Approved: Carl Dean Holmes
Date 1-21-99

MINUTES OF THE HOUSE COMMITTEE ON UTILITIES.

The meeting was called to order by Chairperson Rep. Carl Holmes at 9:04 a.m. on January 14, 1999 in Room 522-S of the Capitol.

All members were present except: Rep. Annie Kuether (excused)

Committee staff present: Lynn Holt, Legislative Research Department
Mary Torrence, Revisor of Statutes
Jo Cook-Whitmore, Committee Secretary

Conferees appearing before the committee:

Others attending: See Attached List

Chairman Holmes acknowledged Rep. Johnson, who introduced his intern, Melody Brown, a Political Science student from Fort Hays State University. The Chair then acknowledged Rep. Don Dahl, who introduced his intern, Cory Cannon, a Political Science student from Emporia State University. The Chair then acknowledged Rep. McClure, who announced that a memorial service for Rep. Kuether's husband was scheduled for Saturday at 2:00, that memorials had been set up for the Cancer Society and Washburn and that a card was going to be passed around the committee.

The Chair indicated it was time for bill introductions. Rep. McClure explained a proposed bill that has to do with natural gas underground storage.

It was moved by Rep. Johnson and seconded by Rep. O'Brien to introduce the proposed bill as a committee bill. Motion carried.

The Chair acknowledged Tom Day, Kansas Corporation Commission, who provided a list of proposed bills. The first has to do with exemption of merchant power plants from the siting act and as public utilities; the second has to do with maximum lighting standards for commercial and industrial buildings and the third has to do with the application fee for interexchange telecommunications carriers and competitive local exchange carriers. (Attachment #1). Rep. Myers asked a question about the second item.

It was moved by Rep. Sloan and seconded by Rep. Alldritt to introduce the proposed bills offered by the Kansas Corporation Commission. Motion Carried.

Lynne Holt, Legislative Research Department, distributed copies of the "Report of the Kansas Universal Service Fund Working Committee to the 1999 Kansas Legislature" (Attachment 2) along with a copy of a slide overview package (Attachment 3) to each committee member. Members of the audience also received copies of the slide overview package. Ms. Holt presented a descriptive and informative narrative on the "Report of the Kansas Universal Service Fund Working Committee to the 1999 Kansas Legislature" using the slide overview package and the Report. The narrative included background information on the Kansas Universal Service Fund (KUSF) and information from the meetings the KUSF Working Committee held during the summer and fall. Ms. Holt indicated a key statement from the report is; "Both the FCC and state regulatory commissions and legislatures continue to face the challenge of forging compatibility between two of the primary objectives-competition and universal service-underlying the Federal Act. Efforts to reconcile these two objectives have been and continue to be fraught with contentiousness and litigation."

After the presentation, the Chair asked for questions from the committee. Rep. Franklin asked for clarification on the 5% blockage, is it for Internet access or for files within the Internet. Rep. Franklin also asked about cost for additional cable. Ms. Holt asked that Guy McDonald, Senior Analyst from

Kansas Corporation Commission, answer Rep. Franklin's questions. There was additional discussion about what is provided by the telecommunication companies. Rep. Sloan asked about the Task Force recommendations and whether the Senate or the House would be putting the bills together. Ms. Holt responded that the Senate would be drafting the bills necessary at this time, however, not all recommendations were completed. Ms. Holt went over the Task Force recommendations and what needed to be done and had been done previously.

The Chair announced that next Tuesday's meeting would include a presentation on Retail Wheeling by Matthew Brown with the National Conference of State Legislatures. The Chair also announced that he had a set of 12 tapes on Retail Wheeling that the committee members could check out.

Meeting adjourned at 10:34 a.m.

Next meeting is Tuesday, January 19, 1999.

HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: Jan 14 '99

NAME	REPRESENTING
Joe Dick	BPU KCK
Dave Holthaus	Western Res.
Walker Hendrix	CURB
Doug Lawrence	SW Bell
Rob Hodges	KTIA
Mike Reecht	AT&T
Melody R	DAN JOHNSON INTERN
Marc Hamann	Division of the Budget
John D. Pinegar	SLTA
Mark Caplinger	SLTA
Paul Snider	SWBT
Mike Moffet	SWBT
Lori Lee Cannon	Dan Dahl-Intern
Guy McDonald	KCC-Staff
Jerry Lammers	KCC-Staff

HOUSE UTILITIES COMMITTEE GUEST LIST

DATE: Jan 14 '99

NAME	REPRESENTING
Anne Wickl: 77e	KCC
Dave Heinemann	KCC
Mike Murray	Sprint
Tom Gleason	Independent Telecom Group
Debby Fleming	Federico Consulting
Kent Gaulley	McGill, Gaches & Assoc

Kansas Corporation Commission

Bill Graves, Governor John Wine, Chair Cynthia L. Claus, Commissioner Brian J. Moline, Commissioner

January 14, 1999

Honorable Carl D. Holmes, Chairman
House Utilities Committee
Statehouse, Room 115-S
Topeka, Kansas 66612

Dear Representative Holmes:

The Kansas Corporation Commission would request the House Utilities Committee to introduce the following legislation. The legislation proposed for introduction has been routed through the Governor's office.

Attached please find a brief synopsis of the statutory change and proposed statutory amendment.

1) Amend KSA 66-104 and KSA 66-1,169 (exemption of merchant power plants from the siting act and as public utilities);
2) Repeal KSA 58-1312 to KSA 58-1315 (maximum lighting standards for commercial and industrial buildings);
3) Amend KSA 66-1a01 (application fee for interexchange telecommunications carriers and competitive local exchange carriers);

The Corporation Commission respectfully seeks introduction of the bills through the House Utilities Committee. Should you have questions, please feel free to call me at 271-3190.

Thank You,

Thomas A. Day
Legislative Liaison

House Utilities
1-14-99
Attachment 1

1500 SW Arrowhead Road, Topeka, Kansas 66604-4027 785.271.3100

Amend KSA 66-104 and KSA 66-1,169

Brief Summary

These changes are intended to eliminate privately financed merchant power plants from the definition of a public utility and from the requirements of the generation siting act. The intent would be to encourage the development of generation facilities that would sell on the competitive wholesale spot power markets and would not be linked to a utility or ratepayer financial obligation.

Fiscal Impact

Currently, we have received 3 siting requests in the past 5 years. All of these have been for power plants constructed by Kansas utilities in Missouri. Because they were out of state the siting requirements were much less stringent than they are for facilities located in Kansas. However, it is expected that several Kansas located siting requests will be received in the near future. While there is no fiscal impact for the KCC under this proposal, it could reduce what is anticipated to be an increasing work load in the future. Additionally, this may have a fiscal impact for Kansas government revenues if it reduced the amount of property tax revenue received from a future generation facility constructed as a merchant plant. The reduction will occur if the facility was not considered a public utility and therefore taxed accordingly.

Repeal KSA 58-1312 to KSA 58-1315

Summary

This proposed repeal provides a statutory cleanup for an obscure KCC requirement that conflicts with a bill passed in the 1997 legislative session. The Commission no longer has the authority to adopt energy efficiency standards (which include maximum lighting standards) for commercial or industrial buildings.

Fiscal Impact

None. The Commission has not adopted lighting standards for almost 20 years.

Amend KSA 66-1a01

Brief Summary:

The purpose of this amendment is to charge all Interexchange Telecommunications Services Providers an application fee. The proposed amount of application fee is $100, although some argument can be made for a higher amount.

Fiscal Impact:

This proposal will have a fiscal impact on the Public Service Regulatory Fund. The Commission has made changes in assessments and fees in order to recover costs through application fees. An estimate based on FY 97 and FY 98 figures would produce annual receipts of $8,000 to $10,000. There would not be a fiscal impact on other divisions or other state agencies. This proposal will increase the regulatory costs to each affected carrier by $100.

Proposed Amendment to K.S.A. 66-104
(New Language to be inserted at Revisor's discretion)

The term public utility shall not include any company which generates electricity solely for sale on short term power and energy markets provided such company does not sell electric capacity or energy on terms requiring a contractual purchase obligation of longer than one year with any public utility in the state of Kansas or any municipally owned or operated electric utility in the state of Kansas, provided that such company does not otherwise meet the definition of a public utility.

Proposed Amendment to K.S.A. 66-1,169b

66-1,169b. Electric generation facility siting; when provisions of act not applicable. (a) The provisions of the Kansas electric generation facility siting act shall not apply to: (1) Unit number 3 of the Jeffrey Energy Center; or (2) electric generation facilities that have a capacity of 100 megawatts or less and convert wind, solar, biomass, landfill gas or any other renewable source of energy, or (3) when the proposed generation plant will not be added to the ratebase of any public utility and will not be financed by any capacity or energy contractual purchase obligation of longer than one year with any public utility in the state of Kansas or any municipally owned or operated electric utility in the state of Kansas, and land procured to construct the proposed generating facility is not obtained by use of condemnation through the eminent domain power of a public utility.

(b) With regard to a facility proposed to be located outside this state, K.S.A. 66-1,160 and 66-1,161, and amendments thereto, shall not apply and, for purposes of determining the most reasonable location of a proposed facility or addition to a facility pursuant to K.S.A. 66-1,162, and amendments thereto, the commission shall consider only the effects on system reliability and economic efficiency.

History: L. 1979, ch. 209, S. 12; L. 1993, ch. 106, S. 2; L. 1995, ch. 264, S. 2; July 1.

Proposed Amendment to KSA 66-1a01

66-1a01. Fees for regulation of securities and motor carriers and for document copies; public service regulation fund and motor carrier license fund created. (a) The state corporation commission shall charge and collect fees for the purposes and in the amounts as prescribed in this section. Such fees shall be paid to the state corporation commission at the time of filing the original papers or application in the case.
(b) (1) For the purposes of certificates issued under K.S.A. 66-125, and amendments thereto, to authorize the issuance of stock, bonds or other evidences of indebtedness, except as otherwise provided in paragraph (1), the commission shall charge and collect an application fee of $10 to accompany each application and processing fees which shall be set by rules and regulations

adopted by the commission and shall reflect the costs incurred by the commission to process such application.

Notwithstanding the foregoing provisions of paragraph (1), whenever an application is made for a certificate to authorize the issuance of stocks, bonds or other evidences of indebtedness and the federal interstate commerce commission has authorized the issuance of the same issue of such stocks, bonds or other evidences of indebtedness, the commission shall charge and collect an application fee of $10 to accompany each application and a processing fee of $25 which shall be paid on or before issuance of such certificate.(2) Whenever an application is made for a certificate of convenience and authority to provide interexchange telecommunications services or competitive local exchange carrier services, the commission shall charge and collect an application fee of $100 which shall accompany said application.

(2) With regard to the regulation of motor carriers, the commission shall charge and collect fees in accordance with the following schedule: For application for motor common carrier certificate....*$25 For application for motor carrier permit or license, except no fee shall apply to motor carriers regulated by the interstate commerce commission....*10 For application for extension, rerouting, removal of restrictions or transfer of motor common carrier certificate and motor common carrier license....*10 For each motor common carrier certificate involved in an application for authority to establish joint rates or fares and perform joint service....*5 For application of motor common carriers for authority to make any change in their tariffs or other publication pertaining to their rates, fares or charges: If hearing not required....*1 If increases proposed in rates, fares or charges when hearing is required....*25

(3) The commission shall charge a fee for copies, other than mimeographed or printed copies, of applications, orders, certificates, schedules and duplicate motor-carrier equipment identification cards and a fee for copies of passenger or property motor common carrier lists, both fees in amounts approved by the director of accounts and reports under K.S.A. 45-219, and amendments thereto.

(c) There is hereby created in the state treasury the public service regulation fund. The commission shall remit all moneys received by or for it in payment of the fees imposed for certificates authorizing the issuance of stock, bonds or other evidences of indebtedness under paragraph (1) of subsection(b) to the state treasurer daily. Upon the receipt of each such remittance, the state treasurer shall deposit the entire amount thereof in the state treasury and the entire amount thereof shall be credited to the public service regulation fund. All expenditures from the public service regulation fund shall be made in accordance with appropriation acts upon warrants of the director of accounts and reports issued pursuant to vouchers approved by the chairperson of the state corporation commission or by a person or persons designated by such chairperson.

(d) There is hereby created in the state treasury the motor carrier license fees fund. The commission shall remit all moneys received by or for it in payment of the fees imposed for regulation of motor carriers under paragraphs (2) and (3) of subsection (b) to the state treasurer daily. Upon the receipt of each such remittance, the state treasurer shall deposit the entire amount thereof in the state treasury and the entire amount thereof shall be credited to the motor carrier license fees fund. All expenditures from the motor carrier license fees fund shall be made in

accordance with appropriation acts upon warrants of the director of accounts and reports issued pursuant to vouchers approved by the chairperson of the state corporation commission or by a person or persons designated by such chairperson.

Report of the Kansas Universal Service Fund Working Committee to the 1999 Kansas Legislature

CHAIRPERSON: Senator Alicia Salisbury

VICE-CHAIRPERSON: No Vice-Chairperson

OTHER MEMBERS: Senators Jim Barone, Karin Brownlee, Paul Feleciano, Jr.; Representatives Clay Aurand, Dennis McKinney, Dixie Toelkes, and Lloyd Stone

NONLEGISLATIVE MEMBERS: Vic Davis, David Furnas, E. Clarke Garnett, Mike Clay, Walker Hendrix, Nelson Krueger, Shawn McKenzie, Teresa Colvin, Mike Reecht, Chris Rippel, Sal Tayani, Paul Tobia, Dick Veach, and Roger Winfrey

December 1998

House Utilities
1-14-99
Attachment 2

KANSAS LEGISLATIVE RESEARCH DEPARTMENT Rm. 545N-Statehouse, 300 SW 10th Ave.
Topeka, Kansas 66612-1504
(785) 296-3181 ◆ FAX (785) 296-3824
kslegres@klrd.state.ks.us
http://skyways.lib.ks.us/ksleg/KLRD/klrd.html

Revised: January 5, 1999

RECOMMENDATIONS OF THE KANSAS UNIVERSAL SERVICE FUND (KUSF) WORKING COMMITTEE TO THE 1999 LEGISLATURE

KUSF Committee Members

Senator Alicia Salisbury, Chairperson
Senator Jim Barone
Senator Karin Brownlee
Senator Paul Feleciano, Jr.
Representative Clay Aurand
Representative Dennis McKinney
Representative Lloyd Stone
Representative Dixie Toelkes
Mr. Vic Davis, Kansas Cable Telecommunications Association
Mr. David Furnas, Kansas Press Association
Mr. E. Clarke Garnett, KINI, L.C.
Dr. Jay Gillette, Fort Hays State University;
replaced by Mike Clay, Emporia State University
Mr. Walker Hendrix, Citizens' Utility Ratepayer Board
Mr. Nelson Krueger, Kansas City Fiber Net
Mr. Shawn McKenzie, Southwestern Bell Telephone Company of Kansas
Ms. Teresa Neher (now Colvin), Cellular One/CMT Partners
Mr. Mike Reecht, AT&T
Mr. Chris Rippel, Central Kansas Library System
Mr. Sal Tayani, Kansas State Department of Education
Mr. Paul Tobia, Vulcan Chemicals
Mr. Dick Veach, Rural Telephone Company State Affairs Committee
Mr. Roger Winfrey, Insurance Planning Center

KUSF Staff Support

Mr. Guy McDonald, Senior Analyst, Kansas Corporation Commission
Ms. Lynne Holt, Principal Analyst, Kansas Legislative Research Department
Mr. Bob Nugent, Revisor, Office of Revisor of Statutes

TABLE OF CONTENTS

Page

Page

Page

KANSAS UNIVERSAL SERVICE FUND WORKING COMMITTEE RECOMMENDATIONS

- Amend the provision in the declaration of public policy on telecommunications in K.S.A. 66-2001 (b) to: "ensure that ***conditions exist for*** consumers throughout the state to realize the benefit of competition through increased services and improved telecommunications facilities and infrastructure." Existing law provides for the state's public policy to: "ensure that consumers throughout the state realize the benefit of competition through increased services and improved telecommunications facilities and infrastructure at reduced rates."

- Add a public policy statement to K.S.A. 66-2001, to reflect recognition of the state's role in fostering conditions for "continuous innovation in information networking and telecommunications."

- Re-emphasize the public policy statement in K.S.A. 66-2001 (a), to: "ensure that every Kansan will have access to a first class telecommunications infrastructure that provides excellent services at an affordable price," with respect to any public policy decisions that might affect the size of the Kansas Universal Service Fund.

- Recommend introduction of legislation to delete integrated services digital network (ISDN) from the definition of "enhanced universal service" in K.S.A. 66-1,187 (q) and from other statutes, as appropriate.

- Request the Kansas Corporation Commission (KCC) to expedite its review of the definitions of basic universal service and enhanced universal service, identify the appropriate date of deployment of additional basic services, and the cost implications of any modifications. Request the KCC to advise the Senate Commerce Committee and House Utilities Committee of its findings and revisions, if any, not later than February 15, 1999.

- Recommend a legislative review of the deadline scheduled for deployment by local exchange carriers (local telephone companies) of enhanced universal service capabilities based on the KCC's review of such services. House Sub. for S.B. 212 extended the deadline from July 1, 2001 to July 1, 2003.

- Recommend the Legislature create a framework to move away from the principle of revenue neutrality specified in K.S.A. 66-2008 (a), to a cost-based universal service funding mechanism. K.S.A. 2008 addresses the contribution and expenditure requirements governing the KUSF.

- Recommend the Legislature consider other revenue sources for funding universal service, in addition to the present use of surcharges on ratepayers' utility bills.

- Recommend the Legislature address the cap on intrastate retail revenues that may be collected from utility customers to capitalize the KUSF, to ensure that problems do not result from this shift in policy. House Sub. for S.B. 212 required an 8.89 percent cap to be in effect prior to January 1, 2000, as a means of curbing the size of the Fund. In that legislation, the assessment formula links the 8.89 percent cap to amounts collected from customers. Under prior law, the formula was based on assessments against companies.

- Recommend retention of language in K.S.A. 66-2011, as amended by 1998 House Sub. for S.B. 212. This statute refers to Internet access, the conditions under which flat-rate discount plans for such access may apply; and the requirements governing Internet Service Providers that register with the KCC.

BACKGROUND

The concept of "universal service" has evolved since the passage of the Communications Act of 1934, which stated that its purpose was:

> to make available, so far as possible, to all the people of the United States, without discrimination on the basis of race, color, religion, national origin, or sex, a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable rates (Communications Act of 1934, Title 1, Sec. 1(47 U.S.C. 151)

The Federal Telecommunications Act of 1996 (hereafter, referred to as the Federal Act) identified six universal service principles. One principle directed the Federal Communications Commission (FCC) and states to establish "specific, predictable, and sufficient mechanisms to preserve and enhance universal service" (47 U.S.C. Sec. 254 (b)(4)). Another principle promoted consumer access in all parts of the country to telecommunications and information services:

> Consumers in all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas, should have access to telecommunications and information services, including inter-exchange services and advanced telecommunications and information services, that are reasonably comparable to those services provided in urban areas and that are available at rates that are reasonably comparable to rates charged for similar services in urban areas (47 U.S.C. Sec. 254 (b)(3)).

In 1934, when the Communications Act was passed, fewer than half of all households in the United States had telephones. When the 1996 Act was passed, the household telephone penetration rate was approximately 94 percent. Moreover, the term *communication service* in 1934 was confined to one-way radio transmission and plain old telephone service (POTS). As is apparent in the Federal Act, access to high-speed data transmission in schools, libraries, and hospitals is also considered part of the universal service objective. Expectations have changed in concert with significant technological changes. What has not changed is the operating premise that the value of a connection to the telecommunications network is positively correlated to the number of people who can be accessed by means of the network. The network increases in value for all subscribers with the addition of each subscriber.

In past years, universal service has been promoted through pricing policies that were designed to maintain low local residential telephone rates. These local rates have been kept at affordable levels to provide local service through internal cross-subsidies from long-distance to local services, business customers to rural customers, and urban to rural areas. Internal cross-subsidization is, however, totally incompatible with competition which is one of the major objectives of the Federal Act—"to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies."

Both the FCC and state regulatory commissions and legislatures continue to face the challenge of forging compatibility between two of the primary objectives—competition and

universal service—underlying the Federal Act.[1] Efforts to reconcile these two objectives have been and continue to be fraught with contentiousness and litigation. For example, the main thesis of a book by Milton L. Mueller, Jr. is that the FCC's efforts to promote universal service cannot be reconciled with promotion of competition. Mr. Mueller notes:

> In short, the new universal service mechanisms keep the FCC in the business of classifying technology and applying different rules to different categories—an activity that has proven to be a source of never-ending headaches ever since it tried to draw a line between telephones and computers in the 1960s. As technology shifts and new services start to undercut the market share of older firms and services, we can expect to see rancorous debates about which companies are eligible to pay out and receive universal service subsidies. If such debates result in a "competitively neutral" outcome, that will be nothing short of a miracle. If the FCC was really interested in competitive neutrality, it would simply step out of the way and let market choices determine the diffusion of services (p. 176).

The counter-argument comes from those individuals who maintain that market choice is not likely to be available, at least in the short term, in rural, low-density parts of the United States. Without assurance of recovery, investments in costly telecommunications facilities will be made predominately in populated areas where there is sufficient market demand to justify a provider's initial capital outlay. These individuals maintain that if access to certain telecommunications services is considered necessary to meet certain social objectives, such as access to emergency services, retention of basic telephone service, expanded educational opportunities, and exposure to the benefits of economic development, government has the responsibility of ensuring that certain conditions exist so that Americans have the ability to obtain those services.

Clearly, the Federal Act subscribes to the need for universal service support subsidies to meet the social objectives outlined above. The next task is to determine the necessary components of a universal support mechanism that would be most compatible with emerging competition. Although different characteristics may be selected, a universal support mechanism, at least according to Kaserman and Mayo, could have the following characteristics:

1. Subsidization of telephone subscribership should be made explicit.

2. Collection of the necessary funds should be broadly based.

3. Distribution of the subsidy should be narrowly targeted to those households that are most likely to drop off the network in the absence of the subsidy.

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[1] Milton L. Mueller, Jr. *Universal Service: Competition, Interconnection, and Monopoly in the Making of the American Telephone System* (Cambridge, Mass: The MIT Press, 1997).

4. Both collection and distribution of the subsidy should be competitively neutral.[2]

However, even if consensus existed regarding the necessary characteristics for such a mechanism, there would be little consensus as to the actual presence of those characteristics. With respect to the first characteristic, there seems to be little debate that subsidization should be moving from internal support to explicit support but how do we effectively measure that movement? What implicit subsidies, if any, currently exist in a telephone company's rate base and what can or should regulatory agencies do to eliminate those subsidies?

With respect to the second characteristic, what is meant by a "broadly based" collection of necessary funds and is that the most cost-effective way of collecting those funds? For example, would it be better to allow large telephone companies to rebalance[3] their local rates to support universal service objectives concerning their ratepayers instead of requiring those companies to contribute to an explicit fund? If rebalancing is desired, should cost studies be performed to ensure that all customers pay the appropriate amounts?

Given the objectives outlined in the Federal Act and ensuing orders from the FCC, can states adhere any longer to subsidizing only the narrowly targeted population households that are most likely to drop off the network in the absence of the subsidy, as identified in the third characteristic? If states elect to subsidize a greater population, what is the cost to remaining ratepayers? Would an expansion in the targeted population adversely affect competitors? How does an expansion in the targeted population meet other objectives of the Federal Act?

The fourth characteristic, "competitive neutrality" is considered to be a laudable public policy objective. For example, the Federal Act provides that:

> nothing in Sec. 253 (removal of barriers to entry) shall affect the ability of a State to impose, *on a competitively neutral basis* (italics added) and consistent with section 254 (universal service), requirements necessary to preserve and advance universal service, protect the public safety and welfare, ensure the continued quality of telecommunications services, and safeguard the rights of consumers (47 U.S.C. 253(b)).

However, there may be different interpretations as to the degree to which competitive neutrality has been realized in both collections for and distributions of universal service support. An example is the petition filed with the FCC by Western Wireless Corporation requesting an exemption from the statutes and rules governing the KUSF. (See Part IX.)

As discussed below, the KUSF Working Committee (hereafter, Committee) members heard presentations on, and addressed in their deliberations, the salient characteristics of a

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[2] David L. Kaserman and John W. Mayo, "The Quest for Universal Telephone Service: the Misfortunes of a Misshapen Policy," in Donald L. Alexander, ed., *Telecommunications Policy: Have Regulators Dialed the Wrong Number*? (Westport, CT: Praeger, 1997), p. 140.

[3] A company may rebalance or offset reductions in access charges through increases in rates for other company services.

universal service support mechanism, including: the movement toward explicit subsidization; the contribution base of the support mechanism; the populations to which the subsidy is and should be targeted; and the competitive neutrality of the support mechanism. Specific features of the support mechanism (in this context, the KUSF) also were considered and discussed extensively.

PART I
KANSAS UNIVERSAL SERVICE FUND

Regulatory Framework. The 1996 Kansas Legislature enacted the Kansas Telecommunications Act of 1996 (hereafter referred to as the Kansas Act). That legislation authorized creation of the Kansas Universal Service Fund (KUSF) in K.S.A. 66-2008. The KUSF was subsequently established in March 1997, in accordance with provisions of that statute and an order issued by the KCC in December 1996. The KUSF was created as an explicit funding mechanism in accordance with Kaserman's and Mayo's first principle that subsidization of telephone subscribership should be made explicit.

The Kansas Act also created the regulatory framework to move delivery of intrastate telecommunications services from a monopolistic environment to a competitive environment. To that end, various sections of the Kansas Act specify the necessary conditions for that transition to occur, specifically activities related to resale terms and conditions governing local telephone companies (Southwestern Bell, Sprint/United) (K.S.A. 66-2003), and features of price cap regulation for local telephone companies (Southwestern Bell, Sprint/United) (K.S.A. 66-2005).

Reduction of Intrastate Access Charges. The most notable example of the meshing of objectives of competition and universal service was the Legislature's treatment of intrastate access charges in the Kansas Act. A step in the transition to a more competitive environment was the mandated reduction of intrastate access charges which have historically subsidized local rates (K.S.A. 66-2005(c)). Customers' local rates, in general, have not been sufficiently high to cover all the booked costs of the local telephone company in operating and maintaining the local telephone network. Some of those costs have been recovered through charges to long distance companies, such as AT&T, Sprint, and MCI, which use the local networks to originate and complete their long distance calls. These charges are called *access charges* and are included in the costs long distance companies incur in providing long distance service. The FCC has been reducing those access charges under its jurisdiction (interstate access charges) in order to reduce subsidies of long distance companies to local service.[4] Reduced access charges, in turn, have the effect of lowering long distance rates. Such an action, both at the federal and state level, is considered a precondition for the development of competition among telecommunications service providers.

Revenue Neutrality. Switched access charges under Kansas' jurisdiction (intrastate access charges) have been historically higher than interstate levels. Consequently, the Kansas Act required intrastate switched access rates to be reduced over a three-year period with the objective of equalizing interstate and intrastate rates in a "revenue neutral, specific and predictable manner" (K.S.A. 66-2005(c)). What revenue neutrality essentially means in this context is that any revenue losses experienced by a local telephone company through reduced intrastate access charges must be replaced by other revenues to make that company "whole." The KCC elected to compensate local telephone companies for those losses through disbursements from the KUSF. The revenues used to initially capitalize the Fund were recovered from all providers of telecommunications services, including wireless providers, on a revenue neutral basis (K.S.A. 66-2008). All providers who must contribute to the KUSF are authorized

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[4] However, the FCC has been increasing flat rate charges to customers for recovery of usage nonsensitive costs. See the discussion on Presubscribed Interstate Carrier Charges in Part VII.

