

Approved 2-20-90
Date

MINUTES OF THE Senate COMMITTEE ON Economic Development

The meeting was called to order by Senator Dave Kerr at
Chairperson

8:00 a.m./~~p.m.~~ on February 14, 1990 in room 123-S of the Capitol.

All members were present except:

Senator Feleciano
Senator Steineger

Committee staff present:

Bill Edds, Revisor of Statutes' Office
Lynne Holt, Kansas Legislative Research Dept.
Sue Pettet, Secretary to the Committee

Conferees appearing before the committee:

Dr. Hammond, President of Ft. Hays University

Chairman Kerr called the meeting to order and introduced Dr. Hammond.

Dr. Hammond made a presentation using charts and maps of Kansas to show future placement of new information technologies. A Briefing paper titled, "Inventing the Future of Kansas" is Attachment 1.

He stated that one of the most important developments of information technology is fiber optics. To meet the challenge of building a statewide fiber optic network, Kansas will confront two problems:

1. The development of telecommunications policy that includes both urban and rural areas.
2. The integration of a network into sparsely populated areas with an inadequate economic base. It will be difficult to support initial costs of construction.

The Kansas Fiber Optic Network (KFON) will greatly help to link urban and rural communities and will be able to meet important needs for improving the overall quality of life such as:

1. Improved delivery of educational services.
2. Improved delivery of health care services.
3. Library networking.

In response to a question, Dr. Hammond stated that there has been no state funding received from Ft. Hays University but that the Kansas Independent Network, Inc. (KINI Corp.) is currently negotiating with the University regarding location of a fiber optic network site on the campus. The estimated up front cost of the project is \$60 million dollars.

Nelson Krueger of KTEC explained that the implementation of school cluster teaching situations in rural areas is especially needed because of the shortage of teachers in these areas.

Senator Winter asked that the committee be provided with an estimated cost that the University expects to spend over the next ten years for fiber optic related services. Funding from other tax paying entities should be included.

Committee discussion of S.B. 436. Chairman Kerr explained that the bill requires that state agencies making community and economic development grants and loans report annually to Kansas, Inc. Charles Warren of Kansas, Inc. asked for an amendment to the bill that would eliminate the word "quarterly" on line 27. Senator Kerr made a motion to amend as requested. Senator Winter seconded. Motion carried.

Senator Winter made a motion to favorably recommend S.B. 436 as amended. Senator Salisbury seconded. Motion passed. Senator Francisco made a motion to accept the minutes of the February 6, 7 & 8 meetings. Senator Winter seconded. Motion carried. Meeting adjourned.

Briefing Paper

INVENTING THE FUTURE OF KANSAS:

The Link Between Information Technology

and the

Statewide Quality of Life

The Premise and the Problems

There is no question that the quality of life in Kansas is inextricably linked to the diffusion and implementation of new information technologies. One of the most important of these technologies is fiber optics. Although in many ways fiber optics is still an emerging field, there is an intuitive understanding that a failure to pursue the potential rewards offered by this telecommunications medium represents a major threat to the future prosperity of Kansas. The basic premise of this proposal, therefore, is that as Kansas enters the 21st century fiber optics has become a major factor in determining the statewide quality of life.

Although it is possible to agree on the premise that fiber optics has become an increasingly pivotal technology for fostering the Kansas economy and enriching the quality of our life in the coming years, there is less of a consensus about how to forge governmental policy and generate private sector interest which will meet the challenge of building a statewide fiber optic network. In particular, Kansas must confront two problems:

- (1) The development of telecommunications policy that takes into account the urban and rural dimensions of Kansas. Although Johnson County in eastern Kansas is one of the fastest growing urban counties in the United States, the fact remains that 96 out of Kansas' 105 counties are considered rural. The availability and quality of a rural information infrastructure serves as a fundamental prerequisite for creating successful rural development strategies.
- (2) Given the challenge of integrating rural needs into a statewide plan, what is required to encourage the expansion of a network into sparsely populated regions where the economic base is inadequate to support initial costs of construction?

