

## Joint Committee on Appropriations Subcommittee on the REED Network

The subcommittee met on March 3, 2009 to hear testimony from Board of Regents (BOR) and Bureau of Information and Telecommunications (BIT) personnel regarding the status of the Research Education and Economic Development Network (REED).

The REED Network is a partnership between the public and private sector to bring ultra-high speed network services to South Dakota for the advancement of research, education, and the economy (Attachment A). The Governor proposed and the Legislature approved the REED Network project during the 2008 Legislative Session.

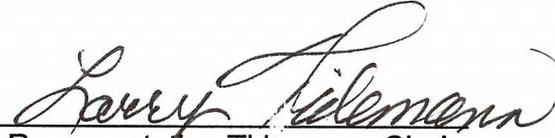
The BOR and BIT updated the subcommittee on the status of the REED Network and provided a financial summary of the dollars budgeted and expended on the REED project for FY09 year-to-date (Attachment B). The total amount budgeted in FY09 for the network was \$14,070,557. The one-time budget items for the network totaled \$11,768,711 with \$8,000,000 coming from a Great Plains Educational Foundation grant and \$3,768,711 from a one-time state appropriation. The on-going budget for the network is \$2,301,846. The BOR projects to spend \$13,662,323 in FY09.

The BOR and BIT provided the committee a copy of a Letter of Mutual Agreement that defines the relationship between the Executive Branch and the Board of Regents regarding the REED Network (Attachment C). The agreement outlines the management and operation responsibilities of the network and recognizes the essential requirement of cooperation and collaboration between the parties involved.

The BOR explained to the committee that there is no money currently in the budget to upgrade the existing high performance computing clusters at the primary research universities (USD, SDSU, SDMT). The BOR plans to upgrade the clusters over time when money is available. The BOR and BIT responded to questions regarding the ability of researchers at SD universities to lease time at private high performance computing centers rather than having state managed computing centers.

The subcommittee requested that the BOR 1) put together a business plan outlining how it plans to utilize and market the REED Network, 2) provide a semi-annual report to the Appropriations Committee, and asked 3) that two researchers from South Dakota universities brief the committee at the June interim appropriations meeting on the usage and benefits of the Reed Network.