(but not required) to collect the assessments from their customers. The 1998 amendments to the Kansas Act imposed a limit on the percentage governing monthly collections from customers. (See Section III.)

Purposes of Fund. Of all issues addressed by the Committee, the purposes for which KUSF disbursements may be authorized exacted the most discussion. Targeting of Fund disbursements is directed to eligible telecommunications carriers providing universal service. The Fund also can be used for support to certain populations (low-income, hearing impaired, and speech impaired). Since the inception of the Fund, the greatest amount of support from the Fund has been used for local service in high cost areas. To date, only local telephone companies have received funding from the KUSF. However, other carriers are now in the process of applying for designation as eligible telecommunications carrier,[5] and thus will be eligible for KUSF support pursuant to K.S.A. 66-2008(c).

Other uses of the Fund include:

- Lifeline service for low-income Kansans;
- Kansas Relay Service, Inc., which provides funding for operator assistance for the hearing impaired;
- Telecommunications Access Program, which provides funding for the purchase of equipment for persons with disabilities; and
- Administration of the KUSF, which is the responsibility of the National Exchange Carrier Association (NECA). This association was selected through a competitive bidding process. Its contract with the KCC is for 18 months, with four one-year extensions, to expire on June 30, 2002.

The amount of KUSF support provided as of June 1998 by program is listed below. Amounts shown are in millions.

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[5] To be eligible to receive disbursements from the KUSF, a company must be deemed an "eligible telecommunications carrier," in accordance with the Federal Act (47 U.S.C. 214(e)(1)). An eligible telecommunications carrier must, "throughout the service area for which the designation is received: (A) offer the services that are supported by federal universal service support mechanisms under section 254(c), either using its own facilities or a combination of its own facilities and resale of another carrier's services (including the services offered by another eligible telecommunications carrier); and (B) advertise the availability of such services and the charges therefor using media of general distribution."

TABLE 1
(in millions)

Supported Program	12 Months Beginning March 1997	12 Months Beginning June 1998*
Universal Service**	$63.9	$96.4
Lifeline	0.1	0.4
KRSI	2.1	2.4
TAP	0.5	1.1
Administration	0.1	0.1
Total Support	$66.7	$100.4

* Second year implementation was delayed pending court order.
** This program is sometimes informally referred to as the High Cost Fund.

Source: KCC staff; July 1998.

To date, universal service support has assumed the form of replacing revenues lost due to reduced intrastate access charges. However, as authorized in K.S.A. 2008 (e), such support also may be used for:

- shortfalls resulting from changes in federal rules related to access revenue requirements;
- a percentage increase in access lines over a 12-month period prior to request;
- infrastructure expenditures necessary to serve additional customers within a company's service area;
- additional investments required to provide universal service and enhanced universal services: signaling system seven capability, with CLASS service capability; basic and primary rate ISDN capability, or the technological equivalent; full-fiber interconnectivity, or the technological equivalent, between central offices; and broadband capable facilities to all schools, hospitals, public libraries, and state and local government facilities which request broadband services; and
- infrastructure investments responding to facility or service requirements of the Legislature (such as Internet access requirements addressed below), regulatory (FCC or KCC), or judicial authority.

With the exception of the initial revenues replaced from the KUSF to offset intrastate access reductions, companies must request recovery from the KCC, subject to an expedited review process. Additional funding also may be requested. Furthermore, the Commission may require a general rate case filing.

PART II
EVENTS LEADING TO ENACTMENT OF HOUSE SUB. FOR S.B. 212

Several issues resulted in enactment of 1998 House Sub. for S.B. 212, which established the KUSF Working Committee. See Attachment I for a copy of the 1998 legislation. A summary of key provisions of the legislation are outlined in Part III. The following issues, in particular, led to passage of the 1998 legislation:

- legislative concerns with assessments against wireless subscribers;
- legislative concerns with the size of the KUSF;
- the Kansas Supreme Court's decision regarding the KUSF;
- a need for clarification of the KCC's authority to monitor and enforce adequacy of Internet service connectivity and to introduce "grandfather" eligibility for existing subscribers of discounted Internet access service plans; and
- legislative concerns with measures to deter slamming.

Wireless Subscribers. Perhaps the greatest impetus legislators had for amending the Kansas Act in 1998 was the number of complaints they received from constituents during the first 15 months of KUSF operations beginning March 1, 1997. From that date to June 1, 1998, the assessment against all telecommunications service providers to capitalize the Fund was 9.89 percent.[6] Complaints came predominately from users of cellular phones, which were likewise assessed 9.89 percent. For example, an assessment of 9.89 percent on monthly cellular bills totaling $100 was almost $10.

Wireless service providers also have been involved in litigation challenging the Kansas Act. At least three actions have been taken to that end:

- Wireless service providers alleged in the U.S. District Court for the District of Kansas that the Kansas Act was in violation of federal law –47 U.S.C. Section 332(c). The District Court ruled to deny the preliminary injunction. That decision was appealed to the U.S. Court of Appeals for the 10th Circuit in Denver. The 10th District Court upheld the denial of the preliminary injunction which was the only issue before that court. The KCC filed a motion to dismiss the case on the merits. For their part, the wireless providers filed

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[6] The first year was extended by three months because the Kansas Supreme Court granted the KCC a stay in implementing the second year of access charges of Southwestern Bell and Sprint/United, along with corresponding changes to the KUSF. The Supreme Court's decision, issued March 13, 1998, dissolved the stay. See *Citizens Utility Ratepayer Board v. State Corporation Commission*, No. 78,548. On April 29, 1998, the KCC issued an order which reduced the assessment to customers to 7.33 percent for the second year of access charge reductions.

motions to dismiss their complaint without prejudice, to which the KCC consented.

- Several wireless service providers also were appellants in litigation to the Kansas Court of Appeals contesting the legality of various aspects of the Kansas Act. In particular, these providers raised the question as to whether states may require wireless providers to contribute to state universal support mechanisms, alleging that the KCC illegally exercised regulatory jurisdiction over them through imposition of the KUSF assessment. The Court of Appeals and, subsequently, the Kansas Supreme Court sustained the KCC's authority to assess wireless service providers for contributions to the Fund, claiming that such assessments were not in conflict with the state statute exempting them from KCC jurisdiction, regulation, supervision, or control.

- Western Wireless filed a preemption petition with the FCC, alleging violations of Sections 253 and 254 of the Federal Act. (See Section IX.)

To date, wireless service providers continue to be assessed for contributions to the KUSF, although the 1998 amendments to the Kansas Act remove that assessment for wireless to wireless transactions. All major wireless companies will have paid into the Fund by the end of 1998. The amounts they contributed are confidential.

Size of Fund. The size of the KUSF also was a concern for many legislators. The KCC staff had initially projected adequate capitalization of the KUSF to be $111.6 million when fully implemented. The KCC's order to phase down access charges required a rebalancing by Southwestern Bell and Sprint/United of $8 million in miscellaneous revenues and reductions of $3 million due to other factors. This order reduced the projected size of the KUSF to roughly $100.4 million. Nonetheless, the Legislature realized that reserves of $31.7 million, which were applied to the second year, could not necessarily be expected in future years. Consequently, the 1998 legislation reflected certain efforts to curb the size of the KUSF, including limiting the amount to be collected from customers for intrastate retail sales. This issue is addressed in greater depth in Part IX.

TABLE 2

	First 15 Months KUSF Actual (March 1997-May 30, 1998)	Second Year KUSF Projected (June 1998-May 1999)
Surcharge Assessment	9.89%	7.33%
Amount Collected (millions)	$98.4	$68.7
Amount Paid Out (millions)	$66.7	$100.0
Reserve (millions)	$31.7	$0.4

Kansas Supreme Court's Decision. The Citizens' Utility Ratepayer Board and various telecommunications providers, including several wireless service providers referenced above,

appealed to the Court of Appeals following the KCC's final orders on competition (December 27, 1996; February 3, 1997). They contended that the Kansas Act and the KCC orders pursuant to that Act violated the Federal Act. Although the Court of Appeals sustained the KCC's authority to require assessments from wireless providers, the Court, nonetheless, held that the KCC orders did not comply with the Federal Act and had to be set aside. The 1998 Legislature did not begin to take action on any legislation until the Kansas Supreme Court's decision was issued, in large part because a decision that would have sustained the Court of Appeals' would have involved a very different set of considerations than the one that reversed it. However, on March 13, 1998, the Kansas Supreme Court upheld the validity of the Kansas Act and the KCC orders on competition.

Revenue Neutrality in Litigation. One issue central to the litigation and the two courts' findings was the concept of revenue neutrality. As noted in Part I, the concept of revenue neutrality is key to the initial capitalization of the KUSF. The Kansas Act required the initial amount of revenues lost due to rate rebalancing to be recovered on a revenue neutral basis. In their petition to the Court of Appeals, CURB and the wireless service providers took issue with the concept of revenue neutrality, as used in the Kansas Act, arguing that the term in that context was unconstitutionally vague. The Court of Appeals did not agree with the appellants' argument, but did conclude, however, that the concept of revenue neutrality, as well as the prohibition against earnings audits, "was clearly inconsistent with the obligation of the KCC to ensure just and reasonable rates and charges for the consumers of Kansas." Because of the statutory prohibition against an earnings review and the revenue neutrality requirement in determining the initial funding level for the KUSF, the Court maintained that "the KCC order has created a $111.6 million fund that bears no rational relation to the concept of universal service and cost."

The Kansas Supreme Court's decision reversed the Court of Appeals' opinion that the concept of revenue neutrality and the prohibition against audits and earnings reviews in the Kansas Act are inconsistent with the Federal Act and the KCC's statutory obligation to ensure just and reasonable rates and charges for Kansas consumers. The Supreme Court affirmed the validity of the methodology prescribed in the Kansas Act for setting the initial funding level for the KUSF. To that end, the Supreme Court acknowledged that the KCC was not required, only authorized, to rebalance rates (increase local rates to recover lost revenues from access rate reductions). The KCC elected to reduce intrastate access charges to interstate levels and recover lost revenues through the KUSF and not through local rate increases.

Internet Service Connectivity. The Kansas Act requires in K.S.A. 66-2011 all local telephone companies (presently Southwestern Bell and Sprint/United—the only two such companies providing intraLATA long distance service in Kansas) to offer two discounted dial-up flat rate plans to intraLATA Internet service providers of a customer's choice if the customer had no local (7-digit) access to an Internet service provider (ISP) registered with the KCC. As a condition for registration, the local ISP must provide at least 14.4 Kbps service (28.8 Kbps on or after July 1, 1999),[7] with no more than 5 percent blockage during the busiest hour of service. If those conditions are not met or the local ISP ceases to provide service and the customer is no longer served by a local ISP, the local telephone companies must offer the discounted plans described below. The rural telephone companies offer the discounted flat rate plans through an extension of Southwestern Bell's toll tariffs. Rates for the two discounted

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[7] As discussed in Part III, this requirement was changed to 19.2 Kbps in House Sub. for S.B. 212.

plans are specified in statute as not exceeding $15 per line per month for off-peak users and $30 per line per month for unlimited usage.

The KCC staff identified several problems with this statute and raised them with the 1998 Legislature. First, subscribers of the $15 and $30 monthly plans were required to seek other alternatives as soon as an ISP establishes a local presence. No provision existed to "grandfather" those subscribers. Second, the statute did not specify a procedure for the KCC to investigate complaints of substandard access to the Internet. Third, the statute failed to specify that the list maintained on ISP registration was to serve as the *single authoritative listing* (italics added) of ISP access numbers for use by local telephone companies in processing service orders. Fourth, to become effective on and after July 1, 1999, the 28.8 Kbps speed requirement would cause enforcement problems and would be costly for local telephone companies to comply with.

Slamming. "Slamming" is the practice of changing a customer's telecommunications provider without the customer's knowledge and consent. Prior to passage of 1998 House Sub. for S.B. 212, both the Attorney General's office and the KCC handled slamming complaints. The KCC subdivided such complaints into categories of "slamming" and "deceptive marketing." The distinction between the two categories is that "slamming" occurred when the customer alleged no contact with the "slammer." If the customer had some contact with the slammer, the KCC characterized that transaction as "deceptive marketing" and referred those complaints to the Attorney General's office. The KCC staff testified to the House Utilities Committee in February 1998 that the number of complaints received by the KCC had increased in both categories over the years.

TABLE 3

	1993	1994	1995	1996	1997
Slamming	48	60	278	255	179
Deceptive Marketing*	0	0	11	73	342
TOTAL	48	60	289	328	521

* All slamming complaints were tracked by the KCC as "slamming" until mid-1995, when the category of "deceptive marketing" was first established.

Source: KCC Public Information Office.

In addition to concern about the increasing number of slamming/deceptive marketing complaints and the duplication of effort in enforcing slamming complaints, many legislators expressed concern during the 1998 Session about the penalties for violations which were $1,000 per occurrence and did not appear to effectively deter perpetrators of slamming.

PART III
SUMMARY OF 1998 HOUSE SUB. FOR S.B. 212
CREATION OF THE KUSF WORKING COMMITTEE

The 1998 Legislature addressed the concerns outlined in Part II with the passage of 1998 House Sub. for S.B. 212. Those issues that, in the view of legislators, could not be resolved adequately within a time period of less than two months (from the date of the Kansas Supreme Court's decision in mid-March until legislative adjournment) were referred to the KUSF Working Committee for further consideration.

The provisions of 1998 House Sub. for S.B. 212 are summarized below.[8]

Wireless Providers. The assessment for KUSF contributions by wireless telecommunications service providers is reduced by subtracting the percentage minutes of usage of service initiated and terminated entirely over the wireless network. The KCC will have to establish the assessment rate for wireless providers no later than December 31, 1998. That rate will take effect prior to January 1, 2000. The effect of this provision will be to assess wireless providers at a lower rate than the rate of contribution to be applied to wireline providers.

Size of KUSF. The size of the KUSF is curbed, as follows:

- Deployment of enhanced universal services will be conditioned upon the completion by a local telephone company of a deployment plan which is subject to the KCC's approval or rejection. If the KCC takes no action on the plan within 90 days of receipt of the plan, the plan will be considered approved. The approval process will continue until July 1, 2000. Moreover, the schedule for statewide deployment of enhanced universal service capabilities is delayed from July 1, 2001 to July 1, 2003.

- The requirement in the Kansas Act for local telephone companies to provide dial-up Internet access on and after July 1, 1999 to support 28.8 kilobit per second service is modified in the bill to 19.2 kilobit per second service capability by that date. The KCC must increase the 19.2 kilobit per second requirement when the KCC determines that more advanced technology is both technically and economically feasible.

- Prior to January 1, 2000, no telecommunications company may collect from customers an amount in excess of 8.89 percent of its intrastate retail revenues. Contributions collected in excess of distributions in a given year must be applied to offset the estimated contribution determined for the following year.

Clarification of KCC Authority/Internet Access. The KCC must monitor the adequacy of connectivity to Internet service. The bill provides the KCC staff with grounds for removing

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[8] This summary is extracted from memorandum to the KUSF Working Committee by Lynne Holt, Kansas Legislative Research Department "Background Information/ Policy Issues Re: Universal Service Fund,"June 1, 1998.

Internet service providers from the Internet service provider registry. The bill outlines the obligations of local telephone companies offering discounted Internet access service plans once a new Internet service provider establishes a local presence. Under prior law, no procedure existed for addressing the transition to a competitive market with respect to Internet access service.

Slamming. The following anti-slamming provisions are included in the bill:

- The telephone company requesting a change of carrier will have the burden of proving express authorization by a preponderance of the evidence. "Express authorization" is defined in the bill as an express, affirmative act by a consumer clearly agreeing to the change in the consumer's telecommunications (long distance) carrier or local exchange carrier to another carrier.

- Any telephone company or any third-party verification entity is prohibited from soliciting or verifying changes from one telephone company to another if the solicitation or verification could be potentially misleading, deceptive, or confusing. Another prohibition includes the use of a box to collect sweepstakes, contests, or drawings to gather authorization for change in telephone companies or change or addition to telecommunications services. Verification procedures for changing telephone companies may not be used if they are not approved by the FCC or the KCC.

- Any telephone company in violation of the Act will be subject to a civil penalty of not less than $5,000, nor more than $20,000, for each violation. The bill also authorizes the KCC to pursue any other sanctions deemed necessary to respond to a telephone company's violations of the Act. Moreover, the Attorney General is authorized to pursue violations of the Kansas Consumer Protection Act.[9]

- All local telephone companies must annually notify their consumers of the option to specify, in writing, that they do not desire to change long distance companies regardless of any orders to the contrary submitted by a third party.

KUSF Working Committee. The KCC must establish a KUSF working committee with the following composition and tasks:

- The Committee includes 22 members: representatives from various segments of the telecommunications industry; an Internet service provider; a representative from the Citizens' Utility Ratepayer Board; a Kansas university faculty member with expertise in telecommunication technology; a representative of:

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[9] On October 16, 1998, the Committee received a status report from the Attorney General's office on the number of complaints received on slamming following enactment of 1998 House Sub. for S.B. 212. The Attorney General's office has been handling all slamming complaints pursuant to the bill's enactment. Since May 1, 1998, the office received 330 calls for slamming or cramming (unauthorized switching of a customer's telecommunications services). Of that number, 90 were complaints. The KCC staff also reported receiving 202 calls during that time interval and referring those calls to the Attorney General's office.

elementary and secondary schools, a public library, a large business, and a small business; and eight legislators (four House members, two from each party; four Senate members, two from each party).

- The Committee must discuss, identify, and develop recommendations regarding technology issues, KUSF funding regulatory procedures, modifications to enhanced universal service, and other issues identified by the committee, including, but not limited to: the definition of enhanced universal service; how and when enhanced universal service should be deployed; the most appropriate mechanism for recovering capital costs; and how to address Internet access in light of changing technology.

- The Committee must submit to the Legislature a report and recommendations based on the committee's activities.

The 22-member Committee had to represent those interests defined in statute. The following is a list of all members with their statutory designation:

Eight legislators (four from the House; four from the Senate)

Senator Alicia Salisbury, Chairperson
Senator Jim Barone
Senator Karin Brownlee
Senator Paul Feleciano, Jr.
Representative Clay Aurand
Representative Dennis McKinney
Representative Lloyd Stone
Representative Dixie Toelkes

Local Exchange Carriers Subject to Price Caps
Mr. Shawn McKenzie, Southwestern Bell Telephone Company of Kansas

Inter-Exchange Carriers
Mr. Mike Reecht, AT&T

Cable Companies
Mr. Vic Davis, Kansas Cable Telecommunications Association

Wireless Telecommunications Service Providers
Ms. Teresa Neher (now Colvin), Cellular One/CMT Partners

Rural Telephone Companies
Mr. Dick Veach, Rural Telephone Company State Affairs Committee

Competitive Local Exchange Carriers
Mr. Nelson Krueger, Kansas City Fiber Net

Competitive Access Providers
Mr. E. Clarke Garnett, KINI, L.C.

Internet Service Providers
Mr. David Furnas, Kansas Press Association

Citizens' Utility Ratepayer Board
Mr. Walker Hendrix, Citizens' Utility Ratepayer Board

Faculty Member from a Kansas University with Expertise in Telecommunications Technology
Dr. Jay Gillette, Fort Hays State University, replaced by Mike Clay, Emporia State University

Elementary and Secondary Schools
Mr. Sal Tayani, Kansas State Department of Education

Public Library
Mr. Chris Rippel, Central Kansas Library System

Large Business
Mr. Paul Tobia, Vulcan Chemicals

Small Business
Mr. Roger Winfrey, Insurance Planning Center

The Committee had five one-day meetings at the KCC: June 1, 1998, July 7, 1998, August 13, 1998, September 8, 1998, and October 16, 1998. Meetings were devoted to receiving background information from:

- staff of the KCC and Kansas Legislative Research Department, and other presenters on federal and state universal service support mechanisms (Kansas and other states);
- members of the telecommunications industry and other interested parties on new and emerging telecommunications services and technologies;
- staff of the Kansas Department of Education on discounted rates (E-rates) for schools and libraries;
- KCC staff on the status of competition in telecommunications and Internet access services in Kansas;
- KCC staff on handling requests for enhanced universal service funding; and
- a spokesperson for the Rural Utilities Service (U.S. Department of Agriculture) on RUS funding for rural telephone companies.

In addition to gathering background information, the Committee reviewed and made recommendations, in part based on a presentation by Dr. Jay Gillette, formerly a faculty member at Fort Hays State University, on telecommunications public policy statements included in K.S.A. 66-2001; and heard and discussed progress reports from the two subcommittees appointed by Chairperson Salisbury (see Part IV below). Finally, the Committee made several recommendations based on the subcommittees' reports to the Committee and on information received at its five meetings. These recommendations are outlined on p. 1 and are addressed in other parts of the report, as well.

PART IV
SUBCOMMITTEE MEMBERS FOR THE ENHANCED UNIVERSAL SERVICE SUBCOMMITTEE AND THE INTERNET SERVICE SUBCOMMITTEE

Chairperson Alicia Salisbury established two subcommittees—the Enhanced Universal Service Subcommittee and the Internet Service Subcommittee—to explore certain issues in greater depth than could otherwise be addressed by the full Committee.

The Enhanced Universal Service Subcommittee

The Enhanced Universal Service Subcommittee was established to review the definition of "enhanced universal service" in the Kansas Act (K.S.A. 66-1,187) and propose any changes, as needed. The Subcommittee consisted of the following members:

Representative Clay Aurand, Chairperson
Representative Lloyd Stone
Representative Dixie Toelkes
Senator Paul Feleciano, Jr.
Mr. Paul Tobia, Plant Manager, Vulcan Chemicals
Mr. Roger Winfrey, President, Insurance Planning Center
Ms. Teresa Neher (now Colvin), District Tax Manager, Cellular One/CMT Partners
Ms. Theresa Gram, Director, North Central Kansas Distance Learning Network
Dr. Malcolm Clarrissimeaux, Vice President, Classic Communications
Mr. Shawn McKenzie, President, Kansas Southwestern Bell Telephone
Mr. Vic Davis, General Counsel, Kansas Cable Telecommunications Association
Mr. Dick Veach, Vice Chair, State Affairs Committee, Rural Telephone Companies
Mr. Walker Hendrix, Executive Director, Citizens' Utility Ratepayer Board

Ms. Gram and Dr. Clarrissimeaux were not members of the full Committee but were asked to serve on the Subcommittee due to their interest in, and expertise on, this issue. The Subcommittee had three meetings: June 30, 1998, August 6, 1998, and September 1, 1998. The Subcommittee received background information on: the existing statutory definition of "enhanced services"; other states' treatment of advanced or enhanced services; the FCC's proceeding concerning the deployment of advanced services (Section 706); and alternative mechanisms for funding enhanced services. The Subcommittee considered alternative funding mechanisms, including a grant program approach, but recommended no changes to the existing mechanism. However, the Subcommittee recommended amendments to the definition of "enhanced universal service," as summarized in Part V.

The Internet Service Subcommittee

The Internet Service Subcommittee was charged with reviewing the Internet access provisions of the Kansas Act (K.S.A. 66-2011), as amended by 1998 House Sub. for S.B. 212, and proposing any changes, as needed. The Subcommittee consisted of the following members:

Mr. David Furnas, Executive Director, Kansas Press Association, Chairperson
Senator Karin Brownlee
Mr. Tom Morgan, President, Morgan Consulting Group
Mr. Sal Tayani, Director, Computer and Information Services, Kansas State Board of Education
Mr. Chris Rippel, Head of Continuing Education, Central Kansas Library System
Mr. Nelson Krueger, Intergovernmental Liaison, Kansas City Fiber Net
Mr. Vic Davis, General Counsel, Kansas Cable Telecommunications Association
Mr. Joe Ryan, Consultant, Southwestern Bell Telephone Systems

Mr. Morgan and Mr. Ryan were not members of the full Committee but were asked to serve on the Subcommittee due to their interest in, and expertise on, this issue. The Subcommittee had four meetings: June 29, 1998, July 29, 1998, August 25, 1998, and October 6, 1998. The Subcommittee received background information on the role, registration, and service location of Internet Service Providers (ISPs) in Kansas; the FCC's treatment of ISPs with respect to various rate regulatory issues; technologies available to provide Internet access; and status of the statutorily prescribed discount plans for Internet access. Both the Subcommittee and full Committee received information on how data is transmitted through the Internet. The Committee considered certain amendments to the most recent version of K.S.A. 66-2011. However, the Subcommittee ultimately recommended no action be taken, as discussed in Part VIII below.

PART V
DEFINITION OF "ENHANCED UNIVERSAL SERVICE"

Definition in the Kansas Act. The Kansas Act defines "enhanced universal service" in K.S.A. 66-1,187(q) as:

> telecommunications services, in addition to those included in universal service, which shall include: signaling system seven capability, with CLASS service capability; basic and primary rate ISDN capability, or the technological equivalent; full-fiber interconnectivity, or the technological equivalent, between central offices; and broadband capable facilities to all schools, hospitals, public libraries, and state and local government facilities which request broadband services.

Authorization to the KCC to Modify Definition. The KCC is authorized in K.S.A. 66-2002 (k) to:

> commencing on June 1, 1997, and periodically thereafter, review and, to the extent necessary, modify the definition of universal service and enhanced universal service, and KUSF, taking into account advances in telecommunications and information technology and services.

The statutory authorization granted the KCC to review and, if needed, modify the definitions of universal service and enhanced universal service in light of technological changes is similar to authority granted public utility commissions in, for example, the states of California, Colorado, Ohio, Oklahoma, Oregon, Texas, and Wisconsin.

Concerns with ISDN Inclusion in Definition. Integrated Services Digital Network or ISDN is defined in K.S.A. 66-1,187 (f) as: "a network and associated technology that provides simultaneous voice and data communications over a single communications channel." Proponents of retaining ISDN as an enhanced service, eligible for KUSF support, generally cite the need for higher bandwidth (144 Kbps) in order to access computer services, access the Internet, interconnect Local Area Networks, and to provide two-way interactive compressed video service. ISDN is typically delivered over the same physical outside plant facilities as other telephone service, with some electronic line conditioning, as required. Service is generally limited to an area within 18,000 feet of the telephone company's central office. Service beyond 18,000 feet usually requires deployment of either remote switching technology or a digital loop carrier system.[10] The central office must be equipped with a digital switching system configured with the necessary hardware and software.

Costs Associated with ISDN. Changes due to upgrading a company's outside plant translate into higher costs for local telephone companies and the KUSF. Based on a projection in March 1998 by the local telephone companies, tabulated by the KCC staff, deployment of ISDN (basic-rate and primary-rate) would require over $237 million of capital expenditures. The associated revenue requirement would be $44.8 million, a portion of which would require KUSF support. This projection, however, assumed ubiquitous deployment throughout the state

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[10] *Bellcore Notes on the Network*, Issue 3, December 1997, paragraph 14.9.2.

regardless of demand. The 1998 Legislature restricted recovery from the KUSF for ISDN deployment to firm customer orders and an approval procedure by the KCC. These amendments, coupled with investments in ISDN from telephone companies not seeking any reimbursements from the KUSF and federal loans for ISDN deployment from the Rural Utilities Service to defray the costs of some of those investments, would have reduced that projection which many local telephone industry representatives had considered to be significantly overstated. Despite these qualifications, ISDN continues to remain the highest cost service or technology to be supported by the KUSF. While ISDN is widely deployed by Southwestern Bell in urban areas, it is generally unaffordable, without subsidies, for customers of rural telephone companies. Those companies generally do not have a sufficiently large customer base to offset necessary deployment costs.

