

Approved Feb 18, 1992
Date

MINUTES OF THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT

The meeting was called to order by Representative Diane Gjerstad at
Chairperson

3:35 ~~am~~/p.m. on Thursday, February 6, 1992 in room 423-S of the Capitol.

All members were present except:

Representatives Weimer, Bishop, Edlund, Wagnon, Wisdom. Excused

Committee staff present:

Lynne Holt, Legislative Research
Jim Wilson, Legislative Revisor
Betty Manning, Secretary

Conferees appearing before the committee:

Lynne Holt, Legislative Research
William Mahler, Executive Director of Information Technology, KU Med Cntr
David DeMoss, S.E. Kansas Education Service Center, Greenbush, KS
Virgil Basgall, Deputy Director of Department of Administration
Ernie Mosher, League of KS Municipalities

Chairperson Gjerstad called the meeting to order at 3:35 p.m.

The Chair requested the committee introduce a bill concerning authority for Kansas Development Finance Authority to issue moderate housing bonds. This is part of the governor's proposal for establishing an agency involving housing.

Representative Hamm made a motion the bill be introduced, seconded by Representative Sader. Motion carried.

Chairperson Gjerstad opened hearings on **HB 2682**, a bill to allow DISC the opportunity to bill governmental entities. They are presently restricted to billing only state agencies.

Lynne Holt, Legislative Research, gave an overview of the staff memorandum on DISC. She discussed policy questions and listed conclusions and recommendations of the Task Force. The Task Force recommended introduction of this legislation to authorize DISC to establish rates for services it provides to governmental units. The legislation would amend existing statutes to allow DISC to charge for services to nonstate governmental agencies. Attachment 1.

Representative Mead commended Lynne on her diverse and comprehensive report.

Chairperson Gjerstad read in part from the fiscal note prepared by the Division of the Budget. It stated the bill would not have a fiscal impact. Any expenditures incurred to provide telecommunication services to a governmental unit would be fully recovered through fees charged to the governmental unit. Also, the workload created by the additional billings could be absorbed by reallocating positions.

The Chair read a part of Larry Gould's letter. Mr. Gould, Chairman of Regents Telecommunications at Fort Hays University stated that if Kansas is to become the telecommunications

CONTINUATION SHEET

MINUTES OF THE HOUSE COMMITTEE ON ECONOMIC DEVELOPMENT,
room 423-S, Statehouse, at 3:35 ~~x.x.~~/p.m. on Thursday, February 6, 1992.

crossroads of North America, Kansas needs this type of quick legislation. Attachment 2.

First conferee called was William Mahler, Executive Director of Information Technology, K.U. Medical Center, who gave a slide presentation on the clinical interactive video pilot project between K.U. Medical Center and the Hays Medical Center. Attachment 3.

Next conferee, David DeMoss, S.E. Kansas Education Service Center, Greenbush, KS, stated long term economic development health is dependent on telecommunication and strongly favored this legislation. In response to question, he stated that a hook-up between Shawnee Mission and Greenbush was first discussed in June 1990 and to date is not completed. Attachment 4.

Third conferee, Virgil Basgall, Deputy Director of the Department of Administration stated this legislation would allow increased utilization of the statewide telecommunications network by local units of government providing the economic stimulus to acquire telecommunication circuits in sufficient volume to qualify for bulk rates, reducing costs to everyone in their respective segments of the network. Attachment 5.

Final conferee, Ernie Mosher, League of Kansas Municipalities said the league supported the actions contained in **HB 2682**. Attachment 6.

A letter from Patricia Baker, Associate Executive Director/General Counsel, Kansas Association of School Boards, was distributed in support of this bill. Attachment 7.

The meeting was adjourned at 4:55 p.m.

**REPORT OF THE
JOINT COMMITTEE ON ECONOMIC DEVELOPMENT
TO THE
1992 LEGISLATURE**

**Kansas Legislative Research Department
Room 545-N -- Statehouse
Topeka, Kansas 66612-1586**

January, 1992

*Eco-Devo
Attach #1
02-06-92*

TOPIC III*

VIDEO TECHNOLOGIES AND APPLICATIONS

Policy Questions

1. Should the state have any role in promoting the use of video technologies in public education institutions and state government agencies?
2. Should the state expand its telecommunications network?
3. If so should that network be expanded to link the universities, community colleges, vocational technical schools, public school clusters, public libraries, and other sites?
4. If the various video sites and systems should be connected, who decides how this should be accomplished?
5. Are there any regulatory or other impediments to the formation of a state network that includes nonstate entities?
6. In what forum should these issues be discussed?

Background

The Legislative Coordinating Council referred the subject matter of 1991 S.C.R. 1622 to the Joint Committee on Economic Development for its review. Had this resolution been adopted, a special study committee would have been directed to study and review the issue of interactive video technologies and other telecommunications systems. The Joint Committee on Economic Development in essence assumed that responsibility. The directives included in S.C.R. 1622 were to study and review the following:

the work and plans of the Educational Interactive Video Task Force; the extent to which Kansas public educational institutions and agencies and other governmental units have implemented, are in the process of implementing, or are proposing to implement two-way interactive video and other telecommunications technology; use of cooperative ventures and collaborative efforts to secure this technology; methods being used and available to be used to finance acquisition of this technology; current status of coordination among public educational institutions and agencies and other governmental units concerning the exploration and acquisition of interactive video and telecommunications technology; and such other matters as the Legislative Coordinating Council may specify.

* H.B. 2682 is included in the Appendix at the end of this report.

Committee Activity

The Committee heard presentations from Commissioner Lee Droegemueller, Department of Education; Dr. Bill Brundage, Kansas Technology Enterprise Corporation (KTEC); representatives of six school clusters; representatives from the Board of Regents and five Regents' institutions; and representatives of the Kansas Department of Transportation, the Kansas Department of Revenue, the 3rd Judicial District Court (Shawnee County), the Division of Information Systems and Communications (DISC), and the Kansas Corporation Commission (KCC).

Schools (K-12)

Dr. Droegemueller reviewed the executive summary of the Educational Interactive Video Task Force plan, *A Plan for Telecommunications in Kansas*. This plan outlined recommendations for fiber optic providers and federal, state, and local governments to foster implementation of a statewide telecommunications system. Such responsibilities included, among others: the establishment of guidelines for interactive video access and technologies; the development of a plan engaging the collaborative input of certain agencies for the use of advanced network services and features; and the review of regulations affecting interactive video service, such as service definition, rate structures, and costing methodologies.

Representatives of the following six school clusters presented information to the Committee: Southwest Plains Regional Service Center; Northwest Kansas Educational Service Center; the Learning Consortium; North Central Kansas Educational Interactive Television Consortium; A PLUS Network; and Southeast Kansas Education Service Center. (A map of the clusters is found in Attachment I.) Several schools are linked through fiber optics in each cluster and through this transmission medium are able to provide to their students full motion two-way interactive audio and video. Each site can originate and receive programming. (Attachment II is a list of the schools included in each cluster, including two that were not represented at the meeting. Although six clusters were represented at the Committee meeting, there are currently eight in operation. This attachment also includes other pertinent features of the school clusters' two-way interactive video systems.)