The Proposal and the Promise

The purpose of this proposal is twofold: (1) describe a statewide strategic initiative known as the Kansas Fiber Optic Network (KFON); and (2) explain how the inclusion of a diversity of functional needs into this statewide plan can meet the challenge of linking rural and urban interests and address the crucial factor of cost.

Changes in how information is obtained, organized, exchanged and utilized is at the base of the emerging economic, social and political organization of U.S. society. The implications of this transition are equally important for the inhabitants of Kansas, from their social behavior to economic development. The creation of a statewide fiber optic spine with links to the urban population centers of eastern Kansas and the prairie region of western Kansas promises to meet four important needs for improving the overall quality of life:

- (1) **Improved Delivery of Educational Services** - A fiber optic network would tie together unified school districts, community colleges and the entire Kansas Regents System. The network would maximize off-campus instructional resources and multiply the educational options available to unserved and underserved distant learners.
- (2) **Improved Delivery of Health Care Services** - A two-way interactive audiovisual communication system between rural western Kansas health sites and major eastern Kansas medical centers would allow for the provision of medical consultation and advice at a time when physician availability is declining. Patients could be evaluated through two-way TV facilities, and nursing skills could be augmented by the ability to obtain advice from a physician in a distant medical center. Through teleradiology, for example, Kansas could establish links with the worldwide radiology community.
- (3) **Library Networking** - This objective of the proposal would allow communities on the fiber optic spine to have dial access to regional libraries. The regional libraries would have connections with state, national and international library collections. A network would also provide for electronic interlibrary loan and access by rural and urban communities to some of the finest bibliographic resources in the world.
- (4) **Economic Development** - Countless observers and articles have claimed that fiber optic networks are to the information age what interstate highways and railroad were to the industrial age. To state and local offi-

cial "telecommunications" has become synonymous with economic development. Governments at all levels are promoting their telecommunication capabilities and infrastructure right along with traditional locational factors such as education, access to roads, labor force quality, and so on. The advantage for rural Kansas is obvious. For information purposes, the distance from Pittsburgh to Paris will become no greater or more costly than the distance from a farm in Scott City, Kansas to the nearest agriculture cooperative. The "telecom carrot" is equally as important to rural Kansas as it is to the state's major population centers because of its tendency to decrease the significance of rural space and increase the potential for electronic cottage industries.

Taken together, these four functional areas constitute the essential components of a proposed statewide Kansas fiber optics plan known as KFON.

Why a Public/Private Statewide Plan?

(A) Cost Efficiencies

- (1) A public/private partnership leads to a sharing of costs.
- (2) Public policy can serve as a catalyst for diffusion of fiber optic technology. It is important to remember that the diffusion of technology is as much a social process as technical. By including delivery of educational services, healthcare, library networking and economic development, greater efficiencies are achieved and several dimensions of society are encouraged to participate in the project.
- (3) A larger project will produce lower rates over the long-term.
- (4) Centralized planning and purchasing produces lower costs.
- (5) Centralized policy regulations can reduce unnecessary government interference and make rural areas attractive because of lower rents, enhanced quality of life, etc.

(B) Technological Efficiencies

- (1) A statewide plan avoids incompatible or obsolete technology.
- (2) The level of fiber optic technology can be matched to the needs of rural and urban areas alike. Functional specialities in education and government can be better served.
- (3) Greater opportunities for connecting to other technologies are available in a statewide plan.

A broad-based statewide plan predicated on four functional areas can better overcome the difficulties of initial cost construction in sparsely populated regions of rural Kansas. The architecture of our information systems in rural and urban America could be the deciding factor in economic development strategies. It would be a mistake for the state of Kansas to overlook this tremendous opportunity for serving the needs of all Kansans.

Contact

If there are any questions or a need for further information, please contact The Docking Institute of Public Affairs or the Office of the President at Fort Hays State University (913) 628-4197 or 628-4231).