ISDN as Mature Service. Certain members of the Committee also considered ISDN to be a mature service that might not be most appropriate in future years to support certain advanced telecommunications applications. Specifically, narrow band networks based on 64 Kbps channel speed and intended to handle voice and data up to 1.544 Mbps may not be able to accommodate future user needs, such as switched video, high resolution graphics, television distribution, and super computer highways. By authorizing universal service support for investments in ISDN, the Kansas Act may be encouraging investment behavior that, in the view of some Committee members, is ultimately not in the long-term best interest of either telephone companies or ratepayers. A customer's access to high-speed data transmission was essentially the cornerstone of Committee deliberations on enhanced universal service. Many Committee members observed that a major public policy objective is to ensure that Kansans have access to high-speed data transmission and that the technology used for service delivery not be prescribed in statute.

Concerns about Signaling System 7 (SS7), Full-Fiber Interconnectivity between Offices, and Broadband Capable Facilities to Schools, Hospitals, and Libraries. In its deliberations in 1995, the Telecommunications Strategic Planning Committee recommended these technologies and capabilities be included in the definition of enhanced universal service. Three years later, SS7 enjoys widespread deployment and there is widespread deployment in Kansas of full fiber interconnectivity between offices and broadband capable services to schools, hospitals, and libraries.[11] The policy question is whether these technologies and capabilities should continue to be defined as enhanced and eligible for enhanced universal service support. Several KUSF Working Committee members expressed concern about subsidizing widely deployed services. One unintended consequence might be to encourage certain companies to delay investments in order to receive reimbursement from the KUSF for costs they probably would have incurred without recourse to the Fund.

FCC Inquiry into the Section 706 of the Federal Act. On August 7, 1998, the FCC issued a Notice of Inquiry, requesting information on various aspects of the deployment of advanced telecommunications capability.[12] This inquiry directed the FCC to determine if advanced telecommunications capability is being deployed to all Americans in a "reasonable and

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[11] As of December 1993, 68 percent of Kansas access lines had access to CLASS service, with only 3 percent subscribing. According to KCC staff, current availability and subscription data are unavailable; however, both are believed to be much higher today.

[12] Notice of Inquiry Concerning the Deployment of Advanced Telecommunications Capability (Section 706 of the Federal Act), FCC Docket 98-187, August 6, 1998.

timely fashion." The FCC was directed to commence the inquiry within 30 months of enactment of the Federal Act and complete its inquiry within 180 days (February 1999). The FCC was further directed to take "immediate action to accelerate the deployment" of advanced telecommunications capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market if the FCC determines that such capability is not being deployed in a reasonable and timely fashion. The term "advanced telecommunications" was defined in Section 706 (c)(1) of the Federal Act: "without regard to any media transmission or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."

Advanced Telecommunications Services and Technologies. The following are advanced telecommunications services and technologies of which the Committee was informed.

Digital Subscriber Line. The FCC's Notice of Inquiry elicited responses to several questions concerning the deployment of digital subscriber line, which takes many forms (generically referred to as DSL or xDSL). Specifically, the FCC requested information on the extent of DSL deployment by incumbent telephone companies and barriers to widespread deployment, particularly in rural areas of the country.

DSL uses digital signal processing techniques that can provide, on existing copper loops, high-speed data communications without interfering with voice service. DSL also allows a copper loop to be used simultaneously for high-speed data service and ordinary voice service and keeps data capability available 24 hours a day. One of the most prominent forms of DSL is asymmetric DSL (ADSL). Southwestern Bell plans to use ADSL technology to provide high-speed, nonswitched digital data transport.[13] ADSL is designed to connect an end user to an Internet service provider or a corporate network. According to Southwestern Bell, deployment of ADSL services can be used for many of the same applications that existing digital technologies are used for, such as Internet access, connections between local area networks (LANs), video conferencing, or remote medical imaging. ADSL's advantage over ISDN is higher-speed transmission capability (almost eight times faster than compressed ISDN speed) and permanent connectivity (ISDN requires the user to make a call using a telephone number). Unlike other DSL services, ADSL can be used by customers located at some distance from the main office.

Because DSL services can use the existing telephone distribution network and operate over ordinary copper telephone lines, telephone companies will not be required to integrate or upgrade existing switches or deploy combined signaling systems. However, at least five factors limit widespread deployment of this service at this time.

Costs to Customers. The cost of ADSL modem equipment and monthly services must be sufficiently affordable to attract subscribers. ADSL requires a

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[13] SBC Communications (parent company of Southwestern Bell) recently announced plans to embark on a joint initiative with Dell Computer Corporation to jointly market ADSL. Customers will be able to purchase ADSL-ready desk top computers and ADSL service in a single transaction by contacting Dell. SBC's ADSL services and modems combined with Dell's personal computers are expected to provide Internet access at 1.5 Mbps. See SBC Communications News Center, "SBC Communications, Dell Announce Initiative to Develop and Deliver ADSL Services on Dell PCs for High-Speed Internet Access," September 23, 1998.

compatible DSL modem at the customer's site. In addition, customers must pay the telephone service provider monthly for ADSL service. In a Texas pilot program limited to Austin, Southwestern Bell customers pay $250 monthly for data speeds of 1.5 Mbps downloading and 384 Kbps uploading, or $150 per month for 384 Kbps uploading and downloading. Southwestern Bell also has a pilot program in California which offers customers three different options: (1) $59 per month for data speeds of 384 Kbps downloading and 128 Kbps uploading; (2) $99 per month for 384 Kbps both downloading and uploading; and (3) $189 per month for 1.5 Mbps downloading and 384 Kbps uploading. Under each scenario, there is an installation charge of $125. The cost of a compatible DSL modem is $610.

Equipment Costs to Company. A telephone company or other DSL service provider must incur certain expenses in procuring central office equipment. For example, Southwestern Bell is investing in a multiplexer—the digital subscriber line access multiplexer (DSLAM)—which will aggregate data from customers' DSL modems and direct that data to a back bone network.

Customer Base. An adequate customer base must exist for the incumbent telephone company to recover its investments in DSLAM and any upgrades needed to support increased bandwidth demand that ADSL could impose on the network. According to Southwestern Bell, the market requires a corporate end user with large scale requirements for high-speed remote connections or an Internet service provider that is willing to commit to the high speed collector circuit for Internet access. Information provided by Southwestern Bell to the Committee indicates that companies with work-at-home policies are targeted clients and Kansas generally does not promote those policies for a variety of reasons. Therefore, deployment of ADSL in Kansas is likely to be slower than in other regions of the country.[14]

Slow Response. According to certain competitive providers, incumbent telephone companies respond slowly to competitors' requests for co-location or space rental so that competitors can deploy their DSL equipment.

Technical Standards. No uniform technical standards for DSL equipment exist to date.[15]

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[14] Information on the background and first three limitations governing deployment of ADSL was extracted from: Southwestern Bell's presentation on FasTrak DSL, July 7, 1998; Norma Thorsen, *Fiber Optics and the Telecommunications Explosion* (Upper Saddle River, N.J.: Prentice Hall, 1998), pp.139-142; and Suzanne King, "Is ADSL Worth the Price?" *Kansas City Business Journal*, March 20, 1998.

[15] The fourth and fifth restricting factors are addressed in Nick Wingfield, "No Mercy: Covad Communications Needs the Bells' Cooperation to Thrive. It Says It Isn't Getting Much." in "Telecommunications: The Battle for the Last Mile," *The Wall Street Journal*, September 21, 1998.

Integrated On-Demand Network (ION). In June 1998, Sprint announced the introduction of Sprint's Integrated On-Demand Network (ION). This service is intended to provide homes and businesses with virtually unlimited bandwidth over a single existing telephone line for simultaneous voice, data, and video. The ION system moves away from the circuit switch concept of traditional telephony which keeps a single, dedicated circuit tied up for the duration of a phone call until both parties hang up. Instead, the new network would use high-powered ATM (asynchronous transfer mode) switches that are capable of accepting massive streams of digital bits and sending those bits over a fiber optic backbone to their proper destination as a phone call, Internet message, or video signals. The Sprint system would measure and bill for service based not on the number of minutes a person spends on the phone but on the number of digital bits the customer transmits in a given month. A little box would be installed in the user's home or office to measure usage. At the local level, Sprint hopes to bypass the phone companies and their access fees by leasing space in the phone companies' switching centers and installing its own connecting frame. This installation would allow Sprint to directly connect to a subscriber's copper wire and the meter at the home or the office.[16]

In a presentation to the Committee, a spokesperson for Sprint outlined several benefits of the company's ION system:

- virtually unlimited, on-demand bandwidth,
- multiple, simultaneous telephone connections,
- very high speed "always on" Internet and corporate LAN access,
- clear, real-time video conferencing,
- high quality voice, and
- customer control of features and service.[17]

Other benefits cited in Sprint's response to the FCC's Notice of Inquiry on Section 706 include high speed transmission of voice, data, and video at speeds up to 100 times faster than presently used conventional modems and the reduction in network cost by more than 70 percent to deliver a typical voice call.[18]

Sprint plans to phase in deployment of the ION system in Kansas beginning with large businesses in the Kansas City metropolitan area using dedicated lines, followed by businesses with switched access. Then small businesses and consumers using DSL or other access methods, such as cable modems and fixed wireless, would be given priority. Customers in other Kansas metropolitan service areas might be offered ION services as economics permit. Sprint cited access to DSL from incumbent local telephone companies at reasonable rates, terms, and

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[16] John J. Keller, "The Old Phone System is Facing an Overload. So Sprint Has a Plan." *The Wall Street Journal*, June 2, 1998, A1,A6.

[17] Presentation to the Committee from Richard Morris, Sprint, July 7, 1998.

[18] Norina T. Moy *et al.*, September 14, 1998

conditions, as a condition for deploying the technology to make ION more available to users. Sprint's presentation to the Committee disclosed that co-location with the incumbent in large market offices, but not small ones, may be economically justifiable.[19] As with Southwestern Bell's deployment of ADSL, Sprint's deployment of ION will be based on the company's ability to recover investment costs in the ATM switches and other equipment. A certain market demand must exist for those investments to be cost effective. Therefore, residential customers in rural parts of Kansas may not have access to this service in the foreseeable future.

Cable System Upgrades. Since the 1970s, cable television systems have been one-way capable, analog transmission systems, using coaxial cable. With the addition of fiber optic and two-way equipment, cable system architecture becomes hybrid fiber-coax (HFC) and supports offering analog video, digital video, high-speed data, and voice services. Furthermore, stand-alone cable systems are in the process of being interconnected with fiber-optic technology to bring the benefits of new products and services to communities of all sizes on a regional basis. Kansas cable operators are in the midst of such upgrades. Several Kansas communities, such as Ellis, Goodland, Hays, Kansas City, Liberal, Olathe, Salina, Topeka, and Wichita are already served by HFC systems. HFC upgrades have been announced in several other Kansas communities.[20]

A New Technology Standard. In 1995, cable operators were installing proprietary and noninteroperable cable television modems and envisioned the need for interoperability (modems that could be used in different configurations for a wider array of applications). Cable Television Laboratories, Inc. (CableLabs) announced an agreement to specify some of the technical ways cable networks and data equipment "talk" with one another. CableLabs was asked to coordinate a process to develop these specifications, known as the DOCSIS standard. With the advent of a uniform standard, multiple suppliers can build to industry specification but add unique capabilities, thus giving consumers a wide selection of products.[21]

Fixed Wireless Services/Sprint PCS. The Committee heard a presentation on Sprint's Personal Communications Systems (PCS) fixed wireless services. PCS is one form of fixed wireless services supporting subscribers in fixed and known locations. Subscribers receive phone service through terminals linked by radio to a network of base stations. Base stations are deployed as needed to provide the necessary geographic coverage. Each base station is connected back to the telephone network, typically either by wire or microwave links. Each base station supports a cell or several sectors of coverage, servicing subscribers within the coverage area. Subscribers' terminals assume several possible forms from handsets for mobile services to single and multiple-line units connected to standard telephones (ideal for fixed-wireless subscribers).[22]

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[19] See Richard Morris' presentation to the Committee and Sprint's response to the Notice of Inquiry, Section 706.

[20] A Cable Online Summary by the Kansas Cable Telecommunications Association, November 30, 1998.

[21] Ibid.

[22] Alan Jacobsen, "Wireless Local Loop Technology: Motivations and Alternatives," White Paper, Diva Communications, Inc., October 1995.

Sprint is a full service wireless network provider. The Company's PCS wireless service is currently operating in a single frequency spectrum (1.9 Ghz), using common technology covering 260 million people in the United States. Sprint PCS is offering the following services:

Basic Mobile Voice—Available in over 178 metropolitan areas. Service includes: Caller-ID; Voice Mail; Call Waiting; and three-way calling.

Basic Mobile Messaging—Paging service with short message delivery.

Basic Mobile Data—Supports low-speed data and FAX transmission.

High-Speed Data, Fixed—With this application, the end user data customer is "fixed" (typically located at a residence or business). The PCS radio link replaces a traditional wire-line loop. These services are evolving from the currently supported 64 Kbps rates upward. This evolution to increased speed is being controlled by development and adoption of industry standards and vendor development of supporting technology. Actual deployment will depend on technology, market demand, and regulatory action. Trials of competing fixed wireless technologies are currently underway in several market areas.

Fixed Wireless POTS—With this application, the end user data customer is "fixed" (typically located at a residence or business using traditional telephone service). The PCS radio link replaces a traditional wire-line loop. As with the data applications, trials are underway in several market areas with fewer than 100 Kansan participants. Trials are expected to conclude in mid-1999. A general offering deployment schedule is not available at this time.

According to proponents of fixed wireless systems, it is cheaper to build out wireless than other types of networks in rural areas. Proponents of wireless technology contend that the systems can be deployed quicker than copper wire, thus reducing investment payback. Once the network of base stations and interface to the telephone network exists, service to each additional subscriber can be provided at very little incremental cost. If the system is designed for modularity, the pace of deployment can closely match demand and the costs associated with underutilized plant can be minimized.[23] Services can be bundled and the quality of voice communications is reported to be equal to wireline voice communications.

A digital fixed wireless system's data speed depends heavily on wireless technology and available bandwidth. Today's digital technologies maximize the number of voice users per MHZ. Data capabilities are secondary to high-quality voice transmission. However, digital wireless technologies are undergoing significant changes that will allow them to "packetize" data and increase the maximum data speed per user from approximately 14.4 Kbps, today, to 384 Kbps by 2001.

KUSF Working Committee's Recommendations on Definition of Enhanced Universal Service. In light of the rapidly changing telecommunications technologies and services (several of which are summarized above), the Committee recommends the following:

1. Make two amendments to K.S.A. 66-2001. This statute is the public policy statement governing the Kansas Act.

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[23] Alan Jacobson, *Op. cit.*, October 1995, pp. 8-9.

a. amend the provision in the declaration of public policy on telecommunications in K.S.A. 66-2001 (b) to: "ensure that ***conditions exist for*** consumers throughout the state to realize the benefit of competition through increased services and improved telecommunications facilities and infrastructure." Existing law provides for the state's public policy to: "ensure that consumers throughout the state realize the benefit of competition through increased services and improved telecommunications facilities and infrastructure ***at reduced rates***."

   The Committee recognizes that the policy statement in existing law may not be attainable because regulatory policy only affects ***conditions*** for company investments made in services and facilities. If conditions exist to foster competition, presumably prices will drop and consumers will benefit from competitively priced services. However, the words "at reduced rates" in existing law suggested, at least to a majority of the Committee, continued subsidization which is contrary to promotion of competition.

b. Add a public policy statement to K.S.A. 66-2001, to reflect recognition of the state's role in fostering conditions for "continuous innovation in information networking and telecommunications." The proposed statement would read: "It is hereby declared to be the public policy of the state to be characterized by continuous innovation in information networking and telecommunications."

   This statement recognizes that regulatory policy should provide incentives for investments in telecommunications technologies that would support the innovative movement and use of information (information networking). This statement emphasizes potential applications of information by the end user and acknowledges that the technology is essentially a necessary foundation for such applications, which may include, among others, access to data transmitted over high speeds on the Internet, access to video conferencing, and participation in courses that use interactive video. Moreover, the word "innovation" in the policy statement modifies "telecommunications." Examples of innovations in telecommunications are special multiplexers needed for DSL services, high-powered ATM switches needed for ION services, and new cable modems which support high-speed Internet access. Therefore, regulatory policy should encourage innovation in both the development of telecommunications technology and the applications derived from such technology.

K.S.A. 66-2001, reflecting the Committee's proposed amendments, would be written as follows.

Chapter 66—PUBLIC UTILITIES

Article 20—TELECOMMUNICATIONS

66-2001. Telecommunications; declaration of public policy. It is hereby declared to be the public policy of the state to:

(New) Be a state characterized by continuous innovation in information networking and telecommunications;

(a) Ensure that every Kansan will have access to a first class telecommunications infrastructure that provides excellent services at an affordable price;

(b) ensure that conditions exist for consumers throughout the state to realize the benefits of competition through increased services and improved telecommunications facilities and infrastructure ~~at reduced rates~~;

(c) promote consumer access to a full range of telecommunications services, including advanced telecommunications services that are comparable in urban and rural areas throughout the state;

(d) advance the development of a statewide telecommunications infrastructure that is capable of supporting applications, such as public safety, telemedicine, services for persons with special needs, distance learning, public library services, access to Internet providers and others; and

(e) protect consumers of telecommunications services from fraudulent business practices and practices that are inconsistent with the public interest, convenience and necessity.

History: L. 1996, ch. 268, S. 1; July 1. Cross References to Related Sections: Applicable definitions, see 66-1,187.

2. Recommend introduction of legislation to delete integrated services digital network (ISDN) from the definition of "enhanced universal service" in K.S.A. 66-1,187 (q) and from other statutes, as appropriate. (See Attachment II.) Inclusion of ISDN in the definition of enhanced universal service allows local telephone companies to seek recovery for a portion of expenses incurred in deploying this service. As noted in Part V, ISDN is the most costly service or technology eligible for support from the KUSF. Moreover, certain Committee members also considered ISDN to be a mature service that might not be most appropriate for certain telecommunications applications in future years. For example, deployment of wireless services might afford residents in rural areas of the state comparable services at affordable rates, particularly if bandwidth limitations can be successfully addressed.

3. Request the KCC to expedite its review of the definitions of basic universal service and enhanced universal service, identify the appropriate date of deployment of additional basic services, and the cost implications of any modifications. Request the KCC to advise the Senate Commerce Committee and House Utilities Committee of its findings and revisions, if any, not later than February 15, 1999.

Order Requesting Comments on Universal Service Definition. On September 9, 1998, Chairperson Alicia Salisbury communicated the requests in the third recommendation to David Heinemann, Executive Director of the KCC. In addition, she indicated the Committee's awareness of the FCC's inquiry on the deployment of advanced telecommunications capability (Section 706). She further indicated that the Committee understood the implications for the KCC's determinations, should the FCC conclude from its own proceedings that advanced technology is not being deployed in a reasonable and timely manner, as required in the Federal Act, and cause it to take immediate action to remove barriers to infrastructure investment.

Pursuant to the senator's letter, the KCC issued an order, dated September 29, 1998, soliciting comments from interested parties on the definitions of basic and enhanced universal service, the appropriate date for modification of the definitions, and cost implications associated with those modifications. Parties were asked to comment on whether demand criteria should be established, or other criteria imposed, on enhanced universal service deployment and cost recovery. Comments were to be filed with the Commission no later than October 30, 1998, and reply comments, no later than November 25. Members of the Committee also were encouraged to submit comments. The Commission indicated in its order of September 29 that it would not modify the definition of universal service exclusively on the basis of comments filed in July 1997, in response to an earlier order by the Commission requesting comments on the definition of universal service. Due to a lack of specific costing information in the initial responses, the Commission issued another order, dated November 17, 1998, requesting the companies' best estimates of deployment costs and KUSF support needs associated with the existing definition of enhanced universal services.[24]

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[24] Note: If the Commission issues an order modifying the definition of universal service and enhanced universal service and that modification results in a discrepancy with the statutory definitions in K.S.A. 66-1,187 (p) and (q), Kansas law will prevail over any changes made by the Commission.

PART VI
DETERMINATION OF HOW AND WHEN ENHANCED UNIVERSAL SERVICE SHOULD BE DEPLOYED

Statutory Infrastructure Plan Requirements. The Kansas Act requires each local telephone company to file a network infrastructure plan with the KCC. The plans had to be filed by January 1, 1998. Each plan had to include deployment schedules for basic universal service and enhanced universal service capabilities. Basic services had to be deployed by July 1, 1998. In accordance with the statutory requirements, infrastructure plans were filed in time. On August 24, 1998, the Commission issued an order which approved the plans.

Enhanced services were originally scheduled to be deployed by July 1, 2001. However, that deadline was extended to July 1, 2003, pursuant to 1998 House Sub. for S.B. 212. The 1998 amendments also conditioned deployment of ISDN, or technological equivalent, or broadband facilities upon a "firm customer order" and established criteria for KCC approval of the deployment plan. Specifically, the KCC is required to approve the deployment plan unless the Commission determines that the plan is "unnecessary, inappropriate, or not cost effective, or would create an unreasonable or excessive demand on the KUSF." The KCC must act within 90 days or the plan will be deemed to be approved. The approval process must continue until July 1, 2000. In accordance with K.S.A. 66-2005 (a), each plan also must demonstrate the local telephone company's commitment to adhere to quality of service standards adopted by the KCC.

The 1998 Legislature conditioned deployment of ISDN and broadband capable facilities upon a firm customer demand with the intent of limiting deployment to meet actual demand. The effect of this amendment was to curb KUSF support for deployment of costly services that would not necessarily be used. Prior to July 1, 1998, all enhanced services had to be deployed ubiquitously in Kansas regardless of customer demand. A process to allow for the KCC's expeditious approval of a deployment plan was specified because the 1998 Legislature recognized that, to be competitive, most Kansas businesses need access to advanced telecommunications services and local telephone companies must be responsive to those needs.

Commission Order. On September 30, 1998, the KCC issued an order adopting an interim procedure and requesting comment by November 16, 1998, on guidelines for use of network infrastructure deployment plans by local telephone companies. Staff made several recommendations concerning the procedure to be followed and information to be filed with the Commission. The Commission adopted the staff's recommendations on an interim basis:

- Local telephone companies must complete a form, prescribed by the Commission, and submit it with their notice seeking Commission approval of a deployment plan, unless the telephone company operates under price cap regulation and does not plan to recover its enhanced service investment from the KUSF or as an exogenous adjustment to its price cap.

- The "firm customer order" required as a precondition for a deployment plan and KCC approval must be in writing and include an acknowledgment that the customer is aware of the nature of the tariff or contract rates for the service or services being requested.

- Commission approval of a deployment plan is not required if the non-separated capital investment for the enhanced services is less than $100,000.

- Local telephone companies must indicate whether they can comply with the 19.2 Kbps Internet dial-up access requirement by July 1, 1999, pursuant to Sec. 66-2011(c), as amended by 1998 House Sub. for S.B. 212. If they cannot, they must indicate when they will be able to meet the requirement.

- Local telephone companies must supply information on the status of their deployment of enhanced services, including those services already deployed and date of deployment; those services under construction with estimated date of completion and capital expenditures; and whether they plan to request additional KUSF support for enhanced services under construction and their expected filing dates.

- Local telephone companies should comment on whether the time intervals specified in an earlier Commission order for making enhanced services available upon receipt of a bona fide customer order should remain in effect.

Implications of Extended Deadline. The Committee recommended the KCC expedite its review of the definitions of basic and enhanced universal services and the appropriate date of deployment of additional modifications and cost implications of changes of any modifications. As noted in Section V, the Commission issued an order seeking comments on the definitions and deployment dates for additional modifications. Any action taken by the Commission to amend these definitions may have implications for the statutory deadline of July 1, 2003 for deployment of enhanced services. If legislation is enacted, as recommended by the Committee, to delete ISDN as a service eligible for reimbursement from the KUSF, local telephone companies also may elect to change their deployment schedules with respect to that service.

Finally, the Committee was informed that any decision by the FCC resulting from the Section 706 proceedings may have implications for the deployment schedule.[25] In Section 706 of the Federal Act, "advanced telecommunications capability" is defined, "without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." Several questions were posed in the inquiry about the meaning of the definition and Congressional intent concerning that definition. Specifically, did Congress intend the meaning of "advanced telecommunications capability" to change over time, including new technologies as they are developed and excluding ones that were once cutting edge but have since become conventional (para. 15)? Another question posed in the inquiry concerns the point at which a form of advanced telecommunications capability, or an advanced service, should qualify for inclusion in federal universal service (para. 73).

As noted in Section V, Section 706 requires the FCC to make a determination as to whether advanced telecommunications capability is being deployed in a reasonable and timely fashion. If the FCC determines that it is not, the FCC is required to take immediate action to

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[25] Notice of Inquiry Concerning the Deployment of Advanced Telecommunications Capability (Section 706 of the Federal Act), FCC Docket 98-187, August 6, 1998.

accelerate deployment of advanced telecommunications capability by removing barriers to infrastructure investment and by promoting competition in the telecommunications market.

State commissions are likewise required in Section 706 to encourage on a reasonable and timely basis the deployment of advanced telecommunications capability to all Americans by using various regulatory methods to remove barriers to infrastructure investment. Therefore, the FCC's conclusions on the definition of "advanced telecommunications capability," its interpretation of "reasonable and timely deployment," and any determination it makes concerning eligibility of advanced services for federal universal service support could have implications for state commission determinations on the definition of enhanced universal service and deployment schedules for such services.

Committee Recommendation. In light of the inquiries by both the KCC and the FCC on the definition of enhanced or advanced services, the Committee recommends a legislative review of the deadline scheduled for deployment by local telephone companies of enhanced universal service capabilities, which is now July 1, 2003. The Committee intends the Legislature to use as the basis for its deliberations the KCC's proceedings on such services. The Committee also recognizes that determinations by the FCC resulting from the Section 706 proceedings may have certain implications for the deployment schedule of enhanced universal services in Kansas.

PART VII
DETERMINATION OF WHAT MECHANISM IS MOST APPROPRIATE FOR THE RECOVERY OF CAPITAL COSTS

This charge to the Committee raises the issue of how infrastructure investments are currently recovered by local telephone companies. Capital cost investments may be recovered by local telephone companies through local rates and additional charges to customers requesting specialized services. However, to some extent, subsidies exist to ensure that ratepayers have access to certain services at affordable prices.[26] For example, the KUSF was established as a means of ensuring that such access be made available to all Kansans for services included under the definition of universal service and, under certain conditions, enhanced universal service.

As defined in K.S.A. 66-1,187 (p) and (q), universal services include: single-party, two-way voice grade calling; stored program controlled switching with vertical service capability (which allows access to, among others, custom calling features); E911 capability; tone dialing; access to operator services; access to directory assistance; and equal access to long distance services. Enhanced universal services include: signaling system seven capability, with CLASS service capability; basic and primary rate ISDN capability, or the technological equivalent; full-fiber interconnectivity, or the technological equivalent, between central offices; and broadband capable facilities to all schools, hospitals, public libraries, and state and local government facilities which request broadband services.

Other forms of capital cost subsidization include federal universal service support for high-cost companies, E-rate discounts for schools, libraries, and rural health care, and loans from the United States Department of Agriculture's Rural Utilities Service. These programs are discussed below. In addition, the Committee devoted some time to addressing universal service support mechanisms used by other states. Therefore, an explanation of other states' approaches to providing universal service support is included below.