Applications vary among the schools but the primary focus is distance learning. Examples of offerings by these clusters include: college level courses; advanced courses in the sciences; foreign language courses; speech therapy; classes for at-risk students; staff development courses; individualized enrichment seminars for gifted students; administrative meetings; reading instruction seminars; extracurricular activities, such as student broadcasting and fine arts performances; training for bus drivers and food services personnel; and others. Not only is two-way interactive video technology used to provide courses for high school students, this technology also is used for: continuing education (five clusters have teaching arrangements with community colleges or other postsecondary institutions); training for volunteer firemen and law enforcement personnel; meetings of professional and civic organizations; city hall meetings; and business teleconferencing.

Funding of the systems in each cluster varies. For the most part, state grants assisted school clusters in the initial phases. The Southwest Plains Regional Service Center was able to purchase studio equipment through a special education grant. The Southeast Education Service and A PLUS networks relied, in part, on a state enhancement grant for their initial equipment costs. The Northwest Kansas Educational Service Center likewise received funding from that grant for start-up expenditures. The Learning Consortium received approximately 60 percent of total costs of system installation and equipment from a state educational excellence grant. Leasing and maintenance of fiber are generally the fiscal responsibilities of the participating schools in the clusters.

The clusters attribute the following advantages to the use of two-way interactive video: it provides expanded learning opportunities to students and provides some courses and services that would otherwise not be available; makes delivery of special education services and use of personnel more efficient; improves the quality

of instruction; reduces travel time and associated costs; makes available services and education to the community; and promotes partnerships with postsecondary institutions and with community organizations.

However, despite the benefits, the use of the technology has posed several problems (many of which have been surmountable), such as scheduling conflicts encountered by schools in a cluster, lack of face-to-face interaction, funding and expanding the networks given fiscal constraints, and, for some schools, a lack of facilitators at each site. Perhaps the most problematic area is a regulatory one, involving the high rates associated with transmission of interactive video services to certain clusters. The representative of the Southeast Kansas Network, Mr. Dave DeMoss, informed the Committee that the cost for 58 miles of new fiber optic construction connecting the five participating sites in that Network is \$7.75 per mile per month (24 hours a day, 365 days a year). Mr. DeMoss reported that if Paola were added to the Network through compressed video over copper telephone wire, it would cost, using Southwestern Bell's estimates, \$1,899 for installation and a monthly rate of \$2,316. Moreover, according to Mr. DeMoss, DISC would charge the Network an additional \$35 per hour for use of the state network. Competitive pricing for fiber optic cable leasing was also a concern expressed by the representative of the Northwest Kansas Educational Service Center.

A representative from KCC informed the Committee that although "economic development" rates or lower rates have been allowed for school clusters, the rates allocated to clusters vary depending on several factors, such as the mix of telephone and nontelephone (cable TV) companies involved in service transmission, whether fiber optic cable is already in the ground, and the effect on other ratepayers of rate subsidies to school clusters. If a utility company has to install cable (and was not planning to do so), rates for video telecommunications services will be higher than if the cable is already in the ground. Total miles required for video transmission and the number of sites involved in the network also affect costs to clusters. Although at least two school clusters (the Learning consortium and the Northwest Kansas Educational Service Center consortium) own all or part of their own fiber optic cable, the other six clusters lease and receive maintenance from their telephone companies. (See Attachment I for further information.) Moreover, expansion plans for these clusters are predicated upon affordable rates for either installing or leasing fiber optic cable or obtaining funding for compressed video. The KCC representative also informed the Committee that the KCC will be considering intraLATA competition. She noted that if such competition is authorized, the options available to clusters for providers of facilities to link those clusters may greatly increase; with more bidders for the services, prices should decrease.

Compressed Video Projects

Compression of video signals is a technique which reduces the amount of transmission (bandwidth) capacity required. By using coder-decoder devices (codecs) to compress the signal, two-way audio and video can be transmitted over "bundles" of ordinary copper telephone lines, or other transmission media (fiber optics or microwave radio). Because compressed video uses less transmission capacity, it is usually less costly than full motion video; however, the quality of the picture associated with compressed video is not as good as it is with full motion video which requires greater capacity. Nonetheless, for many purposes, compressed video offers adequate pictures and the picture quality is continuously being upgraded.

There are plans for compressed video to be used in the Southeast Kansas Education Services Network, on a pilot project basis, to enable school districts in Paola to share staff development services with school districts in Greenbush. This project should be implemented by January 2, 1992. However, high transmission costs have not made it feasible to add Paola to the Southeast Kansas Network nor to link it to the Kansas University Medical Center (KUMC). However, a pilot project between KUMC, the Hays Medical Center, and the Western Area Health Education Center has, according to a representative from KUMC, demonstrated promise for enhancing quality health care in rural Kansas. Medical specialists at KUMC have been able to consult with physicians and patients in Hays and share their diagnostic expertise. A steering committee has been established to develop guidelines, determine which patient care services should be made available through the use of compressed video technology, and resolve medical, ethical, and legal issues. In addition, the compressed video technology, audio, and peripheral medical diagnostic equipment will be evaluated. The Committee was informed that initial funding for the pilot project totaled \$390,000 and came from four sources: KTEC (\$80,000); Meade

Johnson Pharmaceutical Company (\$50,000); KUMC (\$200,000); and the School of Medicine-Wichita (\$60,000). Included in this funding was \$40,000 from KTEC to the Western Area Health Education Center for its participation in the pilot project with KUMC. Other recipients of KTEC funding for pilot projects were KTEC's Advanced Manufacturing Institute to deliver services via compressed video to companies and the KSU-Salina, College of Technology which will serve as a compressed video site for business and medical conferencing.

Although KUMC, the University of Kansas (Lawrence), and Kansas State University have compressed video equipment (codecs), Pittsburg State University, Wichita State University, Emporia State University, and Fort Hays State University do not and, therefore, cannot use the state network to communicate via compressed video.

Universities

Presentation to the Committee from conferees of Wichita State University (WSU), the University of Kansas (KU) (Lawrence), Fort Hays State University (FHSU), and Kansas State University (KSU) revealed a diversity of video technologies used to provide course materials.

WSU's Media Resources Center provides video services and other media services for faculty, staff, and students. Technologies are determined by the intended applications of the user, and the Media Center, with 24 full-time employees and 40 part-time student employees, provides needed services. Video courses currently use two formats:

1. telecourses (now 14) purchased from national producers; and
2. live interactive courses broadcast from WSU's electronic classroom via microwave to businesses, hospitals, and school sites in and around Wichita.

The conferee from WSU informed the Committee of the University's ability to broadcast telecourses 30 miles beyond Wichita, due to a partnership with Multimedia, using "wireless technology." WSU uses one Instructional Television Fixed Service (ITFS) channel to broadcast telecourses and another ITFS channel to broadcast courses live. This technology allows the University to reach multiple points within the 30-mile radius. Audio from the receiver sites to the instructor at WSU is provided by telephone. Funding from the U.S. Department of Commerce will enable WSU to extend its ITFS broadcast range with a repeater station to sites at Hutchinson Community College, the Hutchinson State Reformatory, Hesston College, and McPherson College.

The conferee from KU focused on three different technologies: satellite communications; low-power television (LPTV); and compressed video. The University does not own a satellite uplink nor does it have an active link to one and, therefore, must rent a mobile uplink when the need arises. KU has purchased a microwave system to transmit instructional programming to Overland Park, Kansas, and plans construction of LPTV facilities in Lawrence, at KUMC, two repeater stations at Bonner Springs, and at the Regents' Center in Overland Park. The University has just acquired equipment which will allow it to use compressed video technology.

