

Statewide Networking Update: Nebraska Educational Network

Jim Emal and Walter Weir

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Special Recognition

- Lieutenant Governor Dave Heineman
- Dr. L. Dennis Smith
- Dr. Doug Christensen
- NITC

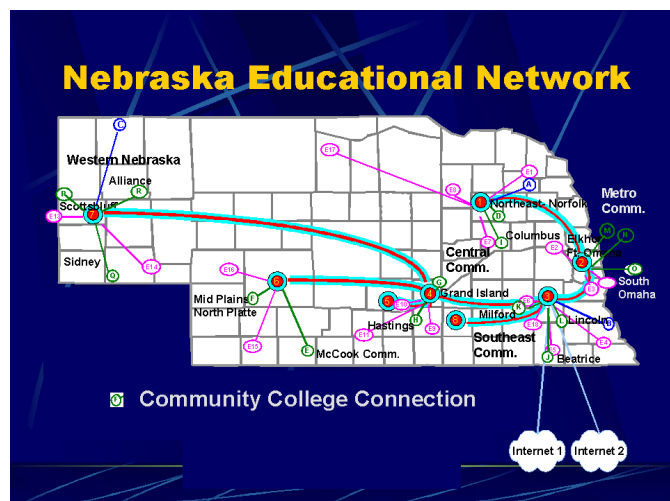
Locations and Speeds

Alliance to Grand Island	T1 FR
Beatrice to Nebraska Hall	T1 FR
Broken Bow to Grand Island	T1 FR
Chadron to Grand Island	T1 FR
Clay Center to Nebraska Hall	45 Meg
Fremont to UNO	T1 FR
Grand Island to Lincoln	OC 3
Hastings to Nebraska Hall	T1 FR
Kearney to Grand island	100 Meg*
Lexington to Grand Island	T1 FR
Norfolk to UNO	45 Meg
North Platte to Grand Island	45 Meg
Scottsbluff to Grand Island	12 Meg (pilot)
Scottsbluff to Nebraska Hall	2 T1's
Seward to Nebraska Hall	T1 FR
Sidney to Grand Island	T1 FR
UNL Tech Park	100 Meg
West Point to UNO	T1 FR
York to Nebraska Hall	T1 FR

Nebraska Educational Network

maps showing

- Backbone Sites
- ESU Connections
- State College Connections
- Community College Connections



Map of Nebraska Educational Network showing all connection sites.

Issues to be addressed

- Network designed, initially, to address data & Internet 1 use
- Addressing video on the network is more involved
- Management of the Educational Network environment
- Business Model

Addressing video on the network is more involved

- Currently DS3 (45mb) currently installed - Not IP based
- JPEG 8 MB dedicated for each class - Point to point
 - The greater the compression, the greater the degree of information loss
- MPEG 2-4 MB dedicated for each class -Point to point
- Video over IP - 384kb -768kb for each class
 - Issue of quality
 - Bursty nature of IP/Ethernet
- Good news is technology is solving this problem

Management of the Educational Network environment

- Adding the ESU's, State Colleges, others to the network
 - Requires legal contracts and agreements
- Service level agreements (SLA's)
 - Determining acceptable level of service
 - Limited liability for downtime
- Network management tools/software
- Network Operations Center (NOC)
- User support services
 - Help desk
 - Problem resolution

Business Model

- Revenue stream to support on-going efforts
- We currently pay \$180/mb/month for I1 access
- ESU's and others pay \$300-\$1,000/mb/month
- Local transport costs need to be included in the \$180 number
- Multiple I1 providers for redundancy

Collaborative Aggregation Partnership "CAP"

UNIVERSITY OF
Nebraska
Lincoln