

NEBRASKA INFORMATION TECHNOLOGY COMMISSION

Project Proposal - Summary Sheet  
Biennial Budget FY2005-2007 (2006 Deficit Budget Requests)

Project #13-01  
Page 1 of 3

**Project # 13-01**

Agency	Project	FY2005-06	FY2006-07
Department of Education	Statewide K-12 Technology Infrastructure Upgrade to Flexible Use IP-based Network		\$3,761,600

**SUMMARY OF REQUEST (Executive Summary from the Proposal)**

Description:

Many of the schools are connected to their Distance Learning Consortium of schools with very large DS3 (45 megabit, high bandwidth) circuits that are dedicated solely to two-way audio and video use within the Consortium. Practically all schools have a dedicated T1 or 1.5 megabit circuit along side for Internet access. The proposed IP-based upgrade would not only update the obsolete equipment (switch/routers and co-decs) but would allow flexible use of the DS3 (high bandwidth) circuits for two-way audio and video use, increased bandwidth for internet use, and expansion for future technology applications. This upgrade would eliminate the need for the separate dedicated T1 circuit for Internet use and enable statewide connectivity between and among schools as a result of connecting to Network Nebraska.

Justification:

The Distance Learning equipment in many of the high schools is obsolete and no longer made or supported by the manufacturers. In addition, contracts between Nebraska schools and Telecommunications Service Providers are progressively nearing expiration of 10-year contract terms. The earliest Distance Learning contracts are due to expire in 2006 with other schools' contracts progressively expiring through 2012. There is a need to upgrade equipment and renew contracts with Telecommunications Providers.

On the educational side, the upgrade would enable schools connecting with Network Nebraska to have statewide connectivity allowing increased opportunities for distance learning course sharing as opposed to the current limitation of course sharing between schools in a regional area consortium. On the Internet side, the upgrade would enable schools connecting with Network Nebraska to have much needed additional bandwidth for access to enhanced learning resources (i.e. streaming digital media, etc.) as well as additional advanced connectivity services such as Internet 2.

**FUNDING SUMMARY**

<b>Estimated Costs for Implementation of Distance Learning Enhancement (First Phase of 3 yr Plan)</b>			
<i>Italics indicates possible LB 689 funding or less than the highest priority for funding. Underlined is highest priority.</i>			
<b>Schools in ESUs 13,15,16 area</b>		<b>67 sites</b>	
<b>Item</b>	<b>FY06 (ends 6-30-06)</b>	<b>FY07 (7-1-06/6-30-07)</b>	<b>Comment</b>
<b>1. High Capacity, scalable infrastructure</b>			
Network Nebraska Backbone Transport	\$0	<u>\$540,000</u>	*Backbone transport from Scottsbluff to Lincoln
<u>Regional Aggregation Circuit Costs</u>	\$0	<u>\$125,000</u>	*OC-3s or OC-12s within Scottsbluff, North Platte
<u>Buydown of Local Circuits (\$25K/site)</u>		<u>\$1,675,000</u>	Contracts for regions
<b>2. IP-based network for interconnection</b>			
<u>Regional Aggregation Routers</u>		<u>\$639,600</u>	**Regional Aggregation Routers for Scottsbluff, North Platte
<u>Regional Network Operations Centers</u>		<u>\$80,000</u>	*RNOC facilities at Scottsbluff, North Platte
<u>Building switch/routers</u>		<u>\$489,100</u>	<u>Switch/routers at 67 sites</u>
<u>Scheduling Software</u>		<u>\$702,000</u>	**K-12 portion of statewide scheduling software

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Biennial Budget FY2005-2007 (2006 Deficit Budget Requests)

Project #13-01  
Page 2 of 3

<b>3. Upgrades of telecom equipment</b>			
<i>Building Codec Replacement</i>		\$1,206,000	<i>CoDec upgrades for 67 sites</i>
<i>LAN Upgrades and video classroom eqpt</i>		\$1,067,000	<i>LAN upgrades and video classroom eqpt as needed</i>
<b>High Priority State Investments sub total</b>			
	\$0	\$3,761,600	
<b>Possible LB 689 funding sub total</b>			
	\$0	\$2,762,100	
<b>Total Maximum Project Cost</b>			
	\$0	\$6,523,700	
			*Ongoing costs
			**Includes some ongoing costs