The conferee from FHSU identified four objectives for video technologies. Distance learning is already being delivered through those technologies but other long-term objectives include continuing education, rural health care, and economic development. The installation by Kansas Independent Networks Incorporated (KINI) of cellular telephone service using fiber optics to connect all the cell sites on the network has afforded FHSU with access to fiber less than 1,500 feet from the University's electronic classroom/studio, which was just constructed, and from which six courses will originate beginning in January, 1992. The transmission of the signal from the electronic classroom to the KINI network is the responsibility of the University. Funding has recently become available for the University to link through fiber optics with a grade school in Hays. This point-to-point

mini network will be used for two-way interactive presentations, teacher in-service, observation of student teachers, and an information data link. This project is scheduled for completion in 1992.

The presentation from the representative of KSU outlined several video technologies available at the KSU campus. Central to video communications delivery is the Kansas Regents' Educational Communications Center (RECC), funded from \$5.9 million of federal moneys. A point made by the WSU conferee was reinforced by the Director of RECC -- the technological and programmatic solutions are determined by the intended application. Video transmission technologies currently available from RECC include satellite (RECC has both fixed and transportable production and uplink capability) and compressed video. RECC is a 32,000-square-foot building, which houses six production studios (a technical operating center; editing quarters; educational development laboratory; conventional and television graphics facilities; mobile production equipment; and other components).

One concern raised in these presentations was the need for a stable funding source to ensure equipment replacements. A suggestion offered by the KSU conferee was the establishment of a trust fund, to which revenues generated from media operations in excess of expenditures would be credited. The same conferee raised policy concerns about guaranteeing equalized access of media resources to university departments which are not as well endowed as professional schools; the paucity of incentives available to faculty, who are interested in creating mediated courses, and ownership of the content of mediated programs (there are no uniform standards across universities).

State Agencies

Unlike school clusters and a few of the Regents' institutions, state agencies have yet to use two-way interactive video technologies. Conferees from the Kansas Department of Transportation and the Kansas Department of Revenue, and written testimony from the Department of Social and Rehabilitation Services expressed interest in potential applications for various agency operations, primarily training of employees in outlying areas. For example, the Kansas Department of Revenue conferee considered use of two-way interactive video to be a viable option for the instruction of county appraisers. A court administrator from the 3rd Judicial District Court (Shawnee County) described the use of two-way interactive video for arraignments of prisoners and, under certain circumstances, for youth detention cases.

The Assistant Deputy Director of DISC, Mr. Andy Scharf, informed the Committee of DISC's role in providing video telecommunications services. According to Mr. Scharf, the telecommunications network maintained by DISC is designed to provide voice, data, and video services for all state agencies. However, the Committee also learned that the state network needs to be extended to more locations, and codec equipment needs to be purchased and installed at each site in order for video-conferencing to occur over the state network. Moreover, it is DISC's responsibility to adopt and require adherence to all network standards by all components of the network.

Coordination

The state's digital network was not completely in place when the older school clusters and several of the Regents' institutions made policy decisions to purchase or lease video systems. Many users simply took advantage of the most economical options available to them at the time given their intended applications. Examples of influential factors include: availability of federal funding for RECC and satellite uplinks at KSU; the availability of microwave as the most economical option for KU in 1988; and the decision of Southwestern Bell Telephone Company to install fiber at the time the A PLUS consortium was under consideration.

Mr. Scharf of DISC pointed out, there is a need to require standardization at the point at which users connect to the statewide network. All school clusters and university users have some plans for expansion although some plans are closer to being realized than are others. The Southeast Kansas Education Center consortium plans to add seven high schools and connect these schools, in part, through compressed video. At least two other school clusters (A PLUS and Southwest Plains Regional Service Center) view installation of codecs as a major component in their expansion plans. If A PLUS' plans are realized, that consortium would use compressed video over the KANS-A-N network to link to Regents' institutions, state medical centers, the Department of Education, and university libraries. KU's plan to build LPTV facilities at five sites and, if funding permits, at other sites in the Kansas City metropolitan area and WSU's plans to extend ITFS broadcasting to Cowley County Community College in Arkansas City, as well as to school clusters in those areas, are further examples and raise policy questions about the interoperability of video services components.

Committee Conclusions and Recommendations

The Committee observes that there are many applications for two-way interactive video systems but also recognizes that video technologies have enormous and still untapped potential, particularly for rural areas of the state. The Committee believes that, in particular, applications for distance learning and health care might result in expanded service delivery with the possible associated benefits of long-term savings.

The Committee notes that several conferees, among them Commissioner Droegemueller, representatives of several school clusters, and the Director of RECC at KSU, supported comprehensive state-wide telecommunications planning. The Committee agrees with that position and, to that end, recommended that a letter be sent to Dr. Stan Koplik, Executive Director, Kansas Board of Regents. It was recommended that this letter request that the Governor's Telecommunications Task Force, which was assigned the mission of articulating a statewide vision for telecommunications, also assume the responsibility of reviewing issues related to video technologies. Because these technologies are changing so rapidly and their costs are decreasing, the Committee determined that the Governor's Task Force, which has already been established, would be the most appropriate forum to address issues related to video technologies in a timely manner.

The Committee recommended that the letter request an expanded mission for the Task Force, to include an examination of barriers to further expansion of video-telecommunications in Kansas. Such barriers might be regulatory, fiscal, or institutional. The Task Force also should review potential applications for state agencies (training for county appraisers and employees in regional offices), and for health care providers, small businesses, and local government units which interface with state government. Furthermore, the Committee noted that the Task Force might consider a funding mechanism for expansion of the state video communications network and for funding of video equipment.