Statutory Provisions. The Kansas Act, in accordance with K.S.A. 66-2008, authorizes distributions from the KUSF to be made in a competitively neutral manner to eligible telecommunications carriers. Supplemental funding may be used to reimburse companies for certain investments in basic universal services and enhanced universal services subject to expedited review procedures requiring a deployment plan and, with respect to ISDN and broadband capable facilities, a firm customer order. In addition, KUSF disbursements may be used to pay eligible companies serving rural communities to enable these companies to meet statutorily-prescribed Internet access requirements. (See Part I, Purposes of the Fund.)

Federal Universal Service Support Definition. Eligible carriers must provide the following services in order to receive federal universal service support: single-party service; voice grade access to the public switched network; Dual Tone Multifrequency (DTMF) Signaling or its functional equivalent;[27] access to emergency services including 911 and E911; access to

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[26] The concept of affordability is articulated in the public policy statement governing the Kansas Act: It is hereby declared to be the public policy of the state to: ensure that every Kansan will have access to a first class telecommunications infrastructure that provides excellent services *at an affordable price.* (Italics added.)

[27] DTMF signaling provides accelerated call set-up and speeds access to emergency services.

operator services; access to interexchange services; access to directory assistance; and toll limitation services for qualifying low-income customers.[28] There are three differences between the FCC's definition and the definition of universal service in the Kansas Act.

1. The Federal Act requires "toll limitation services for qualifying low-income customers" and the Kansas Act does not.

2. The Kansas Act includes "stored program controlled switching with vertical service capability" and the Federal Act does not.

3. The Kansas Act provides for *equal* access to long distance services, whereas the Federal Act requires access, but not equal access, to interexchange service.

Moreover, in contrast to the Kansas Act, the FCC has not recommended that any advanced or enhanced services be eligible for federal universal service support. As was discussed in Part VI, the FCC raised the question in its Notice of Inquiry on Section 706 of the Federal Act as to when a form of advanced service should be included in universal service.

Federal Universal Service Funding Mechanisms. Prior to the passage of the Federal Act, the FCC had certain support mechanisms in place to ensure the availability of telephone services in rural and high-cost areas, and to provide support to low-income consumers. These mechanisms supported high-cost local loops,[29] Dial Equipment Minutes (DEM) Weighting (switching costs for small telephone companies with fewer than 50,000 lines), Long Term Support (support for rural telephone companies with high common line costs), and Lifeline and Link-Up. Assistance for high-cost loops, DEM weighting, and Long Term Support is still provided to local telephone companies serving high-cost areas but these mechanisms have been modified and transferred to the new explicit universal support system. However, payments from these mechanisms to these companies may be affected once a forward-looking economic cost methodology has been adopted. Below is a brief description of these programs:

> <u>High-cost loop assistance</u> has been provided since 1984. It compensates companies which have high loop costs, greater than 115 percent of the national average. Previously this assistance was funded only by large long distance companies but now is funded by an explicit assessment from the Federal Universal Service Fund on all interstate and international revenues. As a rural state, Kansas receives approximately 4 percent of the support, although Kansas provides only 1 percent of the nation's telecommunications service.

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[28] Toll limitation services allow Lifeline customers to block toll calls and limit in advance their toll usage per month or billing cycle. The FCC's intent in subsidizing these services is to avoid involuntary termination of these customers' access to telecommunications services. The FCC concluded that subscribership of low income customers is encouraged if they are provided voluntary access to toll limitation without charge. See FCC's Order 97-157, May 7, 1997, para. 385.

[29] Local loops refer to outside telephone wires, underground conduit, telephone poles, and other facilities that link the telephone customer to the telephone network.

DEM Weighting for switching service was an example of an implicit subsidy. Small local telephone companies would weight their percent of interstate minutes by a factor (2, 2.5, or 3), thereby allowing companies to recover a greater portion of their switching costs through interstate access charges. Local switching costs of companies serving high-cost areas were shifted from the intrastate jurisdiction to the interstate jurisdiction. The FCC's order on universal service (May 8, 1997) and its order on access reform (May 7, 1997) made the weighted portion of DEM an explicit subsidy to be recovered by the Federal Universal Service Fund.

Long-Term Support was funded through the access charge system. In an effort to lower the carrier common line (CCL) access rate for high-cost local telephone companies, large incumbent telephone companies had higher CCL rates so that they could make long-term support payments to the Carrier Common Line Pool. This system reduced the disparity in access rates between high-cost and low-cost companies. The FCC determined this support mechanism was inconsistent with requirements in the Federal Act that support be collected from all providers of interstate telecommunications services on a nondiscriminatory basis. Therefore, the Long Term Support is now part of the Federal Universal Service Fund assessment.

The Lifeline and Link Up programs continue to be offered under modified conditions, as outlined below. The federal Lifeline program reduces qualifying consumers' monthly end-user charges. The federal Link Up program provides federal support to reduce eligible consumers' initial connection charges by up to one-half. Both programs are described below in greater detail.

Federal Universal Support Mechanisms—Post 1996. In its order on universal service (May 8, 1997), the FCC decided to create an explicit federal universal service support mechanism to replace high-cost assistance previously paid through implicit subsidies, such as interstate access charges, and the other explicit and implicit programs outlined above. The explicit support would be used to reduce interstate access charges. The total support requirement will be determined by a revenue benchmark (revenues a telephone company would be expected to use to offset its costs in providing service) and affordable rates using a forward-looking economic cost methodology. The FCC required the new universal service funding mechanism to support 25 percent of the difference between the forward-looking economic cost of providing the supported service and the revenue benchmark. The FCC issued an order on October 28, 1998, which established the framework or platform for the forward looking cost model, to be used in estimating the cost of providing supported services of nonrural carriers. The FCC intends to select inputs for the model at a later date. These inputs will include items, such as the cost of network components (cables and switches) and various capital cost parameters.[30] Full implementation of the new universal service support mechanism is scheduled to take effect for nonrural carriers on July 1, 1999. Support for rural telephone companies will not be based on forward-looking economic costs until further review, but in no event will federal universal service support for these companies be modified earlier than January 1, 2001.

Cost Implications of New Federal Funding Mechanisms. Since the same loop facilities and telephone company switches are used to provide services like local, intrastate, and interstate

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[30] States may develop their own cost models for universal service support of intrastate services. In Kansas, a docket has been established to address this issue.

long distance services, a process known as separations is used to allocate the investments and the expenses to different jurisdictions. Under the current separations rules, 25 percent of loop costs are assigned to the federal jurisdiction (interstate long distance and access charges). High-cost loop support and DEM weighting are mechanisms to shift a portion of a local telephone company's investments in loops and switches in high-cost areas, in excess of the 25 percent allocation, from the intrastate jurisdiction to the interstate jurisdiction. The FCC elected to use the formula of limiting its universal service support to 25 percent of the difference between the estimated cost of serving an area (benchmark) and the affordable rate of providing service based on the premise that this limit is consistent with the existing jurisdictional assignment of local loop costs. The FCC reasoned that because loop costs will be the predominant cost that varies between high-cost and nonhigh-cost areas, that factor (loop costs) best approximates the interstate portion of universal service costs (para. 269). Consequently, the FCC's decision in its May 1997 order to establish new universal support mechanisms represents an abandonment of support beyond the 25 percent federal allocation although the FCC may revisit that decision in response to recent recommendations by the Federal-State Joint Board on Universal Service. (See Part IX for a brief summary of the Joint Board's recommendations.)

In its report to Congress (April 10, 1998), the FCC affirmed its interest in working to ensure that states do not receive less funding as the federal universal service mechanisms are being implemented to support high-cost areas.[31] The FCC articulated its expectation that no state should receive less federal high-cost assistance than it currently receives. The KCC currently projects federal universal support of $49.7 million in 1998 for high-cost assistance to Kansas telephone companies (rural telephone companies and Sprint United) and for central office switching in rural telephone companies (DEM weighting).

Lifeline Program. The Lifeline program existed prior to the 1996 Act. It used to be based on charges to long distance companies. The program was modified in the FCC's order (May 8, 1997) to require all providers of interstate telecommunications service to contribute on an equitable and nondiscriminatory basis. The federal Lifeline program currently reduces end-user charges for network access and some local calling for a single telephone line in the principal residence of a qualified customer. Support is provided in the form of a waiver of the federal subscriber line charge (SLC), which is set at $3.50 per month.[32] Participating states are required to generate a matching reduction in intrastate end-user charges. There are two plans for reducing the SLC. The first plan is a reduction of the qualifying subscriber's bill through a waiver of half the federal SLC. The subscriber's bill is further reduced by state support that must match or exceed the federal contribution and may be generated from any intrastate source. The second plan, elected by most states, is to provide a waiver of the entire SLC (up to the amount matched by the state). The subscriber's bill may be reduced by twice the SLC (or more if the state matches more than the value of the federal waiver). Like the first plan, this

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[31] FCC Report to Congress on the Matter of Federal-State Joint Board on Universal Service, 96-45, para. 19.

[32] The FCC established the Subscriber Line Charge as a fixed monthly explicit access charge following the 1984 divestiture of AT&T. Prior to divestiture, the price of these charges was largely hidden in transfers within AT&T. The intent of this explicit charge was to reduce the price of interstate long-distance calls. Kansas has not instituted similar charges on an intrastate basis which is one reason Kansas switched access rates have not been in parity with interstate switched access rates.

plan allows the state contribution to come from any intrastate source. Under either plan, qualifying subscribers may receive assistance for a single telephone line in their principal residence. In its order (May 8, 1997), the FCC expanded the Lifeline program to provide an additional $1.75 above the initially established amount of $3.50, provided that the participating state approve the reduction of $1.75 in the portion of the intrastate rate that is paid by the end-user. A program was further expanded in March 1998 with a federal commitment of $6.75, if state programs agreed to additional intrastate reductions. The effect of this expansion is a maximum monthly bill reduction or credit to the end-user of up to $10.50, if states agree to generate support from the intrastate jurisdiction totaling $3.50, and a minimum of $5.25 if states do not agree to participate. No state matching support is required. The federal assessment for the Lifeline program in the first quarter of 1998 was 3.19 percent of federal interstate revenues.

The KCC has elected to participate in the expanded Lifeline program. Therefore, eligible subscribers in Kansas will receive monthly credits of $10.50 ($3.50 from the KUSF and $7.00 from the federal program) on their telephone bills effective March 1999. Currently, Kansas lifeline participants are receiving a credit of $9.75 ($3.00 from the KUSF and $6.75 from the federal program). The Kansas Act required the KCC to establish the Kansas Lifeline program and required the Commission to establish a means test to determine the eligibility of customers for low-income assistance. In an order issued December 27, 1996, the KCC established eligibility criteria, as required by the Kansas Act. The Commission also determined that the Kansas Lifeline program would be funded through assessments from the KUSF. Projected expenditures from the Fund total $400,000 for the 12-month period beginning June 1, 1998.

Link Up. Federal universal service support is available for eligible telecommunications carriers which offer qualifying low-income customers a reduction of their connection charges equal to one-half of the carrier's customary connection charge or $30, whichever is less. Although Kansas has participated in the Link Up program since the mid-1980s, Link Up in Kansas is funded entirely from federal universal service support mechanisms and the KUSF is not used to offset connection charge reductions. The old Link Up program was funded by shifting its costs to the federal jurisdiction under separations rules. The program is currently funded through equitable and nondiscriminatory contributions from all interstate carriers in accordance with the Federal Act.

Discounts for Schools and Libraries. The Federal Act provides public and private schools (K-12) and libraries (not affiliated with an institution of higher learning) with the opportunity to receive discounts for the purchase of all commercially available telecommunications services, Internet access, and internal connections at discounted rates.[33] Discounts (called E-rates) ranging from 20 percent to 90 percent are available to eligible schools and libraries depending

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[33] See 47 U.S.C. 254(h)(b). The FCC interpreted the Federal Act to have contemplated Internet access as part of its discounted plan requirement. The Federal Act directed the FCC to: "establish competitively neutral rules to enhance, to the extent technically feasible and economically reasonable, access to advanced telecommunications and information services for all public and nonprofit elementary and secondary school classrooms, health care providers, and libraries." In addition to Internet access, services eligible for the E-rate include those necessary to provide classroom access to technology, including basic telephone service, building wiring, wireless telecommunications services, and video-conferencing. However, computers, training, computer modems, FAX machines, telephones, and consulting or information services, such as voice messaging, are not eligible for discounts.

on urban/rural location and their respective level of economic disadvantage. Schools and libraries must participate in a competitive bidding process in order to apply for discounted services. The selected vendor charges the negotiated contract for new services to the school or library with the understanding and agreement that the school or library will pay its portion and the remainder (amount equal to the discount) will be paid by the Schools and Libraries Corporation established by the FCC.[34] The FCC encouraged eligible schools and libraries to aggregate their demand with others to create a consortium with sufficient demand to attract competitors and negotiate lower rates. In a report to Congress (May 8, 1998), the FCC projected funding for schools and libraries of $1.67 billion for Calendar Year 1998. In its Fourth Order on Reconsideration, the FCC capped discounts for eligible schools and libraries on a first-come, first-serve basis at $2.25 billion annually. (To date, the Schools and Libraries Corporation has committed $1.925 billion for the discounts.) Discounts are available to schools and libraries on a first-come, first-serve basis.

The FCC concluded that firms other than eligible telecommunications carriers should be eligible for federal support for providing Internet access to schools and libraries. Certain parties have challenged this position claiming that the FCC's interpretation went beyond the language of the Federal Act. The FCC justified its position to allow support for firms other than telecommunications carriers on the grounds that by not receiving funding for Internet access and internal connections for schools and libraries, nontelecommunications carriers would be competitively disadvantaged, even if their services would be more cost-efficient than those of eligible telecommunications firms. Like the high-cost assistance and low-income assistance programs addressed above, the school and library discount program is eligible to receive federal support.

The FCC determined that federal support mechanisms will support discounts for both intrastate and interstate rates. The KCC concurred in the federal discount program and in the same discount levels for intrastate services as was applied to interstate services to eligible schools and libraries. However, the KCC elected not to expand the program which would have required additional support from the KUSF. That decision notwithstanding, the KUSF may be providing indirect support to local telephone companies providing those services. The definition of "enhanced universal service" in K.S.A. 66-1,187 (q), coupled with provisions in K.S.A. 66-2008, authorize eligible telecommunications carriers serving high-cost areas to request reimbursement from the KUSF for broadband capable facilities to serve schools, libraries, and hospitals if there is a firm customer's order and a deployment plan is approved by the KCC. With respect to schools and libraries, the federal subsidies are greater in rural areas than in urban areas and carriers, other than eligible telecommunications carriers, are eligible to compete for federal support.

The Kansas Department of Education has served as the lead agency for the state's efforts to provide E-rates to schools. Below are several facts concerning deployment of education technology in conjunction with the E-rate program:

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[34] The FCC issued an order on November 19, 1998, appointing the Universal Service Administrative Company (USAC) permanent administrator of all forms of federal universal service support, effective January 1, 1999. USAC will assume responsibilities currently discharged by the School and Libraries Corporation, in addition to administering rural health care discounts, low-income programs, and high-cost assistance.

- The Department reported that of a total of 30,000 E-rate applications submitted nationwide, 557 came from Kansas.

- Findings from a random survey conducted by the Kansas Department of Education projected $53 million requested by Kansas school districts, with an estimated $134.2 million of local expenditures committed for education technology.

- To augment the federal discount plan, the 1998 Legislature appropriated $10 million for FY 1999 for technology and technical support in Kansas schools (K-12). This appropriation equates to $12,500 per school district and $13.70 per full-time student.

- To receive a portion of state funding for education technology, schools need to submit certified plans to the Department.

- As of November 1998, 291 of 304 public school districts have submitted technology plans for certification. In addition, the Department has included private schools in the certification process. Approximately 60 private schools have submitted technology plans to date.[35]

As funding for Internet connectivity may be supported by E-rates, an analysis of Internet connectivity in Kansas school districts may prove to be instructive.

TABLE 4

Kansas USD Technology Survey	Percent by Type of Connectivity
Fiber optic	7%
T-1 line	8%
Bandwidth with more than 56 k	9%
56 k frame relay	8%
ISDN line	5%
Modems	63%

Source: Kansas Department of Education.

National data on public libraries recently became available through a joint survey of 2,500 public library outlets conducted by the American Library Association and the U.S. National

[35] Presentation to the Committee by Jayne James, Kansas Department of Education, September 8, 1998. Updated information on technology plan submittals was provided on November 19, 1998.

2-44

Commission on Libraries and Information Services. Survey findings disclosed that 73 percent of the public libraries nationwide now offer basic Internet access services and an additional 10 percent have Internet connections but do not provide public access. However, only one-third of all libraries surveyed have Internet connections at speeds of 56 Kbps or greater.[36]

Rural Health Care Providers. The FCC concluded that only public or nonprofit health care providers are eligible to receive telecommunications services supported by federal support mechanisms. These providers must be located in rural areas. However, health care providers which are located in either rural or urban areas and which lack toll-free Internet access may be eligible for such discounted service. Services eligible for federal support include any telecommunications service employing a transmission speed of up to and including 1.544 Mbps, including limited distance-based charges.[37] In contrast to the schools and libraries program, the rural health care program authorizes no providers other than eligible telecommunications carriers to provide telecommunications services to health care providers and receive an offset or reimbursement from federal support mechanisms. However, as with schools and libraries, this restriction does not apply to providers of toll-free Internet access service.

The FCC adopted an annual cap of $400 million for federal support for health care providers and concluded that support should be committed on a first-come, first-serve basis. The discount for eligible telecommunications services will be the differential between the rural rate and an amount no higher than the urban rate for similar services. Like the schools and libraries program, the rural health care provider program allows providers to aggregate their services with other eligible health care providers, schools, libraries, and governmental entities to enhance their negotiating position.

Discounted rates for telecommunications services to eligible rural health care providers will not be supported directly by the KUSF, only by federal support mechanisms.[38] These support mechanisms currently may not be used for infrastructure development for such providers. Because the KUSF provides support for such development with respect to ISDN and broadband capable facilities, FCC proceedings on this matter should be carefully monitored.

In Kansas, the Bureau of Consumer and Local Health in the Kansas Department of Health and Environment, together with the Kansas Hospital Association, is informing rural health care providers through presentations and newsletters about the availability of the discounted rates for telecommunications services. As of April 1998, 45 Kansas health care providers made applications for support and 29 had received approval as of September 16, 1998.[39] The

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[36] *NECA Washington Watch*, November 20, 1998.

[37] Services eligible for universal service funding to support a transmission speed of up to 1.544 Mbps include POTS, T-1 service to an urban health center, quarter T-1 service, primary rate ISDN service, or equivalent wireless services.

[38] As of January 1, 1998, the assessment for schools, libraries, and rural health care is .0072 percent on state, interstate, and international revenues. At this time, the assessment is part of the federal universal service flow through assessment. Effective 1999, the assessment will be reduced to .0058 percent.

[39] Telephone conversation with Jane Faubion, Bureau of Consumer and Local Health, November 30, 1998.

Department is seeking funding for a mini-grant from the National State Organization of State Offices of Rural Health to publicize the discounts more extensively in Kansas.

Presubscribed Interexchange Carrier Charge. The Presubscribed Interexchange Carrier Charge (PICC) is an access charge under federal jurisdiction that long distance companies pay to local telephone companies since January 1, 1998.[40] In contrast to the high-cost support mechanisms, Lifeline, Link Up, and the discount program for schools, libraries, and rural health care discussed above, PICC is not included in the universal service support funding mechanism. Instead of paying a higher charge per minute to the local telephone companies as was required under the old access charge system, long distance companies now pay to local telephone companies a flat-rate, per-telephone line charge plus a lower charge per minute (usage charge). The FCC intends the lower per minute charge to be passed through to customers in the form of reduced long distance rates. The PICC is designed to recover the local telephone companies' interstate local loop costs not recovered through subscriber line charges. Because the costs of the local loop do not depend on usage, the FCC determined that this flat-rate charge more accurately reflects the local telephone company's costs of providing service. Long distance companies can decide how they should recover the PICC from their customers although they are not required to do so.[41] The following maximum charges already have been established for 1998: $2.75 for multi-business lines; $0.53 for single line business and residential—primary line; and $1.50 for residential, nonprimary line. Subsidies exist with respect to PICC to the extent that the FCC has agreed to waive these charges for Lifeline customers who elect toll-blocking services. As previously noted, toll-blocking services are eligible for federal universal service support.

Rural Utilities Service. The Rural Utilities Service (RUS) is a rural development agency of the U.S. Department of Agriculture that assists the private sector in developing, planning, and financing the construction of telecommunications infrastructure in the rural parts of the United States. The RUS' telecommunications loan program began in 1949. As a precondition for borrowing money from RUS, each rural telephone company must agree to serve everyone in its service area and must participate in a statewide telecommunications modernization plan approved by RUS. At a minimum, these plans must establish requirements for transmission of video images and high speed data. RUS financing may be used to build new telecommunications networks and modernize existing telecommunications networks, connect new subscribers in unserved areas, and provide the transmission and switching facilities necessary for economic development, distance learning, telemedicine, and Internet access. Almost all RUS loan applications in recent years have requested funding for advanced telecommunications services and new services.

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[40] Although PICC is currently under interstate jurisdiction only, a proceeding in the Commission (Working Groups on Access Reductions; Docket 190,492-U, Phase III) is addressing the possibility of creating a Kansas PICC split into both intraLATA and interLATA traffic since a large portion of volume insensitive costs is applicable to both. The creation of a Kansas PICC could affect the amount to be recovered from the KUSF to bring intrastate access into parity with interstate access.

[41] Information on PICC was extracted from FCC, the Common Carrier Bureau Enforcement Division, "Consumer Information: The FCC's Interstate Access Charge System," July 1998.

The RUS administers three telecommunications loan programs: the Rural Utilities Service Cost of Money and Hardship loan program; the Rural Telephone Bank loan program; and the Federal Financing Bank Guaranteed loan program. Since 1949, the RUS has approved over $366 million in low interest financing to Kansas rural telephone companies under these programs, as outlined below:

TABLE 5

Program	Dollars Loaned	Outstanding Balances	Access Lines Served
RUS	$ 277,054,123	$ 84,109,989	88,502
RTB	69,277,702	4,737,774	
FFB	20,561,000	4,406,482	
TOTAL	$ 366,892,825	$ 93,254,245	

Source: Randy Jenkins, RUS.

In 1998 alone, almost $69.6 million in financing administered by the RUS was approved for rural telecommunications projects in Kansas. This amount included $14 million in "hardship" funding. Hardship loans bear a 5 percent interest rate and are available only in low-density, high-cost areas. The other RUS administered loan programs bear interest rates based on the cost of money to the federal government for the particular program at the time the funds are advanced. Interest rates for such programs ranged from 5 percent to 5.8 percent in 1998.

Currently, 22 rural telephone companies have loans through the RUS. With the exception of Ulysses, the RUS has not financed facilities to serve a town with a population over 5,000. The vast majority of the communities served by RUS-financed systems have populations under 1,500. The average subscriber density of RUS financed systems is only 2.65 access lines per square mile of area served.

RUS also administers a Distance Learning and Telemedicine loan and grant program which has approved over $1.8 million in direct grants to schools and hospitals since 1995.[42]

Comparison of Federal Universal Service and Kansas Universal Service Support Mechanisms. Below is a comparison of federal universal service support mechanisms and state universal support mechanisms.

[42] Information furnished by Randy Jenkins, RUS, November 30, 1998.

TABLE 6

Federal Universal Services Support Mechanisms	Kansas Universal Service Fund
Definition of Universal Service: single-party service; voice grade access to the public switched network; Dual Tone Multifrequency (DTMF) Signaling or its functional equivalent; access to emergency services including 911 and E911; access to operator services; access to interexchange services; access to directory assistance; and toll limitation services for qualifying low-income customers.	Same with three exceptions: No toll limitation services for low-income customers[43] and inclusion of stored program controlled switching with vertical service capability. Also, the Kansas Act provides for *equal* access to long distance services. (The Federal Act does not require *equal* access to interexchange service, only access to such service, among those services eligible for universal service support.)
Advanced or enhanced universal services are not eligible for universal service support although the FCC's inquiry on Section 706 is exploring whether advanced service capability or advanced service should be eligible. "Advanced service capability" is defined in Section 706(c)(1): "without regard to any transmission media or technology," as "high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology."	Enhanced universal services are eligible for KUSF support. These services include: signaling system seven capability, with CLASS service capability; basic and primary rate ISDN capability, or the technological equivalent; full-fiber interconnectivity, or the technological equivalent, between central offices; and broadband capable facilities to all schools, hospitals, public libraries, and state and local government facilities which request broadband services. ISDN and broadband facility deployment are conditioned upon a firm customer order and KCC approval.
Contributions. Every telecommunications carrier that provides interstate telecommunications services shall contribute, on an equitable and nondiscriminatory basis, to federal universal service support mechanisms.	Same, with the exception of providers of paging services.
Receipt of Funds. Eligible telecommunications carriers designated under Section 214(e) of the Federal Act.[44] Exceptions are Internet access providers and cable companies, which are not telecommunications carriers, to be eligible for support from schools and libraries and rural health E-rate programs.	All eligible telecommunications carriers under Section 214 (e) of the Federal Act. Also, receipt of funds authorized for such carriers to offset revenues lost due to reductions in interstate access reductions (no comparable component at federal level).

[43] Although not explicitly included in the definition of "universal service," toll-limitation services are available from any company designated as an "eligible telecommunications carrier," as defined in Section 214(e)(1) of the Federal Act. This designation is a precondition in the Kansas Act (K.S.A. 66-2008 (c)) for receipt of KUSF support. Presently, only incumbent local telephone companies have been so designated.

[44] Section 214(e) requires an eligible telecommunications carrier to offer the services supported by federal universal service support mechanisms either by using a combination of its own facilities or a combination of its own facilities and resale of another carrier's facilities (including the services offered by another eligible telecommunications carrier); and advertise the availability of such services and the charges therefor using media of general distribution.

2-48

TABLE 6

Federal Universal Services Support Mechanisms	Kansas Universal Service Fund
Funding for Lines. Universal service support is authorized for single line residential lines and single line business lines.	Residential and all single line business lines, pursuant to the KCC's Order on Reconsideration, 190,492-U, February 3, 1997. However, the KCC makes no distinction between primary and secondary residential lines.
High-Cost Assistance. High-cost assistance is provided to carriers serving high-cost (rural) areas for high-cost loops, DEM weighting, and long-term support (common lines) based on formulas. SWBT is not eligible for high-cost support but Sprint/United is.	Support is provided to carriers serving rural areas of the state. Purposes for which the KUSF may be used: replacing, on a revenue neutral basis, revenues lost due to reduced intrastate access charges; shortfalls resulting from changes in federal rules related to access revenue requirements; a percentage increase in access lines over a 12-month period prior to request; infrastructure expenditures necessary to serve additional customers within a company's service area; additional investments required to provide universal service and enhanced universal service; and infrastructure investments responding to facility or service requirements of the Legislature (such as Internet access requirements addressed below), regulatory (FCC or KCC), or judicial authority. SWBT has received KUSF support for revenues lost due to reduced intrastate access and is eligible to receive funding for other uses of KUSF.
Lifeline Program. Federal universal service support to qualified subscribers is currently a maximum of $6.75 per month ($7.00 effective March 1999) per primary line, assuming a state match. Eligibility criteria must be based on income or factors related to income, as determined by each state.	Lifeline support from the KUSF currently totals $3.00 per month per primary line ($3.50 effective March 1999). The state's eligibility criteria include: Temporary Assistance to Families; Food Stamps; Medicaid; Supplemental Security Assistance; General Assistance; and Food Distribution Program (United Tribes).
Link Up. Federal universal service support is available for eligible telecommunications carriers which offer qualifying low-income customers a reduction of their connection charges equal to one half of the carrier's customary connection charge or $30, whichever is less.	No KUSF support is used for the Link Up program although Kansas participates in the program.

