IT Project Proposal” section. The tabs in the “IT Project Proposal” section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. **ALSO NOTE** that for each “IT Project Proposal” created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.
4. **QUESTIONS.** Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

**Project Proposal Form
2015-2017 Biennial Budget**

General Information

Project Title	Education Data Systems Capacity Building
Agency (or entity)	Nebraska Dept. of Education

Contact Information for this Project:

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Executive Summary

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.

**Project Proposal Form
2015-2017 Biennial Budget**

Goals, Objectives, and Projected Outcomes (15 Points)

1. Describe the project, including:
 - Specific goals and objectives;

The following goals are established based on the recommendations from the Education Data System study and provide the basis for the creation of the five work streams.

Goal 1: Make security, privacy, transparency, and the proper use of data the core of the Nebraska Education Data System implementation.

Districts should continue to “own” their data within the statewide system. The ESU hosting must support enterprise-grade security with yearly independent security audits. The following tenets are recommended to protect privacy while ensuring proper use of student data:

1. Ensure that all agencies, organizations, contractors, and vendors that have access to student education records provide the same strength of protection, control, and transparency as codified in appropriate policies, contracts, and data sharing agreements.
2. Ensure that all persons that have access to student education records have training and certification (micro credentials) on the proper use and protection of education records.
3. Limit access to individual student education records to the minimal set of personnel essential for legitimate education purposes, for the shortest period of time required for that purpose, and to the smallest set of data required for that purpose.
4. To the maximum extent possible, use aggregate data and de-identified data in place of individual student education records.
5. Provide parents transparency into the sources and uses of student data.
6. Provide parents control of the child’s education record to the maximum extent that is possible while preserving legitimate educational use of that data.

Goal 2: Unify the data collection requirements into the Nebraska Education Data Standards (NEDS) to minimize the reporting burden on districts.

Replace the current system of accountability data submissions by instead deriving accountability data from an extended set of data sent securely by district systems into the Nebraska Education Data System (NEDS). The system would move the computations and business rule checks to the state level for better efficiency and consistency while also providing a transparent facility for district review and approval.

Goal 3: Require application vendors and other sources to provide data in a standard form specified by NDE directly into the NEDS. Adopt a Nebraska Education Data Standard in collaboration with the NITC.

Native vendor interfaces are required for sustainability. Ed-Fi defined CEDS-compliant data standard adopted in 24 states that can be extended for Nebraska-specific requirements. Ed-Fi adoption preserves district choice while maintaining data standardization at the state level. A governance process will be required to maintain the Nebraska-extended version of Ed-Fi year-to-year.

**Project Proposal Form
2015-2017 Biennial Budget**

Note that to ensure continued vendor participation, the data interface requirement needs to be in policy or legislation to ensure vendor compliance.

Goal 4: Leverage and strengthen Nebraska's ESU network, the ESUCC, and Network Nebraska to host, maintain, and sustain the Nebraska Education Data System, to support a statewide virtual help desk, and to train the educators in it is use.

Provide an enterprise-grade, efficient and economical technology platform through which applications and services are delivered to improve school performance and learner outcomes. The statewide system of support would leverage the resources at NDE, ESUCC, ESUs and districts to provide help desk support to districts and professional development coordination.

Goal 5: Leverage the state-level market to influence vendors, negotiate lower prices through competition, provide consistent functions and pricing across large and small districts, and expand the number and quality of instructional applications.

Facilitate "economies of scale" and cooperative purchasing at the state and/or ESU level and centralized services that lower costs without sacrificing the quality of products and services. Use this leverage to greatly expand the number and quality of instructional improvement applications.

The strategy is to create essentially an "application store" for school districts to choose from that leverages the collective bargaining advantage of 245 schools districts, 300,000 students, ESU resources and the Nebraska Department of Education.

Goal 6: Invest in providing education intelligence - access to actionable insight - through a warehouse, business intelligence tools, and increased internal capacity for districts, policy makers, and researchers.

Leverage the Ed-Fi K-12 statewide longitudinal data warehouse for use by districts, administrators, and researchers to support analysis of student performance, college and career readiness and success, instructional improvement initiatives, teacher evaluations, student intervention and professional development effectiveness. Integrate finance data, early childhood, postsecondary and workforce data.

Goal 7: Invest in an integrated data system that spans the districts, the ESUs, and NDE to support continuous education improvement.

The resulting Nebraska Education Data System (NEDS) should build upon the ongoing SLDS project to leverage the Ed-Fi data standards and technologies for the data system and dashboards. The system should adopt and build upon the ESUCC project for Single Sign-On (SSO). While the system will initially focus on serving the districts, it should ultimately be expanded to reach students and parents, community service organizations, and researchers.

Goal 8: Integrate staff data from district and state data sources, link teachers to student performance and success, and add additional data to better support teacher evaluation and professional development.

This will require integration of both the HR and SIS at the district level with the Teacher Certification and NPERS at the state level. Teachers will be linked to students to assess their contribution to student performance and growth. Additional data will be integrated for teacher evaluations and observations, survey data, and professional development.

**Project Proposal Form
2015-2017 Biennial Budget**

Goal 9: Invest in the licensing, integration and training of an Instructional Improvement System that is cost-effective for districts of all sizes.

The system will include the critical digital assets and tools to support areas like learning management systems, content management systems, blended and online learning, teacher/principal evaluation system, school improvement and climate tools, career readiness and discovery, local assessment systems, and other tools to enhance the educational opportunities and experiences.

Goal 10: Develop the staff and processes necessary to sustain the Nebraska Education Data System.

Additional leadership positions are recommended and include a K-12 Chief Information Officer and Chief Privacy Officer at NDE. The recommended initiative will expand an emerging project management office. Additional data governance processes will be required. Additional technical staff will be required at NDE and in the ESUs to meet the statewide help desk and support requirements.

Overall, the goals have been organized into five work streams:

1. Nebraska Education Infrastructure / Leveraged Capacity –

Leverage an open-source education data standard along with accompanying technical assets – student-level dashboards for teachers and secure data warehouses for reporting. Developing the Nebraska Education Data Standard – will mean a set of data standards for interoperability of systems. This work will also include the infrastructure to support a major data system, including a single sign on offering from the ESUCC. leverage the Ed-Fi infrastructure to connect source systems and drive down costs.

2. Automated Collections –

Reduce reporting burden by providing efficiency and automation for data submissions through the leveraged secure data infrastructure and support. The implementation of the transactional API among the applications significantly reduces the reporting burden.

3. NDE Education Intelligence System / Actionable Insight --

Targeted resources, once expended on data submission, can be directed to effectively using Nebraska's data system and ensuring privacy and security of the data. The educational insight will include the ADVISER Dashboard, data warehouse, and other longitudinal analysis that would inform both policy and practice. to provide access to actionable insight – through a warehouse, business intelligence tools, and increased internal capacity.

4. Help Desk & Support –

Collaborate to include Training and Help Desk support around the systems—statewide. The cooperative support would provide opportunities for NDE, ESUCC and others to coordinate assistance using a tiered ticketing system, knowledge transfer, and professional development for data use.

5. Nebraska Instructional Improvement System –

Leverage the interoperability of the data standard and the state “buying power” to support an Instructional Improvement System. The creation of an “app store” would provide low cost or free options for school districts to choose applications that support digital system access and data integration—for all districts in Nebraska.

**Project Proposal Form
2015-2017 Biennial Budget**

- **Expected beneficiaries of the project; and**

School Districts and local communities, Educational Service Units, Multiple Government Agencies, postsecondary education, and ultimately students are the primary beneficiaries of the projects. Reducing the reporting burden of districts, provided secure and near real time access to insightful metrics and information assist school districts required to submit and use data daily. The support systems and coordination of the ESUCC and NDE provide wrap around efforts to efficiently provide resources to schools in Nebraska. Increasing the data quality and timeliness of the data collection provides opportunities for research and evaluation into policy and supports innovative understanding of practice. Alignment to postsecondary education, P-20, workforce, and other critical systems in Nebraska provide unique opportunities to effectively provide insight that support opportunities for secure management of the information ensuring the protection of student privacy while empowering access for all Nebraska students to thrive.

- **Expected outcomes.**

An integrated, sustainable, and comprehensive systems approach to support local control while leveraging the capacity of continuity, efficiency, and equitable access to technological tools of efficiency is primary overarching expected outcomes.

In addition, the reduction of reporting burden using the current methods of collection, while increasing the quality and timeliness of the data increases the opportunities to effectively use information for all schools in Nebraska.

Lower costs, leveraging the capacity of the state for systems is an outcome realized for all districts.

Integrated data systems that support a Nebraska Education Data Standard provide a clear expectation for districts and third party vendors what the expectations are in Nebraska support a base of continuity and allow for innovation and cost savings.

Increased focus on student data privacy, security and transparency.

2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

The multiple aspects of the systems include a number of measurements to ensure completion and ongoing continuous improvement and evaluation. The primary measures will be a reduced burden of reporting data for the use at the lowest level and an increase in the use of the data to inform policy and practice.

In addition, the following measurements are examples of metrics established to measure and assess the project outcomes.

1. Security audit, policies, practices, and supports for school districts conducted annually to ensure system and mechanisms adhere to established expectations, rules, and policies.
2. A Nebraska Education Data Standard is established and adopted. Supporting mechanisms for oversight and governance
3. Decrease the number of human-hours on process of submitting data by 50% over three years through automated API secure technologies.

**Project Proposal Form
2015-2017 Biennial Budget**

4. By year 3 of the implementation, all 245 school districts are connected to the system and have secure access to the resources created.

Additional multiple measures and metrics that included the comprehensive integration and of the entire project will a mission critical focus of the project work and connected to the performance management system of staff associated with the projects.

3. Describe the project's relationship to your agency comprehensive information technology plan.

The project is at the core of the information agencies technology plan and represents a critical path moving forward to support effective schools, changes in Nebraska accountability, and efficiencies to ensure effective use of financial and human resources while at the same time ensuring equitable opportunities for all school districts in Nebraska.

Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

ESTIMATED FINANCIAL RETURNS

The primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success. However the proposed approach also results in cost savings and efficiencies that will provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts.

REDUCED ACCOUNTABILITY COSTS

Accountability costs will be reduced by unifying and moving accountability computations to state from a single fine-grained data collection. An 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.

REDUCED TECHNOLOGY COSTS FOR DISTRICTS

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 and contract costs

**Project Proposal Form
2015-2017 Biennial Budget**

	Year 1 FY 2016 SY 2015-2016	Year 2 FY 2017 SY 2016-2017	Year 3 FY 2018 SY 2017-2018	Year 4 FY 2019 SY 2018-2019	Year 5 FY 2020 SY 2019-2020
Investment	\$(14,149,128)	\$(13,905,490)	\$(13,905,492)		
Returns					
Reduced accountability costs		\$1,524,169	\$7,590,361	\$12,600,000	\$12,600,000
Reduced technology costs		\$3,755,020	\$11,265,060	\$18,700,000	\$18,700,000
Yearly net investment/return	\$(14,149,128)	\$(8,626,301)	\$4,949,930	\$31,300,000	\$31,300,000
Cumulative investment/return	\$(14,149,128)	\$(22,775,429)	\$(17,825,499)	\$13,474,501	\$44,774,501

- Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

A number of strategies were considered as possibilities to address the challenges facing Nebraska schools, but the opportunity to leverage the federal investment through SLDS, take advantage of an emerging royalty free open source technology that is supported through a network of a number of states, and meet the needs of school districts as reporting through surveys, focus groups, phone interviews and data the proposed approach provides the most systemic approach to the future.

Some states have chosen to purchase a single vendor solution, but the short and long term weaknesses of this approach include challenges with integration, risks associated with sustainability, and the long term financial commitment to a vendor to support the systems. This approach has not provided advantages to states and limits the options to embrace new and emerging technologies. Some states have completely relied on internal customization and development. The investment and management of staff to have the capacity for this approach limits the opportunities to embrace private company innovation and is extremely challenging with the currently available personnel services limitation. Ultimately, the approach to embrace the support of contractors, enhance the personnel to support the systems, and leveraging the capacity and market forces allows all of the options to benefit Nebraskans.

Doing nothing continues to undermine the opportunities available for Nebraska schools, reduces the effectiveness of the technology and systems investments made in Nebraska, and continues to impact the number of resources to target student achievement. The requirements of data collection along with the increasing uses of data require leadership from the state to support school districts, protect student privacy, and provide access to resources and tools to take advantage of the technologies available. Finally, doing nothing has the highest level of risk moving forward for Nebraska. This option is not acceptable for Nebraska and can be addressed through the efforts of this comprehensive and visionary series of work streams.

- If the project is the result of a state or federal mandate, please specify the mandate being addressed.

There are multiple mandates at the state and federal level for school accountability, data reporting, and the use of what should be quality data. The Elementary and Secondary Education Act (ESEA) often referred to as No Child Left Behind, 30+ federal programs, state accountability, state aid calculations, and

**Project Proposal Form
2015-2017 Biennial Budget**

a significant number of other data requirements are mandated. Most recently, LB438, requires using data to identify the lowest performing schools and provide support for those schools. Quality data and systems are a critical resource to achieve this requirement as well. The proposed approach creates an opportunity to effectively achieve these mandates and at the same time provide systems of support to benefit Nebraska schools.

