T E L 8 Network

2002-03 ANNUAL REPORT

Contents

Board of Directors

Dave Talley   Wyoming Department of Transportation (president)
Brian Moore   South Dakota Department of Transportation
Khaled Ksaibati   University of Wyoming (vice president)
Neal Christensen   Utah Department of Transportation
Ron Horner   North Dakota Department of Transportation (secretary/treasurer)
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Barbara Martin   Montana Department of Transportation
Peter Martin   University of Utah
Ayman Smadi   North Dakota State University

FHWA Liaison

Steve Busek   FHWA, North Dakota Division Office

NDSU TEL8 Staff

Doug Benson   Executive Director
Julie Rodriguez   Program Director
Mary Marquart   Administrative Assistant
Mitch Hoffart   Network Technician

Introduction

TEL8 is a telecommunications network dedicated to transportation in the Upper Midwest and Mountain states. Nine transportation organizations participated in the system during 2002-2003 including the five state departments of transportation (DOTs) in North Dakota, South Dakota, Montana, Wyoming, and Utah, and the four Mountain-Plains Consortium (MPC) universities consisting of North Dakota State University, University of Wyoming, Colorado State University, and the University of Utah. These TEL8 sites operate a videoconference network connecting regional and national transportation organizations from the network control center at North Dakota State University.

TEL8's rapid growth continued with the inclusion of additional network sites and increased programming. During the past four years, the videoconference network has tripled in size - the number of sites in the system now total over 30 including over twenty network sites at Department of Transportation district sites in the states of South Dakota, Utah, and Wyoming. Additional DOT district network locations are under consideration. The DOT district sites bring TEL8 programming to more transportation professionals and reduces travel and training costs to the TEL8 states. The DOT district sites have significantly increased their on-line participation in the network almost doubling their TEL8 bridge activity the past two years.

TEL8 announced this past year the formation of a preliminary TEL8/NHI initiative investigating the videoconference delivery of NHI courses to TEL8. Two NHI courses were scheduled or delivered with additional courses identified as potential TEL8/NHI collaborations. As well, NHI participated in a TEL8 Board of Director's discussion of the development of distance learning via the TEL8 videoconference network.

State Departments of Transportation
Montana - Helena
North Dakota - Bismarck
South Dakota - Pierre
Utah - Salt Lake City
Wyoming - Cheyenne

Mountain Plains Consortium Universities
North Dakota State University - Fargo
Colorado State University - Fort Collins
University of Utah - Salt Lake City
University of Wyoming - Laramie

Programming has more than doubled during the TEL8 network expansion. Recent examples of innovative programming developed by the network include new Mountain-Plains Consortium short courses and the MPC-X, a university based research dissemination seminar series. Moreover, the TEL8 bridge activity doubled in support of network expansion. TEL8 programming continues to provide unique professional opportunities drawing upon the partnership between the state DOTs and MPC universities. This partnership brings transportation practitioners and researchers together into a framework dedicated to expanding the solutions to today's transportation problems.

InfoX and TransEx remain popular DOT programming and more than 1,000 people in the state DOTs and MPC universities received professional training through TEL8 videoconferencing. Graduate-level transportation classes from the MPC universities continued to be delivered to university students and DOT employees via the videoconference system.

TEL8 initiated during 2002 the development of a RFP for technological reconfiguration. The proposed RFP would include the consideration of a new network bridge, options for new CODEC videoconference technology and an assessment of the IP transmission medium protocol. The RFP is scheduled to be released during the 2003-2004 fiscal year.
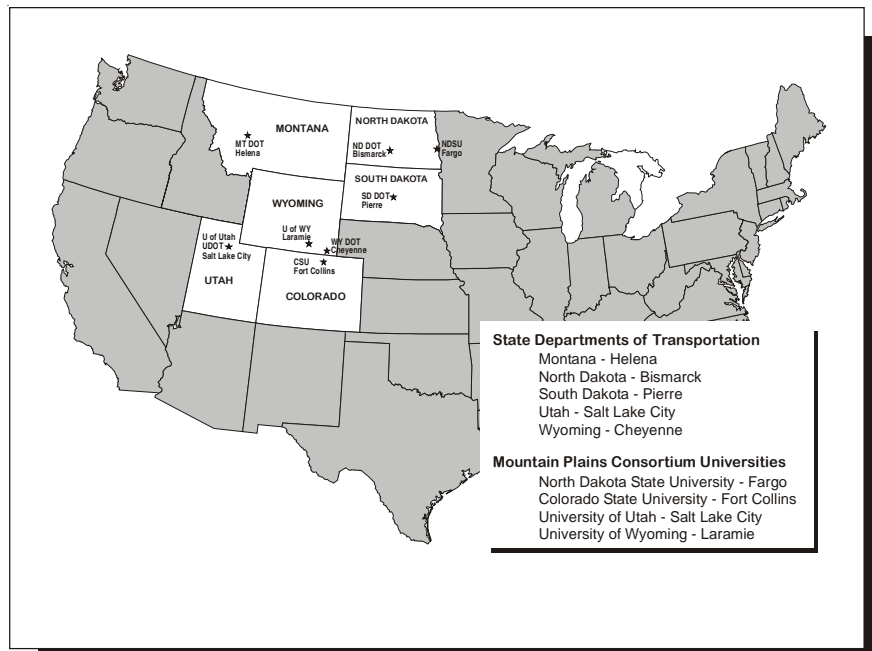
The TEL8 network continued to support and facilitate the establishment of a new, prototype programming network. The new programming network, WASHTO-X, includes many of the western United States and is modeled after TEL8.

The TEL8 system is governed by a board of directors with representatives from each of the state DOTs and MPC universities. TEL8 remains guided by the vision and mission statements adopted by the board. The vision for the system is:

To be a leader in the United States in distance learning and communications by utilizing cutting-edge technology and maximizing the capability of that technology by providing superior customer-driven programming that adds maximum value to the TEL8 clientele.

The TEL8 mission is:

To contribute to quality transportation in Region 8 through a distance learning and teleconferencing network that serves the participating DOT's and universities by enhancing communications, education, technology transfer, and research.

Mission attainment is measured by the achievement of the following goals. These goals have been defined to determine if individual TEL8 activities contribute to the TEL8's mission. The goals for TEL8 are:

- Enhance communications among the participating state DOTs, universities, FHWA, and other national and regional organizations.

- Improve the access to, and the quality and quantity of, inter- and intrastate education to all participating DOTs and universities.

- Focus the development and prioritization of the use of TEL8 on (1) interstate transportation teleconferencing, (2) interstate transportation education, and (3) intrastate transportation education.

- Assure that the system responds to the priority needs of participating departments of transportation on a pilot basis in the short term and an established strategic direction in the long term.

- Maximize the cost effectiveness and efficient use of communications time and resources available to the system.

- Research and demonstrate applications that improve the effectiveness and efficiency of distance communications and learning.

- Facilitate the improvement of transportation emergency communications and management among the participating states.

President's Statement

David Talley, Wyoming Department of Transportation

"When it comes to getting things done, we need fewer architects and more bricklayers" –– Colleen Barret

When it comes to TEL8, the architects are the bricklayers too. Everyday, the exceptional people involved with TEL8 are simultaneously designing and building our videoconferencing network. We have continued our past successes by offering a wide range of leadership development and personal improvement classes. Peers from diverse areas within our Departments of Transportation routinely exchange the best of their ideas and programs with one another during the monthly InfoX and TransEx sessions. Graduate education in civil engineering has also remained as a key part of TEL8's programming.

"We cannot live ourselves alone. Our lives are connected by a thousand invisible threads, and along these sympathetic fibers our actions run as causes and return as results." — Herman Melville

In addition to the performance excellence we consistently experience when working within TEL8, our successes would not be possible without our outside partnerships. The members of the Mountain-Plains Consortium—Colorado State University, North Dakota State University, the University of Utah, and the University of Wyoming—continue to provide the state transportation departments with a level of academic and technical expertise that cannot be equaled by the agencies themselves. The Leadership Development Institute has become a mainstay of our leadership and interpersonal development programming, and the Franklin Covey Corporation continues to provide us with materials for our "flagship" course*, The Seven Habits of Highly Effective People*, as well as the *Focus* class and our monthly Brown Bag sessions. As a new partner in our efforts, the National Highway Institute has recently begun to offer its training via the TEL8 network.

"This 'telephone' thing has too many shortcomings to be seriously considered as a means of communication." — Western Union policy statement, 1876

As the year unfolds, TEL8 is exploring options that will keep the organization at the leading edge of technology and distance education. Since its inception, TEL8 has committed itself to being a leader in its field of transportation education. With continuous improvement comes continuous change. We started with satellite technology, then improved our operations as land-based telecommunications advanced. Now the organization is considering adding Internet Protocol technology to its transmission options. As an organization committed to finding the best means to meet the needs of our members, TEL8 continues to think of the future of technology as a tool in our search to continuously improve our services.

"Iter ad futurus non terminus." — The road to the future has no end — Davius Tallius

From a seed first planted in 1994, TEL8 has been steadily growing in capability and quality over the past decade. As our mission calls for, TEL8 has been a true leader in distance learning and inter-organizational learning. From our humble beginnings, few sites, and limited technology, the member states and universities are now reaching out across the Great Plains and Rocky Mountains to an expanding number of locations with high quality programming and ever-improving technology. Although the road to the future always contains unknowns, the members, staff, and partners of TEL8 look forward to meeting those challenges as our contribution to improving the nation's transportation structure, transportation workers, and transportation leaders.

Organizational & Operational Summary

Doug Benson, Executive Director

Several TEL8 organizational and operational activities were accomplished the past year. These are summarized below.

Operational Summary

- TEL8/NHI

  TEL8 renewed its relationship with the National Highway Institute (NHI) in 2003. Two NHI courses are scheduled for the current programming year providing a substantial cost savings to the region's DOTs.

- MPC Short Courses

  The TEL8 MPC universities continue to develop short courses designed to meet the needs of the DOTs, and for the videoconference medium. The Board of Directors, MPC representatives and TEL8 staff continued efforts to define and establish a MPC short course selection and funding process.