Subcommittee on the REED Network

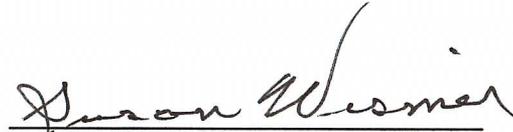
  
Representative Tidemann, Chair

  
Senator Hunhoff, Vice Chair

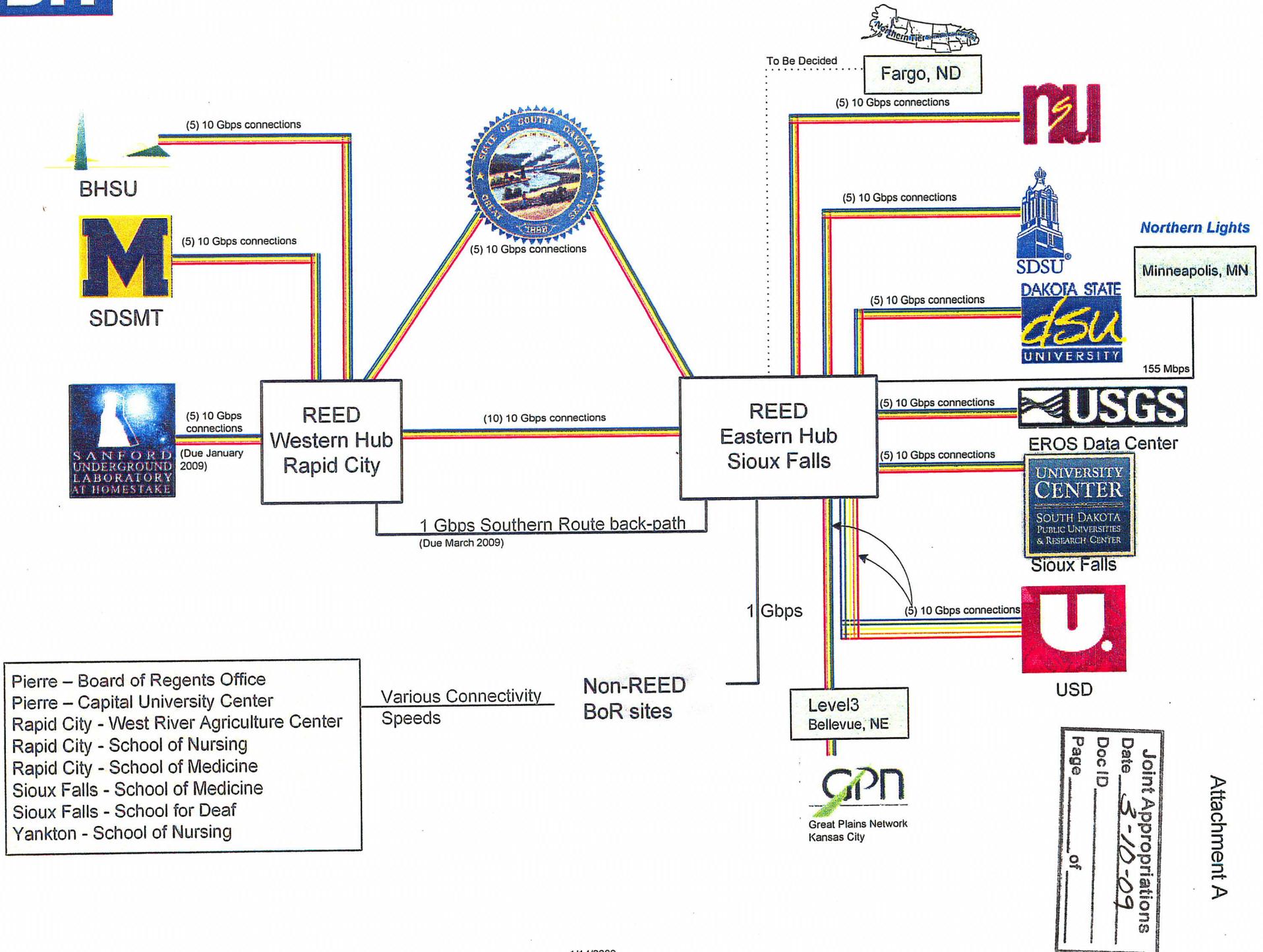
  
Senator Haverly

  
Senator Hundstad

  
Representative Putnam

  
Representative Wismer

# Research, Education & Economic Development (REED) Network



- Pierre – Board of Regents Office
- Pierre – Capital University Center
- Rapid City - West River Agriculture Center
- Rapid City - School of Nursing
- Rapid City - School of Medicine
- Sioux Falls - School of Medicine
- Sioux Falls - School for Deaf
- Yankton - School of Nursing

Joint Appropriations  
 Date 5-10-09  
 Doc ID \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_

