

Nebraska Information Technology Commission

Project Proposal Form

**New or Additional State Funding Requests
for Information Technology Projects**

FY2007-2009 Biennium

Project Title	DL Event Clearinghouse & Scheduling Software - Purchase
Agency/Entity	Distance Education Council

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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, for which new or additional funding is requested.” Neb. Rev. Stat. §86-516(8) In order to perform this review, the NITC and DAS Budget Division require agencies/entities to complete this form when requesting new or additional funding for technology projects.
2. **WHAT TECHNOLOGY BUDGET REQUESTS REQUIRE A PROJECT PROPOSAL FORM?** See the document entitled “Guidance on Information Technology Related Budget Requests” available at <http://www.nitc.state.ne.us/forms/>.
3. **DOWNLOADABLE FORM.** A Word version of this form is available at <http://www.nitc.state.ne.us/forms/>.
4. **SUBMITTING THE FORM.** Completed project proposal forms should be submitted as an e-mail attachment to rick.becker@nitc.ne.gov.
5. **DEADLINE.** Completed forms must be submitted by September 15, 2006 (the same date budget requests are required to be submitted to the DAS Budget Division).
6. **QUESTIONS.** Contact the Office of the CIO/NITC at (402) 471-7984 or rick.becker@nitc.ne.gov

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Section 1: General Information

Project Title	DL Event Clearinghouse & Scheduling Software - Purchase
Agency (or entity)	Distance Education Council

Contact Information for this Project:

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Section 2: 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.

This project will procure a statewide synchronous videoconferencing event clearinghouse and scheduling control system for K-12 distance education classrooms. The system will include either mirrored or clustered servers, an event clearinghouse and instances of scheduling and device control software on computers located at each of the participating sites. The system will be used by K-12 educational entities for brokering events, scheduling distance education courses, and controlling distance-learning equipment in various locations for the purpose of conducting distance education classes.

Section 3: 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 goals and objectives of this project are:

- GOAL: To create an event clearinghouse
 - OBJECTIVE: Users will be able to broker events, join events, and/or search for available offerings
 - OBJECTIVE: The Distance Education Council will make a list of courses available to educational entities.
- GOAL: To purchase scheduling software licenses for districts and ESUs joining Network Nebraska.
 - OBJECTIVE: To provide incentive for entities to participate in Network Nebraska.
 - OBJECTIVE: Ensure statewide standardization and interoperability of scheduling.
 - OBJECTIVE: To minimize downtime through built-in troubleshooting capabilities.
- GOAL: To install one instance of the scheduling software at each qualified distance-learning site.

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- OBJECTIVE: Users will be able to schedule events of various type including but not limited to: classes, ad hoc meetings, enrichment activities, dual credit courses and other events
- OBJECTIVE: The Distance Education Council will be able to facilitate the scheduling of distance education courses.
- OBJECTIVE: The Distance Education Council will be able to better assess and evaluate the needs of distance education services

The beneficiaries of this project will be students of the public schools of Nebraska, teachers, patrons, ESUs and post-secondary institutions. Each will benefit from the statewide exchange of distance learning courses, including courses that might not otherwise be available to some students; greater numbers of dual credit and graduate courses will be available to more consumers.

This project is designed to provide more equitability of educational opportunities for all Nebraska school children. For example, students in rural districts will be able to take classes that were once only available in urban school districts. All students will see increased opportunities to take college credit and advanced placement courses. Younger students will benefit from enhancement activities such as, virtual field trips and two-way synchronous video interaction with other students, scientists, museum curators and others. Other outcomes include the potential for professional development training, adult education classes, reduced travel costs, and the ability to hold two-way interactive videoconferences with statewide participation.

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

A three-pronged approach will be used to measure and assess the outcomes of this project. The methods used will be as follows.

- The number of and type of courses offered would be compared to baseline data collected on the state of distance education of Nebraska prior to the start of this project.
- Surveys of distance learning coordinators, teachers and students will be conducted.
- The Distance Education Advisory committee will convene an ad hoc task force to report on strengths, weaknesses, opportunities and challenges.

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

The State Technology Plan includes an initiative to create a Statewide Synchronous Video Network. One of the objectives of that initiative states –

“Development or purchase of a scheduling system or enterprise resource management program that allows potential users to know the location and availability of resources, and/or set up or reserve ad hoc or regularly scheduled events with other entities.”

In April 2006 LB 1208 was signed into law and as a result of that legislation the Distance Education Council was created. This project is being implemented in response to Section 20 of LB 1208, which charges the Distance Education Council with the following duties and responsibilities–

- To provide access to a lists of qualified distance education classes.

