IT Project Proposal Report - Detail
Agency: 013 - DEPT OF EDUCATION
Budget Cycle: 2017-2019 Biennium   Version: AF - AGENCY FINAL REQUEST

IT Project : IT Education Systems of Support

General Section

Contact Name :	Dean Folkers	**E-mail :**	dean.folkers@nebraska.gov	**Agency Priority :**	1
Address :	301 Centennial Mall South	**Telephone :**	402-471-4740	**NITC Priority :**	
City :	Lincoln			**NITC Score :**	
State :	Nebraska	**Zip :**	68509		

Expenditures

IT Project Costs	Total	Prior Exp	FY16 Appr/Reappr	FY18 Request	FY19 Request	Future Add
Contractual Services						
Design	1,000,000	0	0	490,000	510,000	0
Programming	1,150,000	0	0	560,000	590,000	0
Project Management	920,000	0	0	450,000	470,000	0
Data Conversion	443,000	0	0	0	443,000	0
Other	8,763,133	0	0	4,520,000	4,243,133	0
Subtotal Contractual Services	12,276,133	0	0	6,020,000	6,256,133	0
Telecommunications						
Data	41,315	0	0	20,500	20,815	0
Video	462	0	0	80	382	0
Voice	0	0	0	0	0	0
Wireless	0	0	0	0	0	0
Subtotal Telecommunications	41,777	0	0	20,580	21,197	0
Training						
Technical Staff	43,000	0	0	20,000	23,000	0
End-user Staff	106,000	0	0	50,000	56,000	0
Subtotal Training	149,000	0	0	70,000	79,000	0

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Expenditures

IT Project Costs	Total	Prior Exp	FY16 Appr/Reappr	FY18 Request	FY19 Request	Future Add
Other Operating Costs						
Personnnel Cost	2,813,318	0	0	1,380,699	1,432,619	0
Supplies & Materials	91,911	0	0	45,276	46,635	0
Travel	145,368	0	0	71,610	73,758	0
Other	0	0	0	0	0	0
Subtotal Other Operating Costs	3,050,597	0	0	1,497,585	1,553,012	0
Capital Expenditures						
Hardware	49,000	0	0	49,000	0	0
Software	0	0	0	0	0	0
Network	0	0	0	0	0	0
Other	67,200	0	0	67,200	0	0
Subtotal Capital Expenditures	116,200	0	0	116,200	0	0
TOTAL PROJECT COST	15,633,707	0	0	7,724,365	7,909,342	0

Funding

Fund Type	Total	Prior Exp	FY16 Appr/Reappr	FY18 Request	FY19 Request	Future Add
General Fund	15,151,723	0	0	7,479,223	7,672,500	0
Cash Fund	0	0	0	0	0	0
Federal Fund	481,984	0	0	245,142	236,842	0
Revolving Fund	0	0	0	0	0	0
Other Fund	0	0	0	0	0	0
TOTAL FUNDING	**15,633,707**	**0**	**0**	**7,724,365**	**7,909,342**	**0**
VARIANCE		**0**	**0**	**0**	**0**	**0**

IT Project: IT Education Systems of Support

EXECUTIVE SUMMARY:

Please see attached NITC Project Proposal Form.

Attachments:

Systems of Support.pdf

GOALS, OBJECTIVES, AND OUTCOMES (15 PTS):

Please see attached NITC Project Proposal Form.

PROJECT JUSTIFICATION / BUSINESS CASE (25 PTS):

Please see attached NITC Project Proposal Form.

TECHNICAL IMPACT (20 PTS):

Please see attached NITC Project Proposal Form.

PRELIMINARY PLAN FOR IMPLEMENTATION (10 PTS):

Please see attached NITC Project Proposal Form.

RISK ASSESSMENT (10 PTS):

Please see attached NITC Project Proposal Form.

FINANCIAL ANALYSIS AND BUDGET (20 PTS):

Please see attached NITC Project Proposal Form.

Nebraska Information Technology Commission

Project Proposal Form

**Funding Requests
for Information Technology Projects**

2017-2019 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	**Shared Systems and Supports**
Agency/Entity	**Nebraska Department of Education**

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

General Information

Project Title	Shared Systems and Supports (SSaS)
Agency (or entity)	Nebraska Department of Education (NDE)

Contact Information for this Project:

Name	Dean Folkers
Address	301 Centennial Mall S, PO Box 94987
City, State, Zip	Lincoln NE 68509-4987
Telephone	402-471-4740
E-mail Address	dean.folkers@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.

The primary purpose of this ***Shared Systems and Supports*** project creates a fundamental shift toward efficiency in access to digital learning resources and tools. The proposed approach reduces local and state burdens, increases equitable access to digital education, and improves the privacy and security of student information across Nebraska. The comprehensive nature of the project supports a significant need found by a recent study estimating that Nebraska's K-12 Public School districts spend approximately $100 million annually on software licenses and staff, including over 655,000 hours each year submitting data for reporting purposes. The study also found the size of a school often determines the level of access to digital learning resources and tools. Primary reasons include costs and capacity to support.

The details in this proposal reveal alignment to NDE Strategic Priorities, to the Nebraska's Statewide Technology Plan: *An Enterprise Vision for IT in Nebraska,* specifically in the areas of cost savings realized through eliminating duplication, and centralizing services; and to the OCIO Top Priorities Centralize-Optimize-Standardize. Highlights in the plan include:

- Efficiencies through an estimated per-pupil cost savings of between $100 - $300 per pupil;
- Timely and cost effective upgrades to future technology implementations in a nimble and responsive environment;
- Targeted and coordinated professional development;

- Transitions resources from supporting technology to supporting teaching and learning;
- Enhances security and privacy of student information; and
- Provides equitable access to all services and resources to both rural and urban districts.

Building on the strong statewide success of *Network Nebraska* for Internet access, this project addresses the efficient availability of educational resources like software applications, training, and supports to most effectively use the network. As the Nebraska Department of Education supports and coordinates delivery of solutions meeting expectations of stakeholders, there is a need to stay current with the exponentially increasing pace of technology innovation. Shared sustainable resources allocated for continuous updates to modern and efficient systemic solutions support the future of education in Nebraska all while increasing efficiency, access, and security.

Goals, Objectives, and Projected Outcomes (15 Points)

1. Describe the project, including:
   - Specific goals and objectives;
   - Expected beneficiaries of the project; and
   - Expected outcomes.

   The **Shared Systems and Supports** project aligns to the Nebraska Department of Education Strategic Priorities:
   > Strategic priority 1: Ensure that all Nebraskans, regardless of background or circumstances, have equitable access to opportunities for success.
   > Strategic priority 2: Increase the number of Nebraska's learners who are ready for success in college, career, and civic life.

   -Specific goals and objectives of this project:
   > The purpose of this project is to deliver secure, reliable, unified, user-friendly and comprehensive technological systems in support of teaching and learning in Nebraska. The **Shared Systems and Supports** project will reduce burden at the local level and increase efficiencies through shared systems and supports available equally to all schools. The project plan will accomplish this multi-part goal through five areas of implementation:

   - An Instructional Improvement System to increase focus on teaching and learning
   - Systems of shared infrastructure and support to reduce parallel or duplicative investments
   - Improved accessibility of data for decision-making, research and continuous improvement processes

- Internal efficiencies including project management practices and software supports
- Stronger policies and oversight addressing data privacy and security

-Beneficiaries of the project:

Shared Systems and Supports allow for increased focus and time for teaching and learning, and instructional improvement goals for schools.

- Students and teachers will benefit by having more time for teaching and learning, with access to digital resources anytime, anywhere (urban/ rural /public/ nonpublic).
- Parents and other stakeholders will benefit from evidence-based information that informs student learning, instruction, and other decisions.
- System-wide benefits include consolidation of duplicative systems, maximizing available funds, equitable access to resources, and increased data security and privacy.