- DOT Site Expansion

  TEL8 again provided support for DOTs expanding videoconference systems within their state. Additional DOT TEL8 expansion to the district level is under review.

- RFP

  The TEL8 staff conducted a review of the system's videoconference technology. This review initiated a proposed RFP process which will result in the release of a RFP during the 2003-2004 fiscal year. The RPF will include a new network bridge, individual TEL8 site options for new CODEC videoconference technology and options for incorporating the IP transmission medium protocol into the network infrastructure.

- Public Transit Training

  A training program for public transit systems is being developed. The program will be focused on rural and small urban systems located in the TEL8 region and nationwide.

Organizational Summary

- DOT/MPC Partnership

  The partnership among the state DOTs and the MPC universities is recognized as one of the primary strengths of TEL8. Both types of organizations have contributed in complementary ways to improving transportation systems through the development of the TEL8 network. One of the long term objectives of TEL8 is to seek new opportunities for collaboration between the two groups.

- Bridge Expansion/Capacity

  An evaluation of the network bridge demonstrated that, because of technology changes, TEL8's MCU port capacity can no longer be increased. The proposed RFP process discussed earlier will include the following options for network bridging functionality.

  - Purchase new ISDN bridge
  - Purchase new ISDN/IP bridge
  - Use 3rd party bridging service as needed
  - Maintain current bridge

- TEL8 Committees

  Programming Committee

  The programming committee is chaired by the program director and is responsible for developing, initiating, acquiring, and promoting TEL8 programming. The committee includes representatives from the DOTs and a MPC liaison. Each program committee member is assigned the responsibility of representing their organization in the coordination, facilitation, and implementation of viable educational and training programs over the system. As well, the programming committee develops and presents to the board an annual budget addressing the financial requirements of TEL8 programming.

  Technical Committee

  The technical committee is chaired by the TEL8 technician and is responsible for assessing and evaluating network technology including monitoring emerging videoconference systems and codec technology. This committee is integrally involved in the proposed RFP process.

Programming

Julie Rodriguez, Chair

TEL8 was created to serve the transportation interests of the region by providing enhanced communications, technology transfer, education, and research. Programming activities developed to meet those requirements and delivered during FY2003 included, but were not limited to, graduate level courses in transportation, technology transfer and continuing education courses, seminars of varying lengths, and teleconferencing among state DOTs and MPC universities. Moreover, during this time TEL8 utilized one of only a few telecommunications networks dedicated to supporting transportation activities through programming efforts dedicated to technology transfer, distance learning, and continuing education.

FY2003 TEL8 Programming and Training

The program director continued the development of a training and program schedule. The board approved this schedule in 2002. Costs for providing the training program are estimated at $59,995 and were allocated among the TEL8 sites with the DOTs assuming a larger portion of the costs.

The institutionalization of the TEL8 website has continued to prove to be an important organizational milestone and contributes significantly to the growth in use and ease of managing the system for everyone involved. The schedule included the InfoX, TransEx, and MPC-X seminar series, graduate level transportation classes, leadership workshops, programming committee meetings, and many other activities. Additional programming and training beyond the formal schedule includes DOT information exchanges and ad hoc meetings.

This year the following events were held:
- Leadership Development Institute Workshops (8,➔)
- MPC Short Courses (1,➔)
- NHI Courses (1,⬆)
- Seven Habits Workshops (3,➔)
- What Matters Most Workshops (4,⬇)
- InfoX Sessions (11,➔)
- TransEx Sessions (16,⬆)
- Graduate Classes (0,⬇)
- MPC-X Sessions (2,⬇)

FY2004 TEL8 Programming and Training

TEL8 has developed its training and programming schedule and will assign a significant portion of its resources to developing and acquiring programming for the system. Specific programming activities include:

- InfoX: InfoX continues with the DOTs sharing responsibility for hosting these sessions. Program topics are areas of special interest and are varied and abundant and 11 are scheduled for FY 2004.
- TransEx: Growth in TransEx has slowed and now has eight groups meeting semi-annually. The following focus areas are involved: Finance, Maintenance, Intelligent Transportation Systems (ITS), Motor Carrier Operations, Transportation Research, Human Resources, Planning, and E-Commerce.
- MPC-X: MPC-X is an effort to share information about proposed, current, or recently completed MPC research among the TEL8 members, both universities and DOTs.
- NHI Courses: NHI has a renewed interested in providing their courses by teleconferencing. A partnership is being pursued that would allow for more courses, a pilot program, and instructor certification.

- FranklinCovey: FranklinCovey workshops are now a regular part of the TEL8 offering. Both the *Seven Habits of Highly Effective People* and *What Matters Most* enjoy continued support.
- Graduate Courses: Graduate courses continue to be offered with one planned for Fall 2003 and the Spring 2004 schedule yet to be determined.
- MPC Short Courses: MPC has developed several proposals for short courses and two will be offered this fiscal year. A new process for proposals, selection, and budgeting was implemented to better fit the TEL8 fiscal year.
- Website: The website will continue to be a primary source of information regarding TEL8 scheduling and event information.
- Newsletter: A weekly newsletter, TEL8 Alert, is used to remind site coordinators, and others, about upcoming events and deadlines.

Programming Committee

The Programming Committee has been working with the DOTs and universities to help facilitate educational programs to meet the needs of DOT management and employees. This committee is formed of representatives from the TEL8 organizations who are assigned the responsibility of representing their organization in the coordination, facilitation, and implementation of viable training programs over the system. The TEL8 Program Director, Julie Rodriguez, chairs this committee.

Current committee members as of June 2003 are:
- Judy Froseth/Priscilla Deschene – North Dakota Department of Transportation
- Brian Moore/Diane Giesinger – South Dakota Department of Transportation
- Susan Anderson – Montana Department of Transportation
- Jan Barhite/Wes Coulson – Wyoming Department of Transportation
- Becky Collins/Abdul Wakil – Utah Department of Transportation
- Peter Martin – University of Utah, MPC Liaison
- Julie Rodriguez (Chair) – North Dakota State University

The committee members continue to work within specialty areas in developing and presenting the InfoX and TransEx program series, developing and administering surveys, and embracing pertinent courses within the TEL8 programming budget. Committee members also handle registration, payment, advertisement of courses to participants, and distribute instructional materials.

The committee's goals included:
1) increase technical training offered (held NHI course),
2) address bridge capacity issues (before the board),
3) reduce number of cancelled events (remained the same),
4) improve timeliness of posting agendas (still needs work).

Progress was made on these goals during this fiscal year. Most of these goals will continue to be focused on during FY2004, with the addition of 1) strengthen relationship with NHI, 2) reducing the number of cancelled events, and 3) improve timeliness of posting event agendas.

This committee serves as a significant resource to TEL8. To support the committee in their DOT training responsibilities, a website was developed in 1998 and redesigned in 2000 to help make planning at both the individual and institutional levels much easier and more predictable. This website has become a vital source of information regarding TEL8 events. The addition of a weekly electronic newsletter has also aided in reminding everyone involved of upcoming deadlines and events.

Technology Report

Network

The network component of TEL8 continues to operate normally. Occasionally there is a network anomaly that causes a site or sites to drop out temporarily during a conference. Usually the drop out is brief and temporary.

Bridge

The bridge component of TEL8 continues to operate normally. During the prior twelve months there have been no failures of any component related to the bridge. The maintenance contract is set to lapse in November of 2003.

Site by Site: CODEC and Peripheral Equipment failures

CSU
Fort Collins, CO: CSU had a failure of their power supply. They were able to secure a
                            replacement from spare codecs that were not being utilized.

NDSU
Fargo, ND: NDSU reported a slowly failing camera. This was replaced as under
                            warranty.

U of UT
Salt Lake City, UT: Pan/Tilt/Zoom feature defective.

U of WY
Laramie, WY: No hardware failures reported.

NDDOT
Bismarck, ND: No hardware failures reported.

MTDOT
Helena, MT: No hardware failures reported.

SDDOT
Pierre, SD: No hardware failures reported.

SDDOT
Aberdeen District: No hardware failures reported.

SDDOT
Belle Fourche District: No hardware failures reported.

SDDOT
Custer District: No hardware failures reported.

SDDOT
Huron District: No hardware failures reported.

SDDOT
Mitchell District: No hardware failures reported.

SDDOT
Mobridge District: No hardware failures reported.

SDDOT
Pierre Region: No hardware failures reported.

SDDOT
Rapid City District: No hardware failures reported.

SDDOT
Sioux Falls District: No hardware failures reported.

SDDOT
Watertown District: No hardware failures reported.

SDDOT
Yankton District: No hardware failures reported.

UTDOT
Salt Lake City Complex: No hardware failures reported.

UTDOT
Cedar District: No hardware failures reported.

UTDOT
Ogden District: No hardware failures reported.

UTDOT
Orem District: No hardware failures reported.

UTDOT
Price District: No hardware failures reported.

UTDOT
Richfield District: No hardware failures reported.

WYDOT
Cheyenne: Camera assembly failed twice. CODEC Video boards were replaced
                                four times.

WYDOT
Basin District: No hardware failures reported.

WYDOT
Casper District: No hardware failures reported.

WYDOT
Laramie District: No hardware failures reported.

WYDOT
Rock Springs District: No hardware failures reported.

WYDOT
Sheridan District: No hardware failures reported.