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- Facilitate scheduling of distance education courses.
- Brokering of qualified distance education courses for purchase by educational entities.
- The assessment of distance education needs and evaluation of services.
- Compliance with technical standards set by the NITC.
- Establish a system for prioritizing courses.
- Schedule and prioritize access to Network Nebraska.
- Administration of Learning Management Systems.
- Coordinate with educational service units and postsecondary institutions to provide assistance for instructional design.

Section 4: 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).

Through the brokering of distance education courses the Distance Education Council will help schools pay teachers' salaries and qualify for incentive payments provided to schools that send or receive at least two, semester long, qualified distance education courses. The scheduling software will track many details about the exchange of distance education courses that will result in the ability to generate vital reports on the scope and breadth of distance learning. Another benefit will be less downtime because of troubleshooting capabilities built into the software. System managers will be able to detect and correct problems often before building level users are aware that a problem exists.

By year three of the project, with an integrated statewide system in place, more courses will be shared across the State and more post-secondary courses will be able to be provided via the statewide synchronous video system. The synchronous videoconferencing event clearinghouse and scheduling control system will make it much easier to make these connections. Schools will be able to schedule and conduct point-to-point and point-to-multipoint IP videoconferencing with other schools and other educational entities.

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.

Before the advent of LB 1208 consideration was given to allowing each distance-learning consortium to decide what upgrade path it would follow without State assistance. Decisions about scheduling and whether or not to have an event clearinghouse also would have been left to consortia members. The strength of this approach would have been less cost since a statewide scheduling and clearinghouse system would not be purchased. The weakness would be that statewide event scheduling would be more difficult and the chance of interoperability between pods would be lessened. Without an event clearinghouse, brokering classes on a statewide basis would be much more difficult. The system put in place by this project will address these shortcomings and provide the ability to track and report the number of events occurring statewide in precise detail, troubleshooting will be easier, and less instruction time will be lost to equipment failure.

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

State legislation, LB 1208, mandates the responsibility for facilitating the scheduling of distance education courses to the Distance Education Council.

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Section 5: 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.

In the summer of 2007 five ESUs and approximately ninety schools will update their aging JPEG/MPEG2 systems with new IP-based distance education equipment that complies with the H.264 protocol. The statewide synchronous videoconferencing event clearinghouse and scheduling control system will ensure interoperability and allow for the exchange of courses and event scheduling. The software will provide the far end control of distance learning equipment, track network usage and have the ability to troubleshoot problems remotely. During Phases II & III of the project additional schools, ESUs and post secondary institutions will join the network with approximately 100 sites being added in the summer of 2008 and another 100 sites in the summer of 2009.

This project will procure a statewide synchronous videoconferencing event clearinghouse and scheduling control system for K-12 distance education classrooms. Scheduling servers will be purchased and installed in either a mirrored or clustered configuration pending recommendations from the chosen vendor and the Network Design Committee. When all three phases of the project have been completed schools statewide will use a common system for scheduling and clearinghouse services. For the first time ever reports on the usage and participation in distance education will be quickly attainable.

A weakness in the chosen solution is the cost. It is estimated that the software could cost about \$3000 per site with monthly maintenance fees of about \$30.00 per school per month. It is believed that these costs will be offset by the value realized in having a statewide system that will lessen the amount of downtime and help increase the number of distance education courses offered to Nebraska students.

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.
 - Address conformity with applicable NITC technical standards and guidelines (available at <http://www.nitc.state.ne.us/standards/>) and generally accepted industry standards.
 - Address the compatibility with existing institutional and/or statewide infrastructure.

The RFP posted in October 2006 was written by Tom Rolfes of the NITC and gave the requirements that the software must meet. The scheduling event clearinghouse and equipment control system was chosen on the basis of how well it meets the guidelines for reliability, security and scalability in addition to cost and other factors. The current plan is to purchase hardware meeting the vendor's minimum requirements for a statewide network and then plan for possible updates to the system in the following two years. Qwest in partnership with Renovo are familiar with the current statewide infrastructure and will address issues of compatibility.

Section 6: 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.

Shown below is the preliminary timeline for implementing the project followed by the project team details. Sponsors of this project include the DOC, ESUs, NITC, NETC, NDE, Nebraska's Post-Secondary Institutions and Network Nebraska. Stakeholder acceptance appears to be at a high level since some existing consortia

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have already upgraded equipment and expressed an interest in using the chosen scheduling software and clearinghouse system.