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January 22, 1990

FOR IMMEDIATE RELEASE

KANSAS INDEPENDENT NETWORK, INC.

Salina, Kansas

The Kansas Independent Networks, Inc., (KINI), is pleased to announce today the inclusion of Interactive Two-way Video, (ITV), as a planned service for a statewide network to be developed over the next two years. Interactive two-way video provides the capability of remote locations to send and receive both video and audio transmissions.

The initial usage of ITV will be applied to education. A number of projects are currently underway in several school districts to provide this service. A teacher in one school could teach concurrent classes in a number of other schools. The students and teacher would be in contact through TV cameras and monitors. The development of this service on the KINI network would expand these local areas to include the community colleges and regent centers across Kansas. Additional uses would include tele-conference for business, library and research services, health care, and business development.

Kansas Independent Networks, Inc. was incorporated in 1986 to provide management, marketing and engineering services to the Independent Telephone Companies operating within Kansas to assist those companies in planning and operating cellular telephone service. KINI will provide under contract a statewide fiber optic network supported by digital switching to connect the cellular towers. The use of this technology enables the interactive two-way video service to be included in the service package and will be available January 1992.

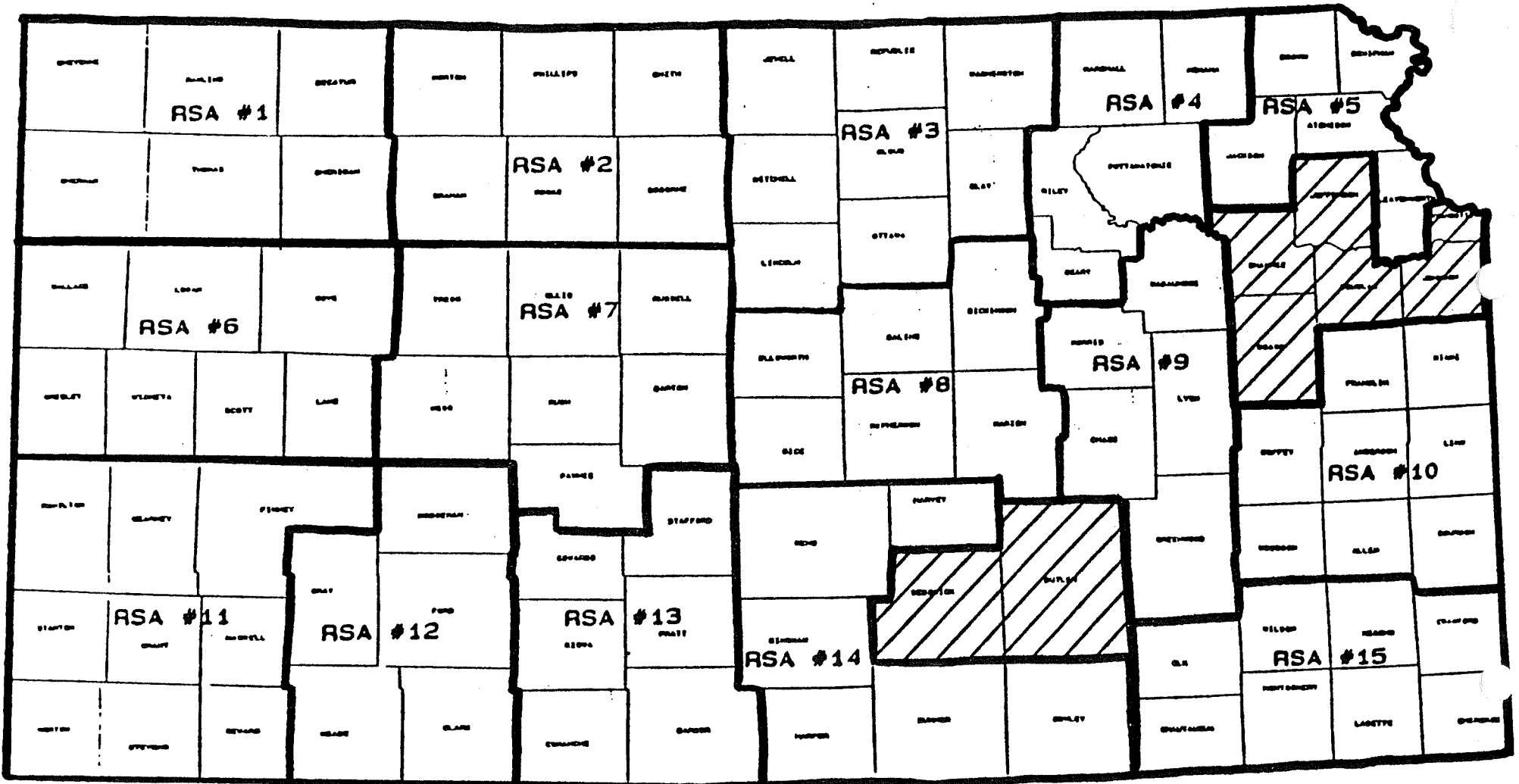
Kansas Independent Networks, Inc. will proceed with seeking Kansas Corporation Commission approval of tariffs to be included with other non-regulated service offerings.