Attachment A

REED Project Financial Summary					
FY09 Year-to-Date Status (March 2009)					
	Budgeted	YTD Expenses	Actual / Projected	Difference	Comments
<b>Budgeted Costs - REED funded</b>					
<b>Network</b>					
SD + ND + NE (Recurring)	\$1,493,689	\$883,866	\$1,735,239	(\$241,550)	BIT Billing for REED network costs
(One Time)	\$7,697,500	\$6,727,500	\$7,087,500	\$610,000	
<b>Subtotal</b>	<b>\$9,191,189</b>	<b>\$7,611,366</b>	<b>\$8,822,739</b>	<b>\$368,450</b>	
HPCC Staff (DSU/BoR 2 FTE)	\$155,358	\$0	\$0	\$155,358	Estimated 0 months of expenses
<b>Subtotal</b>	<b>\$155,358</b>	<b>\$0</b>	<b>\$0</b>	<b>\$155,358</b>	
<b>Equipment</b>					
DSU Data Center (Recurring)	\$188,990	\$0	\$0	\$188,990	\$0 FY09 Maintenance There is no HPCC in place
(One Time)	\$1,433,000	\$0	\$0	\$1,433,000	The data center will not be done at this time
Routers (BIT)	\$800,350	\$1,158,958	\$1,158,958	(\$358,608)	Juniper
Router Maintenance (BIT)	\$138,060	\$100,302	\$100,302	\$37,758	Juniper
Core switches (BoR)	\$503,676	\$739,122	\$739,122	(\$235,446)	Cisco
Firewalls (BoR)	\$557,185	\$331,960	\$331,960	\$225,225	Cisco
Intrusion Protection (BoR)	\$450,000	\$390,127	\$390,736	\$59,264	Juniper
Security Information Mgmt System (BoR)	\$327,000	\$316,786	\$315,893	\$11,108	Q1 Labs
<b>Subtotal</b>	<b>\$4,398,261</b>	<b>\$3,037,255</b>	<b>\$3,036,971</b>	<b>(\$71,709)</b>	
<b>Miscellaneous</b>					
Non-REED BoR Sites /Subscription Services	\$325,749	\$171,780	\$351,818	(\$26,069)	BIT Billings for Non-Reed & Internet Service
<b>Subtotal</b>	<b>\$325,749</b>	<b>\$171,780</b>	<b>\$351,818</b>	<b>(\$26,069)</b>	
<b>REED Budgeted Costs Subtotal</b>	<b>\$14,070,557</b>	<b>\$10,820,401</b>	<b>\$12,211,528</b>	<b>\$1,859,030</b>	<b>Under Budget</b>
<b>REED Costs - Not Budgeted</b>					
<b>Miscellaneous</b>					
Mpls OC3 Connection	\$0	\$53,839	\$107,677	(\$107,677)	Operational if/until Fargo is connected
Ekinops / NE hardware	\$0	\$85,474	\$85,474	(\$85,474)	NE Connection hardware (supports up to 4 waves / 2 today)
Ekinops Maintenance**	\$0	\$4,500	\$4,500	(\$4,500)	
Security Information Mgmt Maintenance**	\$0	\$0	\$68,922	(\$68,922)	BOR already paid but will want REED reimbursement
Intrusion Detection Training	\$0	\$12,500	\$12,500	(\$12,500)	Juniper
Security Information Mgmt Training	\$0	\$32,500	\$32,500	(\$32,500)	Q1 Labs
SFP modules	\$0	\$15,561	\$15,561	(\$15,561)	SFPs for East & West Hubs (Inter workig with SDN), Cabling, Covers, etc.
Great Plains Network Subscription	\$0	\$122,500	\$122,500	(\$122,500)	
<b>REED Costs Not Budgeted Subtotal</b>	<b>\$0</b>	<b>\$326,874</b>	<b>\$449,634</b>	<b>(\$449,634)</b>	
<b>REED Costs Subtotal</b>	<b>\$14,070,557</b>	<b>\$11,147,275</b>	<b>\$12,661,162</b>	<b>\$1,409,396</b>	<b>Under Budget</b>
<b>BOR REED Costs - Not Budgeted</b>					
Network Research Routers	\$0	\$374,112	\$374,142	(\$374,142)	Network research @ GEAR,SDSMT,SDSU,USD
Routers & Core Switches Maintenance**	\$0	\$6,383	\$6,383	(\$6,383)	
Redundant Firewalls	\$0	\$320,860	\$320,860	(\$320,860)	
Firewall Maintenance**	\$0	\$61,221	\$61,221	(\$61,221)	
Intrusion Detection Maintenance**	\$0	\$107,055	\$107,055	(\$107,055)	
Great Plains Network Subscription**	\$0	\$131,500	\$131,500	(\$131,500)	
<b>BOR REED Costs Not Budgeted Subtotal</b>		<b>\$1,001,131</b>	<b>\$1,001,161</b>	<b>\$408,235</b>	
<b>REED Costs Total</b>	<b>\$14,070,557</b>	<b>\$12,148,406</b>	<b>\$13,662,323</b>	<b>\$408,235</b>	<b>Total Budget Remaining</b>

Joint Appropriations  
 Date 5-10-09  
 DocID \_\_\_\_\_  
 Page \_\_\_\_\_ of \_\_\_\_\_

Joint Appropriations	
Date	3-10-09
Doc ID	
Page	of

Letter of Mutual Agreement  
Executive Branch of South Dakota State Government  
and  
South Dakota Board of Regents  
For  
The Research, Education and Economic Development Network

In the absence of an operational Joint Powers Agreement or other document that defines the relationship between the Board of Regents [Board] and the Executive Branch of South Dakota state government related to the Research, Education and Economic Development Network [REED], this letter is intended to outline the relationship of each in the management and operation of REED that was agreed to between the Governor and the President of the Board of Regents in return for \$8 million funding for REED. This recognizes Governor Rounds' creation of REED with the primary purpose to serve the needs of research and educational users and to interconnect South Dakota public higher education with the national research and education networks. It further recognizes the essential requirement of cooperation and collaboration between the parties in making this successful.

