Approved: 1-29-96
Date

MINUTES OF THE HOUSE SELECT COMMITTEE ON TELECOMMUNICATIONS.

The meeting was called to order by Chairperson Doug Lawrence at 1:30. p.m. on January 25, 1996 in Room 313-S of the Capitol.

All members were present except:

Committee staff present: Lynne Holt, Legislative Research Department
Bob Nugent, Revisor of Statutes
Mary Ann Graham, Committee Secretary

Conferees appearing before the committee:

George Barbee, Rural Telecomm. Management Council

Walker Hendrix, Citizen's Utility Ratepayer Board

Guy F. McDonald, Telecommunications Analyst KCC

Norman Conard, Teacher, Uniontown High School

Jon Fewins, Cody Carey, Faith Robinson, Don Bailey, Students, Uniontown High School

Rob Little, Superintendent of Schools, USD 325

John Burke, Superintendent of Schools, USD 461

Dr.Dennis Thompson, Assist. Director, SW Plains Reg. Service Center 626

Dr. David Stephens, Technical Advisor, S. Central Ks Ed. Service Center

Mark Tallman, Director of Governmental Relations, Ks Assoc. of School Boards - Written only

Laura Baker, Allen County Clerk

Larry Pankratz, Director of Network Marketing, KINNET

Fred Carpenter, City Manager, Hesston

Michael Byington, Wichita Industries & Services for the Blind

Others attending: See attached list

The meeting was called to order by Chairman Doug Lawrence at 1:30 p.m. The minutes of the January 16, January 17, January 18, January 22 and January 23 meetings were distributed to the committee members and approved.

The Chairman reviewed the agenda for next week, beginning Monday, January 29 through February 1, 1996. Monday will be the Kansas Corporation Commission briefing on status of Federal Telecommunications legislation. Tuesday will be committee discussion. Wednesday, Joe Weber, the Telecommunications Strategic Planning Committee consultant will have a presentation and Thursday there will be a tour of Southwestern Bell switching and physical plant.

MINUTES OF THE HOUSE SELECT COMMITTEE ON TELECOMMUNICATIONS, Room 313 -S Statehouse, at 1:30 p.m. on January 25, 1996.

The Chairman announced that today is the last day for bill requests other than from committee members. He recognized George Barbee, Barbee and Associates, representing Kansas Telecommunications Coalition, which is about thirty-six independent telephone companies in Kansas. Mr. Barbee introduced a bill in their behalf. Rep. Holmes made a motion that it be passed, Rep. Bill Bryant seconded. Motion passed

The first conferee addressing the committee on the Internet debate was introduced by Chairman Lawrence. Walker Hendrix, Citizens' Utility Ratepayer Board presented testimony to the committee. (See Attachment 1)

The Chair recognized Guy McDonald, Telecommunications Analyst for the Kansas Corporation Commission. Mr. McDonald presented testimony. (See Attachment 2) He briefed the committee on the status of the open docket (#193,506-U).

Norman Conard, a teacher from Uniontown High School was introduced by the Chair. Mr. Conard presented testimony. (See Attachment 3) He also introduced four Uniontown high school students, the first, Jon Fewins, a sophomore, talked about school projects he is working on by using the World Wide Web for information. The second student , Faith Robinson, a freshman, e-mails Thailand every morning on the Internet. The third student, Cody Carey, also a freshman, uses e-mail daily to gather information about Germany, where she plans to go when she graduates. The fourth, Don Bailey, a senior, talked about all the information he has accumulated for a term paper, he e-mails one day and has a reply the next.

Chairman Lawrence announced Rob Little, Superintendent of Schools, USD #325, Mr. Little presented testimony, (See Attachment 4) to the committee. He reported on several issues that were discussed in the most recent meeting of the I-CAN interactive network in North Central Kansas.

The Chair recognized John Burke, Superintendent of Schools, USD #461, Mr. Burke testified on Internet use in rural Kansas. (See Attachment 5)

Dr. Dennis Thompson was introduced by the Chair. Dr. Thompson presented testimony (See Attachment 6) on Equitable Access to Telecommunications in Kansas.