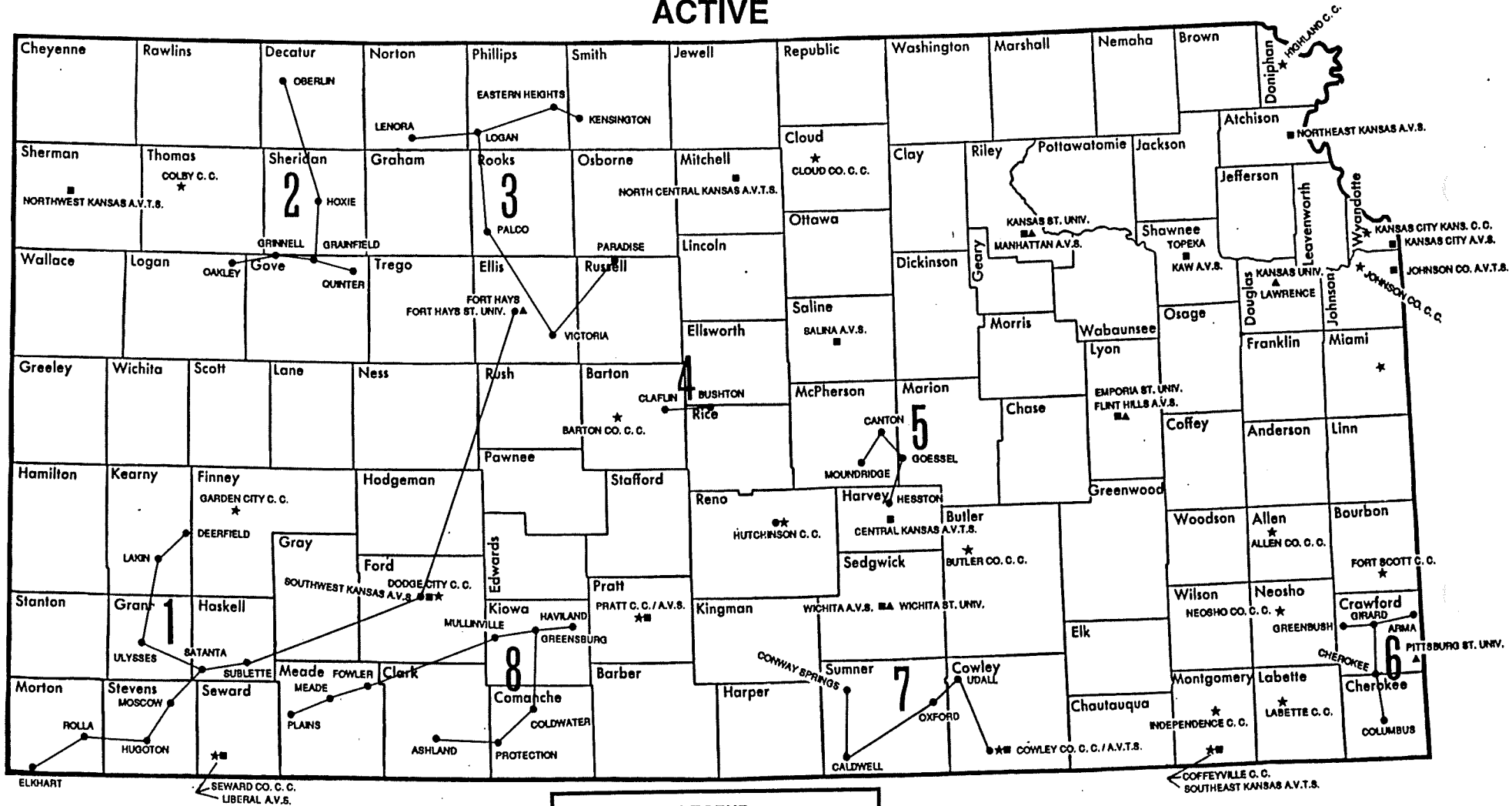
Because the scope of a statewide interactive video network affects many service providers outside the realm of the Regents' institutions, the Committee recommended that the letter request the Task Force to actively involve representation from the Department of Education, DISC, a few of the larger state agencies, KCC, and the telephone and cable industries.

The Committee notes that the letter to Dr. Koplik was sent by Representative Gjerstad, on behalf of the Committee, with a request that Dr. Koplik respond prior to the Committee's meeting in November. The Committee has learned that Dr. Koplik endorsed the request in his response to Representative Gjerstad, and sent Dr. Larry Gould, who chairs the Task Force, a letter relaying the Committee's wishes.

Because this issue is of such importance to the Committee, the Task Force is requested to share its findings and recommendations with the Joint Committee on Economic Development at its first meeting in 1992.

Finally, the Committee recommends introduction of legislation to authorize DISC to provide services from the KANS-A-N network to nonstate governmental units, such as the unified school districts, and to bill them for use of such services. The Committee was informed by the Deputy Director of DISC that availability of services from the state telecommunications network to nonstate governmental units is limited, in part by DISC's inability to charge them for those services.

----- TWO-WAY INTERACTIVE VIDEO NETWORKS -----
ACTIVE



August 1991

LEGEND

- Active within the 1991 Calendar
- ★ Community College
- Area Vocational-Technical School
- ▲ Regents' Institution

Attachment II

<u>Cluster Name</u>	<u>Sites</u>	<u>Towns</u>	<u>Cost</u>	<u>Miles</u>	<u>Fiber</u>	<u>Terminal</u>	<u>Classroom</u>	<u>Telephone</u>	<u>Post Secondary</u>
Date Activated						Equipment	Equipment	Companies	Participation ***
High-Southwest Plains Network (HSPN) Jan. 1990	11	Deerfield, Lakin, Ulysses, Satanta, Sublette, Copeland, Moscow, Rolla, Elkhart, Hugoton, SWKESC	\$15,000/yr/site	160	lease	lease	own	* Pioneer Telephone Elkhart Telephone Southwestern Bell Sunflower Phone Co. TCI Cable	Fort Hays State University Seward Co. Comm. College Garden City Comm. College
Northwest Kansas Educational Service Center Eastern Cluster Dec. 1990	7	Oberlin, Hoxie, Oakley, Grinnell, Grainfield, Quinter, NWKESC	\$10,050/yr/site	35	lease/own	own	own	Rural Telephone S & T Telephone	Colby Comm. College Fort Hays State University
North Central Kansas Educational Interactive Television Consortium Sept. 1991	7	Lenora, Logan, Eastern Heights, Kensington, Palco, Victoria, Paradise	\$12,200/yr/site	211	lease	lease	own	Rural Telephone	None at present.
Clafflin-Bushton Sept. 1991	2	Clafflin, Bushton	\$10,790/yr/site	7	lease	lease	lease	H & B Comm.	None at present.
The Learning Consortium Sept. 1991	4	Canton-Galva, Goessel, Hesston, Moundridge	\$62,000 total/site Will contract for maintenance.	52	own	own	own	Self-Owned	Hutchinson Comm. College Wichita State University Emporia State University
Southeast Kansas Education Service Center Aug. 1990	5	Girard, Arma, Cherokee, Columbus, SEKESC (Uniontown, St. Paul, Erie, Thayer, Riverton, Galena, Baxter Springs)	\$5,400/yr/site	50	lease	own	own	* Craw-Kan Telephone Columbus Telephone	University of Kansas Univ. of Ka. - Med Center Pittsburg State University Fort Scott Comm. College Labette Co. Comm. College

23

1-10

Features of School Clusters

<u>Cluster Name</u>	<u>Sites</u>	<u>Towns</u>	<u>Cost</u>	<u>Miles</u>	<u>Fiber</u>	<u>Terminal</u>	<u>Classroom</u>	<u>Telephone</u>	<u>Post Secondary</u>
Southcentral Kansas Education Service Center Interactive Learning Project Dec. 1991	5	Caldwell, Conway Springs, Oxford, Udall, Arkansas City	\$28,000/yr/site	65	lease	lease	own	* Southwestern Bell Wheat State Tele. Kan-Oklahoma Tele. Haviland Telephone United Telephone	Cowley Co. Comm. College
A-PLUS Network Sept. 1990	9	Kismet-Plains, Meade, Coldwater, Mullinville, Haviland, Greensburg, Fowler, Protection, Ashland	\$27,200/yr/site	180	lease	lease	own	* Southwestern Bell Haviland Telephone United Telephone	Fort Hays State University Pratt Comm. College Dodge City Comm. College Seward Co. Comm. College Barklay College ** College of Tech.-Salina ** Associated Colleges of Central Kansas (ACCK)

* Major Contracting Firm

** Proposed

*** Currently not directly connected through optical fiber video technology, although a few institutions have plans to do so.



Fort Hays State University

College of Arts and Sciences
Office of the Dean

600 Park Street

Hays, Kansas 67601-4099

February 5, 1992

Representative Diane A. Gjerstad
Kansas House of Representatives
State Capitol - Room 115-S
Topeka, KS 66612

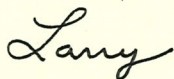
Dear Representative Gjerstad:

Please consider this communication a written expression of my support for House Bill 2682. This amendment to K.S.A. 75-4703, 75-4709 and 75-4712 will provide the Division of Information Systems and Communications (DISC) much needed flexibility in meeting the needs of its clientele, especially school districts, special jurisdictions and similar governmental units. By having the authority to deal directly with existing and new governmental units, the timeliness and efficiency of this state agency will be greatly enhanced. As chair of the Regents Telecommunications Task Force, this is precisely the kind of small but frustrating barrier we are trying to uncover and remove. If the state of Kansas is to become the "Telecommunications Crossroads of North America," we need the type of quick legislative action contained in House Bill 2682. DISC should to be able to deal directly with units (public and private) without going through the Department of Education, Commerce, or other agencies as designated in the original legislation.