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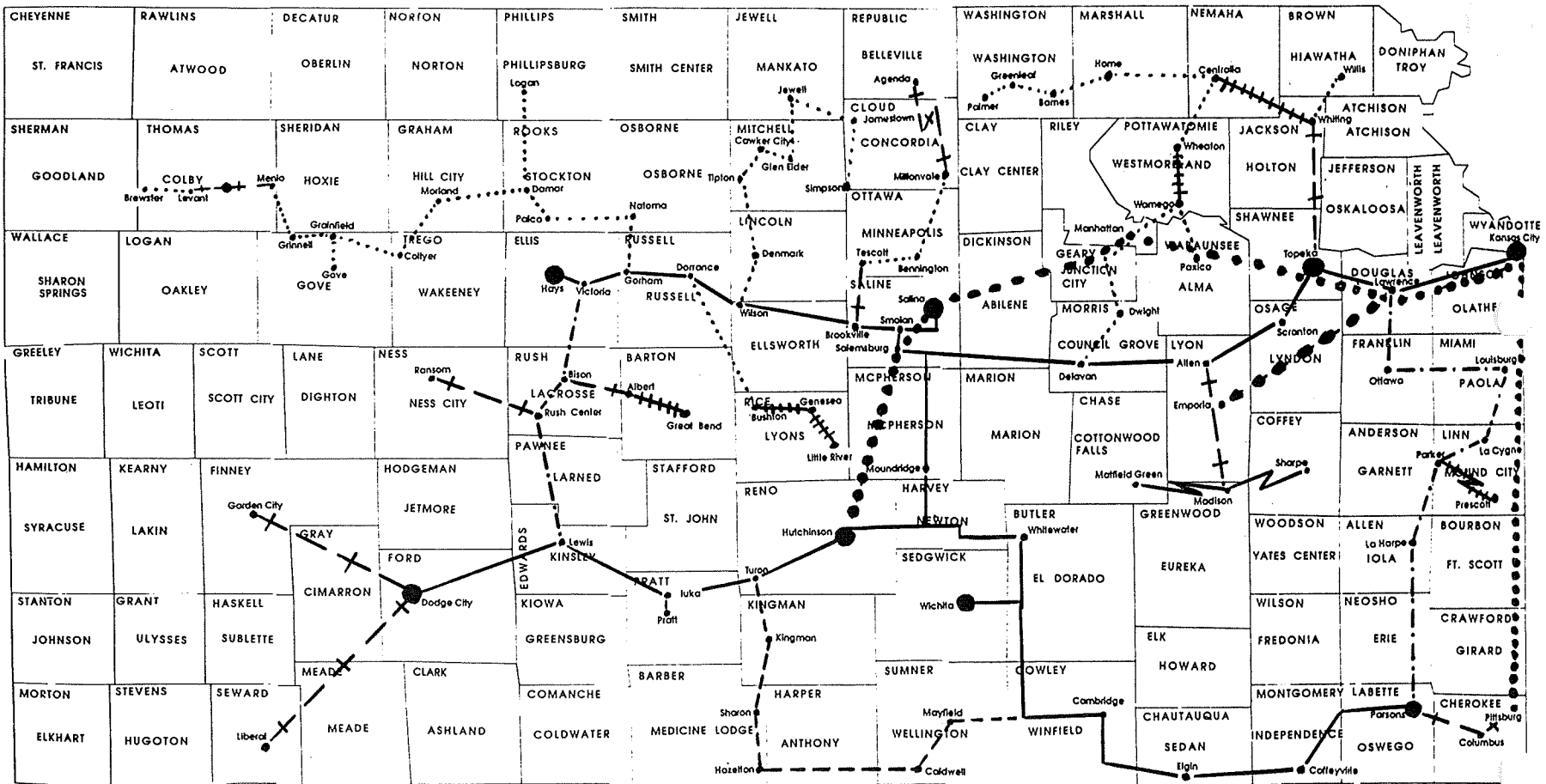
KANSAS INDEPENDENT NETWORKS, INC.
SHAREHOLDER COMPANIES