Technical Impact (20 Points)

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

Primarily the multiple projects create a systems approach to the planning and infrastructure for Nebraska schools and capitalize on the collaboration among NDE, ESUCC, and ESU systems to support Nebraska schools. The approach creates a unique opportunity to leverage federal, state, and local investment to achieve efficiencies. The process primarily creates an opportunity to change the way data is collected, used, stored, and ultimately accessed. In addition, the opportunity to focus on privacy, security, and transparency are critical elements considered through the work streams presented in the project

The technical aspects of the multiple stream project include a variety of technologies, but primarily are Microsoft based technologies including .Net, SQL, SSIS, SSRS, and the following expectations for staff and contractors to achieve:

USER INTERFACE DEVELOPER

This user interface will maintain the C# codebase for the dashboard. Troubleshoot display issues and errors in the dashboards; Helps analyze incorrect data displays to help identify the source of the defect (i.e. data load issue or UI display bug); create extensions to the dashboard: adjusting metric rendering, add elements to other pages through extensions, add new pages as they may be needed, add drilldown extensions. Maintain and troubleshoot REST API issues, add extensions to the REST API, and work with Business Analyst and districts to understand requirements for new features or enhancements.

Tools, Skills, Knowledge Areas

C#
ASP.NET MVC 3 with razor views
Visual Studio 2012 or Higher
Dependency Injection/Inversion of Control (Castle is used in the dashboards for IoC)
Git
jQuery
HTML
javascript
CSS
nunit
TDD/BDD
moq and/or rhino mocks
WebApi (for 2.0)

**Project Proposal Form
2015-2017 Biennial Budget**

REST (for vNext)

DATABASE/ETL DEVELOPER

The person that will maintain the SSIS packages that transform data between data sources. Trouble shoot data calculation (transform) issues in the SSIS packages. Maintain any custom data mapping/exports. Troubleshoot SSIS package failures. Create new extension packages as needed for new data to be displayed in the dashboards. Analyze source data that will be loaded into ODS. Work with district Data Stewards during statewide rollout. Trouble shoot bulk load XML issues. maintain Accountability Data mart loads. Work with Data owner to maintain and develop extension ETL for ODS DW and Accountability Data mart.

Tools, Skills, Knowledge Areas

Microsoft SQL Server

MSSQL SSIS

Sql Data Tools/Visual Studio/ SSRS

XML

XML Editor like XML Spy

Mapping Tool like MapForce

Infrastructure

The person that will maintain the Continuous Integration and deployment environment. Maintain TeamCity builds. Troubleshoot TeamCity failures or errors. Maintain and troubleshoot API and dashboard deployments. Maintain different environments (e.g. Development, Test, Production). Work with SIS vendors; Integration of SIS vendors and data feeds for pilot testing, Integration of SIS vendor data feeds to the production environment during statewide rollout, Identify and resolve production issues with data feeds via the batch and/or API interfaces. Work with districts during statewide rollout; Integration of any batch data feeds at the district level (e.g. HR system loads). Address issues with pilot testing as it relates to data loads, builds and integration of new districts.

Tools, Skills, Knowledge Areas

Powershell

TeamCity

IIS

Continuous Integration

Data Steward/Data Owner/DBA or Data Architect

The Data Steward/ODS owner will be responsible for the long term maintenance of the Ed-Fi Operational Data Store (ODS). They will have responsibility for the ODS schema and accuracy of the data loaded and stored in the database. Additionally, they will have responsibility for understanding and supporting Nebraska specific ODS, Ed-FI LDW, and Accountability Data Mart extensions and extending the ODS, Ed-FI LDW, and Accountability Data Mart as required to support future enhancements. Maintain ODS, Ed-FI LDW, and Accountability Data Mart schema. Change ODS, Ed-FI LDW, and Accountability Data Mart schema as needed for extensions. Identify and resolve issues with data feeds from the ODS to the Data Warehouse and Accountability Data Mart. Work with SIS Vendors; Assist with understanding the Ed-Fi xml standard, Assist with understanding the REST API interface to the ODS, Production issues with data feeds via the API interface. Work with Districts that utilize batch data load to the ODS; Statewide rollout integration and support, Coordinate with vendors and districts that are adding new batch data feeds to the ODS, Identify and resolve data quality/load issues. Work with district Data Stewards during statewide rollout; To identify and resolve data issues, Step up user claims mappings to district roles.

**Project Proposal Form
2015-2017 Biennial Budget**

Tools, Skills, Knowledge Areas

Ed-Fi standard
DBA Skills
Nebraska Specific data requirements

Through the resources provided by the initial federal SLDS grant, training and capacity building of staff has started to increase the capabilities, skills, and knowledge in the areas required to support the efforts of long-term engagement and statewide rollout of the work associated with the strategies.

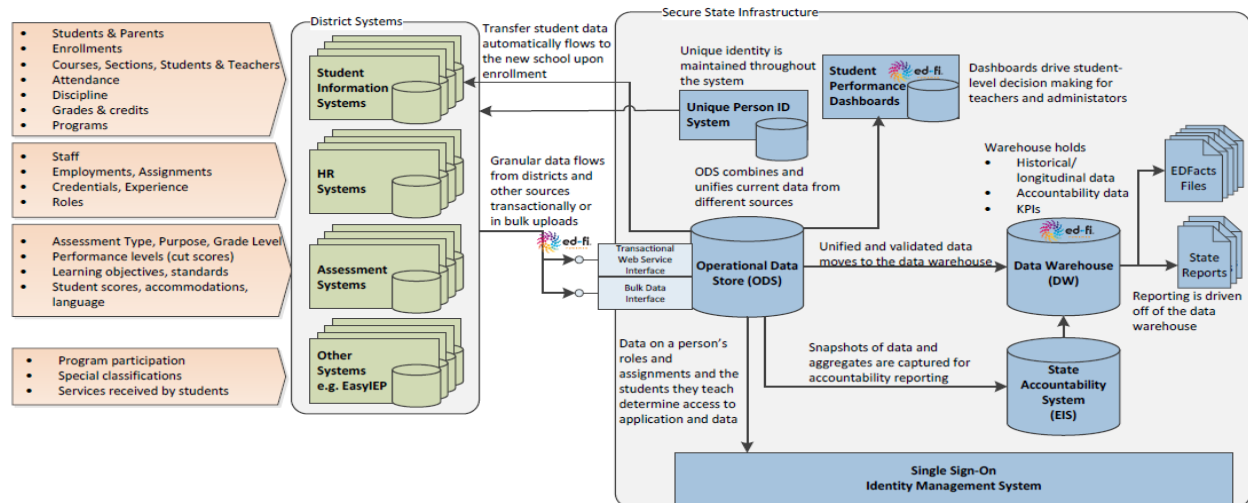
The implementation and coordination with the capacity provided through the ESUCC and the technical collaboration between NDE and ESUCC create an unprecedented opportunity to support the systemic integration and work of the broader vision for Nebraska. A pilot project utilizing JitBit support management is serving as a basis for testing statewide integration and support for new technology implementation.

The strengths of the proposal include engagement of an open source educational data standard framework and schema adopted by 24 states that creates a unique opportunity to leverage the investments and approaches of other states to enhance the resource in Nebraska. An significant example already realized during the pilot is the implementation of the early warning system, developed in Pennsylvania that identifies students likely on a path to dropping out of school. The “extension” was added to the core open source engagement and will be available for Nebraska schools that choose to implement as a resource.

The perceived weakness of the implementation is the increased human capacity required to sustain the efforts, but given the overarching advantages gained the small legitimate investment in staff capacity creates a unique opportunity for Nebraska heretofore has never existed.

The following is the high-level technical systems architecture approach to achieve a core of the systems:

Nebraska Building Capacity Approach



**Project Proposal Form
2015-2017 Biennial Budget**

8. Address the following issues with respect to the proposed technology:

- Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.

All efforts focus on reliability of the system to ensure security of the systems. The use of the federated single sign on solution, industry standard API technology, encryption strategies, role based authentication for access and integration into the applications provide to school districts all provide an opportunity to increase the level of security and ensure ultimately the scalability of the systems for the state.

- Address conformity with applicable NITC technical standards and guidelines (available at <http://nitc.ne.gov/standards/>) and generally accepted industry standards.

All NITC technical standards and guidelines would continue to be critical resources for the planning and support of the system and integration. In addition, the ITIL standards, the Ed FI data standards, built from the Common Education Data Standards (CEDS) create a unique opportunity for synergy to ensure best practice is deployed through the process. In addition, the Project Management Book of Knowledge along with use of both the waterfall and agile techniques are supported through a current daily SCRUM approach to assist in the development work to achieve the baseline in preparation for the work ahead.

- Address the compatibility with existing institutional and/or statewide infrastructure.

The primary goal of the project is to create a baseline for compatibility and reframe the statewide infrastructure for the future. The initial process for collecting student data established in 2006 has served a function to achieve the minimums required by districts, but overtime with added data requirements, increased expectations to use data to inform instruction, and technological advances it is now time for Nebraska to leap frog into a more efficient and effective system of supports for Nebraska education. The opportunity to learn from and build on the reputation of the national envy of Network Nebraska and create tools and infrastructure that support sound industry standard technology to create efficiency and effectiveness for Nebraska schools creates a significant window to save significant resources and provide a sound foundation for years to come in Nebraska education.

Preliminary Plan for Implementation (10 Points)

9. Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Leveraging the current federal SLDS grant to begin the process the project sponsors moving forward include the Nebraska Dept. of Education and the ESUCC. As part of the initial study and plan development the Nebraska Council of School Administrators, the Nebraska State Education Association, the Educational Service Unit Coordinating Council, the Nebraska Educational Technology Association, and most recently the Nebraska School Boards Association all have demonstrated commitment to communicate, support and align the priorities around building the capacity for quality secure data and ensure the unique opportunity of access to resources for teachers and students.

The project team and roles are outlined in the budget and integrate new positions for sustainability and development with existing staff and personnel to ensure continuity through the transition.

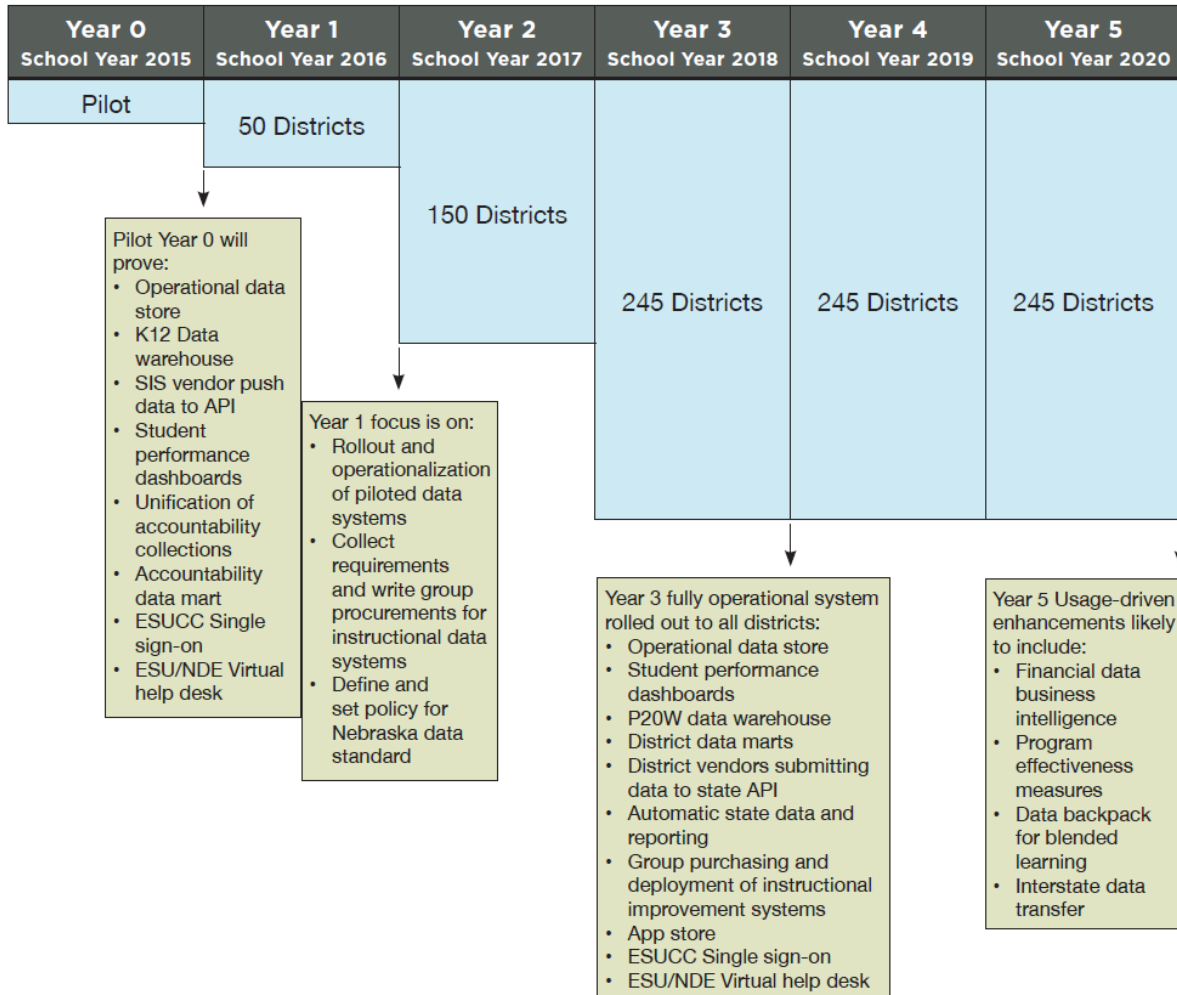
**Project Proposal Form
2015-2017 Biennial Budget**

10. List the major milestones and/or deliverables and provide a timeline for completing each.

1, 3, AND 5 YEAR ROADMAP

The roadmap builds upon key pilot activities that underway this fiscal year (identified as Year 0, SY 15):

- Install, customize, integrate, pilot, and prove the Ed-Fi data system (www.ed-fi.org) consisting of an operational data store with transactional and batch data interfaces.
 - Develop, pilot and prove the single-sign-on system under development by the ESUCC.
 - Develop, pilot, and prove an accountability data mart, deriving accountability data from transactional data streams from the district student information systems. Accountability data will be submitted on dual paths from pilot districts, allowing the automatically derived data to be compared with their actual submissions.
 - Install, customize, integrate, pilot, and prove the Ed-Fi longitudinal data warehouse and student performance dashboard.
 - Use the dashboard pilots to also pilot the NDE-ESU virtual help desk to support the pilots.
- These pilot activities will provide the base infrastructure to simultaneously expand and rollout the new Nebraska Education Data System over the next three years. The rollout plan targets the total districts being operational of approximately 50, 150, and ultimately 245 across years 1 through 3. The major 1, 3, and 5-year milestones are summarized below.