Financial Statement

NORTH DAKOTA STATE UNIVERSITY
STANDARD BILLING FORM

FUND-DEPT: 4670-5980   Voucher # 16
GRANT-CONTRACT ID: 17-314-0800
AGENCY NAME: US Department of Transportation
SUBAGENCY NAME: ND Department of Transportation
PROJECT NAME: Transportation Telecommunications Network Region VIII
PRINCIPAL INVESTIGATOR: Gene Griffin

ELEMENTS OF COST	Current Period Expense 6/1/2003 6/30/2003	NDDOT Cumulative Expense 7/1/2000 6/30/2003	TOTAL BUDGET
SALARIES AND WAGES-FACULTY	1,598.50	62,985.07	92,115.00
SALARIES AND WAGES-SUPPORT	1,341.77	40,670.42	29,000.00
FRINGE BENEFITS	766.47	26,346.00	19,385.00
Subtotal	3,706.74	130,001.49	140,500.00
TRAVEL	0.00	20,881.61	0.00
COMMUNICATIONS	11,066.51	187,111.78	191,100.00
DATA PROCESSING	0.00	582.25	0.00
RENTS & LEASES	0.00	15.49	0.00
OFFICE	0.00	925.07	0.00
REPAIRS	0.00	19,969.00	23,000.00
SUPPLIES	0.00	1,737.73	18,500.00
FEES	1,988.17	64,962.60	75,000.00
INSTRUCTIONAL	0.00	517.56	0.00
GENERAL	57.53	2,025.44	0.00
EXPENDABLE EQUIPMENT	0.00	0.00	0.00
Subtotal	13,112.21	298,728.53	307,600.00
MAJOR EQUIPMENT	0.00	0.00	20,000.00
Subtotal	0.00	0.00	20,000.00
Total Direct Cost	16,818.95	428,730.02	468,100.00
INDIRECT COST	0.00	0.00	0.00
TOTAL COST	16,818.95	428,730.02	468,100.00
LESS: PAYMENTS PREVIOUSLY REQUESTED		411,911.07 **	
TOTAL THIS REQUEST		16,818.95	

I CERTIFY THAT ALL EXPENDITURES REPORTED OR PAYMENTS REQUESTED ARE FOR
APPROPRIATE PURPOSES AND IN ACCORDANCE WITH THE PROVISIONS OF THE
APPLICATION AND AWARD DOCUMENTS.

**Note: of this amount, $ 30,873.96   is outstanding

APPROVED BY _____   Grants Officer   DATE 7-8-03
            Darlene Rian

Bylaws

ARTICLE I
Membership

Current Members: The name of this organization shall be *TEL8*. The members of TEL8 are:

- Montana Department of Transportation
- South Dakota Department of Transportation
- North Dakota Department of Transportation
- Utah Department of Transportation
- Wyoming Department of Transportation
- Colorado State University
- North Dakota State University
- University of Utah
- University of Wyoming

Membership: Members in TEL8 participate in the events of their choosing and enjoy the privileges and responsibilities of being partners in the management of the system. Members will abide by these bylaws and fulfill their financial commitments to TEL8. They provide their own on-site equipment, make arrangements for internal technical support, and must ensure reasonably available and ad-equately sized room space. Membership means participation as part of the TEL8 Board of Directors, participation in TEL8 programming on a regular basis, and participation as members of committees as required. Application for membership should be made in writing to the Executive Director for consideration by the Board of Directors. Acceptance of new membership requires the approval of 2/3 of the members of the Board of Directors. If the application for membership is denied or if the applicant withdraws before consideration, TEL8 will refund funds received from the applicant except for bridge and line services already used.

Withdrawal from Membership: Members may withdraw their membership from TEL8 by informing the Executive Director in writing. Withdrawing members retain their financial obligation to TEL8 until the end of the fiscal year in which they withdraw. Members may temporarily withdraw due to finan-cial or other constraints, then return to membership within 12 months without further administrative action necessary. Members who withdraw for greater than twelve months must reapply as described in the paragraph above. The Executive Director will inform the Board of all withdrawals from mem-bership and reinstatements following temporary withdrawals.

Removal of Membership: The Board of Directors may revoke any membership by 2/3 vote of all members of the Board. Removed members retain their financial obligation to TEL8 until all debts are cleared.

ARTICLE II
Purpose of Network

The purpose of the network is to improve the United States transportation environment through better communication, research, technology transfer, and education. The objectives for which the network is organized and for which it shall be perpetuated are:

(1)   To research and illustrate applications that may be applied on a regional transportation tele communications network to improve the efficiency and effectiveness of transportation professionals.

(2)   To facilitate and improve transportation-related communications among state DOTs.
-        Improve statewide and regional transportation activities.
-        Facilitate more discussion and coordinate development of regional and national transportation policy.
-        Facilitate sharing of expertise among state DOTs.

(3)   To facilitate FHWA communications.
-        Increase, improve, and coordinate communications between FHWA and state DOTs in the region.
-        Facilitate and improve FHWA training of state employees.
-        Better communicate data transmission between division offices and FHWA offices.

(4)   To enhance FHWA, state DOT, and local transportation officials' communications.
-        Continuing education.
-        Allow integration of multiple group training for select interests.
-        Promote sequenced and segregated training presentations.
-        Extend opportunities for education, training, and professional development to local governments.

(5)   To improve and promote transportation technology transfer by LTAP centers.
-        Deliver technology transfer courses regionwide.
-        Promote periodic technology transfer news programming regionwide.
-        Promote sharing of expertise among technology transfer centers.

(6)   To enhance research communications.
-        Improve dissemination of research results in a real time mode.
-        Improve research collaboration (e.g. joint proposals, projects) among FHWA, DOT, and university personnel.
-        Improve coordination and facilitation of pooled funding of projects among states.
-        Increase sharing of research findings and techniques.

(7)   To increase partnerships among state DOTs, MPC universities, and other universities.
-        Allow universities to expand non-resident education programs.
-        Improve availability of workshops, seminars, and shortcourses.
-        Improve availability of specialized university expertise and information.
-        Allow DOT professionals to provide practical experience to university students via guest lectures.
-        Facilitate job interviews by DOTs of students in a timely manner.

(8)   To facilitate improved university-to-university communications.
-        Enhance graduate education programs.
-        Allow coordination of expertise and courses for transportation clientele.

(9)   To improve emergency communications and facilitate discussion of critical, urgent, and un scheduled problems and issues.

-        Improve communications for regional and natural disasters.
-        Improve positions of common regional interest on legislative or other trans portation activities.

ARTICLE III
Purpose of Management Group

The network installation and operations shall be managed by a steering group hereinafter referred to as the Board, empowered with the following purpose:

(1)   To develop a policy for the establishment and operation of a regional telecommunications network.
- Approve priorities for use of the system.
- Resolve conflicts.
- Establish procedures on use of the system.
- Review status of operations on an as needed basis.
- Approve expenditure of monies for installation of equipment.
- Establish standards for the system.
- Recommend use of system to broaden its effectiveness and use.
- Promote programming on the network.
- Address other issues pertinent to the establishment and operations of the system.
- Approve an annual work program that shall be the basis for managing and funding the network.

(2)   To promote use of the TEL8 network.

(3)   To meet the intent of "Article II - Purpose of Network."

(4)   Select and appoint an Executive Director to serve at the pleasure of the Board.

ARTICLE IV
Board Membership

The Board shall be established in such a manner that the state DOTs have principal charge and responsibility for the establishment and management of the TEL8 network. Each member shall serve at the pleasure of the organization they represent.

Member Jurisdictions

Section 1:   The member jurisdictions of the Board shall be composed of the following agencies:

    (a)   State DOTs:
        (1)   Wyoming Department of Transportation
        (2)   Utah Department of Transportation
        (3)   South Dakota Department of Transportation
        (4)   North Dakota Department of Transportation
        (5)   Montana Department of Transportation

    (b)   Universities:
        (6)   University of Utah
        (7)   Colorado State University
        (8)   University of Wyoming
        (9)   North Dakota State University

Board Representative of Members

Section 2:   (a)   State DOTs - shall be the CAO or a designated representative

                  (b)   MPC Universities - shall be the Mountain-Plains Consortium executive committee member, or a designated representative, at the four MPC universities, as previously approved by each university's administrators

                  (c)   If a Board member is unable to attend a meeting of the Board, they may designate a representative to serve as a substitute for them at that meeting. The representative shall have the right to vote for the Board member.

Associate Members

Section 3:   Such members shall consist of persons who may, from time to time, be asked by the Board to participate. Such members shall not be voting members.

Additional Members

Section 4:   Additional members may be permanently added to the Board as full members of TEL8 by a 2/3 vote of the Board. Terms and conditions to be determined by the Board.

ARTICLE V
Officers

Section 1:   The officers of this Board shall consist of the President, Vice President, and Secretary/Treasurer. These officers shall be elected by the member jurisdictions of the Board. Terms for these offices shall be for two (2) years. The president must have been a Board member for at least one (1) year before entering office.

Section 2:   Interim vacancies in the offices shall be filled accordingly:

        - President - position to be assumed by Vice President.
        - Vice President - position to be filled by Board.
        - Secretary/Treasurer - position to be appointed by President.

        All vacancies filled for balance of original term of office.

Section 3:   Election of officers shall be held at the Annual Meeting of the Board.

ARTICLE VI
Duties of Officers

President

Section 1:   The President shall carry out the following duties:

        (a)   Call and preside at all meetings of the Board;
        (b)   Make reports to Board on status of network operations;
        (c)   Maintain liaison between Board and Executive Director of TEL8 network.

Vice President

Section 2:   The Vice President shall carry out the following duties:

(a)   Carry out duties of the President during absence or incapacity, death, resignation, or removal of President;

(b)   Assist the President in any manner pertaining to the network or Board whenever and to the extent requested.

Secretary/Treasurer

Section 3:   The Secretary/Treasurer shall carry out the following duties:

(a)   Keep a record of the meetings of the Board;

(b)   Be responsible for the mailing of all notices and correspondence of the Board and perform such duties as the President or the Board may prescribe;

(c)   Convene and preside over meetings of the Board in the absence of the President and Vice President;

(d)   Shall have custody of any funds of the Board;

(e)   Report directly to the President and Board at least annually, or more often if directed, on financial status of network account.

(f)   The Secretary/Treasurer may delegate to the Executive Director any of these functions except those directed by the Board;

Authorization of Committee Structure

Section 4:   The President, Vice President, and Secretary/Treasurer shall constitute the Executive Committee. The Executive Committee, as well as the Board, shall establish committees as deemed necessary to accomplish the mission of TEL8.

ARTICLE VII
Meetings of the Board

Section 1:   The Board shall meet at least twice each calendar year - one meeting to be considered the Annual Meeting of the Board and the other meeting or meetings at such time and place as the President may direct.