While I have the opportunity, let me also emphasize that a limited restructuring of various public agencies is an inexpensive way of augmenting the responsiveness of state government in nurturing the use and impact of telecommunications technology in Kansas. It may be that only minor adjustments are needed such as that found in House Bill 2682. In other cases, some agencies should begin to develop an in-house telecommunications capability to address the needs of their external constituents. Keep in mind I am not focusing on information management within an agency. I am suggesting that the ability of state and local government to provide advice and resources to businesses, educational units, health care providers and others is inadequate because of an underdeveloped agency capacity. The final report of the Task Force will hopefully address this concern in greater detail.

Thanks for listening to my plea. Again, House Bill 2682 is a step in the right direction.

Sincerely yours,



Larry Gould
Dean, College of Arts & Sciences;
Chair, Regents Telecommunications
Task Force

cjc
c Jean Turner
James Murphy

Phone: (913) 628-4234

FAX: (913) 628-4013

Eco-Devo
Attach #2

02-06-92

UNIVERSITY OF KANSAS MEDICAL CENTER
DEPARTMENT OF INFORMATION TECHNOLOGY

PILOT PROJECT TO SUPPORT RURAL HEALTH CARE
THE INFORMATION TECHNOLOGY CHALLENGE
OF THE NINETIES

PRESENTED BY
WILLIAM S. MAHLER
EXECUTIVE DIRECTOR

Eco-Devo
Attach #3
02-06-92

**UNIVERSITY OF KANSAS MEDICAL CENTER
CLINICAL INTERACTIVE VIDEO PILOT PROJECT
PRESENTATION
FEBRUARY 6, 1992**

OVERVIEW:

The University of Kansas Medical Center has delivered comprehensive health care services to patients throughout Kansas for many years. As part of these services, physicians from KU Medical Center departments have provided periodic consultation clinics covering various medical specialties in over twenty Kansas communities. The largest number, type and frequency of these consultation clinics are provided in Hays, Kansas by the Departments of Pediatrics, Medicine, Surgery and Neurology. Pediatric Cardiology has been providing consultative service since 1975, the others began providing services in conjunction with the Area Health Education Center in the early 1980s.

In November 1988, at the request of the Post Rock Pediatric Center, the University of Kansas Medical Center/Western Area Health Education Center began investigating the feasibility of providing diagnostic and consultation services from Kansas City utilizing video technologies. Shortly into the investigative process, Hadley Regional Medical Center and St. Anthony Hospital joined this effort. This cooperative effort culminated in a successful compressed video technology evaluation in late September 1990.

COMPRESSED VIDEO TECHNOLOGY EVALUATION:

An evaluation involving physicians in Hays, Kansas and specialists at the University of Kansas Medical Center evaluated the compressed video system in a live interactive diagnostic patient setting. The consultation was conducted with several Pediatricians presenting patients to specialists at Kansas City. Each specialist discussed the case with the referring physician, talked to the patient and family, listened to patient heart and breath sounds, reviewed appropriate test results, e.g. EKG, blood chemistry, growth chart, or reviewed a live 2-D Echocardiogram. These initial evaluations resulted in the decision to initiate a diagnostic consultative pilot project jointly with the Hays Medical Center, Western Area Health Education Center (AHEC) and the University of Kansas Medical Center. This implementation process is now underway.

PILOT PROJECT PROCESS:

The compressed video technology evaluation further demonstrated to all participants that this tool may not only enhance quality health care in rural Kansas, but may also bridge the distance barriers and provide support otherwise not available to the primary care physician in rural Kansas. The support of rural health care and physician education remains a high priority for the University of Kansas School of Medicine. This compressed video technology may facilitate and strengthen the full implementation of these priorities. Although additional research is needed related to protocol development, liability, third party payment, medical, ethical and legal issues, the University of Kansas Medical Center has established an operational consultive pilot program. This health care program will be in conjunction with the Western AHEC, physicians and Hospitals in Hays. The long term relationship between KU Medical Center, the Western AHEC, Hays physicians and Hospitals provides an atmosphere conducive to the development of joint research and patient care methodologies inherent in a pilot program. The joint pilot program with Hays Medical Center, Western AHEC and KU Medical Center has begun, the initial three systems will be fully operational by the end of November 1991. The following milestones have been completed or are in the process of being completed:

Initial 1988 Proposal

November 1988

The KU Medical Center began evaluating the use of technology to support the delivery of rural health care and physician education at the request of Dr. Robert Cox, Hays pediatrician. Initial assessments revealed that no affordable technology meeting the quality requirements existed.

State Digital Network

March 1990

Compressed video requires the use of a digital network. The establishment of the State Network (KANS-A-N) provided an affordable network for compressed video.

Product Evaluation

September 1990

Current technology compressed video systems were tested in a live interactive patient consultative mode. This evaluation demonstrated the potential for compressed video technology as a tool to support rural health care and was the basis to implement the pilot project.

Approve Project Funding

February 1991

Establish Bid Specifications

March 1991

Bid specifications were jointly prepared by the Division of Purchases, Board of Education, Board of Regents Staff, the Division of Information Systems and Communications and the University of Kansas Medical Center.

Award Hardware Contracts

April 1991

Establish Steering Committees

May 1991

Steering Committees have been appointed at the Hays Medical Center and the KU Medical Center respectively. The two committees, which have adopted the same charge, met jointly for the October meeting.

Establish Video Network

September 1991

The installation process has begun at the KU Medical Center, Western AHEC, Hays and the University of Kansas School of Medicine - Wichita. We anticipate that the Hays Medical Center will join this network, which will then serve as a pilot project which would tie together primary, secondary and tertiary care providers.

SYSTEM PROCUREMENT AND CAPABILITIES:

Compressed video equipment is in place at the initial three locations (Hays, Wichita and Kansas City). Preliminary system testing has been completed between Hays and KU Medical Center. These systems provide far superior resolution, audio and motion handling characteristics than the system tested a year ago. Although these systems are tailored for patient care applications, education applications may be readily supported. Each system contains dual RGB monitors, CODEC, high resolution camera, still and live graphics, dual channel audio, remote and local camera control, 35mm to video presentation and the capability to record either the remote or local programming.

INITIAL FUNDING:

Financial support to establish the initial pilot program has been provided by grants from the Kansas Technology Enterprise Corporation, Mead Johnson Nutritionals, U.S. and the reallocation of FY-91 institutional funds.

<u>FUNDING SOURCE</u>	<u>AMOUNT</u>
KTEC	\$80,000
Mead Johnson	50,000
KU Medical Center	200,000
School of Medicine-Wichita	<u>60,000</u>
Total	\$390,000

PILOT PROJECT GOALS:

During the first year of operation, the full range of patients and medical problems considered by the large number Hays consultation clinics will be studied to determine the extent to which compressed video may be deployed and what medical services may be appropriately provided. Research will be conducted to develop and codify medical protocols, liability, third party payment, medical, ethical and legal issues. Additionally, the compressed video technology, audio and peripheral medical diagnostic equipment will be evaluated. Should this pilot program prove to be successful, we envision further deployment of this technology and the potential creation of a Kansas Health Care Video Network. Although the program emphasizes patient care, the system will also provide new opportunities to enhance medical education throughout the State and bridge residency programs in Kansas City, Wichita and Salina. The following initial diagnostic consultation plan has been developed in conjunction with the steering committees representing the KU Medical Center, Hays Medical Center, Hays physicians and the Western AHEC.