**Project Proposal Form
2015-2017 Biennial Budget**

In addition, the major activities associated with the work include the following by work stream and year:

Year 0 School Year 2015 Pilot	Year 1 School Year 2016 50 Districts	Year 2 School Year 2017 150 Districts	Year 3 School Year 2018 249 Districts	Year 4 School Year 2019 249 Districts	Year 5 School Year 2020 249 Districts
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Nebraska

Pilot data infrastructure	Integrate HR systems	Integrate Career Readiness	Intra-state data mobility	Interstate data mobility	
Pilot Ed-Fi dashboards	Expand and extend dashboards				
Pilot ESUCC Single sign-on	Integrate identity mgmt	Mature & scale data <i>infrastructure</i>		Integrate financial systems	
	Procure state-sponsored SIS'	Transition & support state-sponsored SIS'			

NDE Accountability Data System

Unify NSSRS data collection	Unify CDC collection				
SIS vendors pilot data to API	Define NE Data Standard				
Pilot data mart	Build business rules	Develop state and Federal reporting		Add/modify state & Federal collections as required	
	Review & approval system	Dual submissions		Deprecate old systems	

NDE Education Intelligence System

Install K12 data warehouse	Expand warehouse to P20W				
	Build district security	Pilot district data marts		Develop program effectiveness analytics	
		Mature & scale data warehouse		Integrate financial data	Integrate financial analytics

Help Desk & Support

Pilot virtual help desk	Expand capacity for ESUs + NDE Virtual Help Desk				
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Nebraska Instructional Improvement System

Define IIS requirements	Procure, deploy & train IIS tools		Student data backpack		
	Write group procurements	Develop, pilot & mature PD			
			App store		

11. Describe the training and staff development requirements.

Training and development is a critical need throughout the entire process and the collaborative relationship with the ESUCC, ESU's, Districts and the Department of Education provide a unique opportunity for coordination, support and efficiency around common standards and resources while at the same time provide opportunities for private companies to ensure innovation and advancement continues.

Continuing to build the capacity of internal staff along with contracting for specialized skills in the interim makes up the balanced approach to the work and serves as an opportunity to focus on sustainability and support for the systems in the future.

12. Describe the ongoing support requirements.

Upon the initial strategic investment and work, a core group of staff to support the continuous improvement and access to resources will be important. Through leveraging the resources saved, the potential for generating targeted service fees for software as a service (SaaS) resources through the app store and coordination within the educational system the sustainability requirements would be significantly

**Project Proposal Form
2015-2017 Biennial Budget**

less than the costs associated with maintaining a status quo. In addition, through the leveraged approach, third party assets continue to ensure that innovation is available, yet coordinated to support districts.

Risk Assessment (10 Points)

13. Describe possible barriers and risks related to the project and the relative importance of each.

A detailed risk analysis was conducted with the current implementation of the ADVISER dashboard and related Ed Fi technologies. Many of these risks are germane to the proposed work.

Risks

The following risk areas are identified to focus the management team on proactively taking steps to mitigate those risks. For a detailed description of project risks with associated risk mitigation strategies and contingency plans, please reference the project risk log.

- The coordination between multiple groups involved in making the project a success: DLP, SIS Vendors, Network Nebraska, NDE staff, ESUs, ESUCC and districts.
- Dependencies upon external projects, specifically, SIS Vendor interfaces, ESUCC Identity Management project. Any delays in these projects or unexpected issues may impact the schedule.
- Statewide support for technical assistance on the dashboard and Identity Management System (SSO) is being developed and staffed.
- The Nebraska Dashboard project will be developed in parallel with the DLP Tennessee Infrastructure Beta (TIB) project. There is a possibility that some rework will be required as a result.
- Student Information System (SIS) Vendor development, integration and support
- The project is dependent upon vendor commitment to develop and support interfaces within a desired time period. If vendors are unable to meet the proposed schedule, NDE may choose to extend the integration and pilot periods to accommodate the vendor's schedule.
- A staged pilot may impact the planned training and knowledge transfer activities. Training will be most effective if it is completed just prior to the start of pilot activities. The current plan assumes all training is completed prior to the start of the first pilot. If additional training sessions to be added to the current plan, additional funding may be required.
- If SIS vendors have any delays in activities, the project schedule will be impacted. The mitigation strategy is to stage the pilot rollout based upon a revised vendor date.
- SIS vendors may have conflicting priorities which impacts their responsiveness to defects and defect corrections. This could result in delays in planned activities and possible delay to the start of pilot for those districts that use the associated SIS.
- If pilot districts have developed extensions for the Student Information Systems (SIS), there is a risk that these SIS extensions will not be correctly identified and will be omitted from the initial vendor interfaces and Dashboard implementation.
- The project is dependent upon vendor commitment to develop and support interfaces within a desired time period. If vendors are unwilling or unable to meet the desired schedule, then adjustments to schedule, pilot start or pilot district participation may be required.
- If there are delays in SIS vendor development or integration, there could be an increase project costs due to extended resource involvement.

Nebraska ESUCC Identity Management Project

**Project Proposal Form
2015-2017 Biennial Budget**

- The ESUCC Identity Management Project is being developed in parallel with the Nebraska Dashboard project. Any delays in the project may impact planned integration and pilot activities.
- The level of effort required for integration of the Identity Management and single sign on (SSO) is an estimate due to the number of pending design decisions and strategy for home realm.

Potential Rewards

- Access for Nebraska schools to an online resource that provides educators with real time data visualization to support continuous school improvement and support the instructional improvement process for Nebraska's students.
- Integration and implementation of a systemic database infrastructure supporting future expansion and efficiencies.
- The potential for an efficient methodology of collecting student and staff information freeing up resources to focus on improving the quality of data and the effective use of data for continuous school improvement.
- An identity management process that can be utilized in multiple ways in emerging and supporting digital resources for Nebraska's educators.
- Staff capacity created to support elements of sustainability.

14. Identify strategies that have been developed to minimize risks.

Multiple approaches to mitigate risk include some of the following:

- Establishing the Nebraska Education Data Standard and requirements for adoption and use in Nebraska is a critical path
- Maintaining strong governance and oversight for entire project.
- Transparency on progress and issues
- Effective use of Project Management Office
- Communication plan and Change Management implementation
- Effective hiring and procurement processes.

**Project Proposal Form
2015-2017 Biennial Budget**

Financial Analysis and Budget (20 Points)

15. Financial Information

The “Financial” information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.)

Attached is the budget request summary submitted in the Nebraska Budget Request and Reporting System. The budget requests include both resources for contractors as well as key personnel and positions to support the creation, coordination, collaboration and continuation of the systems approach among Nebraska school districts.



NDE Expansion
Budget Activities v2 E

Nebraska Information Technology Commission

Project Proposal Form
2015-2017 Biennial Budget

Nebraska Department of Education Infrastructure Activities				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>Activities and Objectives</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 (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	344,793	344,793	344,793	
		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>Objectives</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	339,317	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>Objectives</i>				
	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	35,510	35,510	
		Travel Expenditures	17,680	17,680	17,680	
		Equipment Expenditures	60,360	-	-	
		NDE Education Intelligence System Total	\$ 2,085,080	\$ 2,035,720	\$ 2,035,720	
4 Help Desk & Support		<i>Objectives</i>				
	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	158,393	158,394	158,395	
		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	\$ 1,264,223	\$ 1,264,225	
		Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,985,772	\$ 7,985,774	
IIS NE Instructional Improvement System		<i>Objectives</i>				
	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 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	194,588	194,588	194,588	
		Operating Expenditures	28,360	39,360	39,360	
		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	

Nebraska Information Technology Commission

Project Proposal Form

**Funding Requests
for Information Technology Projects**

2015-2017 Biennial Budget

IMPORTANT NOTE: Project proposals should only be submitted by entering the information into the Nebraska Budget Request and Reporting System (NBRRS). The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the “IT Project Proposal” section. The tabs in the “IT Project Proposal” section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. **ALSO NOTE** that for each IT Project Proposal created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.

Project Title	Instructional Improvement Systems
Agency/Entity	Nebraska Dept. of Education

**Project Proposal Form
2015-2017 Biennial Budget**

Notes about this form:

1. **USE.** The Nebraska Information Technology Commission (“NITC”) is required by statute to “make recommendations on technology investments to the Governor and the Legislature, including a prioritized list of projects, reviewed by the technical panel...” Neb. Rev. Stat. § 86-516(8).
“Governmental entities, state agencies, and noneducation political subdivisions shall submit all projects which use any combination of general funds, federal funds, or cash funds for information technology purposes to the process established by sections 86-512 to 86-524. The commission may adopt policies that establish the format and minimum requirements for project submissions.” Neb. Rev. Stat. § 86-516(5). In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting funding for technology projects.
2. **WHICH TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM?** See NITC 1-202 available at <http://nitc.ne.gov/standards/>. Attachment A to that document establishes the minimum requirements for project submission.
3. **COMPLETING THE FORM IN THE NEBRASKA BUDGET REQUEST AND REPORTING SYSTEM (NBRRS).** Project proposals should only be submitted by entering the information into the NBRRS. The information requested in this Microsoft Word version of the form should be entered in the NBRRS in the “IT Project Proposal” section. The tabs in the “IT Project Proposal” section coincide with sections contained in this Microsoft Word version of the form. Information may be cut-and-pasted from this form or directly entered into the NBRRS. **ALSO NOTE** that for each “IT Project Proposal” created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.
4. **QUESTIONS.** Contact the Office of the CIO/NITC at (402) 471-7984 or ocio.nitc@nebraska.gov

**Project Proposal Form
2015-2017 Biennial Budget**

General Information

Project Title	Instructional Improvement Systems
Agency (or entity)	Nebraska Dept. of Education

Contact Information for this Project:

Name	Dean Folkers
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City, State, Zip	Lincoln, NE 68509
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Executive Summary

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.

**Project Proposal Form
2015-2017 Biennial Budget**

Goals, Objectives, and Projected Outcomes (15 Points)

1. Describe the project, including:
 - Specific goals and objectives;

The following goals are established based on the recommendations from the Education Data System study. Using the strategies and infrastructure of the building capacity project the opportunity to build and use the foundation to provide access and support for school districts through and Instructional Improvement System.

For purposes of context the goals associated the Education Data Systems Building Capacity project are provided as well.

Goal 1: Make security, privacy, transparency, and the proper use of data the core of the Nebraska Education Data System implementation.

Districts should continue to “own” their data within the statewide system. The ESU hosting must support enterprise-grade security with yearly independent security audits. The following tenets are recommended to protect privacy while ensuring proper use of student data:

1. Ensure that all agencies, organizations, contractors, and vendors that have access to student education records provide the same strength of protection, control, and transparency as codified in appropriate policies, contracts, and data sharing agreements.
2. Ensure that all persons that have access to student education records have training and certification (micro credentials) on the proper use and protection of education records.
3. Limit access to individual student education records to the minimal set of personnel essential for legitimate education purposes, for the shortest period of time required for that purpose, and to the smallest set of data required for that purpose.
4. To the maximum extent possible, use aggregate data and de-identified data in place of individual student education records.
5. Provide parents transparency into the sources and uses of student data.
6. Provide parents control of the child’s education record to the maximum extent that is possible while preserving legitimate educational use of that data.

Goal 2: Unify the data collection requirements into the Nebraska Education Data Standards (NEDS) to minimize the reporting burden on districts.

Replace the current system of accountability data submissions by instead deriving accountability data from an extended set of data sent securely by district systems into the Nebraska Education Data System (NEDS). The system would move the computations and business rule checks to the state level for better efficiency and consistency while also providing a transparent facility for district review and approval.

Goal 3: Require application vendors and other sources to provide data in a standard form specified by NDE directly into the NEDS. Adopt a Nebraska Education Data Standard in collaboration with the NITC.

**Project Proposal Form
2015-2017 Biennial Budget**

Native vendor interfaces are required for sustainability. Ed-Fi defined CEDS-compliant data standard adopted in 24 states that can be extended for Nebraska-specific requirements. Ed-Fi adoption preserves district choice while maintaining data standardization at the state level. A governance process will be required to maintain the Nebraska-extended version of Ed-Fi year-to-year.