-Strategic Priority driven, targeted outcomes of this project are:

Outcome 1: Reduced burden and costs through shared systems
Outcome 2: Increased capacity for instructional and administrative work
Outcome 3: Equitable access to common resources
Outcome 4: Enhanced data security and privacy

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

Outcome 1: **Reduced burden and costs through shared systems**

Statewide **Shared Systems and Supports** will result in reduced licensing costs, systemic professional development, and up-to-date hardware/software solutions with experienced technical support.

Measures:

- Decreased costs and time on task incurred by districts in accountability data submissions through automation.
- Decreased costs in Information Technology (IT) equipment and licensing for schools.
- Decreased Full Time Employee (FTE) costs supporting local systems focusing resources on instructional support.
- Reduced per-pupil cost through access to statewide-shared systems.
- Implementation of an enhanced finance data collection system
- Integration of the staff data collection system with Nebraska Public Employees Retirement Systems (NPERS).

Outcome 2**: Increased capacity for instructional and administrative work**

Moving the burden of sustaining technical and administrative requirements to a **Shared Systems and Supports** platform allows for increased focus and time for teaching and learning. Staff will be able to focus more on continuous school improvement, especially in the use of data to inform instructional improvement strategies across all grade levels. Professional development will see increased coordination statewide and delivered in multiple modes: face-to-face, and synchronous video or asynchronous online options reducing travel and professional development costs.

Measures:
- Reduced travel time and costs for professional development.
- Increased number of professional development opportunities for teachers targeted at statewide systems that inform teaching and learning.
- Increased number of professional development opportunities for support staff targeted at statewide systems that provide data for data-driven decision-making.
- Additional shared professional development and help desk staff available to Nebraska districts.
- Implementation of an early childhood integrated data system.
- Integration of systems to support continuity of instruction for systems-involved students (e.g., child welfare, foster care, probation, etc.).

Outcome 3**: Equitable access to common resources**

Shared Systems and Supports will leverage the state-level market to influence vendors, negotiate lower prices through competition, provide consistent functions and pricing across large and small districts, and expands the number and quality of instructional applications for schools. The project uses the Educational Service Unit Coordinating Council (ESUCC) Cooperative Purchasing (ESUCC Marketplace) to expand the state level marketplace where districts can access hardware and software applications at state enterprise-level pricing.

Measures:
- Reduced costs by identifying shared statewide systems and negotiating enterprise-level pricing.
- Reduced software costs incentivizing movement away from non-compliant systems.
- Increased access for all schools to systems supporting learning in and out of the classroom.
- Implementation of a curriculum standards database to make standards more accessible for learning activity- and course-building.
- A library of "master courses" and curated content available to Nebraska Educators through the ESUCC learning object repository.
- Development of tools and a repository for localized formative assessment, made available to Nebraska educators.
- Implementation of a business intelligence system.
- An electronic transcript system made available to all Nebraska districts.

- A professional survey tool made available to all Nebraska districts.

Outcome 4**: Enhanced data security and privacy**
Shared Systems and Supports will invest in multiple layers of security to detect potential vulnerabilities in data systems and implement solutions to prevent intrusions.

Measures:
- Implementation of Single Sign On - target 100 School District in FY2017 and 250 districts by FY2018.
- Establishment of a Privacy Officer and governance security staff to oversee and maintain privacy and security policies for collection and use of data.
- Review, revision, and implementation of privacy and security policies and practices.
- Security assessment of hosted services, data collection, and handling methods.
- Implementation of secure research portal, including a data request and access tool.

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

Systems established in the prior biennial technology plan are continuing through development and expand in the current technology plan. These efforts require additional FTE positions in the areas of training, research and analysis, application development, both technical and user help desk staff, and some temporary contracted positions to fully implement the project. Additional equipment upgrades will be necessary to meet technology needs for this project. These investments will yield a significant cost savings once implemented.

The **Shared Systems and Supports** project also aligns to Nebraska's Statewide Technology Plan: *An Enterprise Vision for IT in Nebraska*, specifically in the areas of cost savings realized through eliminating waste, and centralizing services. Ed Toner, CIO for the State of Nebraska states, "By approaching the information technology needs of the state at the enterprise level, we have more easily and more quickly been able to identify ways to streamline the delivery of our services." The **Shared Systems and Supports** plan is focused on those same goals. The plan reduces spending through centralization of core services and supports. Outcomes of this project also align to the State Technology Plan in these strategic areas: equitable delivery of digital resources to all learners, a scalable reactive network using the Network Nebraska communications infrastructure and cloud-based services, maximization of funds for IT spending, and targeted professional development strategies.

Historically, the education data collection and support systems in Nebraska were built using federal resources and have primarily served to report data per federal requirements. Much of the ongoing support and maintenance of the systems remains federally funded as well, but these funding sources are in constant shift. The most recent federal investment provided a $4.3 million Statewide Longitudinal Data Systems grant from the US Department of Education. The resources supported the creation of a data dashboard tool for teachers and

administrators in school districts to access secure and appropriate data to support decisions in the classroom. The project created a fundamental example for the potential success of providing efficient centralized access to resources for all schools and efficiencies in coordination from the state level.

Moving forward, in order to ensure NDE delivers solutions to meet the expectations of its stakeholders, there is an identified need to keep up with the exponentially increasing pace of technology innovation and consumption. Only through continuous adoption of modern solutions will the educational systems in Nebraska stay current with industry advances, school district and student learner needs, and do so while increasing efficiency and access, sustainable resources must be allocated.

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).

Tangible benefits and return on investment:
Network Nebraska (NN) has had great success in establishing partnerships and reducing costs through shared services. Building on the ideals of LB 1208, which established the statewide education network, this plan, adopts that model for this project plan. By sharing network transport costs and the demand for Internet bandwidth, Nebraska has reduced the costs associated with these services exponentially. Network Nebraska offers technical and other services to all school districts equally. Costs went down while service increased. Similar benefits will also be the result of this project. See *How Nebraska Built a Network with the Lowest Internet Costs* @ http://www.govtech.com/pcio/articles/How-Nebraska-Built-a-Network-with-the-Lowest-Internet-Costs.html. Since this article was published, 100% of public K-12 districts have joined Network Nebraska.

Research and findings:
To assess the current state of the Nebraska education data systems a study in 2014 investigated the ecosystem of data and technology systems in Nebraska schools. This study was directed by the Nebraska Legislative Resolution 264 (LR 264) stating:

> "The purpose of this resolution is to examine the education data system. The study shall include an assessment of the adequacy of the current data system maintained by the State Department of Education to provide timely access to relevant and accurate data to meet various needs, including information for teachers in public schools about student achievement in their classrooms, objective research regarding educational practices, data for policy formation and review, and accountability to the public regarding the performance of the public schools. This study shall include, but not be limited to, an examination of the following:
>
> 1. The costs of the data system;
> 2. Legislative access and public access to the department's data system;
> 3. The role and inter-relationships between the Nebraska Student and Staff Record

System, the Consolidated Data System, the State of the Schools Report, and the Statewide Longitudinal Data System as developed pursuant to federal grant funding;

4. Timelines and access to financial information related to school spending, budgets, taxes, and state aid;
5. Adequacy of school staff data in the Nebraska Student and Staff Record System in relation to teacher and classified staff qualifications, assignments, degree level, college credits, and experience; and
6. Any other issue related to the education data system that the study committee deems important."

The study engaged a number of partners, including NCSA, NSEA, ESUCC, and NDE leaders throughout the process to help form the study methodology and interpret the findings (see Letter of Support, Appendix A). The education data systems assessed the following criteria:
- Adequacy for reporting
- Level of integration
- Adequacy of staff
- Adequacy to support instructional improvement initiatives
- Performance on Data Quality Campaign's 10 Essential Elements for Effective Data Use

Currently, Nebraska education data systems are organized as follows:
- The Nebraska Department of Education fields a set of applications at the state level largely focused on State and Federal accountability.
- Each district has its own set of administrative, teaching and learning, and back office applications for "operating" the business of education with the district.
- Districts submit annual collections of data to support accountability to the state using a combination of automated and manual methods.