- Begin with existing programs - pediatric cardiology, allergy, endocrinology, neurology (Parkinson's disease) and oncology.
- Evaluate other services - ophthalmology, internal medicine, family practice, orthopedics, etc.
- Consider establishing parental and patient support programs.
- Develop pilot project objectives/plan.
- Address liability, ethical and third party reimbursement issues.
- Develop testing and verification program.
- Identify and evaluate diagnostic equipment.

STEERING COMMITTEE CHARGE:

The Hays Medical Center and the KU Medical Center have appointed representatives to steering committees. The Hays committee representation is composed of Hospital administrators and staff, local physicians and the Director of the Area Health Education Center. The KU Medical Center has appointed similar representation. The Hays and KU partnership has adopted the following charge to guide the joint development and implementation of the pilot project:

- Establish technical, clinical and administrative guidelines necessary for the successful operation of a pilot program.
- Study the full range of patient care services that might be made available through the use of compressed video technology.
- Develop medical protocols and resolve liability, third party reimbursement, medical, ethical, and legal issues.
- Develop recommendations for the possible further deployment or growth of this technology.
- Create a video "club" setting for all people interested in this technology.

RESOURCE REQUIREMENTS:

The pilot project partners consider the inclusion of three (3) underserved rural hospitals/communities to be the next step in the pilot program process. We propose that these three locations be connected to the Hays Medical Center/AHEC/KU Medical Center network. The expansion or inclusion of these rural sites would provide the basis for evaluation of the complete primary, secondary and tertiary health care provider issue. Additional resources would be required to support this expanded program. We estimate that the cost and/or additional resources required to implement this expanded program as follows:

RESOURCE	COST
Video equipment/software	\$312,000
Extend network/local access	33,000
Personnel (1.5 FTE & salary)	75,000
Multipoint Control Unit	<u>93,000</u>
TOTAL	\$513,000

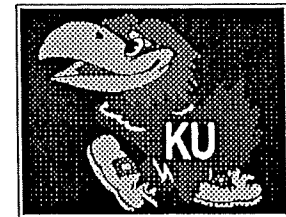
University of Kansas Medical Center
Page 6

This concludes the diagnostic compressed video pilot project presentation by the University of Kansas Medical Center. We appreciate the opportunity to provide information on this pilot project which has such great potential impact on Health Care throughout our State.

**UNIVERSITY OF KANSAS MEDICAL CENTER
DEPARTMENT OF INFORMATION TECHNOLOGY**

**THE
INFORMATION TECHNOLOGY
CHALLENGE**

BY
BILL MAHLER



UNIVERSITY OF KANSAS MEDICAL CENTER

COMPRESSED VIDEO PROJECT

INITIAL PROPOSAL	NOVEMBER 1988
STATE DIGITAL NETWORK	MARCH 1990
PRODUCT EVALUATION	SEPTEMBER 1990
APPROVE PROJECT FUNDING	FEBRUARY 1991
ESTABLISH BID SPECIFICATIONS	MARCH 1991
AWARD HARDWARE CONTRACTS	APRIL 1991
ESTABLISH STEERING COMMITTEE	MAY 1991
ESTABLISH OPERATIONAL DATE	SEPTEMBER 1991

MEDIA TECHNOLOGY, INCORPORATED VIDEO CONFERENCING ROLLABOUT



UNIVERSITY OF KANSAS MEDICAL CENTER

COMPRESSED VIDEO PILOT PROJECT FUNDING

FUNDING SOURCE	AMOUNT
KTEC	\$80,000
Meade Johnson	50,000
KU Medical Center	200,000
KU School of Medicine	60,000
Wichita	
TOTAL	\$390,000

VIDEO CONFERENCING SYSTEM ROLLABOUT

TYPICAL SYSTEM

- DUAL ROLLABOUT VIDEO CONFERENCING SYSTEM
- DUAL CABINETS
- TWO 35" MITSUBISHI MONITORS
- THREE CHIP CAMERA WITH REMOTE PAN, TILT & ZOOM
- ELMO 368 VISUAL PRESENTER WITH XRAY BASE
- SHURE AUDIO SYSTEM
- AMX WIRELESS REMOTE ROOM CONTROLLER
- SLIDE TO VIDEO CONVERTER WITH CONTROL INTERFACE
- VCR WITH CONTROL INTERFACE
- COMPRESSION LABS, INC. - CODEC

COMPRESSED VIDEO PILOT PROJECT

INITIAL DIAGNOSTIC CONSULTATION PLAN

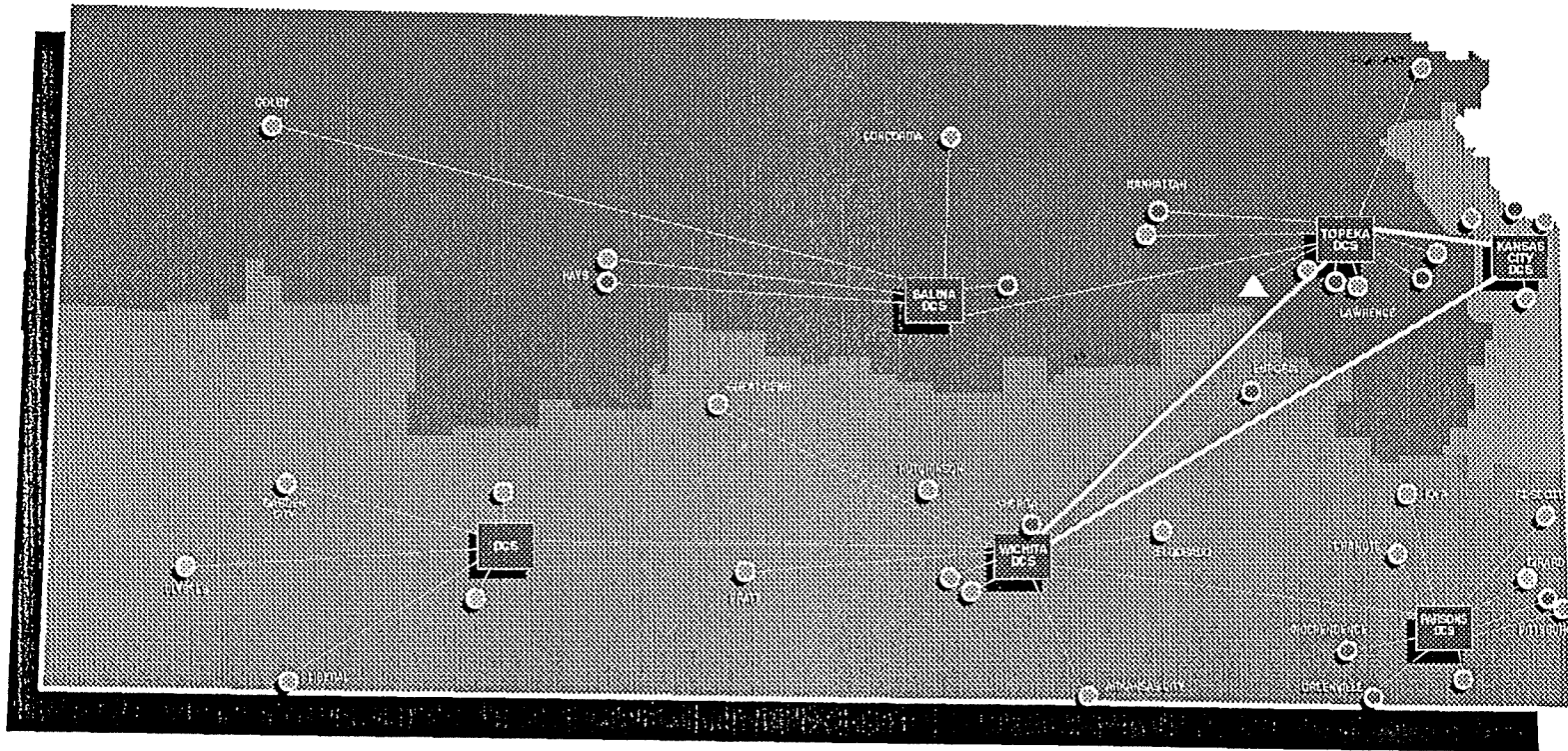
- BEGIN WITH EXISTING PROGRAMS - PEDIATRIC CARDIOLOGY, ALLERGY, ENDOCRINOLOGY & NEUROLOGY (PARKINSON'S DISEASE)
- EVALUATE OTHER SERVICES - ONCOLOGY, OPHTHALMOLOGY, INTERNAL MEDICINE, FAMILY PRACTICE, ORTHOPEDICS, ETC
- CONSIDER ESTABLISHING PARENTAL & PATIENT SUPPORT PROGRAMS