ASSARIA TELEPHONE EXCHANGE Assaria	RURAL TELEPHONE SERVICE CO Lenora
BLUE VALLEY TELEPHONE CO. Home	S&A TELEPHONE COMPANY INC. Allan
COLUMBUS TELEPHONE COMPANY Columbus	S&T TELEPHONE CO-OP ASSN. Brewster
CUNNINGHAM TELEPHONE CO. Glen Elder	SOUTH CENTRAL COMMUNICATION Medicine Lodge
GOLDEN BELT TELEPHONE ASSN. Rush Center	SUNFLOWER TELEPHONE COMPANY Dodge City
GORHAM TELEPHONE COMPANY Gorham	TOTELCOM OF KANSAS, INC. Ochelata, OK
H&B COMMUNICATIONS INC. Holyrood	TRI-COUNTY TELEPHONE ASSN Council Grove
HOME TELEPHONE COMPANY Galva	TWIN VALLEY TELEPHONE INC. Miltonvale
KANOKLA COMMUNICATIONS INC Anthony	UNITED TELEPHONE ASSN., INC. Dodge City
K-M DIAL COMPANY INC Louisburg	WAMEGO TELEPHONE COMPANY INC Wamego
LA HARPE TELEPHONE COMPANY La Harpe	WILSON TELEPHONE COMPANY INC Wilson
MADISON TELEPHONE COMPANY Madison	ZENDA TELEPHONE COMPANY INC Zenda
MOUNDRIDGE TELEPHONE CO. Moundridge	
MUTUAL TELEPHONE COMPANY Little River	
PEOPLES MUTUAL TELEPHONE CO Lacygne	
RAINBOW COMMUNICATION & ELECTRONICS, INC. Everst	

EXHIBIT 3



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LEGEND
Kansas Fiber Optic Network
KFO N