The study revealed that there is an estimated $100 million spent on software systems, 655,000+ hours spent reporting data, and a significant disparity in access to digital systems supporting teaching and learning - amplifying the importance of the **Share Systems and Supports** project. National insights from the Data Quality Campaign (2011) reinforce the direction that NDE is undertaking—moving from compliance only, to service oriented supports. Highlighting the important focus on student data, privacy, and security has become a priority of multiple organizations throughout the country. Finally, a committed focus to using evidence-based approaches that inform teaching and learning, policy, practice, and research efforts become essential to supporting student learner achievement.

Over 200 Nebraska educators participated in the survey representing 80% of students. The following table reveals current data system challenges:

Challenge	Impact
Nebraska's education system is largely supported by district-centric data systems Implementations have a large amount of variability from district to district.	● Within each district's data system, there is poor integration between applications from different vendors, creating silos that limit the use of data and result in inconsistencies. ● There are inequities in the capabilities of district data systems, particularly between large and small districts. ● Most districts do not have all of the education applications that they consider important, particularly those related to teaching and learning.
The state's data system focuses on accountability and does not directly contribute to the core mission of teaching and learning at the districts.	● The accountability data submission process is expensive and burdensome for the districts, requiring an estimated 655,200 hours annually. ● The accountability process is also expensive for Student Information System vendors, a cost that they directly or indirectly pass onto districts.
Staff data is spread across Human Resources and Student Information Systems at the district level and the Teacher Certification and Nebraska Public Employees Retirement system (NPERS) at the state level.	● The school staff data collection from the Nebraska Student and Staff Record System (NSSRS) provides the state minimal information on staff demographics, experience, education, and position assignment information. ● This information is not adequate to address current and future requirements for more in-depth teacher data or to link teachers to student performance and success data. ● This data should also support the entire continuum of professional learning, from high-quality teacher preparation programs to professional development related to student needs.
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.	● The capabilities and support provided by the ESUs varies across the state. Additional capacity is needed.
Nebraska's data systems across the districts, ESUs, and NDE are not adequate to support the current education initiatives that include Blended Education, Teacher Evaluation, Education Intelligence, and Career Readiness.	● Most districts do not have access to the tools to support instructional improvement, teacher evaluation, or data analytics.

Business Case:
The challenges described above provide a business case framework for efficient coordination and delivery of **Shared Systems and Supports** that build long-term capacity, efficacy, and efficiency in both teaching and learning as well as administrative processes.

Currently, the options and access for schools to use technology in support of teaching and learning is disparate and confusing. Not including support personnel and equipment costs, annual costs just for licensing fees range from $4/ student to $58 depending on the number and types of systems used. Some systems or applications are often not available or even

feasible for many districts, especially in spares to very sparse areas, because of costs, maintenance, and technical support.

Economic Return on Investment:
Outside of Federally funded investments, Nebraska spends approximately $100 million annually for technology, software systems, and accountability data submission, as follows:

Estimate Costs of current state as at July 2014:

Districts spend on IT and systems / year	$74.70 million
455.0 FTEs involved in data collection / year	$22.75 million
NDE spends on licensing & IT support / year	$ 2.50 million
Total	**$99.95 million**
Per pupil equivalent (~300,000 students)	~$330/student

The **Shared Systems and Supports** model is expected to *reduce* per pupil cost approximately $100 - $300/pupil for each district over time and implementation.

Full details about the LR 264 study results can be found at Nebraska Education Data Systems Study – LR 264.

5. 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.

One solution considered was that districts continue as is, spending resources on locally owned and operated or contracted services. This solution results in the following weaknesses and implications for doing nothing:

- Continues the disparity and inequities described in the table in Section 4 above.
- Minimizes economies of scale.
- Use of data to drive instructional improvement is inconsistent.
- Access to digital learning resources, tools, and professional development will continue to be accessed by those that can and not provided systemically across the state of Nebraska.
- Data is not available or in the right format for public access – NDE staff often receive several ad hoc requests for data per year. Some data take minimal effort on the part of NDE staff and some data requests require several days of full time employee (FTE) time.
- Lack of equitable access to systems and tools will continue across Nebraska schools.
- Research questions, key policy information, data informed evidence based decisions will all continue to go unanswered.
- The quality of the data collected will continue to be suspect relying on manual systems of intervention.

- Inefficient and costly spending on duplicative resources across schools throughout the state will continue.
- Nebraska will fall further behind in the competitive space of using data to inform both policy and best practice using evidence.

Shared Systems and Supports project: The LR 264 study identified areas of weakness where this proposed solution would strengthen existing infrastructure and processes while reducing costs and increasing services at all levels.

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

State mandate: The Nebraska Department of Education has responsibilities identified in the following state statutes:

79-1302: The Legislature finds that the utilization of appropriate technologies can provide enhanced educational services and broadened educational opportunities for Nebraska learners. It is the intent of the Legislature: (1) To utilize technology to provide effective and efficient distance learning; (2) to provide assistance and direction in the training of Nebraska teachers in uses of technology for instruction through electronic means; (3) to establish and support an electronic data network and data bases for Nebraska educators and learners; (4) to support the evaluation and dissemination of models of successful technologies which improve instruction or learning; (5) to provide support for cooperative education-technology ventures in partnership with public or private entities; and (6) to provide support for cooperative purchase or leasing of administrative or instructional software or software licenses in partnership with schools, educational service units, and other states**.**

79-1303: Educational Technology Center; created; mission.
The Educational Technology Center within the State Department of Education is created. The mission of the center is to achieve the legislative goals set forth in section 79-1302 and to provide leadership and support for the integration of technology and innovation into Nebraska elementary and secondary schools in order to provide quality education and equal opportunity for Nebraska learners.

In addition, this project proposal is highly influenced by inputs and conclusions from the Nebraska LR 264 Education Data Systems study.

Federal mandate: The new Every Student Succeed Act (ESSA), formerly No Child Left Behind (NCLB), increases expectation for the state and school district to protect the privacy and security of student information. While an expectation of the federal legislation, the systemic nature of this task is much broader and must be supported in the decisions and systems used in the Nebraska.

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.

    The **Shared Systems and Supports** project will build long-term capacity, efficacy, and efficiencies in the system of education statewide. The project enhances what schools are already doing, and:
    - Replaces outdated technologies with up-to-date technologies.
    - Creates equity in sustained online systems through a nimble, centralized model.
    - Operates over the well-established communications facilities of Network Nebraska.

    Hallmarks of the envisaged project are:
    - Ability to receive and integrate data from multiple systems providing a more complete and comprehensive view of students and staff.
    - A comprehensive set of instructional improvement tools that meet state and local education initiatives available to all schools.
    - Reduced costs for accountability, software licensing, and technical resources at the local level enabling greater focus on instructional improvement.
    - Reallocating time spent on administrative functions to teaching and learning.
    - Provides uniform access to technology, applications, and data to school districts of all sizes.
    - Leverages and strengthens the efficiencies provided by strategic partners.
    - Continues to provide choice and encourage education innovation in districts.

    Any or all of these services will be available to districts, allowing them to retain their own choices for local control. The increased capabilities within the **Shared Systems and Supports** approach, it is expected that districts will see an advantage to participate as all have done with the shared services model of Network Nebraska.

    Diagram 1 illustrates the shared services approach. School districts, Educational Service Units, and NDE depend upon and provide many of the technical services illustrated in the service stack diagram below to support teaching and learning. Delivering these layers of services requires skilled technicians as well as investments in hardware and software. These investments are often pursued in parallel and in isolation, duplicating efforts and expenditures. By strategically sharing layers of this infrastructure where appropriate, efficiencies can be gained in the multiple services listed below.