The REED network, which represents the underlying optical network contracted for with SDN Communications is the central technology highway that connects South Dakota with the national research and education networks and other research and educational organizations.

The Executive Branch of state government through its offices is responsible for:

- Providing the network service levels not less than five ten gigabytes lambdas per site currently provided for in the contract between the State of South Dakota and SDN Communications upon the date of this letter.
- Assuring that research and educational use is given priority over other uses of the REED backbone. This provision shall not preclude the use of the REED backbone for purposes other than research and education when capacity is not being used for research or educational purposes.
- Providing an uninterrupted service except for those situations where there is a mutually agreed upon schedule of service or maintenance or a situation beyond the control of the state and in such a situation to notify the Board of any unintentional failure or interruption of service upon discovery.
- Serving as the lead partner responsible for interfacing with all non-higher education partners and networks providing service and connections relating to the REED backbone. The co-partner in these interfaces is the Board, who is a participating equal partner and shall be able to attend all meetings.
- Determining all technical requirements and specifications for connections to REED.
- Convening regularly scheduled meetings of staff from the Executive Branch and the Board for purposes of sharing information on the operations and budget of REED.
- Using the REED base budget and one-time funding (state dollars and funds provided by the third party) to cover costs related to REED only.

The Board of Regents through the public universities is responsible for:

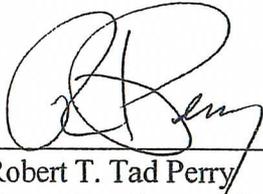
- Determining the network services and connections to the network backbone for higher education purposes.
- Managing and scheduling university personnel access to the REED network.
- Developing and maintaining the institutional technology environments.
- Adhering to technical requirements for Board requested connections to REED and consulting with BIT regarding all hardware or software relating to connections to REED.
- Serving as the lead partner responsible for interfacing with all higher education partners and networks providing service and connections relating to the REED backbone. The co-partner in these interfaces is BIT, who is a participating equal partner and shall be able to attend all meetings.
- Transmitting to the State all funds that have been appropriated to the Board of Regents from the state general fund or funds provided by a third party to the Board of Regents for the sole purpose of payment of actual REED expenses.

Both the Board of Regents and the State Agree:

- To use all funds budgeted for REED solely for REED purposes.
- To agree upon REED expenses before expenditure of or transmitting of any funds to BIT.
- To agree upon all expenditures for REED purposes in advance by BOR and State personnel in order to coordinate technical requirements and budgetary limitations.
- To participate in ongoing coordination of all aspects of REED operations by meetings of BIT and Board staff through regularly scheduled meetings and meetings at such other times as may be necessary.
- To consult on all aspects of REED operation to ensure cost efficiency, adequate connectivity and service levels, and effective operation of the REED network.

The Board of Regents through its employees and faculty is acknowledged as having sole authority over operational functions and activities at all Regental locations.

Should disagreements between the Board and Executive Branch occur that cannot be resolved by staff, an initial effort to resolve issues will be undertaken by the Executive Director of the Board and a designee of the Governor. Final resolutions will be made by the Governor in consultation with the President of the Board of Regents.



Robert T. Tad Perry  
 Executive Director, Board of Regents

2-09-09

Date



Neil Fultón  
 Governor's Chief of Staff

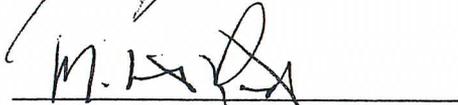
2/12/09

Date

Approved:

  
\_\_\_\_\_  
Harvey C. Jewett  
President, Board of Regents

01/29/09  
Date

  
\_\_\_\_\_  
M. Michael Rounds  
Governor

2-13-09  
Date