**PROJECT SCORE**

Section	Reviewer 1	Reviewer 2	Reviewer 3	Mean	Maximum Possible
III: Goals, Objectives, and Projected Outcomes	14	14	14	14.0	15
IV: Project Justification / Business Case	24	24	24	24.0	25
V: Technical Impact	18	18	17	17.7	20
IV: Preliminary Plan for Implementation	8	8	9	8.3	10
VII: Risk Assessment	8	8	10	8.7	10
VIII: Financial Analysis and Budget	18	17	18	17.7	20
<b>TOTAL</b>				<b>90</b>	100

**REVIEWER COMMENTS**

Section	Strengths	Weaknesses
III: Goals, Objectives, and Projected Outcomes	<ul style="list-style-type: none"> <li>- The goals of this request are perfectly aligned with those priorities expressed by the NITC.</li> <li>- Well justified.</li> <li>- Clear description of the goals, beneficiaries and outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>- Seven year assumption on hardware may be stretching it.</li> <li>How will this mesh with upgrade for next group of schools running out of contract time?</li> <li>- Measurement and assessment is a little vague</li> </ul>
IV: Project Justification / Business Case	<ul style="list-style-type: none"> <li>- Completely in line with stated goals of all agencies and commissions connected with distance education. Plenty of benefits noted, and there are likely to be some not thought of yet.</li> <li>- Well justified.</li> <li>- Clear history and benefits of the project.</li> </ul>	<ul style="list-style-type: none"> <li>-\$55M cost estimates have dropped to the \$30M range. Bidding will drop it more.</li> <li>"Lower network costs" assumed as benefit. This seems unlikely.</li> <li>- How much is the estimated savings this network will have?</li> </ul>
V: Technical Impact	<ul style="list-style-type: none"> <li>- Interoperability and conformity to established standards.</li> <li>- Desire to adhere to current standards</li> </ul>	<ul style="list-style-type: none"> <li>- If this is an outright purchase of hardware, who will be responsible for replacing failed equipment after warranty? Purchase of hardware not eligible for erate. Document doesn't specify purchase of hardware or lease with connectivity.</li> <li>- A little vague in some of the answers.</li> </ul>
VI: Preliminary Plan for Implementation	<ul style="list-style-type: none"> <li>- Beginning with schools whose contracts are running out. By not trying to do the entire state at once the actual roll out is more likely to occur in the time allotted.</li> <li>- Very clear on your plans.</li> </ul>	<ul style="list-style-type: none"> <li>- Service contracts on gear implies purchase instead of lease. Erate is in question. Nebraska Universal Service Fund listed as possible source of funds. So far the PSC has been reluctant to commit.</li> <li>- Lacks details of ongoing support requirements</li> <li>- More detail on training and support requirements.</li> </ul>

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 Biennial Budget FY2005-2007 (2006 Deficit Budget Requests)

Project #13-01  
 Page 3 of 3

Section	Strengths	Weaknesses
VII: Risk Assessment	<ul style="list-style-type: none"> <li>- Realistic list of risks.</li> </ul>	<ul style="list-style-type: none"> <li>- Oversight of implementation to be by NITC and NDE. NITC is not an operational agency. CAP/Network Nebraska members (DOC, NU and NET) are more appropriate implementation partners. NITC role would likely be in policy advisory.</li> <li>- Seems like we only scratched the surface on this. The barriers are way more significant than the wording portrays.</li> </ul>
VIII: Financial Analysis and Budget	<ul style="list-style-type: none"> <li>- Budget accounts for all areas for consideration as reflected in the proposal text.</li> <li>- Good comments explaining line items.</li> <li>- Costs look accurate and well thought out.</li> </ul>	<ul style="list-style-type: none"> <li>- No new FTE asked for. Once system is implemented, someone will have to oversee ongoing operation and coordination. Also, would like to have seen what the estimate would be for the local schools to pay upfront/ongoing as local match.</li> <li>- Maybe break out the one-time costs compared to the on-going costs.</li> </ul>

**TECHNICAL PANEL COMMENTS**