    - DCaaS = Data Center as a Service (physical location, facilities)
    - IaaS   = Infrastructure as a Service (server hardware, virtualization)
    - PaaS   = Platform as a Service (services needed by end-user applications)
    - SaaS   = Software as a Service (user-facing applications)

- Support / Communication / Software Development benefit all areas and participants
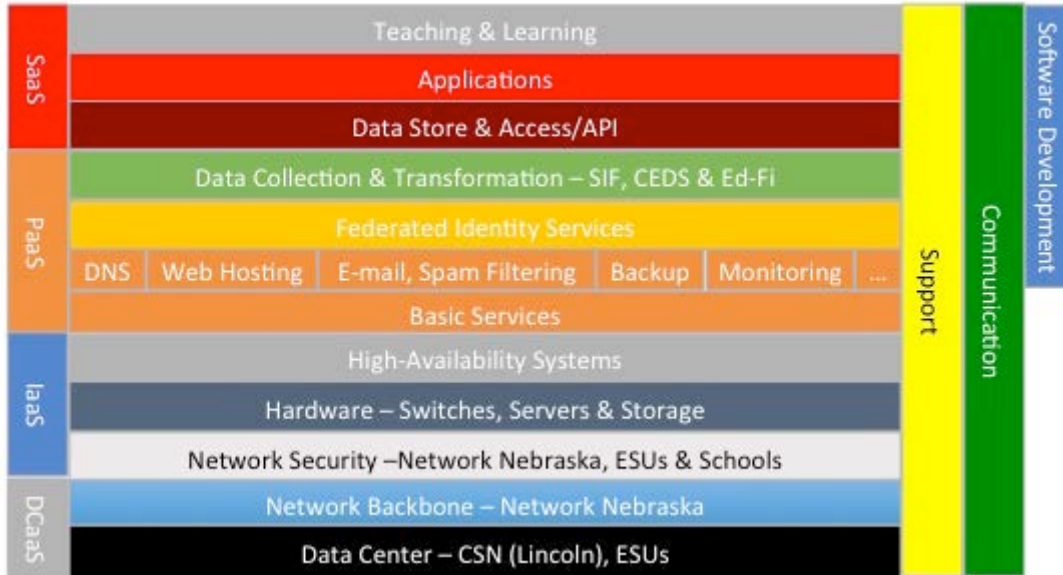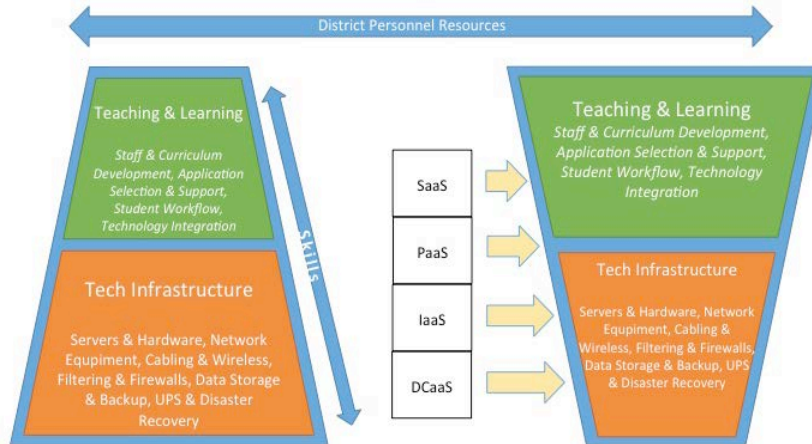
DIAGRAM 1

Diagram 2 illustrates the expected transition of resources in districts from supporting technology to more capacity for supporting teaching and learning.

DIAGRAM 2

Technical Elements:

- Shared hosting and business continuity services
- ADVISER data collection
- Standards database
- Assessment systems and tools
- Early Childhood integrated data system
- Finance data collection
- Staff data collection, integration w/NPERS
- Systems involved students
- Single Sign-On
- Business Intelligence
- NSWERS (P20W supports)
- Secure Data Request and Access Tool
- Learning Management and Content Repository
- E Transcript
- Survey Tools
- Research Portal

Strengths and Weaknesses:

Strengths:
- Use of single sign-on and mobile-friendly applications provides equitable access for Nebraska schools to online resources
- 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.
- 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.
- Identity management utilized in multiple ways to proliferate and support digital resources for Nebraska's educators.
- Staff capacity created to support sustainability.
- Targets professional development for continuity of process.

Weaknesses:
Implementing shared services, if misunderstood, may be perceived as a threat to local control. Implementing the **Shared Systems and Supports** project needs to be continually thoughtful in design and communications to emphasize that participants retain the ability to configure and customize solutions for their districts' needs, while enjoying the benefits of maintained infrastructure, platforms, and software. One of the greatest weaknesses of the current approach is the inefficiencies and significant risks assumed by a lack of access

to quality systems. Implementing Project Management techniques with this proposal is expected to employ best practices in stakeholder engagement, communication, and feedback.

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.

Security, reliability, and future growth are hallmark benefits of this proposal. Changes and improvements made to the various activities in the project have a direct and immediate effect to all users of the system. From technical upgrades to support systems to professional development, all are prepared to meet changing needs. This project will enable timely, cost effective upgrades and future technology implementations in a nimble and responsive approach.

It is a project-wide philosophy that hardware and software technologies employed will be maintained and updated regularly to remain secure, up-to-date, optimally-configured, and supported. By sharing hosting and other basic services across multiple applications and user communities, additional capacity of these services is also made more available to individual software components if or when needed. A monitoring system is already in place to support proactive assessment of needs and trends in network, memory and storage utilization, and allow those to be addressed before they present a problem to system users.

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

Conformity with NITC technical and industry standards is expected to be greater in this approach as the systems engineers and application developers reporting to the project will manage all services. A part of the project plan involves allocating staff to build and adopt policies based on standards and best practices and a program of regular assessment to evaluate and increase the level of adherence to these policies.

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

NDE works closely with network and systems staff with the Office of the Chief Information Officer (OCIO) as well as the Network Nebraska project team and advisory group. Many systems are currently located in server rooms at the OCIO and at the University of Nebraska Computing Services Network data center. A weakness addressed through this project is the number of systems at schools are located in offices or hall closets rather than server rooms or secure, climate controlled environments. In addition, there are inconsistencies in back-up and disaster recovery readiness. This project assures that statewide services will meet standards and compatibility requirements of the state, and provide greater security and reliability overall.

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.

Project Manager Qualifications
NDE has established a Project Management Office and has hired a certified project manager to lead this effort. Additional project managers will be assigned to help manage the **Shared Systems and Supports** Project.

The project managers responsible for expanding the **Shared Systems and Supports** project must have the appropriate skills, education, experience, and knowledge to lead the efforts from analysis through implementation. Specifically, the project manager must meet the following minimum qualifications:
*   Previous experience developing IT project plans
*   Knowledge of team leadership principles
*   Ability to work with other organizations in order to establish a process for sharing data
*   Knowledge of techniques for quality assurance and risk management
*   Conflict resolution skills and related experience with stakeholders, vendors, and staff
*   Knowledge of IT project management and execution methodologies such as the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK)
*   Experience working with and managing an outside application vendor

Project Management Methodology
NDE will utilize project management best practices activities that include:
*   Development of a project charter defining the project and roles and responsibilities
*   Defining activities and their sequence
*   Development of a project schedule and budget
*   Resource, quality, and configuration planning
*   Development of business and technical requirements
*   Risk and change management
*   Ongoing performance review, corrective actions, and project plan updates
*   Monitoring planned versus actual performance, schedule, and budget
*   Ongoing quality assurance and documentation
*   User review and acceptance
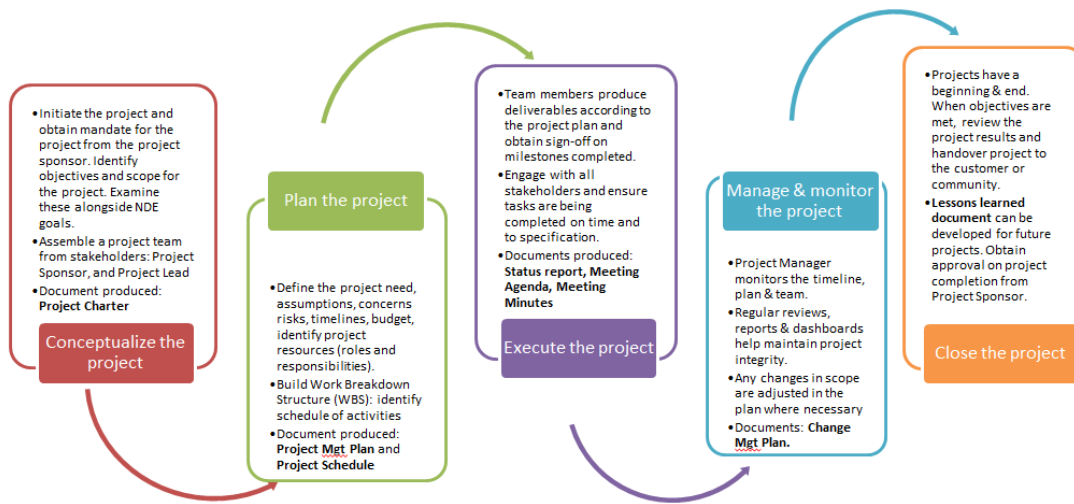*   Post Implementation Evaluation.