- Nov-Dec 06 Customization of Event Clearinghouse Component of the Scheduling System
- Jan, 07 Beta test of Event Clearinghouse Component of the Scheduling System
- Jan, 07 Event Clearinghouse System Training for K-12, higher education staff
- Feb, 07 Web posting of 07-08 courses on Event Clearinghouse System
- Mar, 07 Regional Registration of 07-08 courses on Event Clearinghouse System
- Apr, 07 Statewide Registration of 07-08 courses on Event Clearinghouse System
- May, 07 Resolution of conflicts and solicitation of courses for unmet needs
- May, 07 Regional equipment and network upgrade begins for ~100 sites
 Installation and configuration of switches/routers/CODECs
 Local circuit upgrades by vendor(s)
 Network Nebraska transport conversion
- Jul,07 Programming of Device Control Component of the Scheduling System
- Aug, 07 Testing of network and Scheduling System
- Aug, 07 Classes begin in many schools

Title	Experience	Responsibilities
Executive Director, Distance Education Council	K-12 certified teacher Taught in public schools from 1976 to 1996 – 20 Educational Technology Specialist for ESU #2 – 1 for ESU #9 - 9	<ul style="list-style-type: none"> • Facilitate scheduling of distance education courses. • Brokering of qualified distance education courses for purchase by educational entities. • The assessment of distance education needs and evaluation of services. • Compliance with technical standards set by the NITC. • Establish a system for prioritizing courses. • Schedule and prioritize access to Network Nebraska. • Administration of Learning Management Systems. • Coordinate with educational service units and postsecondary institutions to provide assistance for instructional design.
Distance Education Council	17 ESU Administrators	Carryout the duties mandated by LB 1208 assist and evaluate executive director to ensure responsibilities are met.
Distance Education Council Advisory committee	Comprised of 17 people designated by administrators. This group includes 9 distance learning coordinators of the existing consortia, members from the ESU's Network Operation Committee and members from the ESU's Technology Affiliate Group, and one member from a post-secondary institution	Advise and assist the executive director with his duties. Facilitate communication with schools, help write rules and regulation, help with customization of software and clearinghouse. Receive training in use of scheduling/clearinghouse software. Assist with instructional design training.

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

Date	Deliverables
January 1, 2007	Event Clearinghouse System Online
May 1, 2007	Clearinghouse Schedule 2007-08 Courses
August 1, 2007	Device Control Testing
September 1, 2007	System Up, Review Phase 1 Features
January 1, 2008	Updates to Phase 1 Clearinghouse
May 1, 2008	Clearinghouse Schedule 2008-09 Courses
August 1, 2008	Successful Device Control Testing
September 1, 2008	Phase 2 Costs System Up, Review Phase 2 Features
January 1, 2009	Event Clearinghouse System Online
May 1, 2009	Clearinghouse Schedule 2009-10 Courses
August 1, 2009	Successful Device Control Testing
September 1, 2009	System Up, Review Phase 3 Features
January 1, 2010	Event Clearinghouse System Online
May 1, 2010	Clearinghouse Schedule 2010-11 Courses

11. Describe the training and staff development requirements.

January 2007: 6-12 northeast Nebraska regional technical support personnel
 January 2007: 25-50 northeast Nebraska regional scheduling system administrators
 January 2007: 100-200 northeast Nebraska site-based scheduling system administrators
 July-August 2007: 150-300 northeast Nebraska teachers/instructors
 January 2008: 6-12 south central/western Nebraska regional technical support personnel
 January 2008: 25-50 south central/western Nebraska regional scheduling system administrators
 January 2008: 100-200 south central/western Nebraska site-based scheduling system administrators
 July-August 2008: 150-300 south central/western Nebraska teachers/instructors
 January 2009: 6-12 southeast Nebraska regional technical support personnel
 January 2009: 25-50 southeast Nebraska regional scheduling system administrators
 January 2009: 100-200 southeast Nebraska site-based scheduling system administrators
 July-August 2009: 150-300 southeast Nebraska teachers/instructors

12. Describe the ongoing support requirements.

The chosen vendor will supply ongoing support and training as a condition of the contract. Training in instructional design will be ongoing on a regional basis. Additional customization of the software to meet user needs will be handled by contracting with the vendor as needed.