The Chair introduced Dr. David Stephens, Technical Advisor, S. Central Ks. Ed. Service Center. Dr. Stephens presented testimony, (See Attachment 7) on Internet access for primary/secondary school systems.

Mark Tallman was not present but presented testimony. (See Attachment 8)

Laura B. Baker, Allen County Clerk, was recognized by the Chair and presented testimony, (See Attachment 9) on "What Can Internet Mean for Kansas ?"

Chairman Lawrence introduced Larry Pankratz, Director of Network Marketing for Kin Network, Inc. Mr Pankratz presented testimony on Netspace Internet Services. (See Attachment 10) He also presented a map of Kansas showing current Netspace Internet services and future services. (See Attachment 11)

The Chair recognized Fred Carpenter, Hesston City Administrator. Mr. Carpenter presented testimony on the city of Hesston and the Internet. (See Attachment 12)

The Chairman introduced Michael Byington, of the WISB Governmental Affairs Office. Mr. Byington presented testimony on behalf of the blind and visually impaired and their use of the Internet. (See Attachment 13)

The meeting was adjourned at 3:10 p.m.

The next meeting is scheduled for January 29, 1996.

SELECT COMM. ON TELECOMMUNICATIONS
COMMITTEE GUEST LIST

DATE: 1-25-96

NAME	REPRESENTING
Cody Carey	Uniontown High School
Faith Robinson	Uniontown High School
Don Bailey	Uniontown High School
Jon Lewis	Uniontown High School
Norm Conard	Uniontown High School
Dave Shrader	KANSAS DEPT of REVENUE
Dave Powers	MCI
Nelson Krueger	Menninger
Duane Waterworth	KS Division of the Budget.
CHARLES KRISAR	KU
Era Cathey	Pat McClure
Susan Porter	KU
Ellen DelCore	KU
Dan Shepherd	KS Elec. Co-ops
Don Miles	K.E.C.
Bill Reeves	NCK AVTS
Rob Little	USD #325, Phillipsburg
Ron Rohrer	KS STATE Bd of Ed
Bob Marx	" " " "

SELECT COMM. ON TELECOMMUNICATIONS
COMMITTEE GUEST LIST

DATE: 1-25-96

NAME	REPRESENTING
Dave DeMoss	Cavendish
Barbara Paschke	Ks. Bd. of Regents
Tom Bruno	Allen & Assoc.
Laura Baker	Allen County
John Ensley	Ks. Press
David L. Furnas	Ks Press
MIKE REECHT	AT+T
STEVE KEARNEY	KINI L.C.
Megan Griggs	Steve Kearney + Assoc.
Chuck Stones	Ks Bankers Assoc
Mike Meacham	KS Cable Telecommunications Assn
JASON PITSENBERGER	BRAD SMOOT - KGC
Patrick J. Hurley	AT&T
DENNY KOCH	SW BELL
BILL BLAKE	SWBell
Bill Drexel	SWBT
Gordon R. Slate	ATCI
M Clarenmeaux	Classic Communications
Preston Cranmer	Intern for Rep. Morrison

SELECT COMM. ON TELECOMMUNICATIONS
COMMITTEE GUEST LIST

DATE: 1-25-96

NAME	REPRESENTING
Doug Smith	SITA
[signature]	[illegible]
Bob Cowdrey	Sprint / United Telephone
MARK KOVAL	SPRINT / United Tel.
JEFF RUSSELL	SPRINT
[signature]	KCC
George Barbee	Barbee & Assoc's
Rob. Hodges	KTA
[signature]	KDHE
CHRIS STANFIELD	KDHE
[signature]	KASB
Tom Siemens	KASB
[signature]	KASB
Larry Pankratz	KINNET
JOHN GUNN	Comptenhsws
Jay Scott Emler	KINI L.C.
Guy McDonald	KCC-Staff

TESTIMONY OF THE CITIZENS' UTILITY RATEPAYER BOARD

before the

SELECT COMMITTEE ON TELECOMMUNICATIONS

The Honorable Doug Lawrence, Chairman

January 25, 1996

CURB'S INTERNET PROPOSAL

What has CURB Requested of the Kansas Corporation Commission?