Additional project management activities are detailed below under Roles and Responsibilities.

Project Plan

This project will consist of those activities required to accomplish the proposed projects and implement the **Shared Systems and Supports** project that would meet each of the functional requirements described in this document. Project methodology life cycle defines the five project management phases or processes: conceptualize the project, plan the project, execute the project, manage and monitor the project, and finally close the project. Each phase addresses a specific aspect of managing a project from definition through close. Although these phases are described sequentially, in practice some of these phases may overlap or be applied concurrently during the lifetime of the project.

DIAGRAM 3

- Initiate the project and obtain mandate for the project from the project sponsor. Identify objectives and scope for the project. Examine these alongside NDE goals.
- Assemble a project team from stakeholders: Project Sponsor, and Project Lead
- Document produced: **Project Charter**

Conceptualize the project

Plan the project

- Define the project need, assumptions, concerns risks, timelines, budget, identify project resources (roles and responsibilities).
- Build Work Breakdown Structure (WBS): identify schedule of activities
- Document produced: **Project Mgt Plan** and **Project Schedule**

- Team members produce deliverables according to the project plan and obtain sign-off on milestones completed.
- Engage with all stakeholders and ensure tasks are being completed on time and to specification.
- Documents produced: **Status report, Meeting Agenda, Meeting Minutes**

Execute the project

Manage & monitor the project

- Project Manager monitors the timeline, plan & team.
- Regular reviews, reports & dashboards help maintain project integrity.
- Any changes in scope are adjusted in the plan where necessary
- Documents: **Change Mgt Plan.**

- Projects have a beginning & end. When objectives are met, review the project results and handover project to the customer or community.
- **Lessons learned document** can be developed for future projects. Obtain approval on project completion from Project Sponsor.

Close the project

Roles and Responsibilities

Role	Responsibilities
Project Sponsor	- Provides executive level leadership and guidance of the project - Secures project funding and ensures the availability of project resources - Participates in Steering Committee meetings that address key project milestones - Monitors project progress - Communicates project status to major stakeholders - Champions support for the project and markets its benefits - Provides direction on alternative strategies to accomplish project goals if risks/issues arise - Approves the project scope and approach
Executive Leadership Committee	- Guides the overall effort towards the achievement of its objectives - Attends and actively participates in Steering Committee meetings - Communicates project objectives and status to peers, colleagues, and staff

	• Provides direction and guidance to the development process • Provides input on development progress • Sets priorities of recommendations • Ensures support and buy-in for project recommendations in areas of influence • Assists the Project Manager to resolve issues and remove obstacles
Project Management Office Lead	• Helps coordinate work efforts that impact the project. • Resolves significant project issues. • Communicates project status to internal and external stakeholders as needed. • Reviews project deliverables • Elevates budget, schedule, and technical issues to the Project Sponsor, as necessary
Project Manager	• Coordinates and oversees project activities. • Ensures that project work is completed according to schedule • Develops project management-related deliverables. • Serves as liaison between vendor and stakeholders. • Tracks and resolves project issues. • Ensures that issues and changes are documented. • Maintains the project work plan. • Institutes controls to determine adherence to the project work plan and schedule. • Develops and executes the risk management plan. • Reviews project deliverables. • Facilitates project management team and stakeholder meetings. • Conducts project team meetings. • Prepares weekly project status reports. • Facilitates active and timely participation of program and technical staff for the duration of the project.
Subject Matter Experts	• Provides input for requirements and design • Represents the project from a business perspective • Prioritizes user acceptance components • Manages and implements the acceptance test work plan • Communicates test results to the IT teams • Escalates risks and mitigation measures to the appropriate organization level • Participates in end user acceptance testing • Participates in user training • Participates in outreach and communication prior to and during implementation.

Staffing needs for this project will include the following additional positions:

Chief Privacy Officer	Help Desk Support Position x2
Governance Security Specialist	Data Analyst
Project Manager x2	Psychometrician
Trainer Professional Developer	Policy Analyst
E Learning Trainer	Research Lead
System Trainer x2	

Project Monitoring
The project will be monitored in accordance with state approved policies and documented in the NDE Project Management Guide and practices embodied in the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK).

The project management team will work closely with the individual project teams in order to monitor project progress and effectively manage the project work plan. Using industry-accepted methodology and project management tools (e.g., Microsoft Excel, Microsoft Project, and Smartsheet), the project management team will document and track project phases and activities, as well as project timelines and associated milestones. In addition, where vendors are involved a project manager (vendor) will monitor the project status to ensure that project decisions are appropriate and cost-effective, and will report these findings to the NDE Project Manager and Executive Project Sponsor regularly. By combining staff expertise with effective project management, NDE can monitor the project while ensuring effective communication and contractor knowledge transfer to NDE and school District staff.

Change Management
The project management process will follow a three-step approach designed to accommodate reasonable variations from the original work plan. These steps are:

1. Submission of Change Requests—Changes in this project will require submission of a change request that documents the nature of the change, the reason, impact of the change on the project budget, impact on the project schedule, and the impact of not incorporating the change.

2. Review and Discuss with the Project Team— the **Shared Systems and Supports** Project Manager will review the change request with the appropriate project team member to determine the impact of incorporating or not incorporating the change. The change request is evaluated based on its cost and benefit, as well as its relevance to the original scope of the project.

3. Approval or Denial—In order to be implemented, the request must be approved by the Executive Leadership Committee.

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

    The implementation plan consists of four primary work streams aimed at addressing outcomes identified in Item 1 of this form. Please see **Shared Systems and Supports Timelines** (Appendix B):

    ◆ **Instructional Improvement Systems (IIS)** - This work stream focuses on providing school districts equitable access to integrated digital systems at low or no cost. These systems, hosted in Nebraska, connect to eliminate redundancies, enhance student performance across platforms and save teachers time. Elements in the system include critical digital assets and tools to support learning management systems, content

management systems, blended learning, online learning, teacher principal evaluation system, school improvement and climate tools, career readiness and discovery, local assessment systems, and other tools to enhance educational opportunities and experiences. Outcomes associated with this work stream:

Outcome 1: Reduced burden and costs through shared systems
Outcome 2: Increased capacity for instructional and administrative work
Outcome 3: Equitable access to common resources

Proposed Timeline for Implementation
- Define, Build– Fall 2017
- Pilot – Spring 2018
- Release – Summer 2018
- Support – Fall - Spring 2018-19

◆ **Infrastructure** – Strategies in this work stream focus on leveraging the Ed-Fi infrastructure to connect source systems and drive down costs. Infrastructure design supports delivery of secure, reliable, unified, and comprehensive technological systems in support of teaching and learning in Nebraska. Key projects include the implementation of a Single Sign-On framework, a federated Identity Management system, increasing secure access to applications and information. NDE recognizes that broadband mapping and planning focuses towards providing the same level of Internet services in small districts in rural Nebraska as is available in urban areas. In like manner, small and rural districts will have access to the same quality hosted services and resources to larger districts. Outcomes associated in this work stream:

Outcome 1: Enhanced data security and privacy
Outcome 2: Reduced burden and costs through shared systems
Outcome 4: Equitable access to common resources