Section 7: Risk Assessment (10 Points)

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

Success of this project will depend on participation by the majority of K-12 schools in Nebraska. If the cost of joining Network Nebraska proves to be prohibitive or if the cost of upgrading existing equipment far exceeds the \$20,000 reimbursements that schools will receive, then the project could fail. These factors loom as the biggest barriers. Other barriers include:

- a short timeline in which to get everything done
- collecting course schedules

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- scheduling courses in time for spring registration
- resolving conflicts
- getting appropriate rules in place for governing the exchange of courses and qualifying for incentives
- low incentive payments for qualified distance learning courses

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

Each consortium will hold meetings of their member schools and inform them of incentives and benefits of participating in this project. Several consortia have received RUS Grants and have already upgraded much of their distance learning equipment. The Distance Education Council formed an advisory group, which includes distance learning coordinators, technology specialists, media coordinators and at least one representative of a post-secondary institution. This group will have been divided into subcommittees to address the issues of rules and regulations, prioritizing course access, commonality of schedules, instructional design and training. Management and hosting of servers will be outsourced to an entity identified by the office of the CIO.

Section 8: Financial Analysis and Budget (20 Points)

15. Financial Information

Financial and budget information can be provided in either of the following ways:

- (1) If the information is available in some other format, either cut and paste the information into this document or transmit the information with this form; or
- (2) Provide the information by completing the spreadsheet provided below.

Instructions: Double click on the Microsoft Excel icon below. An imbedded Excel spreadsheet will be launched. Input the appropriate financial information. Close the spreadsheet. The information you entered will automatically be saved with this document. If you want to review or revise the financial information, repeat the process just described.

(Revise dates as necessary for your request.)

	Estimated Prior Expended	Request for FY2006-07(Ramp Up)	Request for FY2007-08 (Year 1)	Request for FY2008-09 (Year 1)	FY2010-011 (Year3)	Future	Total
1. Personnel Costs							\$-
2. Contractual Services							
2.1 Design							\$-
2.2 Programming							\$-
2.3 Project Management							\$-
2.4 Other (Tech. Support)		\$7,125.00	\$7,125.00				\$14,250.00
3. Supplies and Materials							\$-
4. Telecommunications							\$-
5. Training		\$15,651.00		\$15,651.00	\$15,651.00		\$46,953.00
6. Travel							\$-
7. Other Operating Costs (maintenance)		\$16,966.00	\$9,879.00	\$14,408.00	\$14,408.00		\$55,661.00
8. Capital Expenditures							
8.1 Hardware		\$15,000	\$25,000				\$-
8.2 Software		\$154,014.00	\$64,479.00	\$38,164.00	\$108,364.00		\$365,021.00
8.3 Network							\$-
8.4 Other							\$-
TOTAL COSTS	\$-	\$207,756.00	\$106,483.00	\$68,223.00	\$138,423.00	\$-	\$520,885.00
General Funds		\$207,756.00	\$106,483.00	\$68,223.00	\$138,423.00	\$-	\$520,885.00
Cash Funds							\$-
Federal Funds							\$-
Revolving Funds							\$-
Other Funds							\$-
TOTAL FUNDS	\$-	\$207,756.00	\$106,483.00	\$68,223.00	\$138,423.00	\$-	\$520,885.00

16. Provide a detailed description of the budget items listed above. Include:
- An itemized list of hardware and software.
 - If new FTE positions are included in the request, please provide a breakdown by position, including separate totals for salary and fringe benefits.
 - Provide any on-going operation and replacement costs not included above, including funding source if known.
 - Provide a breakdown of all non-state funding sources and funds provided per source.

The costs shown in the table above are taken from the winning bid proposal from Qwest with the exception of the hardware costs, which are based on the vendor's minimum recommended requirements in the ramp up year and allowing for additional hardware purchases in years 1 and 2. Contractual services costs are for technical support, training and annual maintenance. The amounts shown above increase each year as additional schools join Network Nebraska. The capital expenditures are more during the ramp up year because the amount paid out includes more of the cost of the scheduling software, the clearinghouse, and the scheduling servers. During each year approximately 100 -130 schools will join the network. The hardware costs are estimated based on the need for a minimum of three servers: a primary applications and web server, a database server, and a backup server in the ramp

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up year with other servers and components possibly being added over the following two years. Hosting and management of the servers will be out sourced based on the decision by the office of the CIO after reviewing the responses to the Request for Information forms that were sent out to various entities. A representative of the office of CIO will make the recommendation on the entity to host and manage the servers at the time that this proposal is presented to the NITC Technical Panel for approval.

17. Please indicate where the funding requested for this project can be found in the agency budget request, including program numbers.

Not Applicable