On October 19, 1995, CURB filed an application with the KCC requesting an investigation (and expedited resolution) into affordable and equal access to Internet and other open on-line electronic communications services. The filing has become known as the Internet filing, although it is not necessarily limited to just Internet. The KCC has reacted promptly to CURB's filing and has requested comments by the industry and any other interested party by next Monday, January 29, 1996.

What is CURB's Intent?

CURB's intent is to make Internet access affordable and equally available to rural citizens of Kansas. The savings to existing rural users of Internet and potential users of Internet is tremendous. Rural Kansans have to pay expensive usage sensitive long distance rates to use Internet service generally located in a metropolitan area. Conversely, urban customers can get cheap Internet service on an unlimited usage basis for a flat monthly rate. This is because the urban customer's Internet usage is considered a "local call" and the urban customer's usage is considered a "long distance call". Both customers (rural and urban) may have to pay some Internet subscription rate.

In the Telecommunications User Needs Assessment Report by Weber/Temin, Kansas libraries indicate that Internet is necessary and its cost to rural customers is "prohibitively expensive". CURB would concur with that characterization. CURB's constituents of residential customers (and particularly rural customers in this case) and small businesses should be the direct beneficiaries of more affordable Internet access.

House Sel/Comm Telecomm.
1-25-1996
Attachment 1

Why is Internet Access Necessary?

Internet is quickly becoming a ubiquitous service, arguably an essential service in today's society. The uses and application of information gained from the Internet are virtually unlimited. The Internet has an estimated population of 20 million users, has a presence in over 70 countries and has growth estimated at 10% per month. In the past year the number of Internet sites has increased from around 2,000 to 16,000. The primary uses of Internet are access to the World Wide Web (72%) and sending E-Mail (65%). Obviously, access to E-mail is about as equally important as access to Internet. Rural customers deserve "equal access" to Internet as that enjoyed by urban customers, so that rural Kansans do not become isolated as "have-nots" on the telecommunications superhighway. It is apparent that a disproportionate amount of the 20 million Internet users are in urban areas and if access is made affordable to rural customers then usage and ubiquity of Internet will skyrocket.

How Are Current Access Rates to Internet Prohibitively Expensive?

Generally, customers in metropolitan areas can get Internet access for as little as $7 to $15 per month. However, a rural customer would have a monthly charge of $7 to $15, plus have to pay distance sensitive (per minute) long distance rates. These long distance calls may be paid to a large local exchange company (LEC) such as Southwestern Bell Telephone or a smaller LEC like Pioneer Telephone for an IntraLATA call. An InterLATA call (or an InterLATA) would be carried by an interexchange carrier (IXC) like AT&T or MCI.

A recent survey by Nielson Media Research found that the average Internet user spends 5 hours and 28 minutes per week on the Internet. This amounts to about 22 hours per month. Although this usage could be at home (about 62% had access to Internet at home), at work or at school, if the average usage is translated to Kansas long distance rates we get the following results.

Using SWBT's long distance day rates for calls made over 171 miles, (such as a call from Liberal to Wichita) the average Internet user would spend about $112 per week, or $448 per month. These charges are at day rates as high as 34 cents a minute, absent the customer qualifying or subscribing to any other long distance calling plans.

CURB believes these amounts to be prohibitively expensive. Comparative long distance usage rates for SWBT (and all other LECs in Kansas because they use the same rates as SWBT) and several IXCs are shown at Attachment A.

How Much Can be Saved?

CURB is still in the process of researching this issue and formulating final position, but CURB can provide estimated savings to consumers based on various assumptions. In addition, there are issues besides "rates" which are important to consider and address. CURB is interested in an Internet calling plan which will:

1) provide unlimited one-way calling in the range of $7 to $12 per month statewide to a designated Internet number
2) depending upon how much basic local rates may increase due to any rate rebalancing plan implemented by legislation or the Commission--CURB may request that Internet be provided for no additional charge within the basic local monthly rate (per a South Dakota regulatory initiative)
3) allow customers to select their carrier of choice between LECs or IXCs and promote further competition for this service

The potential savings from CURB's proposal are tremendous. If CURB proposes unlimited calling at $10 per month the following savings scenarios are illustrated:

√ **$438 a month savings per customer** - This assumes a day call between cities which are 171 or more miles apart (Liberal to Wichita), and average Internet usage levels previously addressed. This currently costs $112 per week or $448 a month. The savings is the difference between the $10 per month flat rate and the current $448 a month.