Section 2:   A 2/3 majority of the Board members shall constitute a quorum for the transaction of business.

Section 3:   The university members of the Board shall not have more than four (4) votes.

Section 4:   The Board shall also meet on a written call signed by four members thereof and filed with the President, Secretary/Treasurer, or Executive Director not less than fifteen (15) days prior to the date such meeting is called.

Section 5:   The rules of parliamentary procedure, as set forth in Robert's Rules of Order, shall govern Board meetings.

Section 6:   The Board may vote by mail, electronically transmitted ballot, or by video telecommunications if the President determines that an issue must be resolved without delay, between meetings of the Board. The distribution and counting of ballots shall be the responsibility of the President, or the Executive Director if so directed by the President.

ARTICLE VIII
Executive Director

There shall be an Executive Director who shall be appointed by and serve at the pleasure of the Board. This person is not a member of the Board and has no vote.

ARTICLE IX
Duties of Executive Director

Section 1: The Executive Director shall carry out the following duties:

    (a) Convene and preside over meetings of the Board in the absence of the President, Vice President, and Secretary/Treasurer until the Board shall elect one of their members to serve as President Pro Tempore;

    (b) With approval of the Board, carry out functions and purposes of the network, and keep adequate records of its financial and other affairs;

    (c) Make, keep, and maintain proper and adequate records of all receipts and disbursements of Board and network funds;

    (d) Make final authorization for payment of all duly authenticated and authorized items of expenditures to be paid out of funds for the network;

    (e) Prepare annual report on the network pursuant to the direction of the President and the Board;

    (f) At the direction of the Secretary/Treasurer, makes, keeps, and maintains proper and adequate records of all Board meetings, transactions, and actions.

    (g) Establish and maintain liaison and cooperation with Federal agencies and other supporting and cooperating organizations;

    (h) Report to Board whenever, and to the extent, required by them;

    (i) Perform such other duties as are assigned from time to time by the Board.

Section 2: In the event that the Executive Director is unable to perform the duties prescribed in these Bylaws, by reason of illness, disability, or absence, such duties shall be performed by a person appointed by the president, or the president's designee, until the return of the Executive Director or until the vacancy in the office of the Executive Director has been filled.

ARTICLE X
Fiscal and Operational Management

All fiscal, operational, and policy issues of TEL8 are ultimately the responsibility of the Board of Directors.

ARTICLE XI
Suspension of Bylaws

With the exception of Article XII, the Bylaws of the Board may be suspended during any regular meeting of the Board by a two-thirds majority of the member jurisdictions attending the meeting, provided that a quorum is present.

ARTICLE XII
Amendments to Bylaws

Section 1:   The Bylaws may be amended at any meeting of the Board provided that thirty (30) days prior to the meeting written notice of any proposed amendments, or the text thereof, is filed with the President, the Secretary/Treasurer, and the Executive Director. Proposed amendments shall be submitted by the Executive Director to member jurisdictions at least fifteen (15) days prior to the meeting. Should the Board determine that any proposed amendment must be resolved without delay, the Board will instruct the Executive Director to require a vote by mail, electronically transmitted ballot, or by telecommunications provided the notification requirements have been met. The results of ballot shall be filed by Executive Director or the Secretary/Treasurer as a part of the record of the Board.

Section 2:   A vote of two-thirds of member jurisdictions shall be required to amend the Bylaws.

ARTICLE XIII
Dissolution

Dissolution of the Board and network organization may occur with a two-thirds vote of all TEL8 network member institutions.

ARTICLE XIV
Addendum

Addendum #1:   The Executive Director will have the authority to contract with other parties on a demand-price basis which does not conflict with goals and objectives of members, their clientele, and the pooled fund study. No agreements are to be longer than six (6) months. (Adopted 2/15/96)

Addendum #2:   The principal purpose of leasing time will be for the expansion and enhancement of the existing TEL8 system. (Adopted 2/15/96)

Amended - November 23, 1998
Amended - August 17, 2001

Board Meeting Minutes

TEL8 Board of Directors Meeting — June 4, 2003 — via TEL8 System

Present: Richard Gutkowski, Colorado State University
               Ayman Smadi, North Dakota State University
               Peter Martin, University of Utah
               Barbara Martin, Montana Department of Transportation
               Ron Horner, North Dakota Department of Transportation
               Brian Moore, South Dakota Department of Transportation
               David Talley, Wyoming Department of Transportation

Absent: Neal Christensen, Utah Department of Transportation
               Khaled Ksaibati, University of Wyoming

Others Present: Doug Benson, Julie Rodriguez, Mary Marquart, Mitch Hoffart - NDSU
               Doyt Bolling - Utah State University
               Clayton Schumaker - ND Department of Transportation
               Michelle Johnson, Vince Garcia - WY Department of Transportation

President Talley conducted a roll call, called the meeting to order and welcomed everyone. The agenda was reviewed and there were no additions or changes to the agenda.

Approval of Minutes

President Talley asked if there were any changes or additions to the TEL8 Board Meeting Minutes of April 2 and 3, 2003. It was noted that not everyone has had a chance to review the minutes and this item was tabled.

Network Technology

President Talley turned the meeting over to Doug Benson and Mitch Hoffart for an update on network technology issues.

Doug stated that at the Board meeting in April there was interest expressed in exploring the issues involving an IP only bridge and new or different codecs. Doug noted again that the current bridge warranty will expire after November 2003 which means maintenance support will no longer be available. Also noted was the fact that there have been no network failures in the past 48 months.

Mitch has been doing research with the assistance of AT&T and technical staff from some of the TEL8 sites. Doug asked Mitch to go over the handouts on bridging options.

Mitch shared a little background on what has been happening since April. There was a meeting with Information Technology Services (ITS) folks at NDSU to share information on the direction in which TEL8 is thinking of moving. Also discussed was bandwidth availability and Quality of Service from NDSU. It was noted that QoS would have to be obtained through a third party. Mitch also noted that Terry Heinz, formerly of Northwestern, is now with Golden West Technologies and this company would be able to provide bridge support. Mitch also stated that according to what he has discovered, TEL8 may have to purchase more bandwidth at NDSU.

Mitch also noted that AT&T is our current vendor and a request was made to AT&T to provide information to share with the Board. This information was just received today and there was not a chance to review it yet. Mitch has also visited with MTDOT on their new system. They mentioned that they have had both success and failures on the public internet.

Presentation of Bridging Options:

IP-Only Bridge - Items to Consider:
- IP is not a free network
- Network costs for IP are unknown without a detailed RFP
- Would require a Quality of Service (QoS) agreement with a Network Service Provider
- QoS would have to be consistently implemented across the network at all sites
- Codecs not supporting IP would need replacement at a cost of approximately $8,000 to $15,000, dependent upon feature set
- Unable to connect to ISDN sites
- An IP only bridge is the least expensive but other costs would be incurred, such as routers, switches and a wholesale upgrade of all ISDN only codecs on the network.

ISDN-Only Bridge - Items to Consider
- Unable to connect to IP sites
- 80-85% of the world is still ISDN
- Network costs are known - this is what we use now
- Quality is known and stable
- Expensive - approximately $130,000
- No changes to current network
- Will current codecs work with a new ISDN bridge? Testing of NDSU's codec with a new Accord MGC-100 bridge yielded inconclusive results. More testing is needed as only 1 of 6 connection attempts completed successfully.

IP/ISDN Combo Bridge - Items to Consider
- Most expensive - approximately $140,000, dependent on feature set
- World is moving toward IP
- Costs for IP and QoS on the IP side are unknown without a detailed RFP
- Would require a QoS agreement with a Network Service Provider for the IP side
- A consistent QoS system would have to be implemented across the network at all sites wanting to go IP
- All codecs would have to be replaced if unable to support IP at a cost of $8,000 to $15,000
- Theoretically this option would allow sites to upgrade to IP at their own rate. A QoS agreement would still need to be consistent across the network, however, thus complicating the "piecemeal" approach to an IP upgrade
- 2 networks (IP and ISDN) would have to be maintained at NDSU, increasing costs and complexity.

Conclusions
- IP is NOT free
- IP is NOT plug and play
- IP IS the future
- Total expenditures for a system wide IP upgrade will be unknown until an RFP is submitted to qualified vendors
- The world is still ISDN but moving to IP
- Even if we upgrade to an ISDN bridge, there is no guarantee that our OLD codecs will be able to "talk" to the NEW technology bridge. More testing is needed with a possible software upgrade to our codecs.

Recommendations
- Submit an RFP for:
    - Conversion to an IP only network for all 30 plus sites to include equipment, network, QoS and project management.
    - Conversion to an IP/ISDN network for all 30 plus sites to include equipment, net work, QoS and project management.

The discussion continued regarding the RFP process and Quality of Service issues.

President Talley stated that the clock is ticking concerning the RFP process and he would like to see the Board take action on getting a RFP drafted. Barb Martin mentioned the MTDOT would be happy to share their RFP with the Board - questions they asked and list of vendors they sent out to.

Ayman Smadi suggested that since it seems unclear what will happen in November when the bridge support is no longer available, maybe the Board should consider finding a consultant in this area that could assist in creating the RFP. Peter Martin noted that the RFP is very complex. The first stage should be to send out a Request for Qualifications (RFQ) to anyone interested, i.e. suppliers, vendors, consultants and then move on to the RFP process.

President Talley entertained a motion for the Technical Committee, with Peter Martin, Barb Martin and Vince Garcia as ex-officio members to start the RFQ/RFP process.

Julie Rodriguez asked which option the Board intends to pursue? All agreed that the combination IP/ISDN bridge is the way to go.

Barb Martin motioned that the Technical Committee, with Peter Martin, Barb Martin and Vince Garcia of WYDOT as members, start the RFQ and RFP process. Brian Moore seconded. NDDOT - yes; SDDOT - yes; MTDOT - yes; NDSU - yes; U of U - yes; CSU - yes; U of WY - absent; UDOT - absent. Motion carried.

President Talley noted that Doug Benson will take the lead in organizing the Technical Committee and getting the RFQ and RFP processes started.