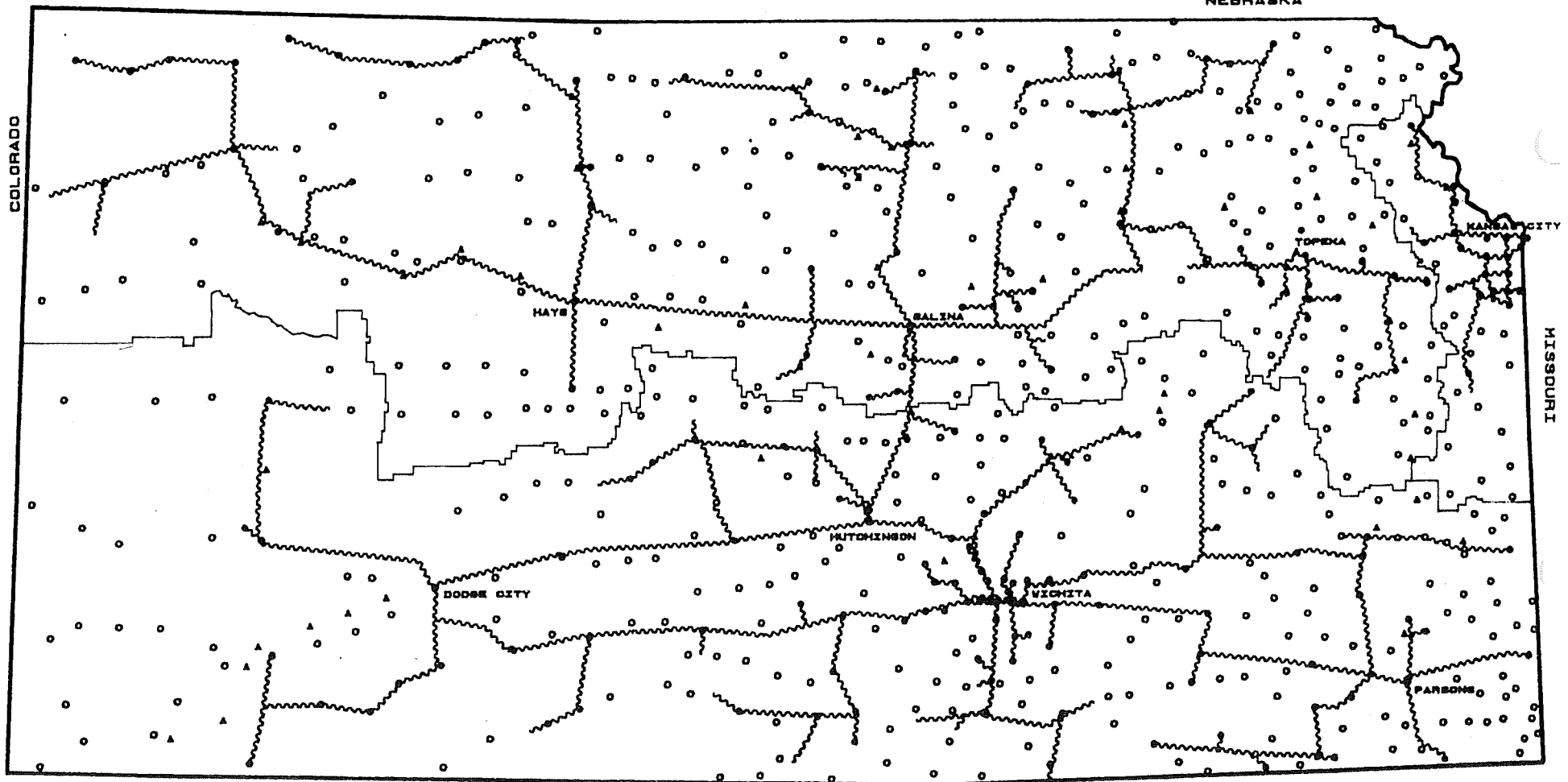
—————	Phase 1 Backbone
- - - - -	Phase 1 Alternate Backbone
.....	Phase 1 Optional Ring
+ + + + +	Leased
● ● ● ● ●	Member Company Owned
○ ○ ○ ○ ○	Projected Phase 2
- - - - -	AT&T