Note that to ensure continued vendor participation, the data interface requirement needs to be in policy or legislation to ensure vendor compliance.

Goal 4: Leverage and strengthen Nebraska’s ESU network, the ESUCC, and Network Nebraska to host, maintain, and sustain the Nebraska Education Data System, to support a statewide virtual help desk, and to train the educators in it is use.

Provide an enterprise-grade, efficient and economical technology platform through which applications and services are delivered to improve school performance and learner outcomes. The statewide system of support would leverage the resources at NDE, ESUCC, ESUs and districts to provide help desk support to districts and professional development coordination.

Goal 5: Leverage the state-level market to influence vendors, negotiate lower prices through competition, provide consistent functions and pricing across large and small districts, and expand the number and quality of instructional applications.

Facilitate “economies of scale” and cooperative purchasing at the state and/or ESU level and centralized services that lower costs without sacrificing the quality of products and services. Use this leverage to greatly expand the number and quality of instructional improvement applications.

The strategy is to create essentially an “application store” for school districts to choose from that leverages the collective bargaining advantage of 245 schools districts, 300,000 students, ESU resources and the Nebraska Department of Education.

Goal 6: Invest in providing education intelligence - access to actionable insight - through a warehouse, business intelligence tools, and increased internal capacity for districts, policy makers, and researchers.

Leverage the Ed-Fi K-12 statewide longitudinal data warehouse for use by districts, administrators, and researchers to support analysis of student performance, college and career readiness and success, instructional improvement initiatives, teacher evaluations, student intervention and professional development effectiveness. Integrate finance data, early childhood, postsecondary and workforce data.

Goal 7: Invest in an integrated data system that spans the districts, the ESUs, and NDE to support continuous education improvement.

The resulting Nebraska Education Data System (NEDS) should build upon the ongoing SLDS project to leverage the Ed-Fi data standards and technologies for the data system and dashboards. The system should adopt and build upon the ESUCC project for Single Sign-On (SSO). While the system will initially focus on serving the districts, it should ultimately be expanded to reach students and parents, community service organizations, and researchers.

Goal 8: Integrate staff data from district and state data sources, link teachers to student performance and success, and add additional data to better support teacher evaluation and professional development.

**Project Proposal Form
2015-2017 Biennial Budget**

This will require integration of both the HR and SIS at the district level with the Teacher Certification and NPERS at the state level. Teachers will be linked to students to assess their contribution to student performance and growth. Additional data will be integrated for teacher evaluations and observations, survey data, and professional development.

Goal 9: Invest in the licensing, integration and training of an Instructional Improvement System that is cost-effective for districts of all sizes.

The system will include the critical digital assets and tools to support areas like learning management systems, content management systems, blended and online learning, teacher/principal evaluation system, school improvement and climate tools, career readiness and discovery, local assessment systems, and other tools to enhance the educational opportunities and experiences.

Goal 10: Develop the staff and processes necessary to sustain the Nebraska Education Data System.

Additional leadership positions are recommended and include a K-12 Chief Information Officer and Chief Privacy Officer at NDE. The recommended initiative will expand an emerging project management office. Additional data governance processes will be required. Additional technical staff will be required at NDE and in the ESUs to meet the statewide help desk and support requirements.

Overall, the goals have been organized into five work streams: The fifth work stream, instructional improvement system (IIS), is the primary focus of this project, but the others are provided for context and understanding the integration to support the IIS.

1. Nebraska Education Infrastructure / Leveraged Capacity –

Leverage an open-source education data standard along with accompanying technical assets – student-level dashboards for teachers and secure data warehouses for reporting. Developing the Nebraska Education Data Standard – will mean a set of data standards for interoperability of systems. This work will also include the infrastructure to support a major data system, including a single sign on offering from the ESUCC. leverage the Ed-Fi infrastructure to connect source systems and drive down costs.

2. Automated Collections –

Reduce reporting burden by providing efficiency and automation for data submissions through the leveraged secure data infrastructure and support. The implementation of the transactional API among the applications significantly reduces the reporting burden.

3. NDE Education Intelligence System / Actionable Insight --

Targeted resources, once expended on data submission, can be directed to effectively using Nebraska's data system and ensuring privacy and security of the data. The educational insight will include the ADVISER Dashboard, data warehouse, and other longitudinal analysis that would inform both policy and practice. to provide access to actionable insight – through a warehouse, business intelligence tools, and increased internal capacity.

4. Help Desk & Support –

Collaborate to include Training and Help Desk support around the systems—statewide. The cooperative support would provide opportunities for NDE, ESUCC and others to coordinate assistance using a tiered ticketing system, knowledge transfer, and professional development for data use.

**Project Proposal Form
2015-2017 Biennial Budget**

5. Nebraska Instructional Improvement System –

Leverage the interoperability of the data standard and the state “buying power” to support an Instructional Improvement System. The creation of an “app store” would provide low cost or free options for school districts to choose applications that support digital system access and data integration—for all districts in Nebraska.

- **Expected beneficiaries of the project; and**

School Districts and local communities, Educational Service Units, Multiple Government Agencies, postsecondary education, and ultimately students are the primary beneficiaries of the projects. Reducing the reporting burden of districts, provided secure and near real time access to insightful metrics and information assist school districts required to submit and use data daily. The support systems and coordination of the ESUCC and NDE provide wrap around efforts to efficiently provide resources to schools in Nebraska. Increasing the data quality and timeliness of the data collection provides opportunities for research and evaluation into policy and supports innovative understanding of practice. Alignment to postsecondary education, P-20, workforce, and other critical systems in Nebraska provide unique opportunities to effectively provide insight that support opportunities for secure management of the information ensuring the protection of student privacy while empowering access for all Nebraska students to thrive.

In addition, the primary focus of the IIS is to provide school districts access to integrated digital systems at a free or low cost. The “application store” that supports the IIS provides districts choice of a suite of applications that are aligned and connected to the priorities of Nebraska Education Data Standards, API automation, educational insight and security, and the help desk and training systems as part of the core expectations associated with the technical approach from the IIS.

- **Expected outcomes.**

An integrated, sustainable, and comprehensive systems approach to support local control while leveraging the capacity of continuity, efficiency, and equitable access to technological tools of efficiency is primary overarching expected outcomes.

In addition, the reduction of reporting burden using the current methods of collection, while increasing the quality and timeliness of the data increases the opportunities to effectively use information for all schools in Nebraska.

Lower costs, leveraging the capacity of the state for systems is an outcome realized for all districts.

Integrated data systems that support a Nebraska Education Data Standard provide a clear expectation for districts and third party vendors what the expectations are in Nebraska support a base of continuity and allow for innovation and cost savings.

Increased focus on student data privacy, security and transparency.

2. Describe the measurement and assessment methods that will verify that the project outcomes have been achieved.

The multiple aspects of the systems include a number of measurements to ensure completion and ongoing continuous improvement and evaluation. The primary measures will be a reduced burden of reporting data for the use at the lowest level and an increase in the use of the data to inform policy and practice.

**Project Proposal Form
2015-2017 Biennial Budget**

In addition, the following measurements are examples of metrics established to measure and assess the project outcomes.

1. Suite of applications available to school districts to select and in cases provide a fee for services.
2. Vendor engagement and management systems developed and deployed.
3. Implementation and integration of a district user services governance board.

Additional multiple measures and metrics that included the comprehensive integration and of the entire project will a mission critical focus of the project work and connected to the performance management system of staff associated with the projects.

3. Describe the project's relationship to your agency comprehensive information technology plan.

The project is at the core of the information agencies technology plan and represents a critical path moving forward to support effective schools, changes in Nebraska accountability, and efficiencies to ensure effective use of financial and human resources while at the same time ensuring equitable opportunities for all school districts in Nebraska.

Project Justification / Business Case (25 Points)

4. Provide the project justification in terms of tangible benefits (i.e. economic return on investment) and/or intangible benefits (e.g. additional services for customers).

Overall, the instructional improvement system (IIS) and the estimates associated with the work for economic impact can be extrapolated

ESTIMATED FINANCIAL RETURNS

The primary benefits from the recommended investments will come from a greatly improved instructional system that improves student performance leading to greater student success. However the proposed approach also results in cost savings and efficiencies that will provide a financial return from substantially-reduced accountability costs and from reduced technology costs to districts.

REDUCED TECHNOLOGY COSTS FOR DISTRICTS

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 and contract costs

REDUCED ACCOUNTABILITY COSTS

Accountability costs will be reduced by unifying and moving accountability computations to state from a single fine-grained data collection. An 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

**Project Proposal Form
2015-2017 Biennial Budget**

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.

	Year 1 FY 2016 SY 2015-2016	Year 2 FY 2017 SY 2016-2017	Year 3 FY 2018 SY 2017-2018	Year 4 FY 2019 SY 2018-2019	Year 5 FY 2020 SY 2019-2020
Investment	\$(14,149,128)	\$(13,905,490)	\$(13,905,492)		
Returns					
Reduced accountability costs		\$1,524,169	\$7,590,361	\$12,600,000	\$12,600,000
Reduced technology costs		\$3,755,020	\$11,265,060	\$18,700,000	\$18,700,000
Yearly net investment/return	\$(14,149,128)	\$(8,626,301)	\$4,949,930	\$31,300,000	\$31,300,000
Cumulative investment/return	\$(14,149,128)	\$(22,775,429)	\$(17,825,499)	\$13,474,501	\$44,774,501

- Describe other solutions that were evaluated, including their strengths and weaknesses, and why they were rejected. Explain the implications of doing nothing and why this option is not acceptable.

A number of strategies were considered as possibilities to address the challenges facing Nebraska schools, but the opportunity to leverage the federal investment through SLDS, take advantage of an emerging royalty free open source technology that is supported through a network of a number of states, and meet the needs of school districts as reporting through surveys, focus groups, phone interviews and data the proposed approach provides the most systemic approach to the future.

Some states have chosen to purchase a single vendor solution, but the short and long term weaknesses of this approach include challenges with integration, risks associated with sustainability, and the long term financial commitment to a vendor to support the systems. This approach has not provided advantages to states and limits the options to embrace new and emerging technologies. Some states have completely relied on internal customization and development. The investment and management of staff to have the capacity for this approach limits the opportunities to embrace private company innovation and is extremely challenging with the currently available personnel services limitation. Ultimately, the approach to embrace the support of contractors, enhance the personnel to support the systems, and leveraging the capacity and market forces allows all of the options to benefit Nebraskans.

Doing nothing continues to undermine the opportunities available for Nebraska schools, reduces the effectiveness of the technology and systems investments made in Nebraska, and continues to impact the number of resources to target student achievement. The requirements of data collection along with the increasing uses of data require leadership from the state to support school districts, protect student privacy, and provide access to resources and tools to take advantage of the technologies available. Finally, doing nothing has the highest level of risk moving forward for Nebraska. This option is not

**Project Proposal Form
2015-2017 Biennial Budget**

acceptable for Nebraska and can be addressed through the efforts of this comprehensive and visionary series of work streams.

The opportunity to create an instructional improvement from a systems level perspective and coordinate access to tools and resources provides a unique advantage for districts to meet their unique and individual needs while at the same time ensuring equity of access of the tools to districts. There is no single vendor solution for an IIS and the opportunity for Nebraska to work with educators, leverage ESUCC, and the ESU's to connect a comprehensive and cost effective approach for Nebraska.

6. If the project is the result of a state or federal mandate, please specify the mandate being addressed.

There are multiple mandates at the state and federal level for school accountability, data reporting, and the use of what should be quality data. The Elementary and Secondary Education Act (ESEA) often referred to as No Child Left Behind, 30+ federal programs, state accountability, state aid calculations, and a significant number of other data requirements are mandated. Most recently, LB438, requires using data to identify the lowest performing schools and provide support for those schools. Quality data and systems are a critical resource to achieve this requirement as well. The proposed approach creates an opportunity to effectively achieve these mandates and at the same time provide systems of support to benefit Nebraska schools.

While not a specific mandate the instructional improvement system incorporates the tools and resources that support the mandates, including the teacher principal evaluation work and the professional development associated with educator effectiveness.

Technical Impact (20 Points)

7. Describe how the project enhances, changes or replaces present technology systems, or implements a new technology system. Describe the technical elements of the project, including hardware, software, and communications requirements. Describe the strengths and weaknesses of the proposed solution.