WASHTO-X Update

President Talley welcomed Doyt Bolling of Utah State University and asked him to proceed with the WASHTO-X update.

Doyt noted that WASHTO-X is going well. They have been utilizing FHWA's bridge to offer events. FHWA operates a PictureTel system as well. Doyt noted that he, Peter Martin and Doug Anderson will be developing a final report on WASHTO-X - the current Pooled Fund Study will end June 2004. The intent is to include several scenarios on the continuation of the WASHTO-X program. The scenarios will be presented to the RAC committee.

Peter Martin noted that at the end of the current Pooled Fund Study, WASHTO-X will be looking for a 'home' and he feels that Fargo/NDSU would be a good fit, noting that WASHTO-X will not survive without leadership and direction.

There was much discussion and questions. Doug Benson asked for more input.

Doyt noted that TEL8 has the opportunity to perhaps take over WAHSTO-X and suggested that the Board put forth a proposal for him to include in his report.

Doug Benson asked what the Boards position is and what direction should we take on this matter. More discussion.

Richard Gutkowski motioned that the TEL8 Board of Directors provide an endorsement of the WASHTO-X experiment and the TEL8 Board and staff will explore the feasability of a merger with WASHTO-X and/or a 'stand alone' option for Doyt Bolling to include in his report to the RAC of WASHTO-X. Ron Horner seconded. NDDOT - yes; SDDOT - yes; MTDOT - yes; WYDOT - yes; U of U - yes; CSU - yeas; NDSU - yes; U of WY - absent; UDOT - absent. Motion carried.

NHI / Programming Update

President Talley asked Julie Rodriguez to proceed with the NHI / Programming update.

Julie stated that there will be an NHI course on June 25 and also two more courses yet to be scheduled. Julie noted that she will travel to NHI after the first course is competed to discuss future training.

DOT Commitment Letters

Doug Benson reminded the Board that if they haven't done so yet, to please get their commitment letters regarding continued participation in the Pooled Fund Study sent in within the next week. The commitment letters are needed to proceed with contract renewal.

Other

President Talley thanked Doyt Bolling for participating in the meeting today.

President Talley noted that Doug Benson will draft an endorsement of WASHTO-X to be sent to Doyt.

Approval of Minutes from April 2 & 3, 2003 - President Talley asked Board members to review and email Mary with any corrections.

Semi-Annual Board Meeting - October 15, 2003 over the TEL8 system.

Adjournment

Ron Horner Motioned to adjourn the meeting, Richard Gutkowski seconded and the meeting adjourned.

Respectfully Submitted,

Mary Marquart

TEL8 Board of Directors Annual Meeting – April 2-3, 2003

Wednesday, April 2, 2003 - North Dakota State University

Present: Ayman Smadi, North Dakota State University
Khaled Ksaibati, University of Wyoming
Peter Martin, University of Utah
Richard Gutkowski, Colorado State University (via TEL8 system)
Barbara Martin, Montana Department of Transportation
Ron Horner, North Dakota Department of Transportation
David Talley, Wyoming Department of Transportation
Alan Lake, Utah Department of Transportation (for Neal Christensen)

Absent: Brian Moore, South Dakota Department of Transportation
Neal Christensen, Utah Department of Transportation

Others Present: Doug Benson, Julie Rodriguez, Mary Marquart, Mitch Hoffart - NDSU
Gene Griffin, Director, UGPTI

President Talley called the meeting to order at 12:30 PM, welcomed everyone and turned the meeting over to Doug Benson for introduction of Gene Griffin, UGPTI Director. Gene Griffin welcomed everyone to Fargo and presented an overview of the Upper Great Plains Transportation Institute and its programs and noted the importance of the TEL8 Network.

President Talley thanked Gene for the welcome and overview.

The agenda was reviewed and there were no additions or changes noted.

Approval of Minutes

President Talley asked if there were any changes or additions to the TEL8 Board Meeting Minutes of August 27, 2002. There were no changes noted. Ayman Smadi motioned to approve the minutes of August 27, 2002 as written. Barbara Martin seconded and motion was unanimously approved.

Programming Report

President Talley asked Julie Rodriguez to proceed with the programming report.

Julie asked Mitch to dial in Debbie Gwaltney at National Highway Institute (NHI). Julie welcomed Debbie and noted that she was invited to listen in to the programming report and she will also give a presentation on NHI.

Julie reviewed the handout - TEL8 Programming Performance Measures FY03. Julie noted the numbers reflected in the report are year to date numbers as of 3/21/03.
- Number of people served - 649 as reported on sign-in sheets.
- Hours of Programming Offered - 317 programming hours offered; 3090 people-hours on the system (again, this number is low due to fewer sign-in sheets).
- Number of Events Offered - 92 total events (7 canceled or postponed).
- Staff Level Reached - 144 engineers, 8 executive, 75 management, 170 staff, 252 other (not on TEL8 form).
- Number/Percent of New Participants - 101 (18.4%) first-time TEL8 participants.
- Perceived Value to Job = 1.57 on scale of 1 to 3 (1=excellent, 2=good, 3=poor).

Julie noted that the numbers reflected are low as not all sites return the sign-in sheets.

Julie reviewed the handout - TEL8 Programming FY03 Objectives.
- Increase technical training offered - NHI course offered.
- Address bridge capacity issues - before the Board.
- Reduce number of canceled events - went from 6 to 7 (not good enough).
- Improve timeliness of posting agendas - still need work in this area; focus on quality rather than quantity.

Julie also reviewed the FY03 Programming schedule. The breakdown of classes offered is as follows:
- 8 - Leadership Development Institute Workshops (LDI)
- 2 - MPC Short Courses - one was postponed due to military call-up
- 3 - Seven Habits Workshops
- 4 - What Matters Most Workshops
- 11 - Info-X Sessions
- 16 - Trans-X Sessions (It was noted that 5 Trans-X's were canceled)
- 0 - Graduate Courses - Peter Martin noted that 1 course was offered but only one student so course was dropped.
- 3 - MPC-X Sessions

Julie outlined the FY04 programming objectives:
- Strengthen relationship with NHI - more courses, pilot program, certification.
- Address bridge capacity issues.
- Reduce number of canceled events - re-evaluate the frequency/timing of Trans-X groups.
- Improve timeliness of posting of agendas for Info-X and Trans-X - develop as topics are identified.

Julie reviewed the FY04 programming schedule:
- LDI Workshps - 8
- MPC Short Courses - 2
- NHI Courses - 2
- Seven Habits Workshops - 3
- FOCUS Workshops (formerly What Matters Most) - 5
- Info-X Sessions - 11
- Trans-X Sessions - 16
- Graduate Classes - 2

Discussion. It was noted that there are several open dates for the Info-X sessions. The topics are to be determined.

Programming Budget

Julie reviewed the TEL8 Programming Budget for FY04. Julie noted that the budget is slightly higher than last year due mainly to the programming changes. The total programming budget request for FY04 is $70,745.00.

Julie referred back to the FY04 programming objectives; namely strengthening the TEL8 relationship with NHI. Julie stated that NHI has been somewhat of a role model for TEL8 and the programming committee is excited about offering NHI courses over the system. One course has been decided on entitled *ITS Architecture for Deployment* and a second course has been left open in hopes of a new course or pilot course. Debbie Gwaltney stated that she is looking forward to working with TEL8. She also noted that NHI has a commitment to distance learning and they are planning to include a video conference component for assisting instructors with video conferencing.

Peter Martin noted that he has done a lot of teaching over video conference and one of the major findings he's come across is when a course is delivered in this manner participants often need handouts/materials and he handles this through the web so that material can be downloaded in advance. Peter asked Debbie if she had any thoughts on this practice. Debbie stated that yes, NHI hopes to have web casting video placeware up by May.

Barb Martin asked Debbie if they are using technology where graphics are through IP and voice is over conference phone. Debbie said yes, that is correct - anyone with a computer and phone line can participate.

President Talley asked what is the ideal audience size for this type of class and Debbie responded that for it to be interactive no more than 25 people should be involved. She also noted that participants can interact by learner or instructor and questions/comments can either be by voice or computer, noting that phone use stimulates more interaction between participants. David also asked if courses are already in place and Debbie responded that developing courses is still in the works. David recommended that Debbie visit with Peter Martin on how he has prepared and conducted his short courses.

Peter Martin stated that 25 participants in a course is a critical number and in going beyond that a course becomes a broadcast rather than interactive. For example, WASHTO-X presented the same PE Exam short course with 10 sites connected with 135 participants. Each site had to have a spokesperson to interact with Peter during breaks. This was not designed but just emerged.

Julie noted the importance of having a facilitator in each room. Barb Martin agreed with Julie noting that it is more personal to have a facilitator in each room.

President Talley questioned how effect web casts are. He feels a video connect is a very important component in learning. Barb Martin agreed, noting that when something is in writing there is no tone or expression; the phone is better but video is much more human with body language, tone, etc., it builds a network with participants where web casting is pretty flat.

Debbie summarized the discussion, noting that she is hearing that there is interest in modifying NHI courses for delivery over the TEL8 network. She envisions a hybrid of web and video delivery.

Richard Gutkowski noted his comments and suggestions, perhaps all the universities can teach graduate courses (not all are currently doing training) and he feels a partnership between NHI and TEL8 would be beneficial. Debbie agreed that the partnership will be very valuable. Julie noted that she will travel to NHI after the first NHI course is presented in June.

President Talley thanked Debbie for joining us today. Debbie thanked the Board for including her in today's discussion and noted that she is extremely excited about working with TEL8 and moving into the distance learning area.

Khaled Ksaibati joined the meeting at 2:00 PM. Break.

President Talley noted that Julie would like to address the MPC-X courses. Currently they are intended to be a tool for the universities to share information with the DOT's. Julie asked the Board what they would like to see happen with future MPC-X events - keep focused on research or make changes?

Discussion.