Estimated Completion Date 1/92

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KANSAS

STATE FIBER NETWORK



OKLAHOMA

KK0001

REVISED 01-01-80

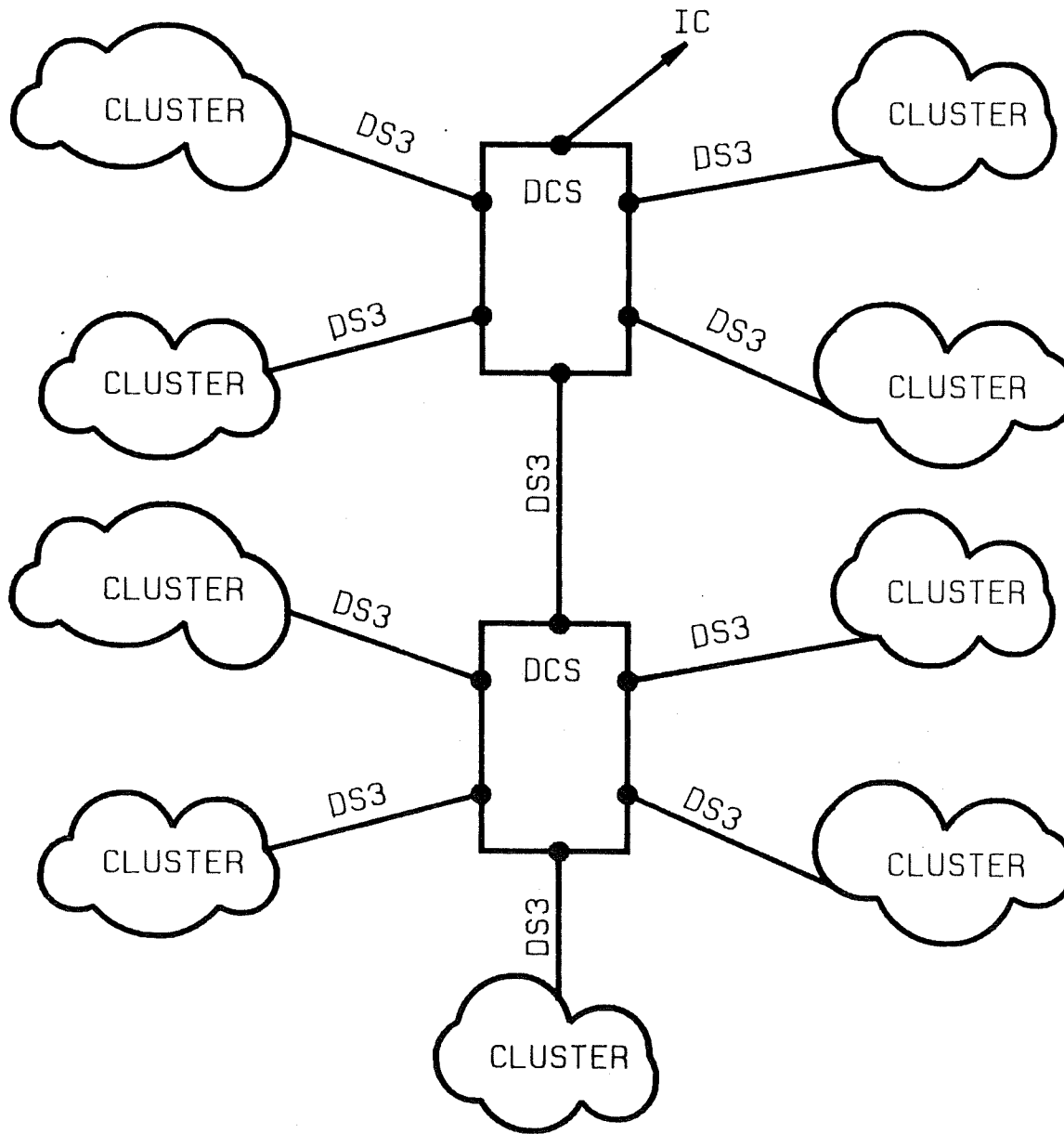
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NETWORK SWITCHED SERVICES**
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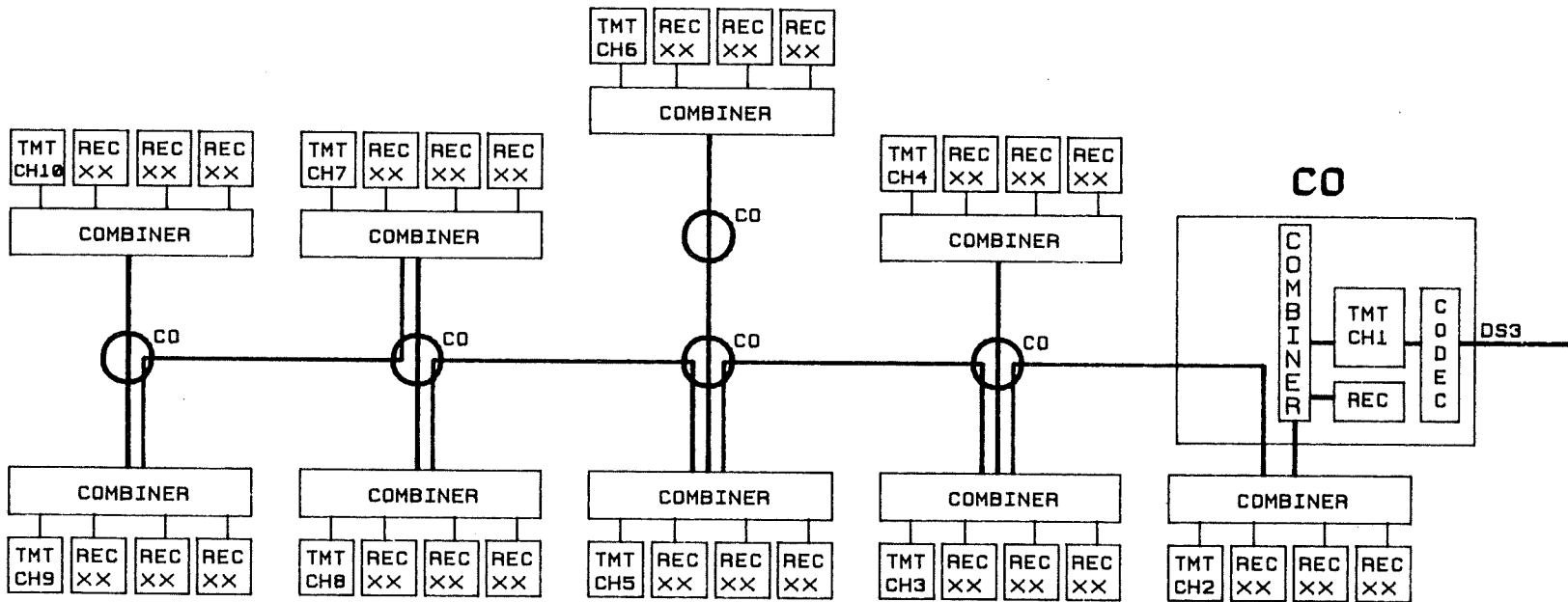
- S.W. BELL TEL. CO. EXCHANGE
- INDEP. TEL. CO. EXCHANGE
- △ RADIO JUNCTIONS

FIBER OPTICS
~~~~~ S.W. BELL  
STATE NETWORK  
YEAR 1  
YEAR 2  
YEAR 3  
YEAR 4  
YEAR 5

6-1



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- 1) EACH LOCATION TRANSMITS ON A DISTINCT CHANNEL
- 2) SIGNAL MAY BE RECEIVED BY ALL OTHER LOCATIONS WITHIN THE CLUSTER
- 3) ALL LOCATIONS MAY TRANSMIT SIMULTANEOUSLY
- 4) EACH LOCATION MAY RECEIVE ANY COMBINATION OF 3 TRANSMIT SIGNALS
- 5) SIGNALS FROM OTHER CLUSTERS ARE AVAILABLE TO ALL LOCATIONS IN THE CLUSTER
- 6) 2 WAY INTERACTIVE VIDEO BETWEEN CLUSTERS IS LIMITED TO THE NUMBER OF CHANNELS AT THE CO AND NUMBER OF DS3 SYSTEMS AVAILABLE

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