√ **Currently customers pay $10 for 29 minutes of long distance calling, CURB's plan would provide unlimited usage for $10 a month** - This assumes a call between cities which are 171 or more miles apart for which the current rate is 34 cents a minute.

Obviously savings would be greater if the customer used the Internet more than the average user, and savings would be less if the customer used the Internet less than the average user. Comparative savings would vary depending upon the distance between those cities for which Internet is used.

Should Internet be Provided within the Basic Local Monthly Rate?

Depending upon how much local rates may increase due to any rate rebalancing mechanism, Internet should be considered for inclusion at no charge within the basic local monthly rate.

The South Dakota Public Service Commission recently Stipulated a rate case with U S West whereas Internet service will be included within the rebalanced basic local rate in the future. This is the Commission's intent regarding the language in the Stipulation based on conversations with Commission Staff. When U S West was contacted for comment, they would not confirm one way or the other that this was their intent regarding the Stipulation language.

What Important Issues Should be Addressed?

As previously indicated CURB supports a plan which will:

1) provide unlimited one-way calling in the range of $7 to $12 per month statewide to a designated Internet number
2) depending upon how much basic local rates may increase due to any rate rebalancing plan implemented by legislation or the Commission--CURB may request that Internet be provided for no additional charge within the basic local monthly rate
3) allow customers to select their carrier of choice between LECs or IXCs and promote further competition for this service

While the rate level addressed in items (1) and (2) are very important, there are other difficult issues which should be addressed. Item (3) above regarding customer carrier of choice may be a very difficult issue to resolve.

Given today's conditions, IXCs are not be able to offer Internet usage at $7 to $12 per month. This is because IXCs, such as AT&T, currently have to pay wholesale access charges to LECs which are greater than those retail Internet rates of $7 to $12 which LECs would charge customers. For example, IXCs such as AT&T currently have to pay SWBT access charges of about 12 cents a minute (and pay greater amounts to most of the other smaller LECs in Kansas) to gain access to the local facilities of the LEC in order to originate and terminate a long distance call. Since the IXCs do not have their own

local facilities, they pay "access charges" to LECs in order to be able to originate and terminate long distance calls to customers. Since the retail Internet rate (i.e, $10 per month) to end users by a LEC such as SWBT produces a per minute rate which is less than what IXCs can even purchase "access", IXCs are eliminated from this market.

What Internet Calling Options Are Available in Kansas?

CURB is aware that Pioneer Telephone offers Internet service for about $20 a month unlimited usage to specific limited locations. SWBT recently proposed a plan with $15 a month unlimited usage (one-way) for a designated number within a LATA (with additional designated numbers available at $10 a month per number). The SWBT plan could be used by both customers of SWBT and other local exchange companies in Kansas, but the plan cannot be used for InterLATA calls or for two-way calling.

Pioneer Telephone Company in Ulysses, Kansas is offering Internet as far outside of its local serving area as Dodge City--for about $20 a month unlimited usage. A call from Ulysses to Dodge City would normally be about 29 cents a minute during the day without any calling plans. For $20 a month you could get about 69 minutes of Internet usage at today's long distance calling rate of 29 cents a minute, but with Pioneer's plan you get unlimited usage for $20.

About a month ago SWBT filed a new calling plan (1+Saver Direct) with the KCC which appears to be its response to CURB's request for affordable Internet. SWBT's plan offers unlimited calling by residential and business customers to a single designated number in a LATA (which could be an Internet access number) for $15 a month, and multiple designated numbers can be added at a rate of $10 per month per number.

Why Not Let the Industry Solve the Issue?

Through October 1995, when CURB first asked the Kansas Corporation Commission (KCC) to initiate an investigation into Internet, the Kansas telecommunications industry was not focused on this issue and there were no suggestions or remedies for the Internet situation. Basic long distance intraLATA rates

in Kansas have not decreased in six years since alternative regulation was put in place, although Kansas at one time had about the lowest intraLATA rates among its peer states.