Ayman Smadi noted the MPC-X's are an extension of MPC reports. Richard Gutkowski added that maybe we can get to a point of consistency if presentations of MPC reports were videotaped. Julie noted that this has been done in the past and perhaps the MPC's could offer courses on research

and present a seminar/course for credit. Richard added that perhaps students could videotape their presentations as well. Peter Martin stated that there would need to be more incentive involved to get students to present MPC-X's. Khaled Ksaibati added that he sees much benefit for students if credit could be offered for them to present MPC-X's. He feels this should be discussed in more detail at the upcoming MPC meeting in May. Khaled also added that perhaps there could be two to three presentations a month with the DOTs realizing that these presentations would involve ongoing research and the students could get feedback from the DOTs - without criticism. Barb Martin noted that these types of presentations could give the DOTs the opportunity to see what's going on at the universities. Khaled added that this could be a win/win situation for everyone involved. Julie noted that it should be left up to MPC to discuss at their upcoming meeting. Richard asked for reaction/input from the DOTs to bring to the MPC meeting - do DOTs want to see more than one presentation per month or perhaps one presentation offered quarterly that would be more in-depth. President Talley noted that the DOTs preference would be to stick to one topic at a time; Barb Martin agreed; Alan Lake agreed; Ron Horner agreed. Richard Gutkowski thanked everyone for their input and again noted that this issue would be discussed a the upcoming MPC meeting in May.

Julie Rodriguez stated that it's time to view the demonstration of NDSU's access grid.

The meeting resumed and President Talley did a roll call of those sites connected for the Bridge/ Network Technology Report. Jan Barhite - WYDOT; Priscilla Deschene - NDDOT are connected, representing the programming committee.

Bridge/Network Technology

Bridge Issues: Doug Benson gave an overview of TEL8 from the start in 1995 to present. The current bridge is ISDN only and will no longer be warrantied after November 2003. Also, the current bridge can only connect to other ISDN codecs. Some sites have upgraded to codecs that are both ISDN and IP compatible so there is a mixture of codecs throughout all TEL8 sites. Discussion. Many questions and concerns were noted. The following options were reviewed and discussed:

TEL8 Bridge Options – Strategic Outline

TEL8's bridge (MCU) will not be supported by the manufacturer (PictureTel) or our equipment vendor (NorthWestern Communications) as of November 2003. Two options TEL8 has are to retain the current equipment and technology or upgrade. It should be noted here that the MCU has not experienced a hardware failure in 42 months thereby demonstrating its reliability.

Option 1: Retain current technology with anticipatory contingency planning

This option retains the current bridge (MCU) and transmission methodology (ISDN) with the caveat that contingency planning be undertaken and completed prior to November 2003. It must be understood, however, that after November 2003, TEL8 would incur costs for bridging services if there were a failure of the MCU. The contingency planning study would give TEL8 information on benefits, costs and effort involved in switching to an IP network, remaining with an ISDN system or adopting a combination of both. This would benefit TEL8 in consideration of doing option 2 at a later date.

Process
1. Retain current MCU and ISDN network
2. Develop MCU failure contingency plan
   - 2.1 Identify parts replacement options (if available)
   - 2.2 Identify vendors offering bridging services
      - 2.2.1 Establish business relationship with bridging services vendor
      - 2.2.2 Identify other (possible) bridge service providers

     2.2.2.1 ND IVN
     2.2.2.2 Utah State Government
3. Assess network bandwidth capabilities at each site to determine feasibility of migrating to an H.323/IP based video conference network
   3.1 An assessment at NDSU to determine feasibility of migrating to an IP MCU
    in terms of bandwidth requirements would be a priority
   3.2 Each state would be responsible for determining the feasibility of the IP
    infrastructure at their respective sites
   3.3 Report to the TEL8 Board
    3.3.1 NDSU network infrastructure
     3.3.1.1 Capabilities and costs to upgrade if minimal bandwidth
      requirements are not in place
    3.3.2 The entire TEL8 network infrastructure
     3.3.2.1 Capabilities and costs to upgrade if minimal bandwidth
      requirements are not in place

Option 2: Purchase New

This option outlines the options, costs and effort associated with the replacement of the current TEL8 MCU. A replacement bridge will cost between 50K to 200K dependant upon network configu-ration, number of ports and software feature set.

Process
1. Complete step 3 from option 1
2. Present network study details to the Board
   2.1 Detail MCU costs and functionality for the 3 bridging configuration options
    2.1.1 IP/H.323 only, $40,000[12 ports], $75,000[16 ports]
    2.2.2 ISDN/H.320 only, $110,000[12 ports], $130,000[16 ports]
    2.2.3 IP/ISDN Combo, $121,000[12 ports], $180,000[16 ports]
3. Make recommendation for [1]-ISDN MCU, [2]-IP MCU or [3]-IP/ISDN MCU

IP Issues

1. Would require a system-wide upgrade of all codecs
2. The IP video conferencing data traffic (once it leaves campus) may not be allowed to be provisioned onto the ND State Network. If not, TEL8 would have to contract with an outside Internet Provider, thus incurring additional costs.
3. IP bandwidth on the NDSU campus for Internet-1 is in short supply. TEL8 may be required to incur additional costs to compensate for current bandwidth shortages on campus.
4. There will be no QOS (Quality of Service) for IP video conferencing data traffic provisioned onto Internet-1.
5. Some measure of QOS for an IP videoconferencing network may be implemented in the form of a VPN (Virtual Private Network) but this would incur costs not unlike what we are currently paying for our dedicated lines.
6. There may be a certain "closure" of our system with a migration to IP as the entities outside of TEL8 that we currently connect with are on ISDN networks.

President Talley noted that the above options have been reviewed and the Board needs to take action on this item. Personally he feels that we should look at moving to IP but before a decision can be reached we need input from the other states on their current capabilities with IP/ISDN. He asked everyone for their opinion on the above options.

Ron Horner - agrees with option 1 but sees the need for more research.
Khaled Ksaibati - would like to know what the savings might be if we move from ISDN to IP. Mitch responded that NDSU IT people noted that we should proceed with careful planning as there could

be hidden costs involved with going IP but a dollar figure on savings is not available at this time. Barb Martin - feels more research needs to be done but with some urgency - there needs to be a time line put on this issue.

President Talley - agrees with what's been said. A special meeting to address this issue needs to be scheduled. It was decided to schedule the meeting for early June and Mary Marquart was asked to send out calendars to everyone in order to secure a date. Also, Doug Benson was delegated the task of gathering the necessary information prior to this upcoming meeting.

President Talley called for a motion to accept one of the options presented. Khaled Ksaibati motioned to approve Option 1 as outlined in the handout. Ayman Smadi seconded the motion. Peter Martin asked to amend the motion on the floor to include that the Board will review the findings of the research to be done prior to the June meeting date. Ayman motioned to approve the motion as amended; Alan Lake seconded and the original motion with the amendment were unanimously approved.

Ayman Smadi motioned to adjourn today's meeting; Khaled seconded and the meeting adjourned at 4:30 PM.

Thursday, April 3, 2003 - Holiday Inn, Fargo

Present: Ayman Smadi, North Dakota State University
             Khaled Ksaibati, University of Wyoming
             Peter Martin, University of Utah
             Barbara Martin, Montana Department of Transportation
             Ron Horner, North Dakota Department of Transportation
             David Talley, Wyoming Department of Transportation
             Alan Lake, Utah Department of Transportation (for Neal Christensen)

Absent: Brian Moore, South Dakota Department of Transportation
             Neal Christensen, Utah Department of Transportation
             Richard Gutkowski, Colorado State University

Others Present: Doug Benson, Julie Rodriguez, Mary Marquart, Mitch Hoffart - NDSU

President Talley called the meeting to order at 8:15 AM and asked Doug Benson to proceed with the budget reports.

Budget Reports

Doug reviewed the 2002/2003 TEL8 Expense Report handouts. Doug pointed out that the budget projection was for $247,410 and estimated expenses are $238,000. Also listed is the breakdown between fixed and variable costs. The transmission costs projection was $65,000 and estimated expenses at $58,000. Discussion.

Ayman Smadi asked about potential savings in transmission costs if we are to move to IP only. Doug noted that he thinks there would be some savings but doesn't want to speculate on an amount at this time.

Barb Martin asked Mary Marquart how she knows when states make deposits to their TEL8 accounts. Mary stated that the only way to know is for each state to send copies of the paperwork to her so that deposits can be documented. Ron Horner also noted that Bismarck should receive copies as well.

Shared Access Charges Accounting Revision

Doug explained the access charges snafu on how Utah DOT was overcharged on access. The amount TEL8 owes to UDOT is $15,199.12 total, approximately $1,900.00 per site (8 sites). At present, there is approximately $15,000 in the TEL8 revenue fund with more funds coming in from Nodak Mutual for use of the system and also from WASHTO-X. Discussion.

Ayman Smadi noted that from the discussion it appears that everyone is in agreement that we use the money in the revenue fund to reimburse UDOT for the overcharge on access costs from April 1998 through February 2003. Ayman motioned that TEL8 reimburse Utah DOT in the amount of $15,199.12 for the overcharge in access costs paid from April 1998 through February 2003, using the TEL8 revenue fund to do so. Barb Martin seconded and the motion was unanimously approved.

Capital Improvement Fund

Doug stated that per FHWA a capital improvement fund is not allowable using TEL8 dollars.

Budget Presentation

Doug referred to the 2003/2004 budget projections handouts. FY04 projections are $244,107 compared to last year's budget of $247,000. It was noted that a salary increase of 3% is factored in - this may or may not happen. Also, the training budget has increased to allow for more offerings.

Peter Martin asked that the Board consider a 'pay as you go' plan for training in order to delete training costs from the budget. He feels with a certain budget amount we are limited to what training we can offer. President Tally asked Peter if he was referring just to NHI courses. Peter stated that this could be done for any training. Discussion. It was noted that we can continue to budget for a certain number of courses each year and perhaps offer 'pay per view' courses in addition to the regular scheduled events. Peter noted that he feels this would be beneficial to all of TEL8 - advertise courses to DOTs with a set dollar amount per participant, if the DOTs are interested they can register participants and if not enough interest, courses would be canceled. The discussion shifted to how this idea might be administered. Barb Martin asked why registration and payment couldn't be handled through the instructor and line charges could be billed out through TEL8. Peter noted that the best way to handle this would be to administer it through TEL8.