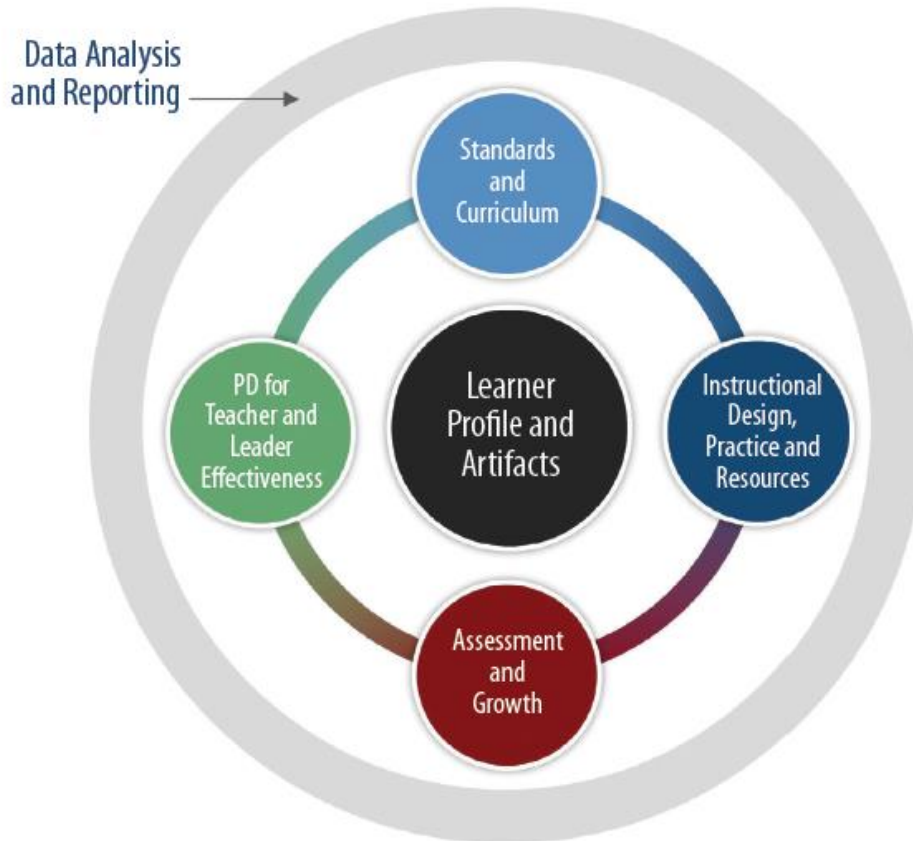
Primarily the multiple projects create a systems approach to the planning and infrastructure for Nebraska schools and capitalize on the collaboration among NDE, ESUCC, and ESU systems to support Nebraska schools. The approach creates a unique opportunity to leverage federal, state, and local investment to achieve efficiencies. The process primarily creates an opportunity to change the way data is collected, used, stored, and ultimately accessed. In addition, the opportunity to focus on privacy, security, and transparency are critical elements considered through the work streams presented in the project

The implementation and coordination with the capacity provided through the ESUCC and the technical collaboration between NDE and ESUCC create an unprecedented opportunity to support the systemic integration and work of the broader vision for Nebraska. A pilot project utilizing JitBit support management is serving as a basis for testing statewide integration and support for new technology implementation.

The perceived weakness of the implementation is the increased human capacity required to sustain the efforts, but given the overarching advantages gained through small legitimate investment in staff capacity creates a unique opportunity for Nebraska heretofore that has never existed.

The following is the high-level architecture approach to achieve a core of the instructional improvement systems

**Project Proposal Form
2015-2017 Biennial Budget**



8. Address the following issues with respect to the proposed technology:

- Describe the reliability, security and scalability (future needs for growth or adaptation) of the technology.

All efforts focus on reliability of the system to ensure security of the systems. The use of the federated single sign on solution, industry standard API technology, encryption strategies, role based authentication for access and integration into the applications provide to school districts all provide an opportunity to increase the level of security and ensure ultimately the scalability of the systems for the state.

- Address conformity with applicable NITC technical standards and guidelines (available at <http://nitc.ne.gov/standards/>) and generally accepted industry standards.

All NITC technical standards and guidelines would continue to be critical resources for the planning and support of the system and integration. In addition, the ITIL standards, the Ed FI data standards, built from the Common Education Data Standards (CEDS) create a unique opportunity for synergy to ensure best practice is deployed through the process. In addition, the Project Management Book of Knowledge along with use of both the waterfall and agile techniques are supported through a current daily SCRUM approach to assist in the development work to achieve the baseline in preparation for the work ahead.

- Address the compatibility with existing institutional and/or statewide infrastructure.

**Project Proposal Form
2015-2017 Biennial Budget**

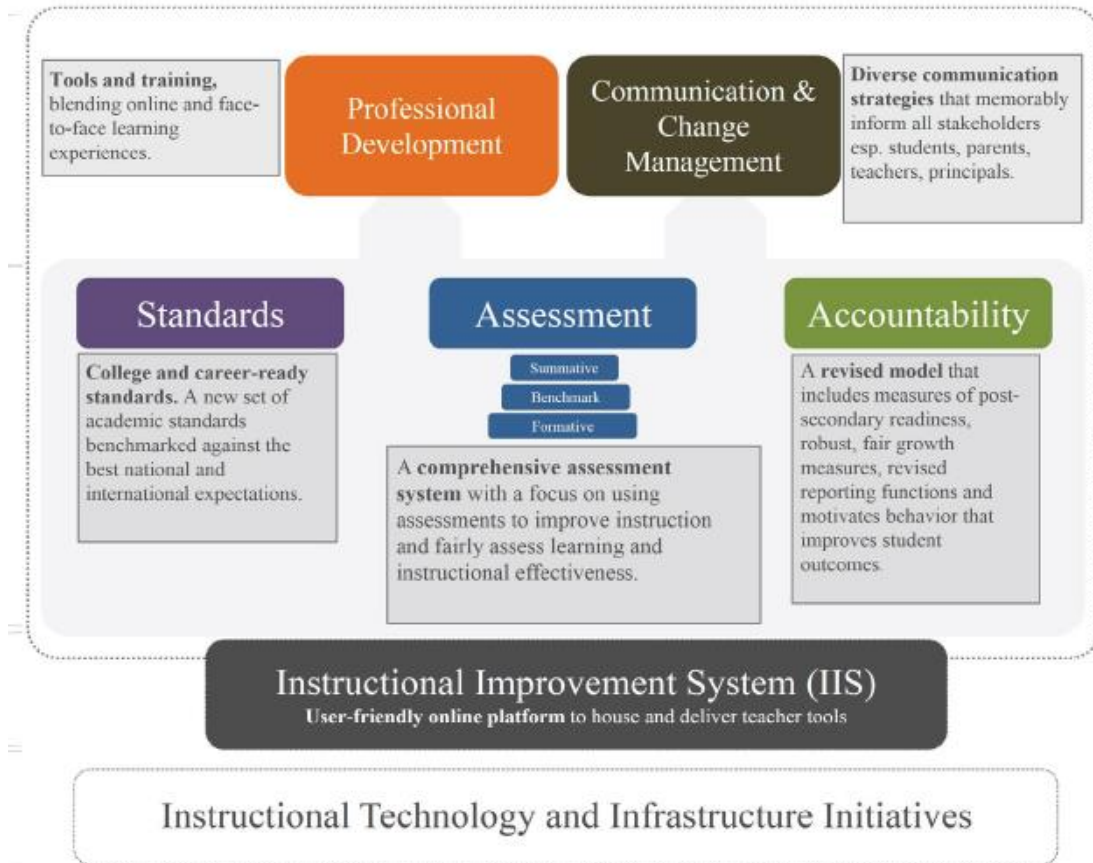
The primary goal of the project is to create a baseline for compatibility and reframe the statewide infrastructure for the future. The initial process for collecting student data established in 2006 has served a function to achieve the minimums required by districts, but overtime with added data requirements, increased expectations to use data to inform instruction, and technological advances it is now time for Nebraska to leap frog into a more efficient and effective system of supports for Nebraska education. The opportunity to learn from, build on the reputation of the national envy of Network Nebraska, and create tools and infrastructure that support sound industry standard technology to create efficiency and effectiveness for Nebraska schools creates a significant window to save significant resources and provide a sound foundation for years to come in Nebraska education.

Preliminary Plan for Implementation (10 Points)

- Describe the preliminary plans for implementing the project. Identify project sponsor(s) and examine stakeholder acceptance. Describe the project team, including their roles, responsibilities, and experience.

Leveraging the current federal SLDS grant to begin the process the project sponsors moving forward include the Nebraska Dept. of Education and the ESUCC. As part of the initial study and plan development the Nebraska Council of School Administrators, the Nebraska State Education Association, the Educational Service Unit Coordinating Council, the Nebraska Educational Technology Association, and most recently the Nebraska School Boards Association all have demonstrated commitment to communicate, support and align the priorities around building the capacity for quality secure data and ensure the unique opportunity of access to resources for teachers and students.

The project map would look like the following from the North Carolina Department of Public Instruction:



**Project Proposal Form
2015-2017 Biennial Budget**

The project team and roles are outlined in the budget and integrate new positions for sustainability and development with existing staff and personnel to ensure continuity through the transition.

10. List the major milestones and/or deliverables and provide a timeline for completing each.

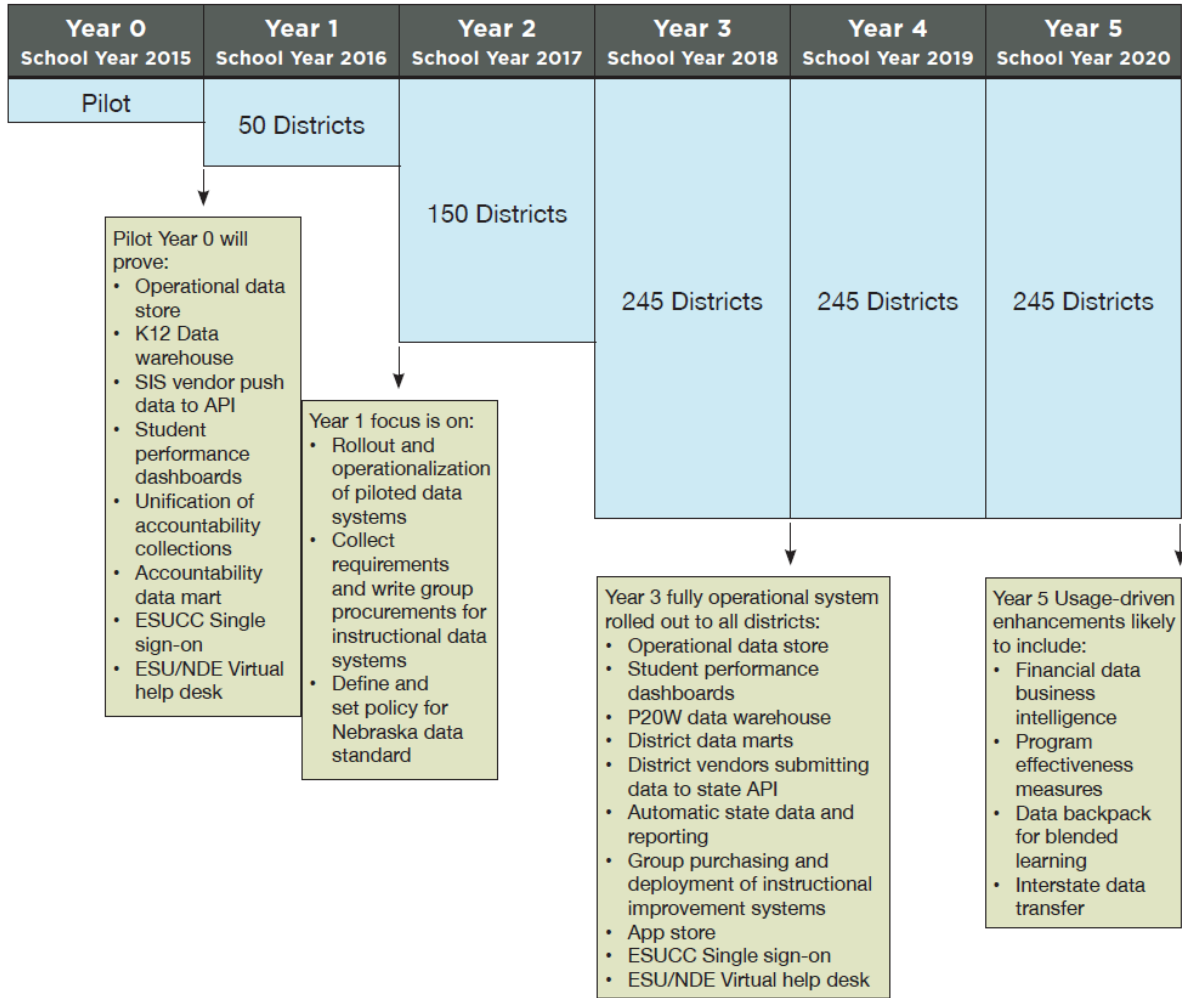
1, 3, AND 5 YEAR ROADMAP

The roadmap builds upon key pilot activities that underway this fiscal year (identified as Year 0, SY 15):

- Install, customize, integrate, pilot, and prove the Ed-Fi data system (www.ed-fi.org) consisting of an operational data store with transactional and batch data interfaces.
- Develop, pilot and prove the single-sign-on system under development by the ESUCC.
- Develop, pilot, and prove an accountability data mart, deriving accountability data from transactional data streams from the district student information systems. Accountability data will be submitted on dual paths from pilot districts, allowing the automatically derived data to be compared with their actual submissions.
- Install, customize, integrate, pilot, and prove the Ed-Fi longitudinal data warehouse and student performance dashboard.
- Use the dashboard pilots to also pilot the NDE-ESU virtual help desk to support the pilots. These pilot activities will provide the base infrastructure to simultaneously expand and rollout the new Nebraska Education Data System over the next three years. The rollout plan targets the total districts being operational of approximately 50, 150, and ultimately 245 across years 1 through 3.

**Project Proposal Form
2015-2017 Biennial Budget**

The major 1, 3, and 5-year milestones are summarized below.