COMPRESSED VIDEO PILOT PROJECT

INITIAL DIAGNOSTIC CONSULTATION PLAN (CONTINUED)

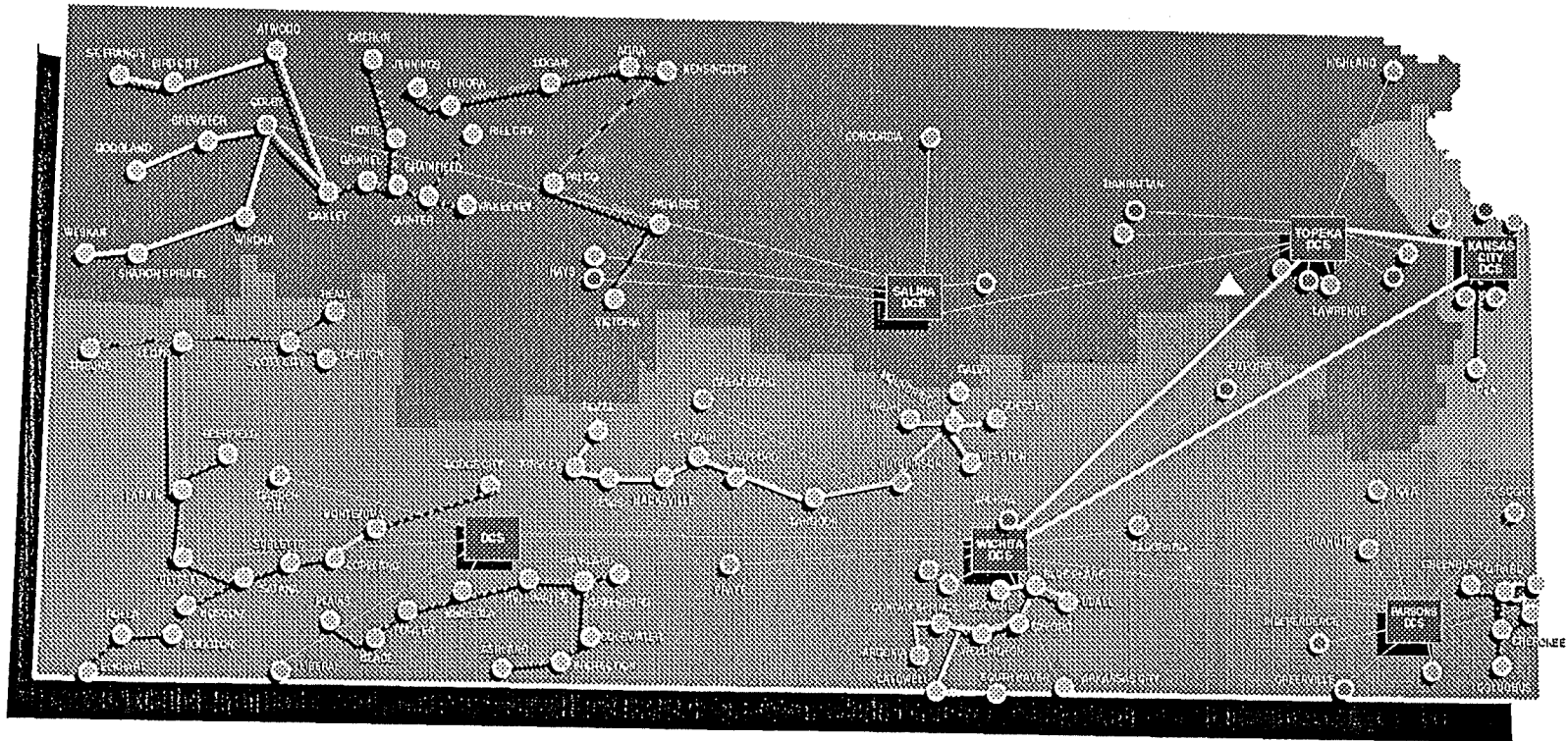
- DEVELOP PILOT PROJECT OBJECTIVES/PLAN
- ADDRESS LIABILITY, ETHICS & THIRD PARTY REIMBURSEMENT
- DEVELOP TESTING & VERIFICATION PROGRAM
- IDENTIFY & EVALUATE DIAGNOSTIC EQUIPMENT

KANSAS



- COMMUNITY COLLEGE
 - SCHOOL VIDEO CLUSTER
 - KTEC TECHNOLOGY CENTER
 - REGENTS LOCATION
 - KANSAN POP
- STATE DEPARTMENT OF EDUCATION

KANSAS



- PROPOSED, ESTIMATED IMPLEMENTATION 1991-92
- - - - - ACTIVE 1990
- IMPLEMENTATION DATE UNKNOWN

- COMMUNITY COLLEGE
 - SCHOOL VIDEO CLUSTER
 - ▲ KTEC TECHNOLOGY CENTER
 - REGENTS LOCATION
 - KANSAN POP
- STATE DEPARTMENT OF EDUCATION

UNIVERSITY OF KANSAS MEDICAL CENTER

STEERING COMMITTEE CHARGE

- ESTABLISH TECHNICAL, CLINICAL AND ADMINISTRATIVE GUIDELINES NECESSARY FOR SUCCESSFUL OPERATION OF A PILOT PROGRAM.
- STUDY THE FULL RANGE OF PATIENT CARE SERVICES THAT MIGHT BE MADE AVAILABLE THROUGH THE USE OF COMPRESSED VIDEO TECHNOLOGY.
- DEVELOP MEDICAL PROTOCOLS AND RESOLVE LIABILITY, THIRD PARTY PAYMENT, MEDICAL, ETHICAL AND LEGAL ISSUES.
- DEVELOP RECOMMENDATIONS FOR THE POSSIBLE FURTHER DEPLOYMENT OF THIS TECHNOLOGY.
- CREATE A VIDEO "CLUB" SETTING FOR ALL PEOPLE INTERESTED IN THIS TECHNOLOGY.