Alan Lake motioned to approve the idea of training courses being offered on a pay per view basis over and above the budgeted training courses as a pilot project to be reviewed at the next Board meeting. Peter Martin seconded the motion and it was unanimously approved.

President Talley asked for a motion to approve the budget. Khaled Ksaibati motioned to approve the FY04 TEL8 budget as presented at approximately $244,107. Ron Horner seconded and the motion was unanimously approved.

WASHTO-X Update

President Talley asked Peter Martin to proceed with the WASHTO-X update. Peter noted the following:
- WASHTO-X has been in operation for about one year and is scheduled to run through June 2004.
- Several sites have been participating in the events offered.
- WASHTO-X has been using the FHWA bridge at no charge and FHWA receives free access to events in return.
- This is a pooled fund study much like TEL8 but WASHTO-X does offer 'open access' to events.

- The first year has been successful and WASHTO-X will continue to grow.
- WASHTO-X sites are mixing both ISDN and IP in delivery of courses.

Peter commended the Board for the contributions TEL8 has made to making WASHTO-X successful.

Discussion.

Julie noted that there is some duplication of events as WASHTO-X is taking the Info-X's and offering them again - just to different audiences. Doug added that in a recent conversation with Doyt Bolling, Doyt indicated that in another year when WASHTO's pooled fund study expires there may be more involvement with TEL8. Barb Martin noted that perhaps there will be interests between the two and also that it's her understanding that FHWA told WASHTO-X that they could use their bridge for a period of time but not indefinitely. Barb questioned if the Board should be discussing a possible partnership as far as bridge expansion goes. Doug noted that he and Doyt did discuss this and there is interest in exploring some sort of partnership. Doyt indicated to Doug that a more serious discussion on this should take place this fall.

Alan Lake asked if it's possible that WASHTO-X will absorb TEL8. Doug stated that maybe the reverse would happen perhaps a merger where WAHSTO-X would roll into TEL8, but noted again that this is all very preliminary.

Peter Martin stated that he feels TEL8 should take leadership on this issue and the initiative should come from TEL8 as well - we should present a proposal to the WASHTO-X folks and also send a message of support to WASHTO-X.

Julie asked that we keep in mind that the bridge issues need to be looked at separately from WASHTO-X.

Barb Martin added that the Board gives Doug Benson the authority to pursue a relationship with WASHTO-X.

Ayman questioned if it is possible to write a proposal to expand TEL8 to include the WASHTO-X group. Peter noted that he is writing a interim report on the pooled fund study for WASHTO-X to make a recommendation for future funding.

Doug noted that he will pass along to Doyt that the Board indicated that this topic is of great interest and perhaps there is the possibility of a merger between TEL8 and WASHTO-X.
Khaled Ksaibati noted that we should ask Doyt to join us at the June Board meeting.

Pooled Fund Study Contract Dates

Doug noted an FYI regarding the current contract dates. The Pooled Fund Study SPR 3 (099) will expire June 30, 2004. The current year contract between NDDOT & NDSU expires October 31, 2003.

Ron Horner added that he would like to have commitment letters from the DOT's indicating their participation in the upcoming year by June 1 so that a new contract can be in place prior to July 1.

OTHER

- Julie informed everyone that beginning July 1 Trans-X will change to Trans-Ex.

- Semi-annual Board meeting is scheduled for October 15, 2003, over the TEL8 system.

- Mary will email calendars to everyone in order to select a date for the Board meeting to be held first week of June.

- March 31 and April 1, 2004 are tentative dates for the next Annual Board Meeting in Denver, CO.

Adjournment

Ayman Smadi motioned to adjourn the meeting. Khaled Ksaibati seconded and the meeting was adjourned at 11:00 AM.

Respectfully Submitted,

Mary Marquart

TEL8 Board of Directors Meeting – August 27, 2002 – via TEL8 System

Present: Richard Gutkowski, Colorado State University
                 Ayman Smadi, North Dakota State University
                 Khaled Ksaibati, University of Wyoming
                 Barbara Martin, Montana Department of Transportation
                 Ron Horner, North Dakota Department of Transportation
                 Dave Huft, South Dakota Department of Transportation
                 Neal Christensen, Utah Department of Transportation
                 David Talley, Wyoming Department of Transportation

Absent: Peter Martin, University of Utah

Others Present: Doug Benson, Julie Rodriguez, Mary Marquart, Mitch Hoffart - NDSU
                 Ken Heitkamp, Judy Froseth, Clayton Schumaker - ND Department of
                    Transportation
                 Brian Moore - SD Department of Transportation

President Talley conducted a roll call, called the meeting to order and welcomed everyone. The agenda was reviewed and there were no additions or deletions to the agenda.

Approval of Minutes

President Talley asked if there were any changes or additions to the TEL8 Board Meeting Minutes of August 17, 2001 and June 4, 2002. There were no changes noted. Dave Huft motioned to approve the minutes of August 17, 2001 and June 4, 2002 as written. Ron Horner seconded and motion was unanimously approved.

Election of Officers

President: With the addition of new Board Members at North Dakota and South Dakota DOTs, David Talley has agreed to extend his term as president for one year. Ron Horner motioned to extend David Talley's term as President for one year. Khaled Ksaibati seconded and the sites were polled. CSU - Y; UWY - Y; U of U - absent; NDSU - Y; MTDOT - Y; NDDOT - Y; SDDOT - Y; UTDOT - Y; WYDOT - abstain. Motion carried.

Vice President: President Talley opened the floor for nominations for vice president. Dave Huft nominated Ron Horner of NDDOT. Doug Benson noted that the nominating committee had recommended Khaled Ksaibati of UWY. Ayman Smadi motioned that nominations cease and

Barbara Martin seconded. President Talley called for a vote by name: CSU - Khaled; UWY - abstain; U of U - absent; NDSU - Khaled; MTDOT - Khaled; NDDOT - Khaled; SDDOT - Khaled; UTDOT - Khaled; WYDOT - Khaled. Khaled Ksaibati was elected vice president.

Secretary/Treasurer: President Talley opened the floor for nominations for secretary/treasurer. Doug Benson noted that the nominating committee has asked Ron Horner of NDDOT to fill the position. Barbara Martin motioned that nominations cease and Khaled Ksaibati seconded. All in favor by acclamation. Ron Horner was elected secretary/treasurer.

Programming Report

President Talley asked Julie Rodriguez to proceed with the programming report.

Julie reviewed the handout - TEL8 Programming Performance Measures FY02.
- Number of people served - 642 as reported on sign-in sheets. Julie indicated that not all sites report attendance so this number should be about double.
- Hours of Programming Offered - 457 programming hours offered; 3320 people-hours on the system (again, this number is low due to fewer sign-in sheets).
- Number of Events Offered - 101 total events (6 canceled).
- Staff Level Reached - 169 engineers, 4 executive, 98 management, 1843 staff, 187 other (not on TEL8 form).
- Number/Percent of New Participants - 95 (22.6%) first-time TEL8 participants.
- Perceived Value to Job = 1.61 on scale of 1 to 3 (1=excellent, 2=good, 3=poor).

Julie noted that the numbers reflected are low as not all sites return the sign-in sheets.

Julie reviewed the handout - TEL8 Programming FY02 Objectives.
- Increase technical training offered - PE Exam short course was held.
- Increase offerings in existing tracks (LDI, Short-courses, Trans-X) - LDI workshops increased from 6 to 8.
- Increase MPC offerings (grad and short-courses) - one short course was offered (decrease), four grad classes were offered (same) and seven MPC-X's (increase).
- Solidify processes (registration, MPC, website, etc.) - sign-in and evaluation data-bases were improved.
- Help for new presenters (checklist, training, etc.) - this has been worked on and it needs to be put on the website.
- Encourage participation of MPC in programming - the MPC liaison attended seven committee meetings.
- Implement weekly newsletter - TEL8 Alert now in place.

Julie also reviewed the FY02 Programming schedule. The breakdown of classes offered is as follows:
- 8 - Leadership Development Institute Workshops (LDI)
- 3 - MPC Short Courses
- 3 - Seven Habits Workshops
- 5 - What Matters Most Workshops
- 11 - Info-X Sessions
- 16 - Trans-X Sessions (It was noted that 5 Trans-X's were canceled)
- 4 - Graduate Courses
- 7 - MPC-X Sessions

Julie outlined the FY03 programming objectives:
- Increase technical training offered - Julie noted that it's been difficult to find topics/subjects and quality of training.
- Address bridge capacity issues.
- Reduce number of canceled events - it was noted that the programming committee is working on this issue.
- Improve timeliness of posting of agenda - several states have trouble marketing these events when the agendas are not presented far enough in advance.

Discussion.

Ayman Smadi asked Julie to elaborate on why she feels it's difficult to find topics and quality of training and asks if the MPC short course aren't considered technical training. Julie stated that the budget is an issue in determining what is offered.

Mitch Hoffart stated that only one event has run into a port capacity issue so far. Julie noted that some events are getting close to going over the capacity.

Barb Martin asked if it is possible to utilize other bridges and cascade into the TEL8 bridge when this issue arises. Julie stated that we did use the state of Utah's bridge in the instance with the PE Exam.

Ayman asked how much - percent wise - is TEL8 using the system on a 8 to 5 weekday basis. Doug Benson noted that the bridge report will address this question.

Richard Gutkowski asked Julie to describe how the programming committee selects which short courses will be offered. Julie noted that the proposals submitted were the same as the past year. The programming committee consists mainly of training people and some of the state's poll their employees while others check with different states to see what they are offering (each state differs in the way they handle this) and the committee members bring this information back to the entire committee for the selection process. The programming committee had wanted to offer four short courses but the budget only supports two.

Richard also asked about the possibility of taping some of the training events. Perhaps this could help sites to get the training if cost is an issue. Barb Martin responded noting that this sounds like perhaps an easy solution but it is difficult to sit and watch it on tape rather than be connected live. She is not sure anything would be gained by the taping of events.