2-49

TABLE 6

Federal Universal Services Support Mechanisms	Kansas Universal Service Fund
Telecommunications Relay Services Fund. Telecommunications relay service (TRS) was mandated by the Americans with Disabilities Act and is regulated by the FCC. It is funded through the National Exchange Carriers Association (NECA). NECA collects funds from approximately 3,000 companies based on their interstate revenues and disburses funds to the 13 providers that offer interstate telecommunications relay services.	**Kansas Relay Services Program.** The Kansas Relay Services program funds dual party relay services (operator assistance) for Kansans who are speech and hearing impaired. This program was funded for several years prior to the Kansas Act through assessments against all telephone carriers (local, long distance, and resellers). The assessments were computed on an access-line or access-minute basis. However, K.S.A. 66-2002 (g) of the Kansas Act shifted the funding to the KUSF. The amount budgeted from the KUSF for this program for 12 months beginning June 1, 1998 is $2.4 million.
Terminal Access Program. Federal universal service support is available to meet requirements in Section 255 (c) of the Federal Act: "A provider of telecommunications shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable." Manufacturers of telecommunications equipment and customer premises equipment are required to ensure that the "equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if readily achievable."	**Telecommunications Access Program.** This program was not funded prior to the Kansas Act. Established by K.S.A. 66-2002 (g) of the Kansas Act, this program funds telecommunications equipment for persons with disabilities (hearing, visual, speech, mobility, and cognitive). The amount budgeted from the KUSF for this program for 12 months beginning June 1, 1998, is $1.1 million. The total amount expended from October 1, 1997 through November 30, 1998, was $879,300. The total number of applications recorded for that period was 2,141. The largest number of applications came from Johnson County (536).
Discounts for Schools and Libraries. Federal universal service support mechanisms fund discounts (20 percent to 90 percent) for eligible telecommunications services. Assessments are based on telecommunications carriers' interstate and intrastate end-user telecommunications revenues.	The KCC concurred in the federal discount program and in the same discount levels for intrastate services as was applied to interstate services to eligible schools and libraries. However, the KCC elected not to expand the program which would have required additional support from the KUSF.
Discounts for Rural Health Care Providers. Federal universal service support mechanisms fund discounts for eligible telecommunications services. The amount of the discount will be the differential between the rural rate and an amount no higher than the urban rate for similar services. Federal universal support mechanisms will support reduced rates on intrastate services provided to eligible health care providers.[45]	No direct KUSF support is used for the rural health care discount program.

[45] The FCC clarified in its order (December 30, 1997, para. 247) that discounts also apply to intrastate services. This point was not addressed in the Federal Act, as it was for the schools and libraries program.

Other States' Universal Service Support Mechanisms. The National Regulatory Research Institute recently completed a study of states' universal service funding mechanisms and policies.[46] This study involved a survey of 51 state commissions. Of that total, 14 commissions indicated their universal service fund was functioning (seven) or under revision (seven) and an additional 22 commissions have funds either pending or under review. This survey, coupled with other surveys, indicates that most state universal service funds are more limited in scope than the Kansas Fund. Sprint surveyed 16 states served by its local telephone companies. Of that total, most states confined their definitions to services comparable to the universal service definition adopted by the FCC. Several states have not yet adopted definitions of universal service. Kansas and, arguably, Ohio, were the only states in Sprint's survey providing universal service support for enhanced services. Ohio's definition includes "the capability of transferring data at a rate of 9,600 bps by June 12, 1997, and 14,400 bps by December 31, 1998."

The KCC conducted a survey of nine states in the Midwest region: Kansas, Colorado, Wyoming, Oklahoma, Nebraska, Arkansas, Wisconsin, Missouri, and Texas. (See Attachment III.) This survey disclosed that:

1. Six states have operational funds and three are in the planning stages or have not yet been implemented.

2. Of the six states with funds, five allow companies to recover, on a revenue neutral basis, revenues lost from reduced access charges.

3. All six states authorize high-cost assistance. One state, Oklahoma, authorized universal service support for technology training through a fund established specifically for that purpose.

4. Except for Wyoming's fund, the smallest funds (Colorado—first year, Arkansas, and Wisconsin) do not have Bell company participation.[47] The Bell companies in Colorado (until July 1999), Arkansas, and Wisconsin are required to meet their intrastate universal service requirements through internal rebalancing.

5. Basic local rates are higher in some of the states with lower universal service funds. This means that if average basic local residential rates in Colorado, Wyoming, and Nebraska were reduced to equal the current Kansas average basic residential rate, the respective funds of these would be higher. Of

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[46] Edwin A. Rosenberg and John D. Wilhelm, *State Universal Service Funding and Policy: An Overview and Survey*, the National Regulatory Research Institute, September 1998.

[47] In Wyoming, a customer must pay more than 130 percent of the statewide average rate to receive support. The money flows through the company directly to the customer who receives a credit on the bill. Most US West rural customers but not urban customers receive support. Most of the rural customers of the independent telephone companies are not receiving support since they have not rebalanced their rates to make them cost based in order to meet the 130 percent threshold for universal service eligibility.

course, this assumes the reduced revenues in making that equalization would be added to their funds.[48] (See Attachment IV.)

6. In one state included in the KCC survey—Wisconsin—the Public Service Commission identified essential and advanced service capabilities that could be eligible for universal service support. Essential services, among others, include data transmission capability of at least 9,600 bps (PSC 160.031). Advanced service capabilities include: digital access lines and channels by January 1, 2000; high speed data transfer connectivity by January 1, 2002; and two-way interactive video conferencing and interactive imaging capability by January 1, 2003. The advanced services may only be eligible for universal service support in the absence of an alternative provider and in the presence of sufficient demand, or to promote economic development and infrastructure development. Advanced services must be requested and put out for bid. The difference between the requested amount and the determined "reasonable" price for the service is eligible for universal service support (PSC 160.035).[49]

Committee Recommendations. The Committee recommends the Legislature create a framework to move away from the principle of revenue neutrality specified in K.S.A. 66-2008 (a), to a cost-based universal service funding mechanism. In its order of May 8, 1997, the FCC required state universal service mechanisms to be based on cost studies. The intent of that requirement is to ensure that a state's universal service support mechanism is explicit and sustainable in accordance with Section 254 (f) of the Federal Act. The KCC has argued that the revenue neutrality requirement underlying the KUSF is intended to be transitional until the incumbent local telephone companies have phased down their intrastate access charges toward parity with interstate access charges. This argument was sustained by the Kansas Supreme Court.[50] The Committee was informed of the KCC's intent to open a generic docket to establish

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[48] Summarized from comments *Concerning KCC Staff's Comparison of State Universal Service Funds and Access Rates*, submitted by Southwestern Bell to Lynne Holt, Kansas Legislative Research Department, November 16, 1998.

[49] Wisconsin's legislation was cited as an example of universal service support being applied to advanced service capabilities and not technology, with support linked to the absence of alternative service providers and a competitive bidding process to limit expenditures from the fund. See Paul M. Hartman, "Really Advanced Services Provided to All Kansans at a Reasonable Price by a Competitive Market Right Now," presentation to the KUSF Working Committee, September 8, 1998. Also, see Wisconsin Public Service Commission's rules, Chapter 160: Universal Service Support Funding and Programs, April 1996.

[50] The Kansas Supreme Court noted that the revenue neutral concept is not prohibited by or contrary to the Federal Act. See *Citizens Utility Board v. State Corporation Commission*, No. 78,548, March 13, 1998. However, this issue is still being contested in an ongoing proceeding before the FCC (Petition by Western Wireless for Preemption, Pursuant to Section 253 of the Communications Act, the Kansas Statutes and Rules that Discriminate Against New Entrants, CWD 98-90). Parties opposing the revenue neutrality requirement, as it applies to financing the KUSF, argue that the requirement causes the size of the KUSF to be determined by the historic revenues of local telephone companies and not by providing universal service to Kansas citizens. For example, see Reply Comments of Airtouch Communications, Inc. and further discussion in Part IX.

a cost-based mechanism for the KUSF. In addition, the Committee received a status report on the KCC's investigation of Southwestern Bell's cost of providing local service, pursuant to Section 2008(d) of the Kansas Act. This section requires the KCC to:

> periodically review the KUSF to determine if costs of qualified telecommunications public utilities, telecommunications carriers and wireless telecommunications service providers to provide local service justify modifications of the KUSF. If the Commission determines that any changes are needed, the Commission shall modify the KUSF accordingly.

In its recommendation, the Committee endorses the concept of a cost-based universal service funding mechanism in accordance with relevant provisions of the Federal and Kansas Acts.

The Committee also recommends the Legislature consider other revenue sources for funding universal service, in addition to the present use of surcharges on ratepayers' utility bills. For example, the Committee addressed the possibility of dedicating a portion of moneys from the Economic Development Initiatives Fund (capitalized by gaming proceeds) and pursuing federal grant options to support certain advanced telecommunications applications.

PART VIII
DETERMINE HOW TO ADDRESS INTERNET ACCESS IN LIGHT OF CHANGING TECHNOLOGY

The legislative challenge of forging compatibility between two of the primary objectives in the Kansas Act—universal service and competition—discussed in the Background section is best exemplified in the deliberations of the Internet Service Subcommittee and the full committee concerning Internet access. The policy question confronting members for several months was: how does one ensure all Kansans access to affordable and reliable Internet services, particularly in rural parts of the state while, at the same time, providing the necessary conditions for local Internet service providers (ISPs) to enter the market, invest in facilities to serve customers satisfactorily, and compete for new subscribers. Other questions include the following:

> Does subsidization of Internet access services inadvertently create disincentives for entry into the Internet access market?
>
> Do regulatory barriers exist to make it uneconomic for local businesses serving small rural communities to offer Internet access services?
>
> Finally, will a technological solution ultimately resolve the problem of no local ISPs and give consumers a choice of ISP?

Internet Service Providers. ISPs generally offer consumers and businesses access to Internet content (such as web pages) and services (such as e-mail). The typical retail customer subscribes to the service of an ISP, pays a monthly fee, and obtains access via a personal computer. Subscribers may access the Internet through different types of connections. Most residential and small business users have dial-up connections, which use analog modems to send data over local telephone company lines. Larger users often have dedicated connections using high-speed ISDN, frame relay or T-1 lines, between a local area network at the customer's premises and the Internet. These customers may connect directly to backbone networks, or to access points where backbone networks exchange traffic, in some cases bypassing a local ISP (if the ISP only has T-1 lines).

The local ISP provides a connection to the Internet but has no proprietary content. It is therefore distinguished in the following discussion from national on-line service companies, such as America Online, Inc., Microsoft Corporation, and Prodigy, which combine content origination, computer database services, and proprietary computer connection to the Internet. The local ISP is accessed when a customer dials a seven-digit number in the same calling area. After receiving the customer's call, the ISP combines "computer processing, information storage, protocol conversion, and routing with transmission to enable users to access the Internet content and services."[51] In order to provide Internet access services to its subscribers, an ISP may lease or purchase analog or digital business lines from a local telephone company although, as is discussed below, other conduits for data transmission may be used. The ISP pays a flat

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[51] FCC, In the Matter of Federal-State Joint Board on Universal Service, CC Docket No. 96-45, FCC 98-67 *Universal Service Report to Congress*, (April 10, 1998), para. 63.

monthly fee to the company for the lines. This purchase arrangement allows ISPs to receive incoming calls from subscribers who want access to the Internet.

As is depicted in Attachment V, the Internet has no "center" and individual transmissions may be routed through multiple providers due to a number of factors. The Internet functions by "splitting up information into small chunks or packets that are individually routed through the most efficient path to their destination."[52] With packet-switching, "even two packets from the same message may travel over different physical paths through the network . . . which enables users to invoke multiple Internet services simultaneously, and to access information with no knowledge of the physical location of the service where the information resides."[53] The unpredictable and complex routing through which a customer's message may be transmitted from the end user to the final destination raises questions about the practicality of imposing quality standards on local ISPs.[54]

Statutory Requirements—Explanation. K.S.A. 66-2011, as amended by House Sub. for S.B. 212, requires all local telephone companies (presently, Southwestern Bell and Sprint/United which are the only companies providing intraLATA long distance service in Kansas) to offer two discounted dial-up flat rate plans to intraLATA Internet service providers of a customer's choice if the customer had no access to a local ISP registered with the KCC. The rural telephone companies also must offer the discounted flat rate plans through an extension of Southwestern Bell's toll tariffs. Rates for the two discounted plans are specified in statute as not exceeding $15 per line per month for off-peak users and $30 per line per month for unlimited usage.

As a condition for registration with the KCC, the local ISP must agree to support at least 14.4 Kbps service (19.2 Kbps service on and after July, 1, 1999) with no more than 5 percent blockage during the busiest hour of service. If those conditions are not met or the local ISP ceases to provide access and the customer is no longer served by a local ISP, the local telephone companies must resume offering the discounted plans. However, if a new ISP establishes a local presence in a location that was previously eligible for the discounted plans, the local telephone company must:

1. notify all subscribers that a local ISP is now available;

2. continue to make the discounted Internet access service available to existing subscribers of such service with no service deterioration; and

3. allow no new subscribers of the Internet access service.

The 1998 amendments to K.S.A. 66-2011 set forth a procedure for complaints alleging substandard Internet access to be filed against registered ISPs. The KCC staff is authorized to

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[52] Ibid., para. 64.

[53] Ibid.

[54] Background information comes primarily from Kevin Werbach, *Digital Tornado: The Internet and Telecommunications Policy*, OPP Working Paper Series No. 29, FCC, March 1997, p. 12, and GTE Telephone Operating Companies., Memorandum and Opinion Order, FCC Docket 98-292, paras. 5-6, October 30, 1998.

request a seven-day traffic busy line study from the local telephone company serving the ISP. The KCC staff is then required to analyze the study results to determine whether there is more than 5 percent access blockage and this analysis is to be given to the ISP. If the analysis indicates a need for corrective action and the ISP fails to comply within 45 days after receipt of the analysis, the ISP will be removed from the KCC's registry. Subscribers of the removed ISP become eligible for the discounted dial-up plans if no other local ISP is serving the community. All registered ISPs are assumed to provide service with 5 percent or less blockage. Removal of an ISP from the registry will be triggered by a customer's complaint and an ensuing investigation by the KCC staff which discloses noncompliance with the blockage requirement and no ensuing corrective action.

The KCC's registry maintains specified information about the ISPs for purposes of determining a requesting customer's eligibility for the discount plans and for providing a single authoritative listing of all ISP access numbers for local telephone companies to use in processing service orders.

The 1996 Legislature included authorization for discounted Internet access plans because of the reported paucity of local ISP service providers in rural parts of the state at that time. The Legislature acknowledged that in some smaller communities there was insufficient data traffic to justify an ISP's investment in local dialing facilities. Without access to a local ISP, customers had to pay usage-sensitive rates to access Internet services. With the 1996 law, rural Kansans have affordable access to Internet services through discounted flat rates. In addition, the law includes reliability standards for this access. In developing the legislation, the 1996 Legislature viewed the blockage and transmission speed requirements to be a means of inducing all incumbent local telephone companies to make the necessary investments in their facilities to support data transmission at the minimum required speed with no more than 5 percent blockage. Therefore, residents who lacked access to a local ISP would always have affordable and reliable access to the Internet through their local telephone company.

The 1998 amendments reduced the transmission speed requirement from 28.8 Kbps to 19.2 Kbps, effective July 1, 1999, and required the KCC to increase that requirement upon determination "that more advanced technology is both technically and economically feasible." This amendment resulted from legislative concerns associated with the costs local telephone companies would have to incur to comply with the 28.8 Kbps speed requirement and problems associated with ascribing control of transmission speed exclusively to the originating local telephone company. In testimony to the 1998 standing utility committees, the KCC staff projected that local telephone companies could realize costs of as much as $47.7 million, with an undetermined amount to be recovered from the KUSF, to meet the 28.8 speed requirement. This projection was based on data submitted by jurisdictional local telephone companies and was subject to certain specified caveats.

The technical concerns with the 28.8 Kbps speed requirement were raised by KCC staff during the 1998 Session. These concerns re-emerged in discussions of the Committee and Internet Service Subcommittee about the justification for a statutorily-prescribed speed requirement.

- Overall transmission speed is a function of several elements and carriers and the originating local telephone company has control over only some of the factors contributing to that speed.

- Several factors affect overall speed: a customer's modem capabilities; use of Digital Loop Carrier systems in both the customer's loop and the connecting ISP's loop; and the number of analog to digital signal conversions required in connections between the customer and ISP (few of which the originating local telephone company can control).

- Because control of the speed requirement cannot be assigned to any one party, it is difficult to enforce the requirement.

- The Public Switched Network is generally designed around a standard—ANSI/IEEE Standard 820. This standard specifies the bandwidth requirements for local loops used in connecting the end user to the telephone network. This standard specifies an analog bandwidth of 3,000 Hertz, which is only marginally sufficient to support a 28.8 Kbps digital signal. Vendors of telecommunications equipment generally adhere to this standard, and other IEEE standards, in designing and manufacturing their equipment and local telephone companies apply this standard in configuring and maintaining their respective networks.[55]

ISP Profiles. A recent estimate indicates the number of local and regional ISPs in the United States totals over 4,800.[56] The following information pertains specifically to Kansas:

- As of November 19, 1998, 116 ISPs serving Kansas communities were registered with the KCC.

- Of 540 cities in Kansas, 127 do not have a local ISP registered with the KCC.

- Overall, only 4.1 percent of total network access lines in Kansas do not have 7-digit dial access (local access) to an ISP.

- Of all rural access lines, 8.44 percent do not have local access.

The finding on rural access lines correlates to data compiled in a 1997 survey of telephone subscribership and ownership and usage of personal computers and modems, including a profile of telephone penetration and computer usage by geographic area, income, education, race and household type. The survey found that rural households lag behind urban and central city households in each income category for online service.[57] (See Attachment VI.)

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[55] Memorandum for Representative Richard Alldritt from Guy McDonald, KCC, February 19, 1998.

[56] Barbara Esbin, *Internet Over the Cable: Defining the Future in Terms of the Past*, OPP Working Paper Series No. 30, FCC, August 1998, ftn. 88, p. 18.

[57] National Telecommunications Information Administration, U.S. Department of Commerce, *The Digital Divide: A Survey of Information Haves and Have Nots in 1997: Falling Through the Net II*, July 28, 1998.

Attachment VII is a table prepared by the KCC staff summarizing ISP service in Kansas cities with no ISPs through 26 ISPs (Wichita).

Complaints. The aggregate number of complaints filed to date against registered ISPs in Kansas is 42.[58] Five traffic studies were conducted (one is in progress) in response to complaints since enactment of the Kansas Act. Two providers took corrective action as a result of the KCC's investigation and installed additional lines to meet statutory requirements. Only one ISP has been removed from the KCC's registry since registration commenced but, that provider has installed additional lines to accommodate customers and is seeking to reestablish service.

Alternative Means of Providing Internet Connectivity. The Internet can be accessed over any type of facility capable of transmitting data, including copper lines and fiber optic circuits of telephone companies, coaxial cable provided by cable companies, and various types of wireless connections. Attachment VIII is a table that outlines major end-user Internet access technologies (Werbach, p. 75). In Part V, several emerging technologies are described that could support enhanced services, including high speed data transmission services. Below is a summary of three technologies that might be used to provide Internet services, in some cases in conjunction with telephone lines.

Cable Modems. The cable modem is a device that allows high-speed access to the Internet via a cable TV network. A cable modem will typically have two connections, one to the cable wall outlet and the other to a computer. Cable modem customers access the Internet at a fraction of the time it takes traditional telephone modems because cable's broadband plant makes the connection up to a hundred times faster and allows the service to be on permanently. According to the Kansas Cable Telecommunications Association, the following are comparative data transmissions:

[58] According to KCC staff (November 19, 1998), this number excludes the numerous inquiries regarding the type of service provided; the availability of ISPs and their locations; and how to access the various ISPs located throughout the state. The number also excludes calls where the Commission serves as an intervenor and mediator between customers and ISPs, and ISPs and telephone companies.

Time to Transmit a Single 1 Mb Graphic Image	
Telephone Modem 28.8 Kbps	Approximately 5 minutes
ISDN 64 Kbps	Approximately 2 minutes
Cable Modem 10 Mbps	Approximately 1 second
Time to Transmit a 5 Mb Audio/Video Clip of Approximately 1.5 Minute Length	
Telephone Modem 28.8 Kbps	Approximately 22 minutes
ISDN 64 Kbps	Approximately 10 minutes
Cable Modem 10 Mbps	Approximately 4 seconds

Multimedia, for example, began providing high-speed Internet access to schools in 1998 and currently has 50 schools connected. Cable modems can also be used to network schools together, a technology Multimedia provides to the school districts of McPherson, Great Bend, and Newton. Cable modems allow for an Ethernet Wide Area Network to be established between each remote site.

As noted in Part V, the cable industry expects its technology to migrate to modems developed in compliance with the recently adopted DOCSIS standard which will allow a broader array of applications, including high-speed data transmission, to be more widely deployed over cable. However, cable modems, at present, are being used for specialized applications.[59]

Wireless. Wireless companies already offer Internet access at speeds comparable to analog POTS lines, typically through municipal 28.8 Kbps spread spectrum systems. Other wireless technologies, such as local multipoint distribution service (LMDS) and multipoint microwave distribution service (MMDS) are being tested specifically for Internet access applications.[60] These services require line of sight and are capable of covering long distances cheaply. One-way and two-way data transmission is possible over Ethernet speeds (1.5 Mbps).[61]

Satellites. Several of the better known satellite-based Internet providers use an "asymmetric" architecture (similar to cable systems) in which data are sent to the end user using a high-bandwidth satellite link, while communications from the end user go on a narrowband telephone line. The price of satellite services, including necessary ground equipment, is viewed by some industry analysts as a significant factor in limiting mass-market deployment. However, satellites might be a viable means of delivering broadband services to

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[59] A Cable Online Summary by the Kansas Cable Telecommunications Association, November 30, 1998.

[60] Kevin Werbach, p. 70.

[61] Tom Killian, AT&T Labs Research, Presentation to the Committee, July 7, 1998.

rural areas. In its Notice of Inquiry on Section 706, the FCC requested comments on the potential of satellite systems to deploy such capability, including broadband services to rural areas.[62] The FCC also requested comments on the viability of providing advanced telecommunications capability or advanced service via asymmetric architecture, such as is used by the cable and satellite industries (para. 74).

Sprint/Southwestern Bell's Discount Plans. Southwestern Bell and Sprint/United must offer two discounted dial-up flat rate plans to intraLATA Internet service providers of a customer's choice if the customer has no access to a local ISP registered with the KCC. The rural telephone companies also offer the discounted flat rate plans through an extension of Southwestern Bell's tariffs. The rates for the two discounted plans are specified in statute as not exceeding $15 per line per month for off-peak users and $30 per line per month for unlimited usage. Of the two companies with flat-rate plans, Sprint serves the most Kansas communities without a local ISP presence and therefore has the most subscribers for the discounted Internet access services. Sprint offers a discounted flat-rate plan called Infolink, which is a tariffed, regulated service that cannot price discriminate among customers, regardless of which ISP they select. As of October 6, 1998, Infolink served a total of 1,647 customers on either the $15 or $30 discount plan. As of October 6, 1998, Southwestern Bell's flat-rate plans served a total of 324 customers—55 who subscribed to the $30 plan and 269 who subscribed to the $15 plan.

Internet Service Subcommittee Concerns. The Internet Service Subcommittee identified several problems with K.S.A. 66-2011, as amended by 1998 House Sub. for S.B. 212. The italicized language was included in a memorandum from David Furnas, Chairperson of the Subcommittee, to the Committee (July 7, 1998).

Speed Requirement. *The statutorily prescribed transmission speeds (14.4 Kbps, increasing to 19.2 Kbps on July 1, 1999) are inadequate and cannot be enforced.* Data are already being transmitted at much faster speeds than the speed requirement imposed in statute. This is reflected by deployment of many of the services using telephone lines and alternative transmission conduits (cable, wireless, satellite) described above. Moreover, as noted above, speed of data transmission cannot be assigned to any party with certainty. Speed is affected by a combination of factors. The Internet provider must have adequate equipment to handle the speed and volume of data traffic and the end user must have equipment capable of transmitting data at the speed being requested. The realization of the statutorily prescribed speed requirement involves a joint partnership of end users, ISPs, and local telephone companies.

Blockage. *The required 5 percent blockage (line busy conditions) threshold is virtually impossible to monitor and difficult to enforce.* There may be many causes for blockage and much controversy surrounds both causes and solutions. Several possible causes include the following:

- Existing Internet backbone providers may not be increasing capacity to their networks to keep up with the burgeoning demand for high speed data.

- Local telephone switches and trunks may become congested during peak periods.

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[62] Notice of Inquiry on Section 706, paras. 45, 46.

- An ISP may not be providing a sufficient number of connections for its users because it has not purchased a sufficient number of business lines to support traffic.

- There may be congestion on the modem pools used by ISPs to establish contact with end users.

- There may be insufficient capacity between the ISP and its backbone provider.

- There may be insufficient capacity in the servers used by the web sites.[63]

Consumer Awareness. *Consumers do not appear to be aware of the KCC's complaint process which requires the Commission staff to initiate traffic busy line studies upon customer complaints of excessive blockage.*

The Internet Service Subcommittee initially considered expanding availability of the discounted flat-rate plans to all Kansans regardless of local ISP presence. Subcommittee members concluded that existing law could not prevent ISPs from offering substandard service to new customers, particularly in rural areas, because the transmission and blockage requirements are inadequate and could not be enforced. The Subcommittee considered a market-based model to be a more effective means than a prescriptive model to encourage affordable, high-quality Internet service. In theory, local ISPs would be motivated to upgrade their services to compete with national providers because of the availability of the flat-rate calling plans to all Kansans. Consumers would have choices and could exert pressure on their local ISPs to maintain or improve the quality of their service performance. Ultimately, the Subcommittee decided not to recommend this approach or a variant which would have made the discounted flat-rate plans available to all Kansans residing in communities served by no local ISP or one local ISP.

The Subcommittee recommended no amendments be made to K.S.A. 66-2011 for several reasons:

Increasing Penetration. Local ISPs have been increasing in Kansas and now serve all but 132 small Kansas communities. As previously noted, almost 96 percent of all access lines in the state have local access to Internet service.

Unintended Consequences. The expanded use of Infolink could have inadvertent consequences. First, in smaller markets the loss of a few customers could cause a local ISP to go out of business or a potential provider not to invest. Like any other business, ISPs invest where there is sufficient demand and they expect to recover their costs and earn a profit. The existence of discounted plans could adversely affect a business' decision to enter the market, as well as already operating local ISPs' decisions to expand operations. Second, if Sprint is required to expand its network to accommodate increased traffic to points outside its local

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[63] Comments of Sprint on CC Dockets 98-11, 98-26, and 98-32 (Petitions of Ameritech, Bell Atlantic, and US West for forbearance pursuant to Section 706 of the Telecommunications Act of 1996).

calling area, the company may be left with stranded investments or be forced to recover additional costs through the KUSF or increases in other rates.