Southeast Kansas
Education
Service Center

P.O. Box 189

316-724-6281 Girard, KS 66743-0189

FEB 11 REC'D

7 February 1992

The Honorable Diane Gjerstad
Kansas Representative
State Capitol
Topeka KS 66612

Chairman Gjerstad

I am writing to encourage the adoption of H.B. 2682. I understand that this bill will allow local units of government, including school districts, to participate in KAN-S-AN services and be billed directly for those services.

The bill should eliminate some of the frustration we have experienced in connecting our interactive video with other locations in Kansas. It also has the promise of reducing costs associated with video transmission.

I do want to clearly state that the bill should not reduce the role of the local telephone companies in providing the necessary local systems which make interconnectivity possible. It should also be noted that the bill allows for voluntary agreements between the state and local units of government.

Thank you for the opportunity to lend my testimony as a proponent. If I can be of further assistance please do not hesitate to call.

David DeMoss
Executive Director

Eco-Devo
Attach #4
02-06-92

HB 2682 Testimony
to
House Committee on Economic Development
by
Virgil F. Basgall, Deputy Director, DISC

Chairperson Gjerstad, Members of the Committee:

The Division of Information Systems and Communications (DISC) is in favor of HB 2682 authorizing the Secretary of Administration to provide telecommunications services to governmental units of counties, municipalities and school districts of the State of Kansas.

There are many legitimate cases for allowing governmental units such as county, municipal, and school district units to share in the use of the State's telecommunications facilities. Just one example would be the State's law enforcement communications network, which is mandated by statute to include at least one local law enforcement office in every county of the state. Since, at the current time, DISC is only authorized to provide services to the state agencies, it is necessary to recover all the costs associated with the law enforcement communications network from KBI, the sponsoring agency. KBI then must recover its costs for any non-mandated participants in the network from the local law enforcement agencies. This bill would simplify the process and allow DISC to recover all costs directly from the using agency, be it state or local.

This bill would also open up many opportunities to provide low cost telecommunications services to other local governmental units, as well as state government, through the shared use of DISC's statewide telecommunications network when those governmental units share a common objective. An example would be the State Department of Education and the school districts of the state providing distance learning opportunities with interactive video training through the State's telecommunications network.

In many cases, the increased utilization of the statewide telecommunications network by local units of government would provide the economic stimulus to acquire telecommunications circuits in sufficient volume to qualify for bulk rates that would reduce the cost to everyone in that respective segment of the network, including the state agencies.

The current statutes only allow DISC to provide these kinds of services if it can find a state agency sponsor which is willing to bear the burden of paying all the costs of DISC's services, and then recovering from the local governmental units their fair share of the costs. In many cases state agencies are not willing to take on this responsibility, or they have inadequate funding to allow it, or they have no provisions for receipt of monies from local governmental units in ways that they can make use of it.

Eco-Devo
Attach #5
02-06-92

DISC's integrated telecommunication's network has the ability to provide voice, data and video services throughout the State of Kansas. The network reaches into every county and has a high speed backbone that makes it very cost effective to share this facility with other units of government. Sharing these facilities is most often a win-win situation. The local units of government get services at a cost they would find difficult, or impossible, to match elsewhere. The state agencies get the benefit of increased volume to decrease their unit cost of services.

There is also some potential economic development benefit from sharing the State's telecommunications network. The State doesn't own the circuits used to make up the State network, they are leased from telecommunications providers. By increasing the users of the network and increasing the cost effectiveness of the network, some applications of telecommunications services that were previously not cost justified will become practical, thus generating further development of the network.

DISC currently produces monthly invoices for 300 accounts, itemizing over 49,000 billable telecommunications records for cost recovery from state agencies. There is currently a staff of two people dedicated to this workload and the Accountant half of this two-person team is fully utilized. If HB 2682 is passed, the addition of billable accounts from local units of government would require that DISC allocate another Accountant I to this staff at a cost of \$27,003 including fringe benefits. DISC should have the resources within its existing headcount to meet this staffing requirement, because the integration of the Unisys Computer Center with the IBM Compatible Computer Center in the Landon State Office Building during FY92 will free up several computer operations positions that can be reallocated for use elsewhere in the Department of Administration. The salary would be financed from DISC's currently approved salary base budget.

The only long range fiscal effect would be periodic increases in expenditures to acquire telecommunications circuits and termination equipment to allow the connection of local units of government to the statewide telecommunications network. These costs would be passed directly back to the local unit of government for recovery on a monthly basis. As mentioned earlier, since HB 2682 would have the effect of increasing the base of users in the statewide telecommunications network, it should also have the effect of making the network more cost-effective to the existing state agencies because of the ability to share the costs of the basic backbone of the network with local units of government.

Andy Scharf, the Assistant Deputy Director for Telecommunications is here with me today and we would be happy to answer any questions that you may have at this time.



**League
of Kansas
Municipalities**

**MUNICIPAL
LEGISLATIVE
TESTIMONY**

PUBLISHERS OF KANSAS GOVERNMENT JOURNAL 112 W. 7TH TOPEKA, KS 66603 (913) 354-9565 FAX (913) 354-4186

TO: House Committee on Economic Development
FROM: E.A. Mosher, Research Counsel, League of Kansas Municipalities
RE: HB 2682--Local Government Use of State Telecommunications Services
DATE: February 6, 1992

On behalf of the League and its member cities, I appear in support of HB 2682, which would provide for the use of the state's telecommunications services by local governments, on a cost basis. For some years, the League's convention-adopted "Statement of Municipal Policy" has contained a provision that "local units should be provided the opportunity to access and use the state's KANS-A-N telephone system.

Frankly, we do not know how extensively Kansas local government would utilize the services that would be available under this bill. However, we are aware that other states have provided this kind of service for many years, and that it has been found workable and practical and permits some cost savings.

The League has traditionally supported those state actions that would strengthen the state-local government partnership, and we think HB 2682 provides an opportunity to enhance this partnership, to better serve the public.

*Eco-Devo
Attach #6
02-06-92*

President: Bob Knight, Mayor, Wichita * Vice President: Joseph E. Steineger, Jr., Mayor, Kansas City * Past President: Frances J. Garcia, Commissioner, Hutchinson * Directors: * Donald L. Anderson, Mayor, Lindsborg * Michael A. Conduff, City Manager, Manhattan * Ed Eilert, Mayor, Overland Park * Harry L. Felker, Mayor, Topeka * Idella Frickey, Mayor, Oberlin * William J. Goering, City Clerk/Administrator, McPherson * Ralph T. Goodnight, Mayor, Lakin * Jesse Jackson, Commissioner, Chanute * Stan Martin, City Attorney, Abilene * Mark Mingenback, Councilmember, Great Bend * John Nalbandian, Commissioner, Lawrence * Mary E. Reed, City Clerk/Director of Finance, Parsons * Acting Executive Director: Jim Kaup

KANSAS
ASSOCIATION



OF
SCHOOL
BOARDS



5401 S. W. 7th Avenue Topeka, Kansas 66606
913-273-3600

Testimony on H.B. 2682
before the
House Committee on Economic Development

by

Patricia E. Baker
Associate Executive Director/General Counsel
Kansas Association of School Boards

February 6, 1992

Thank you, Madam Chairman and members of the Committee. I appreciate the opportunity to appear before you in support of H.B. 2682.

We feel that extending access to DISC, especially the KANS-A-N network to local units of government will provide improved, efficient and economical communications possibilities.

We ask your favorable consideration of H.B. 2682. Thank you.

Eco-Devo
Attach #7
02-06-92