Julie reviewed the FY03 programming schedule:
- LDI Workshps - 8
- MPC Short Courses - 2
- Seven Habits Workshops - 3
- What Matters Most Workshops - 4
- Info-X Sessions - 11
- Trans-X Sessions - 16
- Graduate Classes - 1

Discussion. It was noted that there are several open dates for the Info-X sessions. The topics are to be determined.

Programming Budget

Julie reviewed the TEL8 Programming Budget for FY03. Julie noted that the budget is slightly different from what was presented at the meeting in June. The amount approved at the June meeting was $62,165 while the revised amount is $59,995. The cost of the LDI workshops has increased slightly. It's been decided to offer two MPC short courses at a cost of $11,500 instead of the $12,000 that was initially approved. Discussion.

President Tally noted that programming is what TEL8 is all about and thanked Julie and the programming committee for their efforts.

Dave Huft noted that in South Dakota their Bureau of Personnel offers a lot of training that sometimes duplicates what TEL8 offers. Dave said he'll be interested in hearing comments gathered by Doug and Julie as they conclude the site visits.

Julie stated that FranklinCovey and LDI workshop are available elsewhere. She feels TEL8 needs more technical training to offer to the DOTs.

Expense Report

Doug reviewed the 2001/2002 TEL8 Expense Report handouts.

- Comparison of FY'02 projected expenses to actual expenses
  Projected costs were $213,766 - Actual costs were $216,177

President Talley asked if the difference in projected expenses to actual expenses was due to a rate increase. Doug noted that the increase is due to the increase in usage, resulting in higher transmission costs. Doug also asked the board members to look at their respective transmission costs for the past year and use that figure and anticipated use (higher/lower) to calculate what each site's transmission cost may be over the next year.

Revenue Fund / Capital Equipment Fund

Doug Benson reviewed the handout with four options on the development of a capital investment fund, as has been discussed at previous meetings.

- Option 1: NDSU has generated revenues this past year amounting to approximately $8,000. This money could be designated as part of the fund.
- Option 2: NDSU expects, but is not guaranteeing, to generate several thousands of dollars during the upcoming year. This money could be designated as part of the fund.
- Option 3: Any WASHTO-X funds could be designated as part of the fund. It is unknown at this time what WASHTO-X funds will be generated.
- Option 4: TEL8 could assess a surcharge to its members and designate that money as part of the fund. Potential surcharges could be assessed against each original member sites (9 total), against all participating sites (30 in all), against bridge port hours used, or other system metric. If this option is adopted, NDSU administration will have to consider and grant its approval.

It was noted that any action by the Board could include all, none, or any combination of the above options as well as any other option not listed. As well, the Board could designate that any money considered under this proposal be left unspent and not designated for any purpose in the TEL8 revenue fund. Discussion.

Barb Martin asked if we have a goal of how much money we would like to generate each year. Doug noted that no amount has been set but the Bridge Capacity Option report (agenda item 9) will address costs and potential funding of a capital revenue fund.

Richard Gutkowski stated that any incoming money would be used to upgrade the system vs. using the money to offset expenses as has been done in the past. Doug noted that Richard is correct, we have in the past used money generated to offset salary and other expenses and that we can decide on how we'll use it in the future - to offset expenses or to upgrade the system. Richard also asked if WASHTO is in the picture at all for generating revenue. Doug said they are not at this time. Richard feels that perhaps we should be pooling funds at this point for future use.

Dave Huft questioned what will we do with the money we may put aside, are there any federal regulations on this - i.e. can we pay for something we haven't received yet? Doug noted that this is a good point and he will go back and look at regulations and it will be necessary to revisit this issue. For now, we will leave the money in the revenue fund.

Clayton Schumaker, NDDOT, questioned whether or not we can set aside money for future use. He questioned what might happen if FHWA did not renew the pooled fund study and what might happen to the money that may have already been set aside. Doug noted that he will check on this

issue with FHWA officials and ask if we can hold the money for future use or does it need to be used to offset expenses.

President Talley asked Neal Christensen for his input. Neal noted that he had nothing to add.

President Talley noted his view: if we currently have $8,000 in the revenue account and the estimate for a new bridge is $120,000, the $8,000 isn't much in consideration of the cost of a new bridge. Richard noted that he agrees with President Talley and also stated that CSU has canceled their PictureTel warranty to save $2300 per year.

President Talley asked Doug Benson to contact FHWA and present these questions to them. His feeling is that looking ahead isn't the answer and the money currently set aside should be used to offset expenses.

Dave Huft stated that if we use Option 4 to supplement Option 1, it somewhat takes the 'pain' out of a huge expense at one time.

Barb Martin stated that she feels this issue can better be discussed after we get answers from FHWA.

Khaled noted that it will be easier to make a decision on this matter next year than right now.

President Talley: This item is tabled until answers from FHWA are received and then the Finance Committee can determine the best use for the money.

Bridge Use Report

Doug Benson reviewed the 2001/2002 TEL8 Bridge Report.

Sheet 1 - indicates total bridge activity in port hours for 2001/2002.
Sheet 2 - total bridge activity over past three years - a significant increase this year by almost
    1,000 hours.
Sheet 3 - bridge activity (hours) by site (includes districts within sites).
Sheet 4 - bridge activity by State DOT districts for 2001/2002.
Sheet 5 - bridge activity by State DOT districts for past three year.
Sheet 6 - port totals at TEL8 bridge rate of $30/hour.
Sheet 7 - total cost - system as a whole at bridge rate of $30/hour.
Sheet 8 - breakdown of information in greater detail

Doug noted that overall the use of the system has increased significantly.

Bridge Capacity Options Report

Doug Benson reviewed the Bridge Port Expansion Options handout.

TEL8 currently has bridging capacity to connect 11 sites together with full duplex audio at 384k bits per second (kbps) and 30 frames per second (fbs). Because of technology changes, TEL8's MCU port capacity can no longer be increased. The following are several options that would allow us to go beyond our current limitation of 11 ports. (NOTE: There has only been one instance where port capacity on the TEL8 bridge was insufficient)

Option 1 - Replace current MCS with new
• expensive (120k to 175k)
• updated technology and feature set
• able to bridge IP and ISDN
• port expansion limited only by funding

Option 2 - Replace current NDSU codec with multipoint capability codec
- cost range of 25-35k dependent upon options
- modest port increase (11 ports to 13)
- fastest to implement
- administration maintained at NDSU
- unable to bridge IP and ISDN

Option 3 - Use third-party bridging service
- ad hoc based
- cost effective ($30-$50 per hour per site, plus line charges)
- provider would be able to bridge IP and ISDN
- flexible

Option 4 - Use Utah State Bridge as needed
- cost effective (line charges only)
- scheduling is issue
- more lead time required than option 3

Option 4 is how we currently manage the system with Option 3 as backup. Discussion.

President Talley noted that he is hearing from this discussion that we will continue operating the system as it is currently operated. No action was taken on this item.

Budget for 2002-2003

President Talley asked Doug Benson to proceed with the presentation and review of the 2002/2003 budget proposal.

Doug reviewed the handouts, noting that the salary category is slightly higher; training will remain the same; bridge access will remain the same; AT&T access will vary and transmission costs are projected to be much higher. Discussion.

Richard Gutkowski motioned to accept the 2002/2003 TEL8 budget as presented (see attachment #1). Khaled Ksaibati seconded and the motion was unanimously approved.

Annual Meeting Planning

President Talley stated that we need to plan far in advance for upcoming meetings. It was suggested that we hold the annual meeting either in March or April with a semi-annual meeting to occur about 6 months after the annual meeting. President Talley asked for input from each of the board members.

Richard Gutkowski - with respect to MPC'c go with earlier date
Khaled Ksabaiti - hold meeting in April - not during universities spring break
Ron Horner - concerned about location of meeting
Ayman Smadi - April would be fine and would welcome everyone to come to Fargo
Neal Christensen - April is fine but much easier to get flights in and out of Denver than Fargo,
        but why not have the meeting over the system?
David Talley - thinks it's a good idea to meet face to face at least every other year
Ron Horner - give it a try in Fargo, it saves 7 people from traveling
Neal Christensen - it would save money to meet over the system
Barb Martin - thinks airfare to Fargo is much higher than other locations

President Talley noted that the issue at hand is setting dates for meetings not location.

Khaled Ksaibati motioned to hold the TEL8 Annual Board meeting the first week of April 2003 in Fargo, ND. Ron Horner seconded and the motion was unanimously approved.

It was also agreed that a semi-annual meeting will be held in October over the TEL8 system. NDSU staff will set the dates for both meetings.

Richard Gutkowski left the meeting at this time.

WASHTO-X Update

President Talley asked Doug Benson to proceed with the WASHTO-X update. Doug reviewed the summary as provided by Doyt Bolling. It was noted that WASHTO-X is utilizing the FHWA bridge which has 32 port capacity vs. the 11 ports on the TEL8 bridge. NDSU staff has assisted the WASHTO-X folks in getting started. Discussion.

WASHTO-X is operating with little interaction with TEL8. Julie noted that this is a two year project and it will be interesting to see where it is headed in another year.

Equipment Warranties / Equipment Replacement

Just an FYI that the equipment warranties are important. President Talley noted that WYDOT is looking into replacing their equipment at headquarters and district sites.

TEL8 Staff Visits

Doug Benson and Julie Rodriguez are scheduling site visits to the DOTs. NDSU is supporting the cost for this and the purpose is to visit with TEL8 folks and discuss concerns and issues related to the future of TEL8. It is important to get feedback and guidance from the DOTs. Doug and Julie have already been to SDDOT and are planning visits to the other sites. NDSU TEL8 staff has been evaluating what we can do to improve TEL8 overall.

Other Items

President Talley asked if there were any other items to be discussed.

Ken Heitkamp, former NDDOT Board Member, thanked the Board for the opportunity to serve and wished TEL8 well.

Doug Benson noted that TEL8 will present plaques to Ken Heitkamp and Dave Huft in recognition of their contributions to TEL8.

Ron Horner motioned to adjourn the meeting, Barb Martin seconded and the meeting adjourned.

Respectfully Submitted,

Mary Marquart