In addition, the major activities associated with the work include the following by work stream and year:

**Project Proposal Form
2015-2017 Biennial Budget**

Year 0 School Year 2015 Pilot	Year 1 School Year 2016 50 Districts	Year 2 School Year 2017 150 Districts	Year 3 School Year 2018 249 Districts	Year 4 School Year 2019 249 Districts	Year 5 School Year 2020 249 Districts
--	---	--	--	--	--

Nebraska

Pilot data infrastructure	Integrate HR systems	Integrate Career Readiness	Intra-state data mobility	Interstate data mobility	
Pilot Ed-Fi dashboards	Expand and extend dashboards				
Pilot ESUCC Single sign-on	Integrate identity mgmt	Mature & scale data <i>infrastructure</i>		Integrate financial systems	
	Procure state-sponsored SIS'	Transition & support state-sponsored SIS'			

NDE Accountability Data System

Unify NSSRS data collection	Unify CDC collection				
SIS vendors pilot data to API	Define NE Data Standard				
Pilot data mart	Build business rules	Develop state and Federal reporting		Add/modify state & Federal collections as required	
	Review & approval system	Dual submissions		Deprecate old systems	

NDE Education Intelligence System

Install K12 data warehouse	Expand warehouse to P20W				
	Build district security	Pilot district data marts		Develop program effectiveness analytics	
		Mature & scale data warehouse		Integrate financial data	Integrate financial analytics

Help Desk & Support

Pilot virtual help desk	Expand capacity for ESUs + NDE Virtual Help Desk				
-------------------------	--	--	--	--	--

Nebraska Instructional Improvement System

Define IIS requirements		Procure, deploy & train IIS tools		Student data backpack	
	Write group procurements	Develop, pilot & mature PD			
			App store		

11. Describe the training and staff development requirements.

Training and development is a critical need throughout the entire process and the collaborative relationship with the ESUCC, ESU's, Districts and the Department of Education provide a unique opportunity for coordination, support and efficiency around common standards and resources while at the same time provide opportunities for private companies to ensure innovation and advancement continues.

Continuing to build the capacity of internal staff along with contracting for specialized skills in the interim makes up the balanced approach to the work and serves as an opportunity to focus on sustainability and support for the systems in the future.

12. Describe the ongoing support requirements.

Upon the initial strategic investment and work, a core group of staff to support the continuous improvement and access to resources will be important. Through leveraging the resources saved, the potential for generating targeted service fees for software as a service (SaaS) resources through the app store and coordination within the educational system the sustainability requirements would be significantly less than the costs associated with maintaining a status quo. In addition, through the leveraged approach, third party assets continue to ensure that innovation is available, yet coordinated to support districts.

**Project Proposal Form
2015-2017 Biennial Budget**

Risk Assessment (10 Points)

13. Describe possible barriers and risks related to the project and the relative importance of each.

A detailed risk analysis was conducted with the current implementation of the ADVISER dashboard and related Ed Fi technologies. Many of these risks are germane to the proposed work.

Risks

The following risk areas are identified to focus the management team on proactively taking steps to mitigate those risks. For a detailed description of project risks with associated risk mitigation strategies and contingency plans, please reference the project risk log.

- The coordination between multiple groups involved in making the project a success: SIS Vendors, Network Nebraska, NDE staff, ESUs, ESUCC and districts.
- Statewide support for technical assistance on the dashboard and Identity Management System (SSO) is being developed and staffed.
- The project is dependent upon vendor commitment to develop and support interfaces within a desired time period. If vendors are unable to meet the proposed schedule, NDE may choose to extend the integration and pilot periods to accommodate the vendor's schedule.
- If pilot districts have developed extensions for the Student Information Systems (SIS), there is a risk that these SIS extensions will not be correctly identified and will be omitted from the initial vendor interfaces and Dashboard implementation.

Nebraska ESUCC Identity Management Project

- The ESUCC Identity Management Project is being developed in parallel with the Nebraska Dashboard project. Any delays in the project may impact planned integration and pilot activities.
- The level of effort required for integration of the Identity Management and single sign on (SSO) is an estimate due to the number of pending design decisions and strategy for home realm.

Potential Rewards

- Access for Nebraska schools to an online resource that provides educators with real time data visualization to support continuous school improvement and support the instructional improvement process for Nebraska's students.
- Integration and implementation of a systemic database infrastructure supporting future expansion and efficiencies.
- The potential for an efficient methodology of collecting student and staff information freeing up resources to focus on improving the quality of data and the effective use of data for continuous school improvement.
- An identity management process that can be utilized in multiple ways in emerging and supporting digital resources for Nebraska's educators.
- Staff capacity created to support elements of sustainability.

14. Identify strategies that have been developed to minimize risks.

Multiple approaches to mitigate risk include some of the following:

- Establishing the Nebraska Education Data Standard and requirements for adoption and use in Nebraska is a critical path
- Maintaining strong governance and oversight for entire project.

**Project Proposal Form
2015-2017 Biennial Budget**

- Transparency on progress and issues
- Effective use of Project Management Office
- Communication plan and Change Management implementation
- Effective hiring and procurement processes.

Financial Analysis and Budget (20 Points)

15. Financial Information

The “Financial” information tab in the Nebraska Budget Request and Reporting System (NBRRS) is used to enter the financial information for this project (NOTE: For each IT Project Proposal created in the NBRRS, the submitting agency must prepare an “IT Issue” in the NBRRS to request funding for the project.)

Attached is the budget request summary submitted in the Nebraska Budget Request and Reporting System. The budget requests include both resources for contractors as well as key personnel and positions to support the creation, coordination, collaboration and continuation of the systems approach among Nebraska school districts.



NDE Expansion
Budget Activities v2 E

Nebraska Information Technology Commission

Project Proposal Form
2015-2017 Biennial Budget

Nebraska Department of Education Infrastructure Activities				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>Activities and Objectives</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 (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	344,793	344,793	344,793	
		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>Objectives</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	339,317	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>Objectives</i>				
	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	35,510	35,510	
		Travel Expenditures	17,680	17,680	17,680	
		Equipment Expenditures	60,360	-	-	
		NDE Education Intelligence System Total	\$ 2,085,080	\$ 2,035,720	\$ 2,035,720	
4 Help Desk & Support		<i>Objectives</i>				
	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	158,393	158,394	158,395	
		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	\$ 1,264,223	\$ 1,264,225	
		Total NDE DRE Capacity Building	\$ 8,173,770	\$ 7,985,772	\$ 7,985,774	
IIS NE Instructional Improvement System		<i>Objectives</i>				
	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 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	194,588	194,588	194,588	
		Operating Expenditures	28,360	39,360	39,360	
		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	

Category	Description
Mandate	Required by law, regulation, or other authority.
Tier 1	Highly Recommended. Mission critical project for the agency and/or the state.
Tier 2	Recommended. High strategic importance to the agency and/or the state.
Tier 3	Other. Significant strategic importance to the agency and/or the state; but, in general, has an overall lower priority than the Tier 1 and Tier 2 projects.
Tier 4	Insufficient information to proceed with a recommendation for funding.

Project Status Form

General Information					
Project Name				Date	
LB 1208 Implementation—Network Nebraska-Education				12/01/2014	
Sponsoring Agency					
Office of the Chief Information Officer					
Contact		Phone	Email	Employer	
Tom Rolfes		402-471-7969	tom.rolfes@nebraska.gov	Office of the CIO/NITC	
Project Manager		Phone	Email	Employer	
Andy Weekly		402-471-3828	andy.weekly@nebraska.gov	Office of the CIO	
Project Start Date	07/01/2006	Project End Date	07/01/2012	Revised End Date	08/01/2015
Key Questions				Explanation (if Yes)	
1. Has the project scope of work changed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
2. Will upcoming target dates be missed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Fourteen (14) new entities joined Network Nebraska-Education on 8/1/2014.	
3. Does the project team have resource constraints? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				The project is on a fixed and limited budget. Outreach, marketing and communications resources are limited.	
4. Are there problems or concerns that require stakeholder or top management attention? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Minor risks and issues are addressed by the executive sponsors at the monthly CAP meetings.	

Summary Project Status						
Any item classified as red or yellow requires an explanation in the Status box that follow this section. Additional priority items can be added to the list for status reporting.						
Select one color in each of the Reporting Period columns to indicate your best assessment of:	Last Reporting Period [10/01/2014]			This Reporting Period [12/01/2014]		
1. Overall Project Status	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green
2. Schedule	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green
3. Budget (capital, overall project hours)	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green
4. Scope	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green
5. Quality	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Red	<input type="checkbox"/> Yellow	<input checked="" type="checkbox"/> Green

Color Legend

	<i>Project has significant risk to baseline cost, schedule, or deliverables. Requires immediate escalation and management involvement.</i>
	<i>Project has a current or potential risk to baseline cost, schedule, or deliverables. PM will manage based on risk mitigation planning.</i>
	<i>Project has no significant risk to baseline cost, schedule, or project deliverables.</i>

Monthly Status Summary

Provide a summary of the project status since the last reporting period. (This summary will become part of the monthly NITC Dashboard.)

Looking ahead to the fall 2014 procurement, Omaha commodity Internet will be rebid.. After hearing from the FCC that there will be no national preferred master contracts for internal connections equipment, the ESU-NOC voted to have the Office of the CIO and State Purchasing procure maximum discounts on up to 9 different types of equipment such as wireless access points, cabling, switches/routers, etc... This will become an invitation to bid to extend over the life of the FCC equipment funding (2015-2020) with a possible fiscal impact of \$52 million for Nebraska K-12 schools.

Significant Milestones (Met, Not Met, Scheduled)

Milestone	Met	Not Met	Scheduled	Original Date	Actual Date	Impact (if late)
Phase I Implementation (94 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2007	8/10/2007	None
Phase II Implementation (88 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2008	8/11/2008	None
Phase III Implementation (49 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2009	8/03/2009	None
Phase IV Implementation (3 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2010	8/15/2010	None
Phase V Implementation (20 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2011	8/12/2011	None
Phase VI Implementation (8 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2012	8/03/2012	None
Phase VII Implementation (7 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2013	8/09/2013	None
Phase VIII Implementation (14 entities)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7/1/2014	8/01/2014	None
Phase VIII Implementation (14-15 entities)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7/1/2015	8/01/2015	None

Project Issues (For example, if a Milestone shown above is late, what is the planned recovery?)

Description	Impact on Project - (H,M,L)	Date Resolution is Needed	Issue Resolution Assigned to	Date Resolved
The statewide backbone capacity is 2Gbps, and is burstable to 5Gbps. Future capacity will need to be 10Gbps	M	July 1, 2016	Brad Weakly	TBD

Impact: **H=High** - major impact on time, scope, cost. Issue must be resolved. **M= Medium**- impact will moderately effect time, scope, cost. **L=Low**- Issue will not impact project delivery

Project Risks			
Major Risk Events	High Medium Low	Risk Mitigation	Mitigation Responsible Party
Network Nebraska has implemented Commercial Peering Services (CPS) from the Internet2 Great Plains and is continuing to monitor. Current routing load is averaging only 1.5Gbps out of 3.0Gbps available.	L	Minimize disruption to the network. Monitor routes to keep total bandwidth below 3Gbps	Michael Ruhrdanz, Brad Weakly
Total NN K-12 commodity Internet for 2014-15 was purchased at 13.95 Gbps (up 75% from 8Gbps for 2013-14). The traffic shaper appliances will need to be split at Lincoln and Omaha at the 7Gbps or 8Gbps level.	M	Split contract awards by UNL/UNCSN will permit a secondary Internet provider at the same unit cost to alleviate part of the Internet load.	Brad Weakly, Ben Mientka
ESUCC is proceeding with implementation of statewide directory services and Learning Object Repository software.	L	UNCSN staff will work with ESUCC staff to make sure the network and data centers are equipped to handle the new applications.	Brad Weakly, Scott Isaacson
An InCommon federated directory services pilot project is being carried over Network Nebraska.	L	UNCSN will work with ESU-NOC and ESUCC staff to implement.	ESU-NOC, Brad Weakly, Ryan Rumbaugh, Greg Gray
Statewide online testing for K-12 has been experiencing intermittent errors.	M	Meeting will be set up to discuss bringing vendor hardware inside the state network.	Brad Weakly, Tom Rolfes, NDE staff

Decision Points Insert additional lines as necessary. Use this section to document any major decisions that impact target dates, scope, cost, or budget.			
Decision Point	Decision Due Date	Decision made by (name or names)	Decision's Impact on Project
The Fall RFP for Internet access out of Omaha and the E-rate Equipment Invitation to Bid will be drafted and released by the middle of December.	November 31, 2014	Tom Rolfes/Brad Weakly/State Purchasing	Medium impact

Additional Comments / Concerns

NETWORK NEBRASKA-EDUCATION; Comparison of Budgeted to Actual Expenditures					
Use a chart like the following to show actual expenditures compared to planned levels. Break the costs into other categories as appropriate.					
Fiscal Year [2014-15]					
Object Codes	Budget Item	Actual Costs to Date (1st Qtr-1031/2014)	Estimate to Complete (4 th Qtr-6/30/2015)	Total Estimated Costs	Total 2014-2015 Planned Budget
543303	IT Consulting-UNCSN	\$84,931	\$115,069	\$200,000	\$200,000
543304	IT Consulting-OCIO	\$0	\$3,738	\$3,738	\$3,738
543305	IT Consulting-NDE	\$4,500	\$13,500	\$18,000	\$18,000
555301	Equipment (routers, switches)	\$44,538	\$170,266	\$214,804	\$214,804
527500	Equipment Maintenance	\$164,284	(\$57,531)	\$106,753	\$106,753
555200	Software	\$0	\$19,095	\$19,095	\$19,095
555100	Software Maintenance	\$25,244	(\$17,295)	\$7,949	\$7,949
	Training-UNCSN	\$0	\$1,875	\$1,875	\$1,875
	Training-OCIO/NDE	\$0	\$0	\$0	\$0
574602	Travel-UNCSN	\$1,427	\$6,073	\$7,500	\$7,500
574603	Travel-OCIO	\$0	\$500	\$500	\$500
574604	Travel-NDE	\$0	\$500	\$500	\$500
522100	Dues-SEGP	\$41,000	\$0	\$41,000	\$41,000
559165	Indirect Costs/Debt-OCIO	\$19,601	\$58,802	\$78,403	\$78,403
524600	Rent Expense, Co-Locations	\$0	\$0	\$0	\$0
526100	Facility, I2 Upgrades	\$0	\$0	\$0	\$0
521200	Toll-free 888-637-6327, MCU	\$651	\$1,953	\$2,604	\$2,604
543400	Other-ANS, Website, Misc	\$1,335	\$13,725	\$15,060	\$15,060
	Total Costs	\$387,510	\$330,271	\$717,781	\$717,781

The Network Nebraska-Education Participation Fee fund account has been updated with the 2014-15 estimated costs and the 1st quarter UNCSN invoice submitted on 11/12/2014.