Proposed Timeline for Implementation
- Define – Fall 2017
- Build – Spring 2018
- Release – Fall/ Winter 2018-19

◆ **Research, Educational Intelligence and Data Use** – This work stream involves strategies grounded on business intelligence principles and tools to the education domain with reports relevant to student performance and instructional practices. Actionable insights are provided through a data warehouse and increased internal capacity to access and use the data create insights to inform policy and practice. Projects and outcomes to be rolled out under this work stream include, but are not limited to: ADVISER training and user support work, Data Reporting System (DRS) Continuous Improvement Process (CIP) report development, perceptual data reporting, ADVISER Early Adopter II and Statewide rollout, Data Cadre, Lab School project, Virtual Support Team (utilizing

JitBit), Data Visualization and GIS, Education for Systems Involved Students, Nebraska Data Standards, and Qualtrics survey creation tool. Outcomes associated with this work stream:

Outcome 1: Reduced burden and costs through shared systems
Outcome 2: Increased capacity for instructional and administrative work
Outcome 3: Equitable access to common resources
Outcome 4: Enhanced data security and privacy

Proposed Timeline for Implementation
- Define – Fall 2017
- Build – Spring 2018
- Release – Spring 2019

♦ **Internal Efficiencies** - Strategies in this work stream have to do with measuring quality and efficiency, and setting standards in alignment with the mission and vision of NDE and expectations of the NITC. Increased emphasis on using best practices in project management, research and analysis and solution development is paramount to implementing a statewide program where planning, monitoring, training, and reporting to meet the highest standards of school and district needs. This includes, but is not limited to the development of the Early Childhood Integrated Data Systems, Multistate Educator Lookup System, the Finance data collection efforts reporting by school per pupil, Microsoft Dynamics CRM, and enterprise options for SharePoint that help in managing relationships with school districts. Outcomes associated with this work stream:

Outcome 1: Reduced burden and costs through shared systems
Outcome 2: Increased capacity for instructional and administrative work
Outcome 3: Equitable access to common resources
Outcome 4: Enhanced data security and privacy

Proposed Timeline for Implementation
- Define – Fall 2017
- Build – Spring 2018
- Release – Spring / Fall 2018

11. Describe the training and staff development requirements.

A core concept of the virtual support team is to provide a distributed and scalable model for training and support through the collaborative relationship between the ESUCC, ESUs, school districts, and NDE. Many of the systems outlined in this project proposal bring changes (improvements) to workflow and practices. These changes will require strong communication throughout the project and effective training as components are rolled out. Additional training staff are budgeted as part of this project to meet this need, as well as use

of the train-the-trainer model which has been successful with ESUs and school districts over many years. Rather than one or few trainers providing all statewide training on a topic, the train-the-trainer model supports many trainers, while allowing ESUs to cooperate, to specialize, and to share expertise statewide.

12. Describe the ongoing support requirements.

Intuitive applications and automation along with strong communications and training all combine to reduce support needs from a system-wide perspective. The virtual support team concept empowers those providing support at all levels with training, clear documentation and a ticketing system (currently JitBit) for efficiently escalating, dispatching, and resolving support requests. Support for all components of this project will be provided in this manner, and represent another way of reducing burden on school district staff that currently provides significant support. Additional helpdesk personnel are included in the budget for this project.

Risk Assessment (10 Points)

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

Barriers: Trying to implement a project of this magnitude requires a significant upfront investment in funds and FTEs that will decrease as the project becomes operational. Any project, especially one this complex, requires dedicated sponsors and buy-in. Taking too long to show progress can cause some loss of support by stakeholders. It is important to adequately articulate the benefits of this project in ways that demonstrate the significant impact it will have on reducing burden and costs, increasing instructional and administrative processes, enhancing data security and privacy, and equitable access to students, teachers, administrators, and the public to information and online resources.

Risks: A project of this scope requires a great degree of coordination, communication, and skills from many players. Unsuccessful implementation will continue to see wastes in fund utilization, inequities of access to resources, and potential breaches in data security and privacy.

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

A Project Management Office (PMO), established at NDE, is dedicated to following established project management practices to maximize project success, minimize scope creep, and ultimately manage risks. Compelling communications plans and stakeholder engagement are integral parts of the project improving coordination of work and efficacy of the implemented solutions.

Risk management is the systematic process of assessing, identifying, analyzing, and responding to project risk. It includes maximizing the probability and consequences of

positive events and minimizing the probability and consequences of adverse events to project objectives. A risk is any factor that may potentially interfere with the successful completion of the project's goals. Every project inherently contains risks.

The risk management approach used for the implementation uses early detection, swift response, close monitoring, impact minimization, and thorough recovery. Early detection occurs when team members are encouraged to recognize risks and support their efforts to report risks

Once identified, a risk is assessed for criticality and probability. Together, criticality and probability provide a risk value. High-risk values may require immediate action. Lower value risks become a "watch" status, which requires monitoring. Items discussed and dismissed as not risks are entered in the risk database for future monitoring. Regular reports and meetings will result in updates to the status of risks. The team will more closely review any risks with increasing risk value to determine the cause for the increased risk value and to evaluate the need for a response.

When a risk value exceeds an acceptable level, the "owner" of the risk area is notified. The responsible participant will implement a planned response and will report the effectiveness of the planned response to the project manager, who will evaluate the report and determine the necessity of any further action.

Project members will perform the processes and procedures for risk identification, analysis, quantification, prioritization, and approval on an ongoing basis throughout the life of this effort. They will use program reserves and subsequent risk tracking tools. Team members will add new risks and remove old risks to and from "watch" status according to the changing risk values as the project progresses.

Risk Sharing
NDE and partners are solely responsible for all risks of the **Shared Systems and Supports** project.

Risk Tracking and Control
To reduce the probability of project failure, the NDE Chief Information Officer and Project Management Office Lead will monitor risk throughout the project.

Risk Management Worksheet

Risk: Potential risks that may occur during a project to implement the proposed solution
Probability: Likelihood of the risk occurring (1= low, 5=high)
Potential Impact: The severity of the impact (1=low, 5=high)
Mitigation Plan: Actions NDE may take to minimize the potential of the risk occurring

Risk	Proba bility	Potential Impact	Risk Mgmt Action Must Begin…	Cause	Consequence	Mitigation Plan
Human Resources: Skills, Availability						
Planning for the Shared Systems and Supports project may not start on time	3	2	6-12 months from now	There may not be enough qualified vendors bidding on the project	Schedule start could be delayed	Schedule sufficient time for vendor procurement and ensure that requirements are clear in the solicitation
Design and development task durations and quality may be impacted from lack of Subject Matter Experts availability	4	2	6-12 months from now	NDE staff do not have sufficient time to work with the vendor	Project completion dates and deliverable quality may be impacted	Prioritize staff responsibilities to align with project schedule
Lack of subject matter expertise could impact and/or delay vendor deliverables	4	1	6-12 months from now	A key project team member is no longer on the project	Project completion dates and deliverable quality may be impacted	Conduct cross training & knowledge transfer between team members
School Districts						
End user interface does not meet requirements	3	3	Over a year from now	There is poor interface with end users	Potential rework may impact project schedule	Allow sufficient time in the project schedule for development and review of requirements
Project Management						
There are not enough resources and time to accommodate scope changes	5	3	6-12 months from now	There is a change in scope	Project completion date could be delayed	Implement and strictly enforce change control procedures
Requirements Management						
Envisaged solution may not satisfy the project objectives	5	3	6-12 months from now	The requirements are incomplete or unclear	Potential rework may impact project schedule	Allow sufficient time in the project schedule for development and review of requirements
NITC panels do not have their recommendations ready by December 15 2016	5	3	6-12 months from now	NDE does not adopt key policy decisions about required components of the technology plan in time for project start	Project start could be delayed	Monitor progress of NITC panels' work activities and escalate issues or delays to NDE Executive Leadership Committee quickly

Schedule						
Insufficient vendor resources and/or expertise impact vendor deliverable completion	3	2	6-12 months from now	A vendor is unable to implement the project within the project timeline	Project completion date could be delayed	Involve the vendor in the planning phase to ensure that the right resources are assigned to the project
Design and Implementation						
Unforeseen complexity or challenges with design and/or implementation arise during the course of the project	3	3	Over a year from now	The design and/or implementation challenges of the project cause problems/delays	Project completion date could be delayed	Ensure that issue and risk management procedures include clear escalation path to involve key stakeholders and decision makers early on as issues arise or as risks materialize

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.)