Cheaper Rates Elsewhere. There is no cost basis for the existing flat rates plans. In many cases, local ISPs and national online service providers are already offering much cheaper rates for Internet access than the monthly rates offered by Infolink. No cost study was done prior to legislative adoption of these rates.

Technological Solutions. Admittedly, certain market areas in the state are too small to support a local ISP because demand would not be sufficient to adequately compensate the ISP for its investment. Nonetheless, technological innovations, as noted above, should present rural communities with viable options for Internet access within the foreseeable future. Cable companies are rapidly expending their Internet services to schools and libraries throughout the state. Once a provider, such as a school district, is in the community, there is potential for extending these services to other local users.

Political Realities. Whereas the Subcommittee's concerns with blockage and particularly transmission requirements are undoubtedly valid, deleting those requirements was ultimately considered to be politically imprudent. Many legislators view those thresholds as at least some means of quality assurance, imperfect as they may be. Moreover, there is some recourse under existing law for customers who allege poor performance on the part of local ISPs. For example, Sprint reported to the Committee that, in response to customer complaints, the KCC had asked the company to conduct six traffic studies to determine the adequacy of facilities of local ISPs. Infolink is reinstated if Sprint and the KCC conclude that an ISP needs additional lines but fails to add them.

Committee Recommendations. The Committee endorsed the Subcommittee's recommendation that the language in K.S.A. 66-2011, as amended by 1998 House Sub. for S.B. 212, be retained.[64]

Other Issues. The following policy issues have potential implications for ISPs:

Access Charge Exemptions. The regulatory treatment of ISPs is currently the subject of extensive debate and FCC review. The FCC considers ISPs to be Enhanced Service Providers. As such, they are exempt from paying interstate access charges. Instead, they pay business line rates that are much lower than access rates and they are considered end users of local telephone companies, much like any other business user. The pivotal point of controversy is whether ISPs are paying their "fair share" for costs incurred through their use of the Public Switched Network.

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[64] This was not a unanimous recommendation on the part of either the Subcommittee or the full Committee. Several members believed that the existing law is ineffective in preventing local ISPs from providing substandard Internet access service in smaller communities. Therefore, in their opinion, certain residents are denied affordable and reliable access to the Internet—a situation which has adverse economic development implications for those communities and, by extension, the entire state.

Local telephone companies generally claim that the access charge exemption for ISPs causes Internet calls to burden the Public Switched Network, thus resulting in network congestion and blocked calls. Local telephone companies argue that a discontinuation of the exemption would provide a more accurate pricing signal which, in turn, would encourage ISPs to seek more efficient methods of serving their users. From the long distance companies' perspective, ISPs are paying below cost, thus placing long distance companies at a competitive disadvantage. For their part, ISPs argue that the exemption is needed to stimulate investments and innovation in information services. They also argue that the existing access charge system is fatally flawed and access charges are too high.[65]

Reciprocal Compensation Agreements. Because of the Internet access charge exemption addressed above, local telephone companies treat the cost of serving ISPs as a cost of serving local end users. Generally, local telephone companies claim that the Internet causes their revenue requirements to increase because they need to install more inter-office and switching facilities to handle increased traffic attributable to the Internet. At the same time, a lower percentage of the total cost associated with such installation is allocated to the interstate jurisdiction and is recoverable through federal support mechanisms. To the extent that costs incurred by local telephone companies increase to serve ISPs and their customers in Kansas, the pressure for these companies to seek recovery of such costs through higher local rates or the KUSF will likewise become greater.[66] To date, more than 20 state utility commissions have ruled that calls to ISPs are local and therefore subject to reciprocal compensation provisions of interconnection agreements between incumbent telephone companies and their competitors.[67]

On October 30, 1998, the FCC issued an order which found that GTE's ADSL offering is an interstate service, appropriately classified as a special access service.[68] As such, ADSL service provides end users with direct access to their ISPs over a connection that is dedicated to ISP access (para. 25). The service is considered interstate access under the Commission's mixed use facilities rule in that ADSL will carry more than 10 percent (a standard for the *de minimus* amount to trigger interstate jurisdiction) of inseparable interstate traffic (paras. 26, 27). The FCC's decision only applies to dedicated connections to ISPs and not to circuit-switched, dial-up connections, to be addressed in an upcoming order (para. 2). The implication of the GTE decision is to place a greater burden on the federal jurisdiction to support its share of universal service under the 75/25 allocation formula.

Independent ISPs. In its Notice of Inquiry on Deployment on Section 706, the FCC sought comments on the need for a regulatory remedy to ensure that local telephone companies do not discriminate against independent ISPs in favor of their own providers or affiliates, particularly if these telephone companies are the only providers of advanced telecommunications services, such as DSL (paras. 38, 74).

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[65] NARUC Internet Working Group, *Policies on Pricing and Universal Service for Internet Traffic on the Public Switched Network*, April 1998.

[66] Ibid.

[67] *NECA Washington Watch*, November 10, 1998.

[68] FCC, In the Matter of GTE Telephone Operating Company, CC Docket 98-79, October 30, 1998.

2-63

Internet Telephony. On April 10, 1998, the FCC submitted its Report to Congress on Universal Service. In that report, the Commission focused on the implementation of definitions relevant to universal service. The FCC found that certain services provided over the Internet, such as phone-to-phone IP telephony, may be offered to the public in a manner that makes them functionally indistinguishable from traditional voice telephone services. In the future, the FCC indicated it may be appropriate to classify such services as "telecommunications" rather than as "information" services and regulate them as telecommunications services. The FCC deferred such a decision in the absence of a more complete record focused on particular cases (paras. 88-91). The central policy question is whether a service provided over the Internet that appears functionally similar to a traditionally-regulated service should be subject to existing regulatory requirements. From the perspective of long distance companies, it is an equity question. Whereas these companies must pass on access charges for every interstate call, Internet telephony providers are exempt from that requirement. Thus, long distance companies consider themselves to be unfairly deprived of revenues. Practical problems have been cited with respect to regulating Internet telephony providers. For example, should companies that merely sell software be regulated as carriers, since Internet telephony providers could be said to facilitate calls but not actually transmit them. Another problem is how one would require ISPs to segregate voice and data packets passing through their networks for regulatory purposes.[69]

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[69] Kevin Werbach, pp. 36-40.

PART IX
POSSIBLE IMPACTS ON SIZE OF FUND

The KCC originally projected the size of the KUSF for the first year of implementation, including start up costs, to be $77.8 million. To meet those requirements, all providers of intrastate telecommunications services in Kansas were assessed at 9 percent. If companies elected to flow the KUSF expenses through to their customers (the Kansas Act authorized but did not require them to do so), the surcharge to customers was 9.89 percent. As previously discussed, the 1998 Legislature made several modifications to the Kansas Act, including reduction of the assessment for KUSF contributions by wireless telecommunications service providers. This assessment is to be reduced by subtracting the percentage minutes of usage of service initiated and terminated entirely over the wireless network. The KCC established the assessment rate for wireless providers in an order issued August 20, 1998. That rate took effect on October 1, 1998. The KCC also issued an order reducing the KUSF surcharge to 7.33 percent on customer bills for the second full year of implementation of the KUSF. The explanation for this decision is outlined in Part II (Size of the Fund).

To ensure that customers would not be assessed more in ensuing years than in the first year of KUSF implementation, the 1998 Legislature amended the Kansas Act to prohibit utilities and other telecommunications providers, in order to meet their KUSF contribution requirements, from collecting from customers an amount in excess of 8.89 percent of their intrastate revenues. This prohibition applies to the period of time prior to January 1, 2000. The amendment reflects a change in policy because prior language imposed an assessment, to be determined by the KCC, against the companies but did not apply a contribution limitation to customers. The 1998 Legislature included this language to assure customers that the assessment on their bills would be capped. However, certain Committee members expressed concern that the percentage might cause companies to collect an insufficient amount from their customers if, for any reason, KUSF contribution requirements were to increase in the latter part of 1999 due to any of the factors identified below or other external pressures and a larger assessment were to be imposed to fund the third year of the KUSF. Moreover, the National Exchange Carrier Association administers the KUSF and assesses carriers 6.83 percent of intrastate revenues. Carriers file monthly remittances disclosing their revenues on a cash basis.

Committee Recommendation on Collection Methodology. The Committee recommends the Legislature address the cap on intrastate retail revenues that may be collected from utility customers to capitalize the KUSF to ensure that problems do not result from this shift in policy. The Committee notes that House Sub. for S.B. 212 required an 8.89 percent cap to be in effect prior to January 1, 2000, as a means of curbing the size of the Fund. In that legislation, the assessment formula links the 8.89 percent cap to amounts collected from customers. Under prior law, the formula was based on assessments against companies.

External Factors Potentially Affecting the KUSF. The following actions have been taken by the FCC or KCC. Outcomes from these decisions or proceedings may affect the size of the KUSF by, in most cases, an indeterminate amount.

Change in Separation Rules. In its order of May 8, 1998, the FCC determined that federal universal service support would be funded only from interstate revenues and would be responsible for 25 percent of the difference between the affordable rate and the estimated cost of providing service in rural, insular, and high-cost areas. As previously noted, the cost of providing service will be based on a forward looking cost model and the FCC's order adopting

a framework for the model was issued on October 28, 1998 for nonrural telephone companies. The KCC submitted comments objecting to the FCC's decision to fund only 25 percent of the universal service requirement noting that the decision was "arbitrary and capricious" and unlawful given a lack of support for that position in the administrative record. The decision was appealed to the U.S. Court of Appeals for the 5th District.

If no action is taken to postpone or reverse the FCC's decision on the 25 percent requirement, the formula will take effect on July 1, 1999 for nonrural companies. However, on November 23, 1998, the Federal-State Joint Board on Universal Service recommended, with respect to non-rural carriers, that the FCC replace the 25/75 percent jurisdictional division of responsibility for high-cost areas with a new methodology.[70] The Joint Board recommended a two-step approach. First, the FCC would determine if the cost of serving an area is significantly above a national average. Second, for areas that are more expensive to serve, the FCC should determine whether the state has sufficient resources to provide the support needed. The Joint Board recommended that federal support be provided only to the extent that the state would be unable to support its high-cost areas through its own reasonable efforts.

Universal service support for rural companies will not be based on forward looking cost mechanisms until 2001 at the earliest. If the FCC elects not to revisit the 25/75 split in allocating costs between interstate and intrastate jurisdictions for purposes of universal service support, states, including Kansas, may have to replace the foregone support for high-cost assistance through the KUSF.

Western Wireless Preemption Petition. On July 20, 1998, Western Wireless Corporation (Cellular One) petitioned the FCC to preempt Kansas statutes and rules establishing the KUSF. Western Wireless alleged that the Fund "is not competitively neutral and is not related to the cost of providing universal service." Western Wireless further alleged the Kansas Act discriminates against new entrants and has the effect of deterring competitive entry, thus violating Section 253 of the Federal Act. According to the company, the KUSF disburses support to incumbent local telephone companies statewide but limits other carriers' support to the smallest and most remote areas. Therefore, alternative providers are placed at a competitive disadvantage. Alternative providers are essentially forced to subsidize their chief competitors, the incumbent local telephone companies. Western Wireless contended that this situation creates a barrier to entry. In addition, the company maintained that one had no reason to believe that the Fund "has anything to do with ensuring that consumers in rural and high-cost areas have reasonably priced access to telecommunications services, as directed by Section 254(b)(3)" of the Federal Act.[71]

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[70] Federal-State Joint Board on Universal Service, CC Docket No. 96-45, November 23, 1998.

[71] FCC, Petition of Western Wireless Corporation for Preemption, Pursuant to Section 253 of the Communications Act, of Kansas Statutes and Rules that Discriminate Against New Entrants, CWD 98-90, July 20, 1998. In support of the argument that the Fund is constituted for only one goal—revenue neutrality, Western Wireless observed in its reply comments (September 18, 1998) that calculation of the size of the Fund and determination of how much support is disbursed to each incumbent local telephone company are based solely on the revenue neutrality calculation, and have nothing to do with the number of lines the carriers serve in high-cost areas or the per-line support needed in those areas.

The KCC filed reply comments with the FCC, contending that no evidence was furnished to show that Western Wireless or any other provider is precluded from entry. Moreover, the KCC argued that all carriers are eligible for the High Cost Funding program. The Commission described its efforts to study the costs of the incumbent telephone companies, beginning with the biggest drawers from the KUSF, and modify the KUSF accordingly, which should render the argument moot that the Fund is not cost-based. Moreover, Commission staff informed the Committee that Western Wireless had applied to the KCC for designation as an eligible telecommunications carrier. If such designation is approved, the company would be eligible to receive universal service support.[72]

Southwestern Bell Proceeding. The KCC opened a docket in late April 1998 to determine Southwestern Bell's cost to provide universal service. The order which initiated the proceeding stated that the intent of the proceeding is to:

- determine Southwestern Bell's cost to provide local service;
- evaluate whether the existing level of KUSF support received by Southwestern Bell is appropriate; and
- identify any subsidies embedded in Southwestern Bell's rates.

On September 23, 1998, the Commission issued an order affirming its direction to Southwestern Bell to submit a fully distributed cost study on or before November 13, 1998. A review of Southwestern Bell's costs to provide local service could alter the size of the KUSF. Finally, the Commission issued an order on November 6, 1998, initiating a generic proceeding to review the KUSF mechanism.[73]

Reductions in Federal Access Charges. Federal access rates have been reduced in July 1997, January 1998, and July 1998. The Kansas Act requires that switched intrastate access rates be reduced over a three-year period "in a revenue neutral, specific and predictable manner" with the objective of reaching parity with interstate rates. (K.S.A. 66-2005 (c).) If the FCC decides to reduce interstate access rates in the future, local telephone companies are authorized to request additional KUSF support in accordance with provisions of K.S.A. 66-2008(e) of the Kansas Act.[74] In addition to federal access rate reductions, price cap adjustments ordered by the FCC have implications for the size of the Fund because of their potential effect on a long distance company's revenue stream.

On September 16, 1998, the KCC issued an order which established working groups to study the changes to interstate access charges and to quantify the impact on the local telephone companies and their customers if intrastate access charges were reduced to parity

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[72] Another wireless carrier, Sprint PCS, likewise applied for designation as an eligible telecommunications carrier.

[73] KCC, In the Matter of an Investigation Into the KUSF Mechanism for the Purpose of Modifying the KUSF and Establishing a Cost-Based Fund, 99-GIMT-326-GIT, November 6, 1998.

[74] Specifically, additional funding may be requested for the recovery of shortfalls due to additional rebalancing of rates to continue maintenance of parity with interstate access rates.

2-67

with interstate rates. Reports were submitted to the KCC from two working groups on November 25, 1998.[75] The first working group concluded a reduction of $32 million in intrastate access rates would be required to bring those rates into parity with interstate rates. This group also recommended that no changes to intrastate access charges be recommended at this time because "it is doubtful these reductions can be funded by the KUSF at this time." The Commission asked the second working group to review the work product of the first group.

Committee Recommendation—What Next? The Committee recognizes that decisions by the FCC and KCC may have implications on the size of the KUSF. Nonetheless, the Committee notes that K.S.A. 66-2001(a) of the Kansas Act includes a public policy of the state to: "ensure that every Kansan will have access to a first class telecommunications infrastructure that provides excellent services at an affordable price." This statement should always be a guiding principle for any public policy deliberations and decisions that could potentially have implications for the size of the KUSF. Although the Committee recognizes the uneasy coexistence of the objectives of universal service and competition, it concluded that Kansas cannot afford a society characterized by "a digital divide" of well connected and disconnected Kansans.

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[75] Working Groups 1 and 2 Reports on Access Reductions, Docket 190,492-U, Phase III, November 25, 1998.

ATTACHMENT I

House Substitute for Senate Bill No. 212

An Act concerning telecommunications services; relating to enhanced universal service and Internet access; amending K.S.A. 1997 Supp. 66-2005, 66-2008 and 66-2011 and repealing the existing sections.

Be it enacted by the Legislature of the State of Kansas:

Section 1. K.S.A. 1997 Supp. 66-2005 is hereby amended to read as follows: 66-2005. (a) Each local exchange carrier shall file a network infrastructure plan with the commission on or after January 1, 1997, and prior to January 1, 1998. Each plan, as a part of universal service protection, shall include schedules, which shall be approved by the commission, for deployment of universal service capabilities by July 1, 1998, and the deployment of enhanced universal service capabilities by July 1, ~~2001~~ *2003*, as defined pursuant to subsections (p) and (q) of K.S.A. 1997 Supp. 66-1,187 *and amendments thereto*, respectively. *With respect to enhanced universal service, such schedules shall provide for deployment of ISDN, or its technological equivalent, or broadband facilities, only upon a firm customer order for such service, or for deployment of other enhanced universal services by a local exchange carrier. After receipt of such an order and upon completion of a deployment plan designed to meet the firm order or otherwise provide for the deployment of enhanced universal service, a local exchange carrier shall notify the commission. The com mission shall approve the plan unless the commission determines that the proposed deployment plan is unnecessary, inappropriate, or not cost effective, or would create an unreasonable or excessive demand on the KUSF. The commission shall take action within 90 days. If the commission fails to take action within 90 days, the deployment plan shall be deemed approved. This approval process shall continue until July 1, 2000.* Each plan shall demonstrate the capability of the local exchange carrier to com ply on an ongoing basis with quality of service standards to be adopted by the commission no later than January 1, 1997.

(b) In order to protect universal service, facilitate the transition to competitive markets and stimulate the construction of an advanced telecommunications infrastructure, each local exchange carrier shall file a regulatory reform plan at the same time as it files the network infra structure plan required in subsection (a). As part of its regulatory reform plan, a local exchange carrier may elect traditional rate of return regulation or price cap regulation. Carriers that elect price cap regulation shall be exempt from rate base, rate of return and earnings regulation. How ever, the commission may resume such regulation upon finding, after a hearing, that a carrier that is subject to price cap regulation has: violated minimum quality of service standards pursuant to subsection (l) of K.S.A. 1997 Supp. 66-2002 *and amendments thereto*; been given reasonable notice and an opportunity to correct the violation; and failed to do so. Regulatory reform plans also shall include:

(1) A commitment to provide existing and newly ordered point-to point broadband services to: Any hospital as defined in K.S.A. 65-425, and amendments thereto; any school accredited pursuant to K.S.A. 72 1101 *et seq.*, and amendments thereto; any public library; or other state and local government facilities at discounted prices close to, but not be low, long-run incremental cost; and

(2) a commitment to provide basic rate ISDN service, or the technological equivalent, at prices which are uniform throughout the carrier's service area ~~and which are designed to~~

~~stimulate the development of an extensive residential market~~. Local exchange carriers shall not be required to allow retail customers purchasing the foregoing discounted services to resell those services to other categories of customers. Telecommunications carriers may purchase basic rate ISDN services, *or the technological equivalent*, for resale in accordance with K.S.A. 1997 Supp. 66-2003 *and amendments thereto*. The commission may reduce prices charged for services outlined in provisions (1) and (2) of this subsection, if the commitments of the local exchange carrier set forth in those provisions are not being kept.

(c) Subject to the commission's approval, all local exchange carriers shall reduce intrastate access charges to interstate levels as provided herein. Rates for intrastate switched access, and the imputed access portion of toll, shall be reduced over a three-year period with the objective of equalizing interstate and intrastate rates in a revenue neutral, specific and predictable manner. The commission is authorized to rebalance local residential and business service rates to offset the intrastate access and toll charge reductions. Any remaining portion of the reduction in access and toll charges not recovered through local residential and business service rates shall be paid out from the KUSF pursuant to K.S.A. 1997 Supp. 66-2008 *and amendments thereto*. Rural telephone companies shall reduce their intrastate switched access rates to interstate levels on March 1, 1997, and every two years thereafter, as long as amounts equal to such reductions are recovered from the KUSF.

(d) Beginning March 1, 1997, each rural telephone company shall have the authority to increase annually its monthly basic local residential and business service rates by an amount not to exceed $1 in each 12 month period until such monthly rates reach an amount equal to the statewide rural telephone company average rates for such services. The statewide rural telephone company average rates shall be the arithmetic mean of the lowest flat rate as of March 1, 1996, for local residential service and for local business service offered by each rural telephone company within the state. In the case of a rural telephone company which increases its local residential service rate or its local business service rate, or both, to reach the statewide rural telephone company average rate for such services, the amount paid to the company from the KUSF shall be reduced by an amount equal to the additional revenue received by such company through such rate increase. In the case of a rural telephone company which elects to maintain a local residential service rate or a local business service rate, or both, below the statewide rural telephone company average, the amount paid to the company from the KUSF shall be reduced by an amount equal to the difference between the revenue the company could receive if it elected to increase such rate to the average rate and the revenue received by the company.

(e) For regulatory reform plans in which price cap regulation has been elected, price cap plans shall have three baskets: Residential and single-line business, including touch-tone; switched access services; and miscellaneous services. The commission shall establish price caps at the prices existing when the regulatory plan is filed subject to rate rebalancing as provided in subsection (c) for residential services, including touch-tone services, and for single-line business services, including touch-tone serv ices, within the residential and single-line business service basket. The commission shall establish a formula for adjustments to the price caps. The commission also shall establish price caps at the prices existing when the regulatory plan is filed for the miscellaneous services basket. The commission shall approve any adjustments to the price caps for the miscellaneous service basket, as provided in subsection (f).

(f) On or before January 1, 1997, the commission shall issue a final order in a proceeding to determine the price cap adjustment formula that shall apply to the price caps for the local residential and single-line business and the miscellaneous services baskets and for sub-categories, if any, within those baskets. In determining this formula, the commission shall

2-70

balance the public policy goals of encouraging efficiency and promoting investment in a quality, advanced telecommunications network in the state. The commission also shall establish any informational filing requirements necessary for the review of any price cap tariff filings, including price increases or decreases within the caps, to verify such caps would not be exceeded by any proposed price change. The adjustment formula shall apply to the price caps for the local residential and single-line business basket after December 31, 1999, and to the miscellaneous services basket after December 31, 1997. The price cap formula, but not actual prices, shall be reviewed every five years.

(g) The price caps for the residential and single-line business service basket shall be capped at their initial level until January 1, 2000, except for any increases authorized as a part of the revenue neutral rate rebalancing under subsection (c). The price caps for this basket and for the categories in this basket, if any, shall be adjusted annually after December 31, 1999, based on the formula determined by the commission under subsection (f).

(h) The price cap for the switched access service basket shall be set based upon the local exchange carrier's intrastate access tariffs as of January 1, 1997, except for any revenue neutral rate rebalancing authorized in accordance with subsection (c). Thereafter, the cap for this basket shall not change except in connection with any subsequent revenue neutral rebalancing authorized by the commission under subsection (c).

(i) The price caps for the miscellaneous services basket shall be adjusted annually after December 31, 1997, based on the adjustment formula determined by the commission under subsection (f).

(j) A price cap is a maximum price for all services taken as a whole in a given basket. Prices for individual services may be changed within the service categories, if any, established by the commission within a basket. An entire service category, if any, within the residential and single line business basket or miscellaneous services basket may be priced below the cap for such category. Unless otherwise approved by the commission, no service shall be priced below the price floor which will be long-run incremental cost and imputed access charges. Access charges equal to those paid by telecommunications carriers to local exchange carriers shall be imputed as part of the price floor for toll services offered by local exchange carriers on a toll service basis.

(k) A local exchange carrier may offer promotions within an exchange or group of exchanges. All promotions shall be approved by the commission and shall apply to all customers in a nondiscriminatory manner within the exchange or group of exchanges.

(l) Unless the commission authorizes price deregulation at an earlier date, intrastate toll services within the miscellaneous services basket shall continue to be regulated until the affected local exchange carrier begins to offer 1 + intraLATA dialing parity throughout its service territory, at which time intrastate toll will be price deregulated, except that prices cannot be set below the price floor.

(m) On or before July 1, 1997, the commission shall establish guide lines for reducing regulation prior to price deregulation of price cap regulated services in the miscellaneous services basket, the switched access services basket, and the residential and single-line business basket.

(n) Subsequent to the adoption of guidelines pursuant to subsection (m), the commission shall initiate a petitioning procedure under which the local exchange carrier may request rate range

pricing. The commission shall act upon a petition within 21 days, subject to a 30-day suspension. The prices within a rate range shall be tariffed and shall apply to all customers in a nondiscriminatory manner in an exchange or group of exchanges.

(o) A local exchange carrier may petition the commission to designate an individual service or service category, if any, within the miscellaneous services basket, the switched access services basket or the residential and single-line business basket for reduced regulation. The commission shall act upon a petition for reduced regulation within 21 days, subject to a suspension period of an additional 30 days, and upon a good cause show ing of the commission in the suspension order, or within such shorter time as the commission shall approve. The commission shall issue a final order within the 21-day period or within a 51-day period if a suspension has been issued. Following an order granting reduced regulation of an individual service or service category, the commission shall act on any request for price reductions within 7 seven days subject to a 30-day suspension. The commission shall act on other requests for price cap adjustments, adjustments within price cap plans and on new service offerings within 21 days subject to a 30-day suspension. Such a change will be presumed lawful unless it is determined the prices are below the price floor or that the price cap for a category, if any, within the entire basket has been exceeded.

(p) The commission may price deregulate within an exchange area, or at its discretion on a statewide basis, any individual service or service category upon a finding by the commission that there is a telecommunications carrier or an alternative provider providing a comparable product or service, considering both function and price, in that exchange area. The commission shall act upon a petition for price deregulation within 21 days, subject to a suspension period of an additional 30 days, and upon a good cause showing of the commission in the suspension order, or within such shorter time as the commission shall approve; provided that no such petition shall be filed prior to July 1997, unless the commission otherwise authorizes. The commission shall issue a final order within the 21-day period or within a 51-day period if a suspension has been issued.

(q) Upon complaint or request, the commission may investigate a price deregulated service. The commission shall resume price regulation of a service provided in any exchange area by placing it in the appropriate service basket, as approved by the commission, upon a determination by the commission that there is no longer a telecommunications carrier or alternative provider providing a comparable product or service, considering both function and price, in that exchange area.

(r) The commission shall require that for all local exchange carriers all such price deregulated basic intraLATA toll services be geographically averaged statewide and not be priced below the price floor established in subsection (j).

(s) Cost studies to determine price floors shall be performed as required by the commission in response to complaints. In addition, not withstanding the exemption in subsection (b), the commission may re quest information necessary to execute any of its obligations under the act.

(t) A local exchange carrier may petition for individual customer pricing. The commission shall respond expeditiously to the petition within a period of not more than 30 days subject to a 30-day suspension.

(u) No audit, earnings review or rate case shall be performed with reference to the initial prices filed as required herein.

2-22

(v) Telecommunications carriers shall not be subject to price regulation, except that: Access charge reductions shall be passed through to consumers by reductions in basic intrastate toll prices; and basic toll prices shall remain geographically averaged statewide. As required under K.S.A. 66-131, and amendments thereto, and except as provided for in subsection (c) of K.S.A. 1997 Supp. 66-2004 *and amendments thereto*, telecommunications carriers that were not authorized to provide switched local exchange telecommunications services in this state as of July 1, 1996, including cable television operators who have not previously offered telecommunications services, must receive a certificate of convenience based upon a demonstration of technical, managerial and financial viability and the ability to meet quality of service standards established by the commission. Any telecommunications carrier or other entity seeking such certificate shall file a statement, which shall be subject to the com mission's approval, specifying with particularity the areas in which it will offer service, the manner in which it will provide the service in such areas and whether it will serve both business customers and residential customers in such areas. Any structurally separate affiliate of a local exchange carrier that provides telecommunications services shall be subject to the same regulatory obligations and oversight as a telecommunications carrier, as long as the local exchange carrier's affiliate obtains access to any services or facilities from its affiliated local exchange carrier on the same terms and conditions as the local exchange carrier makes those services and facilities available to other telecommunications carriers. The com mission shall oversee telecommunications carriers to prevent fraud and other practices harmful to consumers and to ensure compliance with quality of service standards adopted for all local exchange carriers and telecommunications carriers in the state.