LNetwork Nebraska Agenda
<http://nitc.nebraska.gov/NNAG/meetings/>
December 10 - 1 to 3 PM
<http://goo.gl/pmMNHu>
Video Conferencing Connection Information
<https://esucc.zoom.us/j/3086981981>

Agenda:

1. Welcome - [Network Nebraska Members](#)
 - a. NNAG Members -Scott Jones, ESU 16; Kirk Langer, LPS; Deb Schroeder, UNK, John Stritt, ESU 10; Chris Vaverek, Creighton University; Tom Peters, CCC; Ron Cone, ESU 10 ;Gene Beardslee, PSC; Clifton Pee, MCC; Darci Lindgren, Lindsay Holy Family School; Bob Uhing, ESU1; Mike Carpenter, Doane College; Caroline Winchester, Chadron
 - b. Liaisons - Tom Rolfes, OCIO; SuAnn Witt, NDE; Leona Roach, UNCSN, Grey Gray, UNCSN, Brad Weakly, UNCSN; Ben Mientka, UNCSN
 - c. Guests - Michael Patrick, OPS; Jonathan Becker, OPS; Susan Forslund, ESU#3
2. Additions to the agenda - please add items to the agenda?
 - a. There no additions to the agenda.
3. [September 17 Meeting Notes](#)
 - a. Motion to approve - Bob Uhing
 - b. Second - Tom Peters
 - c. Vote - 12-0-0 in favor
4. Liaison reports impacting NNAG discussion (Tom Rolfes)
 - a. CAP update
 - i. Internet RFP: <http://das.nebraska.gov/materiel/purchasing/4862/4862.html>
 - ii. Bids are due on January 2, 2015 at 2:00pm; bidding Internet egress out of 1623 Farnam, Omaha location.
 - b. NITC I.T. Project Proposals (Application Services)
 - i. Dean Folkers -- Dean provided an overview of the two projects, Building Educational Data Capacity & Instructional Improvement Systems and how they may affect Network Nebraska. Data infrastructure, chief privacy officer, and instructional improvement systems (“app store”; e.g. teaching and learning systems, back office systems, administrative systems) to provide access for 245 school districts. Tennessee was one state that pre-approved and financially supported five standards-based Student Information Systems. The data exchange and interoperability of data will have implications for higher education. The P-20 Data Committee is composed of representatives from K-12, the University of Nebraska, community colleges, state colleges, etc... There are 9 pilot school districts that are part of the ADVISER dashboard, all of which are on Network Nebraska.
 - ii. Brent Gaswick -- Brent provided an overview of the project, eLearning, which involves digital content creation and procurement, as well as professional development for teachers--a fellowship program for master teachers who help develop professional development content to help other teachers emerging into the hybrid, blended learning environment.

1. [eLearning Project proposal](https://drive.google.com/file/d/0B25D2IUxnXr8QXMzT1FtdFRjkd0/view?usp=sharing) as presented to budget office and NITC
 2. The budget is described as “hypothetical” or a placeholder that may involve other components such as federated identity management and single sign-on.
- c. NITC Technical Panel - Tuesday, December 9
- i. Discussed and reviewed the technical nature of these three proposals. Summary documents and Tech Panel scores are available from http://www.nitc.ne.gov/technical_panel/meetings/documents/20141209/projects_ss_all.pdf and are the first three projects listed out of six.
- d. Education Council - Wednesday, December 17
- i. Education Council will perform a programmatic review of three projects from the Nebraska Dept of Education that are to be considered as part of the Legislature’s biennial budget for 2015-17.
- e. E-rate - Update on changes and impact on NN members
- i. FCC vote on December 11 may address the E-rate Funding cap from \$1.5 billion to \$2.4 billion; clarification of rural/urban status designations; and any further clarification on internal connections funding.
5. Committee Reports
- a. **Governance** (Deb Schroeder, Scott Jones, John Stritt, Chris Vaverek, Darci Lindgren)
 - i. Review NNAG committee membership - Scott Jones
 1. Committee Reports--Contact Scott with changes to committee membership
 - a. **Governance** (Deb Schroeder, Scott Jones, John Stritt, Chris Vaverek, Darci Lindgren)
 - b. **Emerging Technologies** (John Dunning, Ron Cone, Tom Peters, Gene Beardslee)
 - c. **NN Application Services** (Bob Uhing, Mike Carpenter, Kirk Langer, Michael Ruhrdanz)
 - d. **Marketing** - (Clifton Pee, Caroline Winchester, Rob Hanger)
 - ii. NN Membership - Tom Rolfes
 1. Potential NN Members ([7/1/2014 Participation Report](#))
 - a. K12 (Public) - 14 ESU 3 schools; South Platte PS @ Big Springs
 - b. K12 (Private, Denominational) - Lincoln Diocese, Omaha Archdiocesan Schools; Others
 - c. Post Secondary - Bellevue University, Bryan College of Health Sciences, Concordia University, Grace University, Hastings College, Nebraska Methodist College, York College (Mike Carpenter & Chris Vaverek) Mike will contact Bryan, Concordia, Hastings and York. Chris contacts Bellevue, Grace and Nebraska Methodist.
 - d. Other - 267 Public Libraries
 - iii. NN Membership Guidelines/Participation Profile - John Stritt
 1. [Network Nebraska Statutes](#)
 2. Reviewing membership guidelines
 - a. Changing statute? Actions taken to add non-profit providers as eligible NN members.

- i. (January 7-21 Bill Introduction)
 - ii. Neb. Rev. Stat. 86-5,100:
<http://nebraskalegislature.gov/laws/statutes.php?statute=86-5,100>
 - b. Restructuring NN fees - some ideas
 - i. Tiered plan based on a % of base rate
 - 1. Could increase membership of private schools and public libraries - See bandwidth summary
 - ii. Bandwidth use fee - IE: Cost is \$1 per Mbps per month but charge \$1.10 per Mbps per month?
 - iii. Service fee for non NN members who need access to virtual servers that might be housed on NN.
 - iv. Bandwidth summary
 - v. Committee volunteers would study the potential impact of increased Internet bandwidth necessitating increased infrastructure costs, and then consider different options of altering the cost recovery system, as well as providing Internet usage data to purchasers before they place their orders for Internet (e.g. 2/1/2015).
 - vi. Issues: Internet purchase demand vs. Internet consumption; WAN capacity into Network Nebraska. Would cost recovery system/surcharge pertain to either or both?
 - vii. Committee: Ron Cone, ESU 10; John Dunning, WSC; Chris Vaverek, Creighton; Jonathan Becker, OPS; Clifton Pee, MCC; Darci Lindgren, Lindsay Holy Family School; Deb Schroeder, UNK; Tom Peters, CCC.
 - iv. Budget - Deb Schroeder
 - 1. Refer to discussion on Future Network (Brad & Ben)
- b. **Emerging Technologies** (John Dunning, Ron Cone, Tom Peters, Gene Beardslee)
 - i. Identity Management & InCommon Pilot Project - Ron Cone
 - 1. Federated Directory System (single sign-on) part of ESUCC's [BlendEd Initiative](#) & NDE Data Dashboard (ADVISOR) Project
 - ii. Big Data Transport (Data Dashboard) -
 - iii. Caching Service - Brad Weakly--
 - 1. Apple caching
 - 2. How about allowing fee incentives for employing local caching services?
 - iv. Firewalls/Gatekeepers - Ron Cone Leadership of Ben and Brad suggesting firewall options.
 - v. IPv6 - John Dunning Table.
- c. **NN Application Services** (Bob Uhing, Mike Carpenter, Kirk Langer, Michael Ruhrdanz)
 - i. BlendEd - Bob Uhing: Identity management for LOR and Data Dashboard
 - ii. LMS Pilots supporting schools using Learning Management Systems and a statewide Model having IMS Global Standards
 - iii. Statewide Survey called Clarity that looks at student use of technology and teachers use of Tech. in the classroom and expectations of students in the K-12 classroom
 - iv. Internet2 Net+ and Commercial Peering Service- Michael Ruhrdanz:
 - 1. [Net+](#) are additional Internet2 services.
 - 2. Are Net+ services available to university and all NN members?

- v. Traffic Shaping - (Over subscription??) Brad Weakly:
 1. Infrastructure projections and impact on budget/participation fee
 2. Purchasing 25GB and using only 15GB (Over subscription)
 3. Network Nebraska imposes shaping policies at the request of the entity members. Contact Ben and/or Brad.
 - vi. Intrusion Prevention Services - Brad Weakly and Ben Mientka:
 1. Ready to move some ESUs to transition into the equipment
 2. Contact Brad and/or Ben to discuss/implement.
 - vii. Network Management - Brad Weakly and Ben Mientka:
 1. Implemented Solarwinds system. Have accounts been delegated?
 - viii. Shared Services - What services could be offered and passed on to NN members?
 1. Zoom desktop application?
 - a. Currently 14 colleges (4 purchased, 10 free) and 17 ESUs (14 purchased, 3 free) have accounts.
 - b. Pennsylvania has a statewide or enterprise license.
 2. Other Cloud Services???
 3. Other Services?
 - d. **Marketing** - Clifton Pee, Caroline Winchester, Rob Hanger
 - i. NN Web Site - Tom Rolfes
 - ii. Survey - SuAnn Witt:
 - iii. Collaboration with outside groups (PSC) - SuAnn Witt:
 1. PSC is interested in NN use.
 - iv. Other Committee Reports:
 - e. Community Colleges - Tom Peters and Clifton Pee:
 - f. State Colleges - Gene Beardslee and John Dunning:
 - g. U of Nebraska - Debbie Schroeder and Michael Ruhrdanz:
 - h. Private Colleges - Mike Carpenter and Chris Vaverek
 - i. ESUCC - Bob Uhing:
 - j. DEAC - Scott Jones:
 - k. NOC - Ron Cone

Significant discussion surrounding Statewide initiatives including:

 1. Identity Management which included a presentation by [IlliniCloud](#) and their Shared Learning Environment.
 2. LOR & Safari Montage implementation, ongoing training and other issues

Trainings which were to include Ubiquiti AirMax budget for future needs

Next meeting in February
6. Upcoming Meeting Dates
 - a. 3rd Wednesday - PM (January 21 - **March 18 (F2F)** - May 20)
 7. Next regular meeting - Wednesday, January 21. 1-3 PM

The meeting adjourned at 3:00PM CT.

Meeting minutes were "crowd-sourced" by members of NNAG and reviewed by staff liaisons before posting to the www.nitc.ne.gov/nnag website.



NEWS

Federal Communications Commission
445 12th Street, S.W.
Washington, D. C. 20554

News Media Information 202 / 418-0500
Internet: <http://www.fcc.gov>
TTY: 1-888-835-5322

This is an unofficial announcement of Commission action. Release of the full text of a Commission order constitutes official action.
See MCI v. FCC, 515 F.2d 385 (D.C. Cir. 1974).

FOR IMMEDIATE RELEASE:
December 11, 2014

NEWS MEDIA CONTACT:
Mark Wigfield, 202-418-0253
E-mail: Mark.Wigfield@fcc.gov

FCC CONTINUES E-RATE REBOOT TO MEET THE NEEDS OF 21ST CENTURY DIGITAL LEARNING

Funding Boost Will Enable Schools, Libraries Nationwide to Reach Connectivity Goals over the Next Five Years

Washington, D.C. – Taking significant additional steps to ensure that the nation’s schools and libraries have access to robust high-speed broadband connections, the Federal Communications Commission today approved further modernization of its E-rate program, the nation’s largest program supporting education technology.

Broadband is transforming 21st Century education and life-long learning. The Commission is implementing a fundamental reset of E-rate, the first such effort since the program’s creation 18 years ago, so that it can keep pace with the exploding demands for ever-faster Internet service placed on school and library networks by digital learning applications, which often rely on individually connected tablets and laptops.

Today the Commission adopted an Order aimed at closing this connectivity gap by making more funding available for libraries and schools to purchase broadband connectivity capable of delivering gigabit service over the next five years. The Order also provides schools and libraries additional flexibility and options for purchasing broadband services to enable schools and libraries to meet their Internet capacity needs in the most cost-effective way possible.