   In 2016-17, 70 of 245 school districts received equalization aid. Leveraging up to 1% of aid resource increases could provide shared services to **all** Nebraska schools. Since 2014, NDE has been implementing a statewide transformation based, in part, on the findings of the Nebraska Education Data Systems Legislative Study (LR264). Strong stakeholder support exists to catalyze this transformation.

   As part of a visionary "**shared services in support of aid**" strategy, this sustainable funding source will ensure all schools have equal access to digital systems, cost effective options, and support for student data privacy and security concerns. A minimal amount of investment efficiently directed for these services maximizes fund utilization while providing technical and systems resources to all schools focusing attention to school improvement goals.

   Reducing accountability costs by unifying and moving accountability computations to state from a single fine-grained data collection. Redirecting an estimated 50% of the district FTE time currently spent on accountability submissions to focus on other initiatives can more directly improve student performance and impact success. The estimated value is $12.6 million annually once fully implemented. In addition, reduced district technology costs because of factors including reduced data system costs, a centralized capacity using valuable Ed-Fi components, obtained without license costs, and when fully implemented will save an estimated 25% on the $18.7 million annual districts systems costs. Estimated total financial return is valued at **$31.3 million** in savings/year after the third year of

making the changes. The estimate assumes that a district achieves the projected cost savings the year after accomplishing the rollout.

Per pupil cost prior to project implementation ~$330/pupil; after the **Shared Systems and Supports** project implementation a savings of $100 - $300 pupil for each district.

Figure 1:

	FY 2018 SY 2017-18	FY 2019 SY 2018-19
INVESTMENTS	**$ 7,724,365**	**$7,909,342**
RETURNS		
Reduced Accountability Costs	$ 7,590,361	$12,600,000
Reduced Technology Costs	$11,255,060	$18,700,000
Yearly Net Investment/Return	**$11,121,056**	**$23,390,658**
Cumulative Investment/Return	**$11,121,056**	**$34,511,714**

These efforts require additional capacity through staff positions in the areas of training, research and analysis, development; both technical and user help desk staff, and some temporary contracted positions completing project implementation. Additional equipment upgrades will be necessary to meet technology needs for this project. These investments will have a cost savings affect once implemented.

Shared Services as
Support Budget 17-

APPENDIX A:

Letters of Support

ESUCC Support letter
- Shared System and

NCSA Support letter
- Shared System and

APPENDIX B:

Shared Systems and Supports Timelines

IT Road Map
Plan.pdf

IT Road Map
Plan.xlsx

FTE	POSITION TITLE	PG	2018 SALARY	2019 SALARY
1	Privacy Officer	49	$ 73,442.55	$ 75,205.14
1	Governance Security	48	$ 64,888.87	$ 66,446.25
1	Project Manager	47T	$ 68,688.57	$ 70,337.13
1	Project Manager	47T	$ 68,688.57	$ 70,337.13
1	Trainer Professional Developer	47	$ 59,018.90	$ 60,435.33
1	E Learning	47	$ 59,018.90	$ 60,435.33
1	System Trainer	47	$ 59,018.90	$ 60,435.33
1	System Trainer	47	$ 59,018.90	$ 60,435.33
1	Help Desk Support Position	46	$ 53,713.43	$ 55,002.56
1	Help Desk Support Position	46	$ 53,713.43	$ 55,002.56
1	ETL Analyst	48T	$ 75,519.10	$ 77,331.58
1	Psychometrician	48	$ 64,888.87	$ 66,446.25
1	Policy Analyst	48	$ 64,888.87	$ 66,446.25
1	Research Lead	49	$ 73,442.55	$ 75,205.14

COST ITEM	DESCRIPTION		COST	COST
511100	Permanent Salaries		$ 897,950.41	$ 919,501.31
511200	Temporary Salaries			
511300	Overtime			
511900	Supplemental Pay			
	Other			
	TOTAL WAGES		$ 897,951.00	$ 919,502.00
515100	Retirement		$ 67,239.00	$ 68,853.00
515200	FICA		$ 68,694.00	$ 70,342.00
515400	Life Insurance		$ 168.00	$ 168.00
515500	Health Insurance		$ 337,499.00	$ 364,391.00
516300	Employee Assist. Pgm.		168	168
516500	Workers Comp.		$ 8,980.00	$ 9,195.00
	Other Benefits			
	TOTAL BENEFITS		$ 482,748.00	$ 513,117.00
510000	**TOTAL PERSONAL SERVICES**		$ 1,380,699.00	$ 1,432,619.00
521100	Postage		$ 1,400.00	1,442.00
521200	Communication		$ 10,080.00	10,382.00
521400	Data Processing		$ 10,500.00	10,815.00
521500	Publication/Printing		$ 3,500.00	3,605.00
522100	Dues/Subscriptions			
522200	Conference Registration			
523100	Utilities			
524600	Office Rent		$ 35,126.00	36,180.00
525500	Other Rent			
555200	Data Processing Software			
527100	Repair/Maintenance		$ 1,750.00	1,803.00
531100	Supplies		$ 3,500.00	3,605.00
554900	Contractual Services < $25,000			
559100	Other Operating Expense			
	Contractual Services > $25,000		$ 6,090,000.00	6,335,133.00
	OPERATING TOTAL		$ 6,155,856.00	$ 6,402,965.00

COST ITEM	DESCRIPTION	COST	2018 COST	2019
571100 Board/Lodging				
572100 Commercial Travel				
573100 State-Owned Trans.				
574100 Personal Vehicle Mileage				
575100 Misc. Travel		$	71,610.00	$ 73,758.00
570000 TOTAL TRAVEL		$	71,610.00	$ 73,758.00
583000 Office Equipment		$	67,200.00	0
583300 Data Processing Hardware		$	49,000.00	0
586900 Other Capital Outlay				
580000 TOTAL EQUIPMENT		$	116,200.00	$ -
TOTAL		$	7,724,365.00	$ 7,909,342.00

OPERATIONS SOURCES OF FUNDING

10000 General Fund		$	7,479,223.00	$ 7,672,500.00
20000 Cash Fund				
40000 Federal Fund			245,142	236,842
50000 Revolving				

591100 Aid (PROGRAM 158)

AID SOURCES OF FUNDING

10000 **General Fund**	
20000 **Cash Fund**	
40000 **Federal Fund**	

NEBRASKA
esu
Coordinating Council

Omaha Office	Ainsworth Office
6949 So 110th Street	1292 East 4th Street
Omaha, NE 68128	Ainsworth, NE 69210

September 9, 2016

Dr. Dean Folkers, Chief Information Officer
Nebraska Department of Education
301 Centennial Mall South
P.O. Box 94987
Lincoln, NE 68509

Dear Dr. Folkers,

On behalf of the Nebraska Educational Service Unit Coordinating Council (ESUCC), I am pleased to offer support of the Nebraska Department of Education's (NDE) *"Shared Systems and Support"* technology proposal being submitted to the Nebraska Information Technology Commission who are required by statute to make recommendations on technology investments to the Governor and the Legislature to be reviewed by the technical panel: Neb. Rev. Stat. § 86-516(8).

As a systems partner in NDE's *"Shared Systems and Support"* project, ESCUU is committed to the development and implementation of this statewide system that fully supports every student, every day. For the past several years, ESUCC and NDE have worked closely in providing equitable and efficient opportunities for all students within the state and were a key partner in the research work of the Nebraska Education Data Systems Legislative Study developed in response to Legislative Resolution 264.