Sec. 2. K.S.A. 1997 Supp. 66-2008 is hereby amended to read as follows: 66-2008. On or before January 1, 1997, the commission shall establish the Kansas universal service fund, hereinafter referred to as the KUSF.

(a) The initial amount of the KUSF shall be comprised of local exchange carrier revenues lost as a result of rate rebalancing pursuant to subsection (c) of K.S.A. 1997 Supp. 66-2005 *and amendments thereto* and subsection (a) of K.S.A. 1997 Supp. 66-2007 *and amendments thereto*. Such revenues shall be recovered on a revenue neutral basis. The revenue neutral calculation shall be based on the volumes and revenues for the 12 months prior to September 30, 1996, adjusted for any rate changes.

(b) The commission shall require every telecommunications carrier, telecommunications public utility and wireless telecommunications serv ice provider that provides intrastate telecommunications services to con tribute to the KUSF on an equitable and nondiscriminatory basis. Any telecommunications carrier, telecommunications public utility or wireless telecommunications service provider which contributes to the KUSF may collect from customers an amount equal to such carrier's, utility's or provider's contribution, *except that before January 1, 2000, no such carrier, provider or utility shall collect from customers an amount in excess of 8.89% of its intrastate retail revenues as provided in commission docket no. 190-492-U but such carrier, provider or utility may collect a lesser amount from its customer.*

Prior to January 1, 2000, with respect to wireless telecommunications service providers, an equitable and nondiscriminatory rate shall be an amount equal to the rate of contributions of wireline telecommunications service providers, as determined by the commission, reduced by the percentage minutes of usage initiated and terminated entirely over the wire less network as determined by the commission. The commission shall establish such rate for wireless telecommunications service providers no later than December 31, 1998. Any contributions in excess of distributions collected in any reporting year shall be applied to reduce the estimated contribution that would otherwise be necessary for the following year.

(c) Pursuant to the federal act, distributions from the KUSF shall be made in a competitively neutral manner to qualified telecommunications public utilities, telecommunications carriers and wireless telecommunications providers, that are deemed eligible both under subsection (e)(1) of section 214 of the federal act and by the commission.

(d) The commission shall periodically review the KUSF to determine if the costs of qualified telecommunications public utilities, telecommunications carriers and wireless telecommunications service providers to provide local service justify modification of the KUSF. If the commission determines that any changes are needed, the commission shall modify the KUSF accordingly.

(e) Any qualified telecommunications carrier, telecommunications public utility or wireless telecommunications service provider may re quest supplemental funding from the KUSF based upon a percentage increase in access lines over the 12-month period prior to ~~its~~ *the* request. The supplemental funding shall be incurred for the purpose of providing services to and within the service area of the qualified telecommunications carrier, telecommunications public utility or wireless telecommunications service provider. Supplemental funding from the KUSF shall be used for infrastructure expenditures necessary to serve additional customers within the service area of such qualifying utility, provider or carrier. All affected parties shall be allowed to review and verify a request of such a qualified utility, carrier or provider for supplemental funding from the KUSF, and to intervene in any commission proceeding regarding such request. The commission shall issue an order on the request within 120 days of filing. Additional funding also may be requested for: The recovery of shortfalls due to additional rebalancing of rates to continue maintenance of parity with interstate access rates; shortfalls due to changes to access revenue requirements resulting from changes in federal rules; additional investment required to provide universal service and enhanced universal service, *deployed subject to subsection (a) of K.S.A. 66-2005, and amendments thereto*; and for infrastructure expenditures in response to facility or service requirements established by any legislative, regulatory or judicial authority. Such requests shall be subject to simplified filing procedures and the expedited review procedures, as outlined in the stipulation attached to the order of November 19, 1990 in docket no. 127,140-U (Phase IV).

(f) Additional supplemental funding from the KUSF, other than as provided in subsection (e) of this section, may be authorized at the discretion of the commission. However, the commission may require approval of such funding to be based upon a general rate case filing. With respect to any request for additional supplemental funding from the KUSF, the commission shall act expeditiously, but shall not be subject to the 120 day deadline set forth in subsection (e).

Sec. 3. K.S.A. 1997 Supp. 66-2011 is hereby amended to read as follows: 66-2011. (a) As used in this section, "the internet'" means the international network of interconnected government, educational, and commercial computer networks. An "internet service provider" means an entity that provides end user access to the internet. Nothing in this section shall be construed to mean that the commission has any regulatory jurisdiction over internet service providers. The provisions of this section ap ply only to those locations of the state where local (7-digit) internet access, which supports at least 14.4 kilobits per second service with no more than 5% blockage during the busiest hour of the service, is not available on *or after* October 1, 1996. ~~The provisions of this section also apply to those locations where local access has been discontinued as of October 1, 1996, or access to the service deteriorates to more than 5% blockage during the busiest hour of the service.~~

2-74

(b) On or after July 1, 1996 and prior to October 1, 1996, rural telephone companies shall file concurring tariffs to offer internet access in locations identified in subsection (a) to an intraLATA internet service provider of the customer's choice. All rural telephone companies, including local exchange carriers pursuant to subsection (c), shall provide dial up access to support at least 14.4 kilobit per second service ubiquitously throughout the exchange service area, with ~~28.8~~ *19.2* kilobit per second service ~~made available to any requesting customer on or~~ *on and* after July 1, 1999. *The commission shall increase the 19.2 kilobit per second requirement when the commission determines that more advanced technology is both technically and economically feasible.*

(c) On or after July 1, 1996 and prior to October 1, 1996, all local exchange carriers, other than rural telephone companies, shall file tariffs with the commission for two flat-rate dial-up plans, which would provide internet access in locations identified in subsection (a) to an intraLATA internet service provider of the customer's choice. All such plans shall be approved by the commission if they meet the criteria established in this section. The first plan includes: (1) For off-peak users, a monthly rate of not more than $15 per line for the hours of 5 p.m. through 7:59 a.m. weekdays and all hours on weekends and federal holidays. Calls placed outside this specified off-peak period shall be billed at prevailing toll rates. (2) For unlimited usage, the rate shall not exceed $30 per line per month. The commission shall waive imputation considerations in reviewing and approving these service offerings.

(d) If a location was previously eligible for the plans provided in sub section (c) and a new internet service provider establishes a local presence in that location, the local exchange carrier serving the location shall:

(1) Notify all subscribers of the discounted internet access service that a local internet service provider is now available;

(2) continue to make the discounted internet access service available to existing subscribers of such service with no deterioration of such serv ice; and

(3) allow no new subscribers of the discounted internet access service.

(e) Nothing in this section shall be construed to imply that the com mission has any regulatory jurisdiction over the internet or internet serv ice providers with respect to quality of service, rates, billing and collection practices, end-to-end bandwidth, technical support or any other aspects of the business of providing internet access service. However, the com mission shall monitor the adequacy of connectivity to internet service providers. Upon complaints of inadequate access, commission staff shall request a seven-day traffic busy line study from the local exchange carrier serving the internet service provider. Commission staff shall analyze the study results to determine whether there is more than 5% access blockage and shall provide the analysis to the internet service provider for consideration and possible action. If the analysis indicates a need for additional capacity and the internet service provider fails to take a corrective action within 45 days after the analysis is provided to such provider by the commission staff, the internet service provider shall be removed from the commission's internet service provider registry and subscribers of such internet service subscriber shall be eligible for the plans provided in sub section (c) if there is no other local internet service provider serving the location.

~~(d)~~ *(f)* All internet service providers operating in the state shall register with the commission. Such registration shall include the name of the internet service provider and the provider's address, contact name, phone number, and access line numbers. This information shall be

2-25

maintained by the commission ~~and disseminated to all local exchange carriers and rural telephone companies providing access to internet service providers in accordance with provisions of this section. This information shall be used to validate customer service requests~~ *at the commission's internet home page (http://www.kcc.state.ks.us). This information shall be used to determine a requesting customer's eligibility for the plans provided in subsection (c) and to provide a single authoritative listing of internet serv ice provider access numbers for local exchange carriers to use in processing service orders. Absent complaints to commission staff, internet service providers shall be assumed to provide service with 5% or less access block age upon registration. If, upon complaint and subsequent investigation, access blockage is determined to exceed 5%, the provider shall be removed from the commission's registry.*

~~(e)~~ *(g)* During the 1999 session of the Kansas legislature, the com mission shall transmit a report to the chairperson, vice-chairperson and ranking minority member of the house standing committee on energy and natural resources, the senate standing committee on transportation and utilities and the joint committee on computers and telecommunications concerning implementation of this section. The report shall include recommendations for revisions in this section necessitated by technological innovation or market changes in the telecommunications industry. The report also may include an expiration date for this section.

New Sec. 4. (a) The commission shall establish a KUSF working committee. The membership of the working committee shall be deter mined by the commission subject to the conditions set forth in subsection (b). The legislative coordinating council shall designate the chair of the committee and the chair shall be a legislative member. Meetings shall be on call of the chair.

(b) The membership of the KUSF working committee shall include:

(1) One representative for each of the following: Local exchange carriers subject to price cap regulation, interexchange carriers, cable companies, wireless telecommunications service providers, rural telephone companies, local exchange carriers certificated after January 1, 1996, competitive access providers, internet service providers, the citizens' utility ratepayer board;

(2) a faculty member from a Kansas university with expertise in telecommunications technology, a representative of elementary and secondary schools, a representative of a public library, a large business, other than a telecommunications public utility and a small business, other than a telecommunications public utility; and

(3) eight legislators as follows: two members of the house standing committee on utilities appointed by the speaker of the house of representatives, two members of such committee appointed by the minority leader of the house of representatives, two members of the senate standing committee on commerce appointed by the president of the senate and two members of such committee appointed by the minority leader of the senate. Legislators serving as members of the committee and those members described in paragraph (2) shall receive amounts provided by subsection (e) of K.S.A. 75-3223 and amendments thereto for each day of actual attendance at any meeting of the task force or any subcommittee meeting approved by the task force. Such amounts paid to members shall be paid from appropriations to the legislative coordinating council pursuant to vouchers prepared by the director of legislative administrative services and approved by the chairperson or vice-chairperson of the legislative coordinating council.

(c) The KUSF working committee shall discuss, identify and develop recommendations regarding technology issues, KUSF funding regulatory procedures, modifications to enhanced universal service and other issues identified by the committee, including but not limited to:

2-76

(1) The definition of enhanced universal service;

(2) how and when enhanced universal services should be deployed;

(3) what mechanism is most appropriate for the recovery of capital costs; and

(4) how to address internet access in light of changing technology.

(d) On or before December 1, 1998, the KUSF working committee shall submit a report and recommendations to the legislature based on the activities of the working committee.

(e) The legislative research department, the commission and office of the revisor of statutes shall provide staff support for the committee. Legislative staff shall prepare the report and any recommendations of the working committee.

New Sec. 5. (a) As used in this section:

(1) "Express authorization" means an express, affirmative act by a consumer clearly agreeing to the change in the consumer's telecommunications carrier or local exchange carrier to another carrier.

(2) "Telecommunications services" has the meaning provided by K.S.A. 66-1,187 and amendments thereto.

(b) No local exchange carrier or telecommunications carrier shall submit to a local exchange carrier an order to change a consumer's telecommunications carrier or local exchange carrier to another carrier without having obtained the express authorization of the consumer authorized to make the change. The local exchange carrier or telecommunications carrier requesting the change shall have the burden of proving the express authorization by a preponderance of the evidence.

(c) No local exchange carrier, telecommunications carrier or third party utilized to verify an order to change a consumer's telecommunications carrier or local exchange carrier to another carrier shall:

(1) Engage in any activity, conduct or representation while soliciting or verifying a change in a consumer's telecommunications carrier or local exchange carrier to another carrier that has the capacity to mislead, deceive or confuse the consumer;

(2) employ a box or container used to collect entries for sweepstakes, contests or drawings to gather letters of agency or other documents that constitute authorizations by consumers to change the consumers' telecommunications carrier or local exchange carrier to another carrier or to change or add to the consumers' other telecommunications services; or

(3) use any methods not approved by the federal communications commission statutes, rules and regulations (as in effect on the effective date of this act) or state corporation commission rules and regulations to change a consumer's telecommunications carrier or local exchange carrier to another carrier.

(d) Any local exchange carrier or telecommunications carrier that violates subsection (b) or (c) shall be subject to a civil penalty of not less than $5,000 nor more than $20,000 for each

2-77

such violation instead of the penalty provided for in subsection (a) of K.S.A. 50-636, and amendments thereto.

(e) Any violation of this section is a deceptive and unconscionable act or practice under the provisions of the Kansas consumer protection act and shall be subject to any and all of the enforcement provisions of the Kansas consumer protection act. Nothing in this section shall preclude the state corporation commission from exerting its authority as it pertains to intrastate services nor the attorney general from pursuing violations of any other provisions of the Kansas consumer protection act by a local exchange carrier or telecommunications carrier.

(f) All local exchange carriers shall offer consumers the option of notifying the local exchange carrier in writing that they do not desire any change of telecommunications carrier regardless of any orders to the contrary submitted by any third party. The consumer shall be permitted to cancel such notification or to change its telecommunications carrier by notifying the consumer's local exchange carrier accordingly. All local exchange carriers shall annually notify the consumers of the carrier's telecommunications services of the availability of this option.

(g) This section shall be part of and supplemental to the Kansas consumer protection act.

Sec. 6. K.S.A. 1997 Supp. 66-2005, 66-2008 and 66-2011 are hereby repealed.

Sec. 7. This act shall take effect and be in force from and after its publication in the Kansas register.

I hereby certify that the above Bill originated in the
Senate, and passed that body

_____

Senate adopted
Conference Committee Report _____

_____
President of the Senate.

_____
Secretary of the Senate.

Passed the House
as amended _____

House adopted
Conference Committee Report _____

_____
Speaker of the House.

_____
Chief Clerk of the House.

Approved _____

_____
Governor.

2-78

ATTACHMENT II

9rs0056

SENATE BILL NO. ____

By Senator Salisbury

AN ACT concerning telecommunications services; relating to enhanced universal service; amending K.S.A. 1998 Supp. 66-1,187 and 66-2005 and repealing the existing sections.

Be it enacted by the Legislature of the State of Kansas:

Section 1. K.S.A. 1998 Supp. 66-1,187 is hereby amended to read as follows: 66-1,187. As used in this act:

(a) "Broadband" means the transmission of digital signals at rates equal to or greater than 1.5 megabits per second.

(b) "CLASS services" means custom local area signaling services, which include automatic callback, automatic recall, calling number identification, selective call rejection, selective call acceptance, selective call forwarding, distinctive ringing and customer originated trace.

(c) "Commission" means the state corporation commission.

(d) "Dialing parity" means that a person that is not an affiliate of a local exchange carrier is able to provide telecommunications services in such a manner that customers have the ability to route automatically, without the use of any access code, their telecommunications to the telecommunications carrier of the customer's designation from among two or more telecommunications carriers, including such local exchange carrier.

(e) "Federal act" means the federal telecommunications act of 1996, P.L. 104-104 (amending the communications act of 1934, 47 U.S.C. 151, *et seq.*)

(f) "ISDN" means integrated services digital network which is a network and associated technology that provides simultaneous voice and data communications over a single communications channel.

(g) "LATA" has the meaning ascribed to it in the federal act.

(h) "Local exchange carrier" means any telecommunications public utility or its successor providing switched telecommunications service within any local exchange service area, as approved by

the commission on or before January 1, 1996. However, with respect to the Hill City exchange area, in which multiple carriers were certified by the commission prior to January 1, 1996, the commission's determination, subject to any court appeals, of which authorized carrier shall serve as the carrier of last resort will determine which carrier shall be deemed the local exchange carrier for that exchange.

(i) "Number portability" has the meaning ascribed to it in the federal act.

(j) "1 + intraLATA dialing parity" means the ability of a local exchange service customer to specify the telecommunications or local exchange carrier that will carry the intraLATA long distance messages when that customer dials either "1" or "0" plus a 10-digit number.

(k) "Operating area" means:

(1) In the case of a rural telephone company, operating area or service area means such company's study area or areas as approved by the federal communications commission;

(2) in the case of a local exchange carrier, other than a rural telephone company, operating area or service area means such carrier's local exchange service area or areas as approved by the commission.

(l) "Rural telephone company" has the meaning ascribed to it in the federal act, excluding any local exchange carrier which together with all of its affiliates has 20,000 or more access lines in the state.

(m) "Telecommunications carrier" means a corporation, company, individual, association of persons, their trustees, lessees or receivers that provides a telecommunications service, including, but not limited to, interexchange carriers and competitive access providers, but not including local exchange carriers certified before January 1, 1996.

(n) "Telecommunications public utility" means any public utility, as defined in K.S.A. 66-104, and amendments thereto, which owns, controls, operates or manages any equipment, plant or generating machinery, or any part thereof, for the transmission of telephone messages, as defined in K.S.A. 66-104, and amendments thereto, or the provision of telecommunications services in or throughout any part of Kansas.

(o) "Telecommunications service" means the provision of a service for the transmission of telephone messages, or two-way video or data messages.

(p) "Universal service" means telecommunications services and facilities which include: single party, two-way voice grade calling; stored program controlled switching with vertical service capability; E911 capability; tone dialing; access to operator services; access to directory assistance; and equal access to long distance services.

(q) "Enhanced universal service" means telecommunications services, in addition to those included in universal service, which shall include: Signaling system seven capability, with CLASS service capability; ~~basic and primary rate ISDN capability, or the technological equivalent;~~ full-fiber interconnectivity, or the technological equivalent, between central offices; and broadband capable facilities to: All schools accredited pursuant to K.S.A. 72-1101 *et seq.*, and amendments thereto; hospitals as defined in K.S.A. 65-425, and amendments thereto; public libraries; and state and local government facilities which request broadband services.

Sec. 2. K.S.A. 1998 Supp. 66-2005 is hereby amended to read as follows: 66-2005. (a) Each local exchange carrier shall file a network infrastructure plan with the commission on or after January 1, 1997, and prior to January 1, 1998. Each plan, as a part of universal service protection, shall include schedules, which shall be approved by the commission, for deployment of universal service capabilities by July 1, 1998, and the deployment of enhanced universal service capabilities by July 1, 2003, as defined pursuant to subsections (p) and (q) of K.S.A. 1998 Supp. 66-1,187 and amendments thereto, respectively. ~~With respect to enhanced universal service, such schedules shall provide for deployment of ISDN, or its technological equivalent, or broadband facilities, only upon a firm customer order for such service, or for deployment of other enhanced universal services by a local exchange carrier. After receipt of such an order and upon completion of a deployment plan designed to meet the firm order or otherwise provide for the deployment of enhanced universal service, a local exchange carrier shall notify the commission. The commission shall approve the plan unless the commission determines that the proposed deployment plan is unnecessary, inappropriate, or not cost effective, or would create an unreasonable or excessive demand on the KUSF. The commission shall take action within 90 days. If the commission fails to take action within 90 days, the deployment plan shall be deemed approved. This approval process shall continue until July 1, 2000.~~ Each plan shall demonstrate the capability of the local

2-81

exchange carrier to comply on an ongoing basis with quality of service standards to be adopted by the commission no later than January 1, 1997.

(b) In order to protect universal service, facilitate the transition to competitive markets and stimulate the construction of an advanced telecommunications infrastructure, each local exchange carrier shall file a regulatory reform plan at the same time as it files the network infrastructure plan required in subsection (a). As part of its regulatory reform plan, a local exchange carrier may elect traditional rate of return regulation or price cap regulation. Carriers that elect price cap regulation shall be exempt from rate base, rate of return and earnings regulation. However, the commission may resume such regulation upon finding, after a hearing, that a carrier that is subject to price cap regulation has: violated minimum quality of service standards pursuant to subsection (l) of K.S.A. 1998 Supp. 66-2002 and amendments thereto; been given reasonable notice and an opportunity to correct the violation; and failed to do so. Regulatory reform plans also shall include:

(1) A commitment to provide existing and newly ordered point-to-point broadband services to: Any hospital as defined in K.S.A. 65-425, and amendments thereto; any school accredited pursuant to K.S.A. 72-1101 et seq., and amendments thereto; any public library; or other state and local government facilities at discounted prices close to, but not below, long-run incremental cost; and

(2) a commitment to provide basic rate ISDN service, or the technological equivalent, at prices which are uniform throughout the carrier's service area. Local exchange carriers shall not be required to allow retail customers purchasing the foregoing discounted services to resell those services to other categories of customers. Telecommunications carriers may purchase basic rate ISDN services, or the technological equivalent, for resale in accordance with K.S.A. 1998 Supp. 66-2003 and amendments thereto. The commission may reduce prices charged for services outlined in provisions (1) and (2) of this subsection, if the commitments of the local exchange carrier set forth in those provisions are not being kept.

(c) Subject to the commission's approval, all local exchange carriers shall reduce intrastate access charges to interstate levels as provided herein. Rates for intrastate switched access, and the imputed access portion of toll, shall be reduced over a three-year period with the objective of equalizing

2-87

interstate and intrastate rates in a revenue neutral, specific and predictable manner. The commission is authorized to rebalance local residential and business service rates to offset the intrastate access and toll charge reductions. Any remaining portion of the reduction in access and toll charges not recovered through local residential and business service rates shall be paid out from the KUSF pursuant to K.S.A. 1998 Supp. 66-2008 and amendments thereto. Rural telephone companies shall reduce their intrastate switched access rates to interstate levels on March 1, 1997, and every two years thereafter, as long as amounts equal to such reductions are recovered from the KUSF.

(d) Beginning March 1, 1997, each rural telephone company shall have the authority to increase annually its monthly basic local residential and business service rates by an amount not to exceed $1 in each 12 month period until such monthly rates reach an amount equal to the statewide rural telephone company average rates for such services. The statewide rural telephone company average rates shall be the arithmetic mean of the lowest flat rate as of March 1, 1996, for local residential service and for local business service offered by each rural telephone company within the state. In the case of a rural telephone company which increases its local residential service rate or its local business service rate, or both, to reach the statewide rural telephone company average rate for such services, the amount paid to the company from the KUSF shall be reduced by an amount equal to the additional revenue received by such company through such rate increase. In the case of a rural telephone company which elects to maintain a local residential service rate or a local business service rate, or both, below the statewide rural telephone company average, the amount paid to the company from the KUSF shall be reduced by an amount equal to the difference between the revenue the company could receive if it elected to increase such rate to the average rate and the revenue received by the company.

(e) For regulatory reform plans in which price cap regulation has been elected, price cap plans shall have three baskets: Residential and single-line business, including touch-tone; switched access services; and miscellaneous services. The commission shall establish price caps at the prices existing when the regulatory plan is filed subject to rate rebalancing as provided in subsection (c) for residential services, including touch-tone services, and for single-line business services, including touch-tone services, within the residential and single-line business service basket. The commission shall establish

a formula for adjustments to the price caps. The commission also shall establish price caps at the prices existing when the regulatory plan is filed for the miscellaneous services basket. The commission shall approve any adjustments to the price caps for the miscellaneous service basket, as provided in subsection (f).

(f) On or before January 1, 1997, the commission shall issue a final order in a proceeding to determine the price cap adjustment formula that shall apply to the price caps for the local residential and single-line business and the miscellaneous services baskets and for sub-categories, if any, within those baskets. In determining this formula, the commission shall balance the public policy goals of encouraging efficiency and promoting investment in a quality, advanced telecommunications network in the state. The commission also shall establish any informational filing requirements necessary for the review of any price cap tariff filings, including price increases or decreases within the caps, to verify such caps would not be exceeded by any proposed price change. The adjustment formula shall apply to the price caps for the local residential and single-line business basket after December 31, 1999, and to the miscellaneous services basket after December 31, 1997. The price cap formula, but not actual prices, shall be reviewed every five years.

(g) The price caps for the residential and single-line business service basket shall be capped at their initial level until January 1, 2000, except for any increases authorized as a part of the revenue neutral rate rebalancing under subsection (c). The price caps for this basket and for the categories in this basket, if any, shall be adjusted annually after December 31, 1999, based on the formula determined by the commission under subsection (f).

(h) The price cap for the switched access service basket shall be set based upon the local exchange carrier's intrastate access tariffs as of January 1, 1997, except for any revenue neutral rate rebalancing authorized in accordance with subsection (c). Thereafter, the cap for this basket shall not change except in connection with any subsequent revenue neutral rebalancing authorized by the commission under subsection (c).

(i) The price caps for the miscellaneous services basket shall be adjusted annually after December 31, 1997, based on the adjustment formula determined by the commission under subsection (f).

(j) A price cap is a maximum price for all services taken as a whole in a given basket. Prices for individual services may be changed within the service categories, if any, established by the commission within a basket. An entire service category, if any, within the residential and single-line business basket or miscellaneous services basket may be priced below the cap for such category. Unless otherwise approved by the commission, no service shall be priced below the price floor which will be long-run incremental cost and imputed access charges. Access charges equal to those paid by telecommunications carriers to local exchange carriers shall be imputed as part of the price floor for toll services offered by local exchange carriers on a toll service basis.

(k) A local exchange carrier may offer promotions within an exchange or group of exchanges. All promotions shall be approved by the commission and shall apply to all customers in a nondiscriminatory manner within the exchange or group of exchanges.

(l) Unless the commission authorizes price deregulation at an earlier date, intrastate toll services within the miscellaneous services basket shall continue to be regulated until the affected local exchange carrier begins to offer 1+ intraLATA dialing parity throughout its service territory, at which time intrastate toll will be price deregulated, except that prices cannot be set below the price floor.

(m) On or before July 1, 1997, the commission shall establish guidelines for reducing regulation prior to price deregulation of price cap regulated services in the miscellaneous services basket, the switched access services basket, and the residential and single-line business basket.

(n) Subsequent to the adoption of guidelines pursuant to subsection (m), the commission shall initiate a petitioning procedure under which the local exchange carrier may request rate range pricing. The commission shall act upon a petition within 21 days, subject to a 30-day suspension. The prices within a rate range shall be tariffed and shall apply to all customers in a nondiscriminatory manner in an exchange or group of exchanges.

2-85

(o) A local exchange carrier may petition the commission to designate an individual service or service category, if any, within the miscellaneous services basket, the switched access services basket or the residential and single-line business basket for reduced regulation. The commission shall act upon a petition for reduced regulation within 21 days, subject to a suspension period of an additional 30 days, and upon a good cause showing of the commission in the suspension order, or within such shorter time as the commission shall approve. The commission shall issue a final order within the 21-day period or within a 51-day period if a suspension has been issued. Following an order granting reduced regulation of an individual service or service category, the commission shall act on any request for price reductions within seven days subject to a 30-day suspension. The commission shall act on other requests for price cap adjustments, adjustments within price cap plans and on new service offerings within 21 days subject to a 30-day suspension. Such a change will be presumed lawful unless it is determined the prices are below the price floor or that the price cap for a category, if any, within the entire basket has been exceeded.

(p) The commission may price deregulate within an exchange area, or at its discretion on a statewide basis, any individual service or service category upon a finding by the commission that there is a telecommunications carrier or an alternative provider providing a comparable product or service, considering both function and price, in that exchange area. The commission shall act upon a petition for price deregulation within 21 days, subject to a suspension period of an additional 30 days, and upon a good cause showing of the commission in the suspension order, or within such shorter time as the commission shall approve; provided that no such petition shall be filed prior to July 1997, unless the commission otherwise authorizes. The commission shall issue a final order within the 21-day period or within a 51-day period if a suspension has been issued.