The Order builds on action taken by the Commission in July to meet another critical need: robust Wi-Fi networks inside libraries and schools capable of supporting individualized learning. The July Order freed up funds for Wi-Fi through improved fiscal management and by ending or phasing out legacy services like paging and phone service. The July Order also increased program fairness by ensuring that all schools and libraries have equitable access to funding for Wi-Fi. And it strengthened the hand of educators in negotiations with service providers by requiring that prices and terms for E-rate subsidized services nationwide be posted transparently on the Internet.

While schools and libraries are now on a path to providing robust Wi-Fi for students, teachers and patrons over the next five years, data the FCC has been gathering over the past six months has revealed the depth of the connectivity gap. For example, 63% of public schools – with over 40 million students – don’t have

broadband connections to the building capable of taking advantage of modern digital learning. That gap that will only grow as digital learning applications increase their requirements for bandwidth.

According to data submitted to the FCC:

- 68% of all districts (73% of rural districts) say that not a single school in their district can meet the long-term high-speed Internet connectivity targets today.
- Approximately 41% of rural public schools lack access to fiber networks sufficient to meet modern connectivity goals for digital learning, compared to 31% of suburban and urban public schools.
- 39% of schools in affluent areas currently meet speed targets, but only 14% of schools in low-income rural and urban areas meet those targets.
- 45% of school districts lack sufficient Wi-Fi capacity to move to one-to-one student-to-device deployments which is increasingly necessary to achieve modern digital learning objectives.
- Half of all public libraries report connections of less than 10 Mbps (70% of rural libraries) – or less than 10% of the target for libraries with smaller service areas and less than 1% of the speed target for libraries serving larger numbers of people.
- More than half (58%) of districts say the monthly recurring expense of connections is the most significant barrier to faster service.
- Nearly 40% of districts indicate they can't afford the high up-front capital costs of infrastructure upgrades

The FCC's actions close the connectivity gap through continued efforts to lower the prices schools and libraries pay for connectivity, and by increasing the amount of support available for connections to the Internet, known as category one of the program. Based on a comprehensive record, the Order raises the spending cap on the E-rate program from the current \$2.4 billion to \$3.9 billion -- the first reset of the cap since it was initially set at \$2.25 million in 1997, an amount that wasn't adjusted for inflation until 2010.

E-rate is one of four universal service programs funded by an assessment on interstate and international telephone revenues, a cost companies may recover from their residential and business customers. If demand for E-rate funds from schools and libraries ramps up to reach the full \$3.9 billion cap, the estimated additional cost to an individual rate payer would be approximately 16 cents a month, about a half a penny per day or about \$1.90 a year – less than a large soda at fast food restaurant or a cup of coffee.

By providing certainty about the future of E-rate funding, raising the cap enables schools and libraries to plan how best to upgrade their networks and at what pace. Today's Order also takes further steps to improve the overall administration of the program and maximizes the options schools and libraries have for purchasing affordable high-speed broadband connectivity by:

- Suspending the requirement that applicants seek funding for large up front construction costs over several years, and allowing applicants to pay their share of one-time, up-front construction costs over multiple years
- Equalizing the treatment of schools and libraries seeking support for dark fiber with those seeking support for lit fiber. Dark fiber leases allow the purchase of capacity without the service of transmitting data – lighting the fiber. Dark fiber can be an especially cost-effective option for smaller, rural districts
- Allowing schools and libraries to build high-speed broadband facilities themselves when that is the most cost-effective option, subject to a number of safeguards

- Providing an incentive for state support of last-mile broadband facilities through a match from E-rate of up to 10% of the cost of construction, with special consideration for Tribal schools and libraries
- Requiring carriers that receive subsidies from the universal service program for rural areas – called the High Cost program – to offer high-speed broadband to schools and libraries located in geographic areas receiving those subsidies at rates reasonably comparable to similar services in urban areas
- Increasing the certainty and predictability of funding for Wi-Fi by expanding the five-year budget approach to providing more equitable support for internal connections – known as category two – through funding year 2019

While the cost to consumers of these changes to the E-rate program is small, the benefits to students, life-long learners, and the nation's competitiveness are great.

Action by the Commission December 11, 2014, by Second Report and Order and Order on Reconsideration (FCC 14-189). Chairman Wheeler, Commissioners Clyburn and Rosenworcel with Commissioners Pai and O'Rielly dissenting. Chairman Wheeler, Commissioners Clyburn, Rosenworcel, Pai and O'Rielly issuing statements.

FCC-

More information about E-rate is available at www.fcc.gov/e-rate-update

<p>NITC Education Council Task Group Membership and Action Item Assignments (See action item listing to decipher codes)</p>	<p>December 17, 2014 NDE Board Room Lincoln, NE</p>
<p><u>Governance Task Group</u> Randy Schmailzl, Group Leader Dan Hoelsing Bob Uhing</p> <p>Action Item Assignments 1. N1A (shared with Services Task Group) 2. N4A 3. D8 4.</p>	<p><u>Emerging Technologies Task Group</u> Steve Hamersky, Group Co-Leader Burke Brown, Group Co-Leader Clark Chandler Matt Chrisman Shelley Clayburn Yvette Holly Greg Maschman Darren Oestmann</p> <p>Action Item Assignments 1. N4E (shared with Services Task Group) 2. D6 3. D7 4.</p>
<p><u>Communications Task Group</u> SuAnn Witt, Group Co-Leader Steve Hotovy, Group Co-Leader Brent Gaswick Chuck Lenosky Mary Niemiec Steven Stortz</p> <p>Action Item Assignments 1. N2A 2. N4C 3. N4D 4. D1 5. E1 (monitor and advise) 6. 7.</p>	<p><u>Network Nebraska Services Task Group</u> Mike Carpenter, Group Co-Leader Gary Needham, Group Co-Leader John Dunning Derek Bierman Mike Danahy Bob Uhing</p> <p>Action Item Assignments 1. N1A (shared with Governance Task Group) 2. N3A 3. N4B 4. N4E (shared with Emerging Technologies Task Group) 5. N4F 6. D2 7. D3 8. D5</p>
<p>EC Members not assigned (1): Mike Lucas EC Voting Alternates not assigned (9): Dennis Baack, Wayne Bell, Ann Burk, Stan Carpenter, Elizabeth Erickson, Lanyce Keel, Dan Moser, Tracy Popp EC Members/Alternates on more than one group (1): Bob Uhing NITC Action Items Not Assigned: D4, D9</p>	

NITC Strategic Initiatives

2014-2016

Network Nebraska Strategic Initiative Action Items (Recommendations for 2014-2016)

1. Identify Tier II communities that offer opportunities for aggregation for services onto the network.

1a. Action: Education entities will act as primary tenants to encourage the aggregation of data transport by public libraries through leased circuits.

Lead: K-12 districts, ESUs, colleges/universities

Participating Entities: Specific communities, Office of the Chief Information Officer, NITC Education Council, Nebraska Library Commission, and public libraries

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

2. The Chief Information Officer will continue the LB 1208 implementation by annually bidding infrastructure and connectivity for new regions of participants and developing the most cost-effective and efficient support structure possible for the statewide network.

2a. Action: The Chief Information Officer will encourage the use of the State master purchase contracts for edge devices and other equipment and monitor the local site purchases of such equipment in order to promote and encourage network equipment standardization.

Lead: Office of the Chief Information Officer

Participating Entities: Office of the Chief Information Officer, ESU-NOC, Education Council, Network Nebraska-Education Advisory Group

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

3. Offer Internet I services to eligible network participants.

3a. Action: The Collaborative Aggregation Partnership (CAP) will accept new orders for Internet service and continue to aggregate purchasing demand to secure a more economical price for statewide Internet service.

Lead: Network Nebraska (CAP)

Participating Entities: Office of the Chief Information Officer, NITC Education Council, ESU-NOC, Higher Education Entities, Network Nebraska-Education Advisory Group

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation

4. Prepare for the future of Network Nebraska as a statewide, multipurpose, high capacity, scalable telecommunications network that shall meet the demand of state agencies, local governments, and educational entities as defined in section 79-1201.01.

4a. Action: Develop appropriate participation criteria (e.g. type of entity, bandwidth expectations, differential fees) for Network Nebraska to serve all network participants (i.e. public/nonpublic K-12, public/nonpublic higher education, public libraries, others).

Lead: Network Nebraska—Education Advisory Group

Participating Entities: Network Nebraska (CAP), NITC Education Council

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

4b. Action: Develop a catalog of services for Network Nebraska participants.

Lead: Network Nebraska—Education Advisory Group

Participating Entities: NITC Education Council, Network Nebraska (CAP)

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

4c. Action: Bi-annually reissue the Network Nebraska Marketing Survey and subsequent Report to help steer the strategic direction of Network Nebraska—Education.

Lead: Education Council Marketing Task Group

Participating Entities: Network Nebraska—Education Advisory Group.

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation with minor revisions

4d. Action: Annually update the Network Nebraska Marketing Plan.

Lead: Education Council Marketing Task Group

Participating Entities: Network Nebraska—Education Advisory Group.

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation

4e. Action: Facilitate the implementation and training of IPv6 routing on a timely basis across all Network Nebraska entities.

Participating Entities: Network Nebraska (CAP), Office of the Chief Information Officer, Network Nebraska-Education Advisory Group, ESU-NOC, higher education entities

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time.

Status: Continuation

4f. Action: Address the need for multiple Internet egress points and redundant transport pathways within the Network Nebraska backbone.

Lead: Network Nebraska—Education Advisory Group

Participating Entities: Collaborative Aggregation Partnership, Education Council Services Task Group, ESU Network Operations Committee

Timeframe: 2014-2016

Funding: Substantial funding may be required for this action item

Status: New

Digital Education Strategic Initiative Action Items (Recommendations for 2014-2016)

- 1. Action: Promote the usage of the National Repository for Online Courses (NROC) content by Nebraska educators.**

Lead: ESU Coordinating Council

Participating Entities: NITC Education Council

Timeframe: 2014-2016

Funding: Some funding will be required to complete this action item.

Status: Continuation with minor revisions

- 2. Action: Fully deploy a statewide digital content repository interface that allows the assignment of digital property rights and the uploading, cataloguing, metatagging, searching, and downloading of digital learning objects by Nebraska educators.**

Lead: Nebraska Educational Telecommunications (NET) & ESU Coordinating Council

Participating Entities: Nebraska Department of Education, Education Council Services Task Group, ESU Instructional Materials Committee, ESU Distance Education Advisory Committee

Timeframe: 2014-2016

Funding: Considerable funding will be required to complete this action item.

Status: Continuation with minor revisions

- 3. Action: Develop and deploy a statewide learning management system for every K-12 teacher and learner, grades 6-12.**

Lead: ESU Coordinating Council

Participating Entities: NITC Education Council, ESU Technology Affiliate Group

Timeframe: 2014-2016

Funding: Considerable funding will be required to complete this action item.

Status: Continuation with minor revisions

4. Action: Train teachers in effective instructional design to integrate synchronous and asynchronous technologies.

Lead: ESU Coordinating Council

Participating Entities: NITC Education Council, ESU Technology Affiliate Group

Timeframe: 2014-2016

Funding: Some funding will be required to complete this action item.

Status: Continuation with minor revisions

5. Action: Coordinate and facilitate a statewide directory services federation effort that will enable students and teachers a single sign-on to associated learning management services and content management resources.

Lead: ESU Coordinating Council & Nebraska Department of Education (NDE)

Participating Entities: ESU-NOC, ESU-IMAT, UNCSN

Timeframe: 2014-2016

Funding: Some funding will be required for this action item

Status: Continuation with minor revisions

6. Action: Coordinate and facilitate a statewide data dashboard system that allows teachers and administrators the ability to merge local achievement data with statewide testing data to depict each student's academic progress.

Lead: Nebraska Department of Education

Participating Entities: ESUCC

Timeframe: 2014-2016

Funding: Substantial funding may be required for this action item

Status: New

7. Action: Research the potential feasibility of a software-based, individualized education plan for every Nebraska K-12 student that shows their progress on every state academic standard.

Lead: Nebraska Department of Education

Participating Entities: ESUCC

Timeframe: 2014-2016

Funding: No funding required for this action item

Status: New

8. Action: Provide guidelines for cooperation between K-12 and higher education institutions regarding K-12 students who are taking dual-credit courses using remote learning technologies.

Lead: ESU Distance Education Advisory Committee

Participating Entities: Nebraska Community Colleges, Nebraska State Colleges, University of Nebraska, Coordinating Commission for Postsecondary Education

Timeframe: 2014-2016

Funding: No funding required for this action item

Status: New

9. Action: Provide professional development in a "flipped learning" concept where the teaching is done on-line to provide professional developers a greater opportunity for coaching and mentoring activities during the in-person contact time.

Lead: ESU Technology Affiliate Group

Participating Entities: ESU Staff Development Affiliate

Timeframe: 2014-2016

Funding: No funding required for this action item

Status: New

E-Government Strategic Initiative Action Items (Recommendations for 2014-2016)

1. Action: Annually review and update the content of the Education Portal on the State of Nebraska website.

Lead: Education Council Marketing Task Group

Participating Entities: Nebraska.gov (Nebraska Interactive LLC)

Timeframe: 2014-2016

Funding: No funding requested for this action item at this time

Status: Continuation with minor revisions