In addition, we believe this partnership will largely benefit school districts and local communities, multiple government agencies, post-secondary education by reducing the reporting burden of districts, providing secure and near real time access to insightful metrics and information to assist them to better serve the students. One of the key outcomes of this project will be to increase capacity in schools districts staff so that they can efficiently save time when submitting data and thus allowing opportunities for research and evaluation into policy and supports innovative understanding of practice. The other outcome is accessing digital integrated systems through the "application store" for free or low cost. This allows school districts the choice of a suite of applications that are aligned and connected to their priorities.

ESUCC supports the overall goal of the NDE's *"Shared Systems and Support"* project to promote continued efforts of meeting the outcomes set and fully supports this project proposal and the subsequent excellent work in this endeavor.

Should you have any further questions, please do not hesitate to contact me.

Sincerely,

David Ludwig
Executive Director
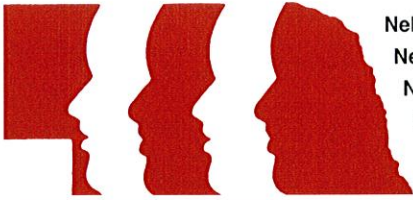
Nebraska Council of School Administrators

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September 12, 2016

Dr. Dean Folkers, Chief Information Officer
Nebraska Department of Education
301 Centennial Mall South
P.O. Box 94987
Lincoln, NE 68509

Dear Dr. Folkers,

On behalf of the Nebraska Council of School Administrators (NCSA), I am pleased to offer support of the Nebraska Department of Education's (NDE) *"Shared Systems and Support"* technology proposal being submitted to the Nebraska Information Technology Commission who are required by statute to make recommendations on technology investments to the Governor and the Legislature to be reviewed by the technical panel: Neb. Rev. Stat. § 86-516(8).
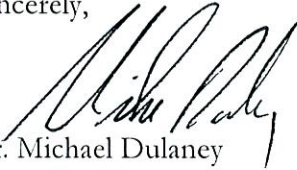
As a systems partner in NDE's *"Shared Systems and Support"* project, the NCSA is committed to the development and implementation of this statewide system that fully supports every student, every day. For the past several years, the NCSA and NDE have worked closely in providing equitable and efficient opportunities for all students within the state and were a key partner in the research work of the Nebraska Education Data Systems Legislative Study developed in response to Legislative Resolution 264.

In addition, we believe this partnership will largely benefit school districts and local communities, multiple government agencies, post-secondary education by reducing the reporting burden of districts, providing secure and near real time access to insightful metrics and information to assist them to better serve the students. One of the key outcomes of this project will be to increase capacity in schools districts staff so that they can efficiently save time when submitting data and thus allowing opportunities for research and evaluation into policy and supports innovative understanding of practice. The other outcome is accessing digital integrated systems through the "application store" for free or low cost. This allows school districts the choice of a suite of applications that are aligned and connected to their priorities.

The mission of the Nebraska Council of School Administrators (NCSA) is to be
an effective leader for quality education and to enhance the professionalism of its members.

The NCSA supports the overall goal of the NDE's *"Shared Systems and Support"* project to promote continued efforts of meeting the outcomes set and fully supports this project proposal and the subsequent excellent work in this endeavor.

Should you have any further questions, please do not hesitate to contact me.

Sincerely,

Dr. Michael Dulaney
Executive Director

cc: Mr. Jeff Schneider, NCSA Executive Board Chair

NEBRASKA SHARED SYSTEMS AND SUPPORTS

MASTER SCHEDULE -FOR BUDGET PLANNING PURPOSES - FY2016-18
DATA RESEARCH AND EVALUATION (DRE) BUDGET

9/13/2016

Project Name	Project Description	Fall 2017	Winter 2017	Spring 2018	Summer 2018	Fall 2018	Winter 2018	Spring 2019	Summer 2019
Instructional Improvement Systems									
ADVISER Dashboard	Provide educators with real-time data on individual students to help inform instructional strategies	Final Release							
Standards Database	Provide educators with easy-to-access database of Nebraska content area standards.	Pilot			Final Release				
Learning Object Repository	Provide educators with a single-source catalog of vetted instructional resources to plan instruction for a lesson, unit or course.			Pilot		Populate			Final Release
Course Building Tool	Provide educators with a tool that allows them to sequence selected standards/benchmarks and learning objects for a course, unit or other sequence of instruction.	Define		Build		Pilot			Final Release
Learning Management Systems (LMS)	Provide educators with a tool to manage learning content, manage learners and their access to learning content and interactions, and to monitor learner completion.	Define			List Negotiated Systems				
Assessment Object Repository	Provide educators with a single-source catalog of vetted assessment resources to plan formative and summative assessments for a lesson, unit or course.			Pilot		Populate			Final Release
Assessment Tool	Provide educators with a tool to develop and administer formative and summative assessments that align to instructional goals.	Define		Build		Pilot			Final Release
Professional Development System for Educators	Provide educators with a systems to find, access and manage professional learning and development opportunities - online and in-person	Pilot			Final Release				

Research, Educational Intelligence and Data Use

Project	Description									
Education Intelligence (Business Intelligence)	A system with a variety of software applications used to analyze an organization's raw data and includes several related activities, including data mining, online analytical processing, querying and reporting.	Define	Build			Pilot				Final Release
DRS CIP report development	Develop CIP profile reports incorporating NWEA data, AdvancEd, CTE, and other data					Define	Build			Final Release
Communications/Reporting - Data Visualization and GIS	Project to help NDE stakeholders understand the significance of data by placing it in a visual context. Patterns, trends and correlations that might go undetected in text-based data can be exposed and recognized easier with data visualization software.				Define		Build			Final Release
Education for System Involved Students	A project to track and report on supporting the Needs of Students Involved with the Child Welfare and Juvenile Justice System in the School Districts of Nebraska.		Define	Build				Pilot		Final Release
Nebraska Data Standards NEDs	NEDS is applicable to the Nebraska unified model and covers data collections for the Nebraska ADVISER product suite and Nebraska Student and Staff Record System (NSSRS) data collections.	Build		Final Release						
Virtual Support Team	Coordinate the work of the virtual support team for support of ADVISER and other data systems	Pilot				Final Release				
ADVISER/ Data Collection	A near real-time , actionable data from multiple sources in the hands of teachers and administrators with automatic state reporting to the ODS	Build		Final Release						
E Transcript System	Is an electronic transcript solution that works through automation and integration with the school district's existing Student Information System (SIS) and is brokered by National Student Clearinghouse Services for added security.	Define	Build	Pilot			Final Release			
Qualtrics survey creation tool	Qualtrics is a web-based survey creation, collection, and analysis software tool. Can be used for the creation of open surveys, targeted (panel) surveys, and open polling.	Pilot	Final Release							

Infrastructure									
Data privacy and security (Single Sign On)	Project to use existing user accounts and account management processes and provide access to applications	Pilot	Final Release						
Broadband and Access (E-rate Technology plan)	A program developed to provide discounts to schools and libraries for eligible telecommunications services.	Build		Final Release					
A centralized Identity Management System (IDM)	Implementation of a system that identifies individuals in a system (such as which school district or entity) and controlling their access to resources within that system by associating user rights and restrictions with the established identity.	Define	Build			Final Release			
Internal Efficiencies									
Early Childhood Integrated Data Systems (ECIDS)	The project focuses on developing a system that collects, integrates, maintains, stores, and reports information from early childhood programs across multiple agencies within a state that serve children and families from birth to age eight.	Define	Build	Pilot	Final Release				
Multistate Educator Lookup System (MELS)	This initiative's primary goal involved the electronic validation of out-of-state credentials and related information that is valuable to each jurisdiction's credentialing process.		Define		Build	Final Release			
Finance Data System (reporting per pupil)	Project aimed at ensuring transparency with financial school data in line with legislative requirements.	Define	Build	Pilot		Final Release			
CRM Dynamics	Application consolidation is seen as a potential contributor to cost savings goals, and to streamline the program management process, while providing faster services to school administrators, teachers and other users.	Define	Build			Final Release			
Sharepoint	Microsoft SharePoint is a browser-based collaboration and document management platform which will be used to allow groups set up a centralized, password protected space for document sharing as well as interfacing with CRM Dynamics	Build		Final Release					