(q) Upon complaint or request, the commission may investigate a price deregulated service. The commission shall resume price regulation of a service provided in any exchange area by placing it in the appropriate service basket, as approved by the commission, upon a determination by the commission that there is no longer a telecommunications carrier or alternative provider providing a comparable product or service, considering both function and price, in that exchange area.

2-86

(r) The commission shall require that for all local exchange carriers all such price deregulated basic intraLATA toll services be geographically averaged statewide and not be priced below the price floor established in subsection (j).

(s) Cost studies to determine price floors shall be performed as required by the commission in response to complaints. In addition, notwithstanding the exemption in subsection (b), the commission may request information necessary to execute any of its obligations under the act.

(t) A local exchange carrier may petition for individual customer pricing. The commission shall respond expeditiously to the petition within a period of not more than 30 days subject to a 30-day suspension.

(u) No audit, earnings review or rate case shall be performed with reference to the initial prices filed as required herein.

(v) Telecommunications carriers shall not be subject to price regulation, except that: Access charge reductions shall be passed through to consumers by reductions in basic intrastate toll prices; and basic toll prices shall remain geographically averaged statewide. As required under K.S.A. 66-131, and amendments thereto, and except as provided for in subsection (c) of K.S.A. 1998 Supp. 66-2004 and amendments thereto, telecommunications carriers that were not authorized to provide switched local exchange telecommunications services in this state as of July 1, 1996, including cable television operators who have not previously offered telecommunications services, must receive a certificate of convenience based upon a demonstration of technical, managerial and financial viability and the ability to meet quality of service standards established by the commission. Any telecommunications carrier or other entity seeking such certificate shall file a statement, which shall be subject to the commission's approval, specifying with particularity the areas in which it will offer service, the manner in which it will provide the service in such areas and whether it will serve both business customers and residential customers in such areas. Any structurally separate affiliate of a local exchange carrier that provides telecommunications services shall be subject to the same regulatory obligations and oversight as a telecommunications carrier, as long as the local exchange carrier's affiliate obtains access to any services or facilities from its affiliated local exchange carrier on the same terms and conditions as the local

exchange carrier makes those services and facilities available to other telecommunications carriers. The commission shall oversee telecommunications carriers to prevent fraud and other practices harmful to consumers and to ensure compliance with quality of service standards adopted for all local exchange carriers and telecommunications carriers in the state.

Sec. 3. K.S.A. 1998 Supp. 66-1,187 and 66-2005 are hereby repealed.

Sec. 4. This act shall take effect and be in force from and after its publication in the statute book.

2-88

ATTACHMENT III

Comparison of State Universal Service Funds and Access Rates—Prepared by the KCC Staff for the KUSF Working Committee
October 16, 1998

State	Time Period	Fund Amount	Relative Size Fund/Lines	Assessment	Based on	High Cost	RBOC In Fund	Access Rates	Services Covered
Kansas	Mar 1998-Feb 1999	$100 M	$66	7.33%	State Retail Revenue	Y	Y	Reduction: RBOC .060 to .025 ILECs .101 to .071 Sprint .081 to .046 Overall 50% reduction	Revenue Neutral Access Reduction Lifeline Credits, TRS, TAP
Colorado	July 1998-June 1999	$3 M		0.20%	State Retail Revenue	Y	N	RBOC Orig .047,Term .067 rates will reduce to estimated	Rural LECs, revenue neutral access reduction
	Begin July 1999	$60 M(est.)	$24	4.20%	State Retail Revenue	Y	Y	RBOC Orig .024,Term .034. About a 50% reduction.	All LECs, including U.S. West, Revenue Neutral Access Reductions
Wyoming	July 1998-Jun 1999	$6.5 M	$24	6.00%	State Retail Revenue	Y	Y	RBOC .048 currently, may reduce to .0075 to .021 range	Companies with local rates that exceed 130% of statewide average receive support
Oklahoma	Feb 1998-Jun 1999	$24 M	$13	0.456%	State Retail Revenue	Y	possible		Recovery of revenues lost as result of Fed/State Mandated Actions Provision of basic service Provision of access lines & Internet access to schools, libraries, hospitals, & local government Lifeline Credits Reimbursement for E-911 and Technology Training Funds
Nebraska	Planning Stage	$45 M (est.)	$47	4.00% (proposed)	Retail End User Bill			Plan to reduce access rates so toll rates avg $.08/min.	Companies file cost studies to support need for universal service.
Arkansas	Sept 1998-Aug 1999	$7.0 M	$5	1.00%	State Retail Revenue	Y	N		All LECs, except SWBT & GTE, allowed revenue neutral recovery of revenues lost as a result of Fed/State mandated actions(CCL, Toll Pool Elimination, Interstate Access, Intrastate Access, Fed. USF) Basic Service
Wisconsin	Started May 1996	$6.2 M	$2			2 cos.	not now	RBOC Orig .0137, Term .008 plus fixed transport charges. Mirror interstate w/o CCL Major reductions in 90 & 93	Lifeline, voicemail for homeless, special equipment needs. High rate assistance. Discounts for schools, libraries, & hospitals. Telecom services at 4 universities.
Missouri	Planning Stage							Present Rates: RBOC Orig .0262, erm .0343 ILEC range from .032 to .134	
Texas	Starting Jan. 99				State & Interstate Retail Revenues				

Wyoming Bill Example:	
Monthly Local Service	$45.00
Universal Service Support	$20.00
Net after Support	$25.00

289

ATTACHMENT IV

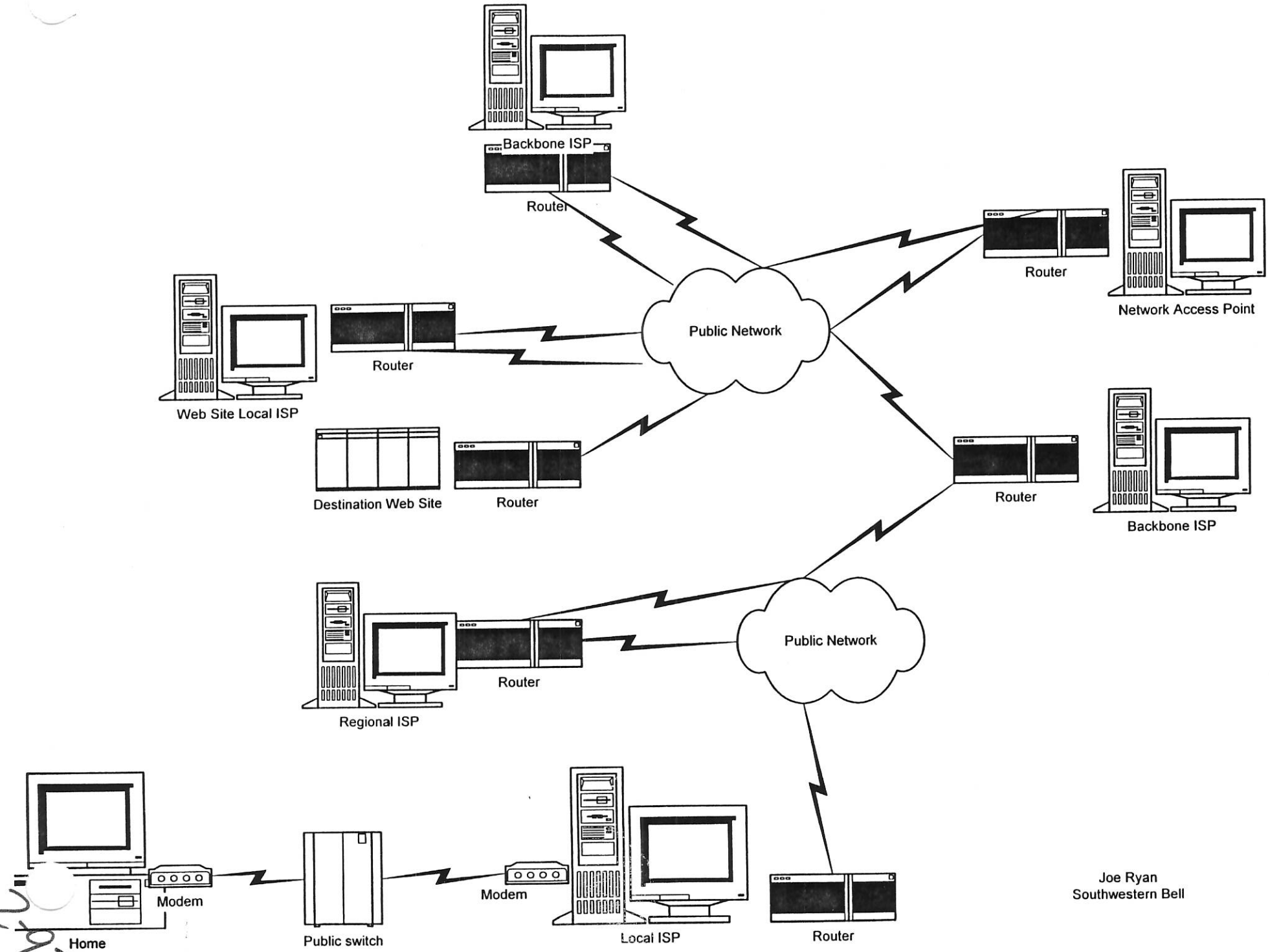
COMPARISON OF SELECT WESTERN STATE RATES AND UNIVERSAL SERVICE FUNDS
Source: Southwestern Bell Telephone Company—Kansas

State	Current Fund Amount (in millions)	Fund/Line	Average Resident Rate	Additional Fund Needed at Kansas Local Res. Rate (in millions)	Total Estimated Fund at Kansas Local Res. Avg. Rate (in millions)	Revised Fund/Line
KANSAS	$100.0	$66	$10.00@	$0.00	$100.00	$66
Colorado	60.0	24	15.08	152.40	212.40	85
Wyoming	6.5	24	24.03	45.60	52.10	192
Nebraska	45.0	47	16.35*	72.96	117.96	123

@ Provided by KCC staff during 10/16/98 KUSF Working Committee Meeting.
* Average USWest and Alltel Residence Rate (IBRA).

291

ATTACHMENT V



Joe Ryan
Southwestern Bell

Chart 20: Percent of U.S. Households with Online Service by Income
By U.S., Rural, Urban, and Central City Areas

1997

	U.S.	Rural	Urban	Central City
Under $5,000	7.2	5.6	7.7	6.6
5,000-9,999	3.9	2.3	4.4	4.6
10,000-14,999	4.9	2.8	5.6	5.7
15,000-19,999	7.0	4.5	7.8	9.6
20,000-24,999	9.0	6.5	9.9	10.0
25,000-34,999	13.9	11.6	14.7	13.3
35,000-49,999	20.8	16.0	22.6	23.0
50,000-74,999	32.4	27.6	33.9	35.1
75,000 +	49.2	44.4	50.3	49.4

Source: National Telecommunications Information Administration, U.S. Department of Commerce, *The Digital Divide: A Survey of Information Haves and Have Nots in 1997: Falling Through the Net II*, July 28, 1998.

ATTACHMENT VII

ISP Service Summary, a/o 11-19-98

Number of ISPs	Number of Localities	Total Net. Access Lines	Ave. # of NALs	% of Total NALs	% of Rural NALs
0	127	64,965	512	4.10%	8.44%
1	330	275,448	835	17.40%	35.78%
2	51	114,139	2,238	7.21%	14.83%
3	12	61,707	5,142	3.90%	8.02%
4	4	37,259	9,315	2.35%	4.84%
5	4	34,053	8,513	2.15%	4.42%
6	3	18,773	6,258	1.19%	2.44%
7	2	52,686	26,343	3.33%	6.84%
8	1	Note: Line count information is considered proprietary by at least one of the LECs in the following locations			
9	1				
10	1				
11	1				
14	1				
20	1				
25	1				
26	1				
Totals	540	1,582,614		100.00%	100.00%
Total Rural NALs		769,760			
Total Metro NALs		812,854			

1. Network Access Line (NAL) count per the December 1997 Annual Report.
2. ISP data taken from the KCC's Registry, dated November 10, 1998.
3. Metro areas are defined as Kansas City, Topeka, and Wichita.
4. Rural areas are defined as all areas other than Kansas City, Topeka, and Wichita.
5. % of Rural NAL computations are shown as 'not applicable' (na) for Metro Locations.

Source: KCC Staff

ATTACHMENT VIII

Major End-User Internet Access Technologies

Technology	Downstream	Upstream	Summary
POTS (analog voice telephony)	28.8-33.6 kbps (56 kbps in 1997)	28.8-33.6 kbps	94% of homes have POTS service; requires no additional telco investment and only a computer and (inexpensive) analog modem at the user premises.
ISDN	56-128 kbps (230 kbps under development)	56-128 kbps (230 kbps under development)	Approximately 70% of access lines are now capable of supporting ISDN, but less than 5% of Internet subscribers use ISND. New pricing, standardization, marketing efforts may increase penetration in 1997.
xDSL	384 kbps (SDSL) 768 kbps (HDSL) 1.5-8 Mbps (ADSL)	384 kbps (SDSL) 768 kbps (HDSL) 12-500 (ADSL)	Significant deployment of SDSL and HDSL today for corporate networks and T1 service. Commercial ADSL deployment by most telcos planned to begin in 1997. Actual deliverable bandwidth, especially for ADSL, depends heavily on loop conditions.
Cable Modems	1.2-27 Mbps (shared capacity)	128 kbps-10 Mbps (shared capacity) or POTS line used for upstream	Several companies are deploying infrastructure (*e.g.*, @Home, Comcast, Time-Warner), with commercial availability in late 1996 or early 1997. Many technical questions remain.
Wireless	28.8 kbps (900 Mhz) 1.5 Mbps (LMDS) 1.5 Mbps (MMDS)	28.8 kbps (900 Mhz) 1.5 Mbps (LMDS) 1.5 Mbps (MMDS)	These are only some of the technologies under development that could provide wireless Internet access (NII/Supernet band and 2.3 Ghz auction may also open spectrum for this application). Actual bandwidth will depend on environmental factors as well as details of deployment.
Satellite	400 kbps (DirectPC)	POTS line used for upstream	Several other systems under development.

Source: Kevin Werbach, *Digital Tornado: The Internet and Telecommunications Policy*, OPP Working Paper Series No. 29, FCC, March 1997.

These comments are from Walker Hendrix, Consumer Counsel, Citizens' Utility Ratepayer Board, December 18, 1998

COMMENTS

The Kansas Universal Service Fund Working Committee ("Committee") tackled many difficult issues. They made many recommendations that CURB fully endorses. For instance, they recommend that the Legislature create a framework to move away from the principle of revenue neutrality specified in K.S.A. 66-2008(a), to a cost-based universal service funding mechanism. The Committee also recommends the Legislature consider other revenue sources for funding universal service in addition to the present use of surcharges on ratepayers' utility bills. They also recommend a review of the definition and timing for implementation of enhanced universal service. These recommended changes, depending on how or if they are actually implemented, can result in a stronger, better defined, State Telecommunications Act.

The Committee also made recommendations CURB does not feel are in the best interests of Kansas consumers. For instance, the Committee recommends that K.S.A. 66-2001(b) eliminate the phrase "at reduced rates." They also recommend that the cap on the KUSF assessment be reviewed. These changes, again depending on how or if they are implemented, can reduce the current State Act's focus on lower rates. In fact, based on these recommendations, it appears a combination of higher rates and higher surcharges could result.

However, the biggest concern to CURB are the many issues that were never adequately addressed by the Committee. And the biggest of these are the tremendous changes occurring in the telecommunications infrastructure. It has been widely reported that the present day telephone network based on circuit switched technology will be largely obsolete within a five to ten year timeframe, replaced by a network based on packet switching. The magnitude of this change cannot be overstated. It is estimated that nationwide upwards of $100 billion of existing network switches and facilities will have to be written off. Present day electronic switches will be replaced with routers and ATM switches; transport facilities will be replaced with SONET rings and frame relay networks.

Why is this happening? Because the fundamental use of the telecommunications network has changed. The original telephone network was designed to carry voice traffic. When data applications emerged, they were forced to be compatible with the voice network, but voice traffic remained the dominant traffic on the network. However, with the growth in data networks, FAX traffic, E-mail systems, and the World Wide Web, it is now estimated that the majority of the traffic on the network is data. The network that exists today is a voice network that has been modified to be capable of carrying data. What is needed is a network that can just as easily transport voice or data traffic. That network is beginning to be developed but does not exist today.

The impact on Kansas must be recognized and planned for now. The current State Act does not provide any authority for the Kansas Corporation Commission to require companies to start upgrading their networks. Instead the State Act allows companies to continue to fully earn on their embedded investments and provides extra recovery when companies begin to provide for the networks of the future. Kansas consumers are left with paying for outdated equipment and being required to pay extra when companies do normal upgrades. The Commission must be allowed to examine telecommunications companies' infrastructure plans and reward only those who keep Kansas consumers on the forefront of technology. It should be no surprise that SBC has already implemented xDSL capability in California, but not in Kansas. They have also

announced xDSL plans to enter Nevada and Texas, but not in Kansas. Kansas simply does not have the market size to incent companies. Therefore the Commission, through the State Act, must be given the ability to encourage and/or require the upgrades necessary.

Another concern of CURB's is the Committee's continued reliance on unsupported notions of Kansas telecommunications costs and revenues. The report alludes to local rates priced below incremental costs, and to long distance rates, business local rates, urban rates and access charges as being the cross subsidization mechanisms that support local rates and universal service. However, the Committee failed to examine all the revenue sources available to support universal service. In addition to the services named in the report, vertical services such as caller ID, three-way calling, speed dialing and even touch tone are priced substantially above their incremental costs and are major revenue sources for the local companies. To date the Commission has not concluded any dockets that quantify the costs or examine the revenue flows. We simply do not know the cost to provide local service, the cost to provide universal service or the amount of subsidies, if any, that are needed to support local service and universal service. This failure no doubt has led to Kansas having the distinction of the highest universal service fund in the country, even though Kansas would not be considered the highest cost state in which to operate.

The report also recognizes that the Kansas Universal Service Fund ("KUSF") has informally been called a high cost fund. The KUSF is not a high cost fund; it is a fund that keeps local exchange carriers revenue neutral as access charges are decreased to parity with interstate access rates. (Additional revenues are included to fund Lifeline service, KRSI, TAP and administrative expenses.) At the inception of the fund there was no review of the costs of providing local service and there was no review of the costs of providing universal service. The Court of Appeals said, "The result is a final order that fully protects incumbent LECs by shifting lost revenues from one corporate pocket to another while requiring all other providers and consumers to bear the financial burden of 'revenue neutral' regulation." The Court also stated, " Finally, the KCC order has created a $111.6 million fund that bears no rational relation to the concept of universal service and its cost." Studies to determine the costs of providing local service and universal service are now in progress at the Commission.

All of the above issues are framed by the inability of the Commission, as a result of the State Act, to review the earnings of companies receiving KUSF funds. Kansas consumers should have the right to know if the surcharges showing up on their bills each month are going to companies that need the money. Results in other states may indicate that at least some of the companies don't. For instance, the Texas Commission staff recently reported that Southwestern Bell overearned $288,373,673 for the year ending December 31, 1997. Even more recently the Oklahoma Corporation Commission staff reported that Southwestern Bell had excess revenues of $91.6 million in 1996 with a return on equity of 21.4%. These results were after Southwestern Bell refunded $641 million to Oklahoma customers in 1995. The Kansas Corporation Commission needs to be given back the authority to do similar investigations.

Finally, CURB urges the Legislature to review the principles contained in Senate Bill No. 666. SB666 addresses virtually all of the items on the list of KUSF Working Committee Recommendations. In a clear and concise manner the bill provides the policy direction that will keep Kansas at the forefront of technology and will provide consumers the protections they need.

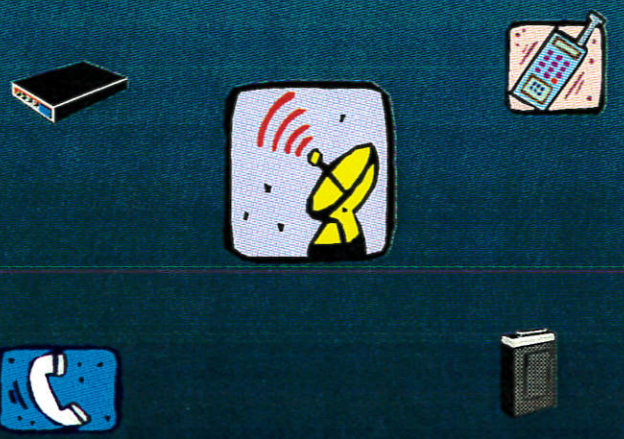
Respectfully Submitted,

Walker Hendrix
Consumer Counsel

2-97

Report of the Kansas Universal Service Fund Working Committee to the 1999 Kansas Legislature

December 1998



Kansas Universal Service Fund (KUSF) Working Committee Members (pp. 16- 17)

Twenty-two Members

- Senator Alicia Salisbury, Chairperson
- Senators Barone, Brownlee, Feleciano
- Representatives Aurand, McKinney, Stone, Toelkes
- Fourteen other members from the private and public sector

House Utilities
1-14-99

Attachment 3

Charge to the Committee in 1998 House Sub. for S.B. 212 (p. 16, first bullet)

- The Definition of Enhanced Universal Service
- How and when Enhanced Universal Service should be deployed
- The most appropriate mechanism for recovering capital costs
- How to address Internet access in light of changing technology

The Definition of Enhanced Universal Service in K.S.A. 66-1,187(q) as: (p. 20, first para.)

- SS7 capability, with CLASS Service capability
- Basic and Primary Rate ISDN capability (or the technological equivalent)
- Full-Fiber Interconnectivity (or the technological equivalent) between central offices
- Broadband Capable Facilities to all schools, hospitals, public libraries, and state and local government facilities which request broadband services

Concerns with Inclusion of ISDN in Definition of Enhanced Universal Service (pp. 20-21)

- Highest-cost service or technology to be supported by KUSF
- Mature service – Might not support future user needs

New Regulatory Paradigm

- Changing Technologies
- Mergers and Acquisitions

Advanced Telecommunications Services and Technologies (pp. 22- 23)

- **Digital Subscriber Line (DSL)– most prominent form – ADSL (Southwestern Bell)**
  - Advantage over ISDN is higher speed transmission capability
  - Can be used over existing copper wires without interfering with voice service

Advanced Telecommunications Services and Technologies (pp. 24- 25)

- **Integrated On-Demand Network (ION) (Sprint)**
  - Virtually unlimited bandwidth over existing telephone line for simultaneous voice, data, video

Advanced Telecommunications Services and Technologies (Continued) (pp. 25-26)

- Cable system upgrades and new technology standard (DOCSIS)
- Fixed wireless services/Sprint PCS
- Fixed wireless POTS
  - Digital wireless technologies are undergoing significant changes – maximum data speeds expected to increase

Committee Recommendations on Definition of Enhanced Universal Service (pp. 27-29)

- Make two amendments to Public Policy Statement of Kansas Act (K.S.A. 66-2001)
- Introduce legislation to delete ISDN from definition of Enhanced Universal Service (Attachment II)
- Request the KCC to expedite its review of the definitions of Basic Universal Service and Enhanced Universal Service

How and When Enhanced Universal Service should be Deployed (p. 30)

- Deployment deadline originally July 1, 2001
- Deployment deadline now July 1, 2003 (1998 House Sub. for S.B. 212)
- 1998 Bill includes:
  - Deployment of ISDN and Broadband Facilities conditioned upon "firm customer order"
  - Criteria for KCC approval of deployment plan

How and When Enhanced Universal Service should be Deployed (Continued) (pp. 30-32)

- KCC issued an order adopting an interim procedure and requesting comments on guidelines for use of deployment plans
- Extended deadline (July 1, 2003) could be affected by:
  - KCC proceeding on review of definition
  - Federal Communications Commission (FCC) proceeding on Section 706

Committee Recommendations (p. 32)

- **Legislature should review deployment deadline based on:**
  - the KCC's review of definition; and
  - any decisions from FCC Section 706 proceeding

The Most Appropriate Mechanism for Recovering Capital Costs (pp. 33-36)

Federal Universal Service Support Mechanisms

- High-cost loop assistance
- DEM Weighting
- Long-Term Support

The Most Appropriate Mechanism for Recovering Capital Costs (pp. 36-42)

Federal Universal Service Support Mechanisms (Continued)

- Lifeline Programs
- Link Up
- Discounts for Schools and Hospitals (E-rates)
- Discounts for Rural Health Care Providers (E-rates)
- Rural Utilities Service Programs (provide subsidies but not supported by federal universal service)

Differences Between Federal USF and KUSF (Select) (Table 6, pp. 43-45)

- **Enhanced services not eligible for federal support, only for KUSF support**
- **Carriers may receive funds, on a *revenue neutral* basis, from KUSF but not Federal USF, to offset revenues lost due to interstate access reductions**

Differences Between Federal USF and KUSF (Select) (Table 6, pp. 43-45)

- Southwestern Bell is eligible for KUSF support, not federal USF support
- No KUSF support is used for Link Up
- No direct KUSF support for E-rate programs for schools, libraries, and rural health care providers

Other States' Universal Support Mechanisms (pp. 46-47)

- Kansas is one of three states to provide advanced services
- Most state universal service funds are new

Committee Recommendations (pp. 47- 48)

- **The Legislature should:**
  - create a framework to move away from the principle of revenue neutrality to a cost- based universal service funding mechanism
  - consider other revenue sources for funding universal service

How to Address Internet Access in Light of Changing Technology (p. 50)

- **Customers without access to a local Internet Service Provider (ISP) registered with KCC are eligible for discounted plans**
- **Local ISPs registered with KCC must agree to certain conditions**

Who is Affected by Law? (P. 52, Attachment VII)

ISP Profiles

- As of 11-19-98, 116 ISPs in Kansas are registered with the KCC
- Of 540 Kansas cities, 127 do not have a local ISP registered with the KCC
- Overall, only 4.1 percent of total access lines in Kansas do not have local access to an ISP
- Of all rural access lines, 8.44 percent do not have local access.

Committee Recommendation (pp. 56- 57)

Endorsed Subcommittee's recommendation that language in K.S.A. 66-2011 be retained for the following reasons:

- Increasing penetration
- Unintended consequences
- Cheaper rates elsewhere
- Technological solutions
- Political realities

Other Issues Under FCC Consideration With Potential Implications for ISPs (pp. 57-58)

- Access charge exemptions -- Are ISPs paying their fair share?
- Reciprocal compensation agreements – Where should funding come from to serve ISPs?
- Independent ISPs -- Do local telephone companies favor affiliates?
- Internet Telephony -- Should ISP telephony be regulated as telephone service?

Possible Impacts on Size of Fund

Committee Recommendation on Collection Methodology – Legislature should address 8.89 percent cap on amounts collected from customers. There was no cap in law until 1998 amendments.

External Factors Potentially Affecting the KUSF (pp. 60-63)

- Change in separations rules
- Western Wireless preemption petition
- Southwestern Bell proceeding regarding cost to provide local service
- Future reductions in federal access charges

Committee Recommendation – What Next?

- It is the public policy in Kansas to "ensure that every Kansan will have access to a first class telecommunications infrastructure that provides excellent services at an affordable price." (K.S.A. 66-2001(a)

Kansas cannot afford a society characterized by a "digital divide" of well connected and disconnected Kansans