The industry does not necessarily provide everything the customer wants and they do not necessarily have a vested interest in meeting customer demands because of impacts on profits, regulation and perceived or actual pressure to offer similar services and rates in other states. CURB believes there is a role for regulators to be proactive, rather than reactionary, in certain cases where consumer demands are not met because of conflicting goals or inactivity of the industry.

Attachment A - Comparative Long Distance Rates for Kansas

If a customer does not qualify for or does not subscribe to a special calling plan of a LEC or an IXC they are charged the rates below for calling and for Internet usage. In total there are 12 mileage bands, and a person is charged the per minute rate based on the distance to the city they are calling. The rate decreases respectively, as to a day call, evening call and night/weekend call. The information shown below is for day calls, or the maximum rate.

Mileage Band	(b) Sample Call - (IntraLATA)	Per Minute Rate SWBT (a)	"" AT&T	"" MCI
1 - 12		$.09	$.10	$.089
13 - 16		.13	.1385	.1285
17 - 20		.17	.1680	.1390
21 - 25		.20	.1975	.1420
26 - 30		.23	.2275	.1500
31 - 40	Pretty Prairie to Wichita	.25	.2475	.1800
41 - 55	Kansas City to Topeka	.27	.2675	.2000
56 - 70		.28	.2775	.2100
71 - 85	Ulysses to Dodge City	.29	.2875	.2390
86 - 105	Burlington to Wichita Washington to Topeka	.30	.2970	.2490
106 - 170	Osborne to Topeka	.33	.3275	.2590
171 - over	Liberal to Wichita	.34	.3375	.2890

(a) - These long distance rates for SWBT have not changed since March 1990

(b) - Liberal to Wichita calls are in the 171 and over mileage band, other sample calls have been estimated as to mileage band and could not be confirmed. Worse case is that the call is within one mileage band either direction, so there would not be any significant differences.

SELECT COMMITTEE ON TELECOMMUNICATIONS

Testimony by Guy F. McDonald, Telecommunications Analyst
Kansas Corporation Commission
January 25, 1996

Mr. Chairman, Members of the Committee:

My name is Guy McDonald. I am on Staff in the Utilities Division with the Kansas Corporation Commission.

My purpose in being here this morning is to brief you on the status of our open docket *(#193,506-U. Application of CURB requesting the Commission investigate and authorize on an expedited basis a calling plan to benefit users of the Internet, open on-line electronic communication and similar services.)* concerning discounted, or flat rated, access to the Internet.

I would like to preface my remarks and discussion this morning by reminding the Committee that this is currently an open matter, one which we are still receiving comments on and one which a Staff recommendation has not yet been formulated.

What is the Internet?
Very briefly, the Internet is the world's largest computer network serving literally millions of users, with thousands of data bases and information repositories, all interconnected via high speed facilities and computers. The Internet was conceived about 25 years ago in the military community as a means to support their research and security activity and has been funded by the National Science Foundation.

The Internet is, by definition, an Enhanced Service Provider (ESP). As such, they are exempt from both State and Federal Regulatory jurisdiction. However, what we are concerned with here is not the Internet itself, but rather access to the Internet. Access to the Internet is provided via Internet Service Providers (ISPs) with connecting service from IXCs, LECs and/or CAPs, to their end users. As with ESPs, Internet Service Providers are also exempt from Regulatory jurisdiction.

House Sel/comm. Telecomm
1-25-1996
Attachment 2

CURB filed their Motion on October 19, 1995.

On November 16th, we initiated a Request for Information (RFI) to 19 of the 22 identified InterNet Service Providers operating in Kansas. The list of solicited ISPs is included as Attachment A to my testimony, the RFI itself is included as Attachment B.

On December 6, 1996, an Order Requesting Comments in this matter was issued to the Interexchange Carriers, Local Exchange Carriers and Competitive Access Providers in Kansas. We requested their comments to be filed not later than January 5th. However, at the request of AT&T Communications and Blue Valley, et al. *(a group of Independent Telephone Companies)* ,we recently extended that date to Monday, January 29th.

In addition to soliciting ISPs and Carriers for comments, we have also received unsolicited comments from the general public. Attachment D is a log of all written comments received to date. In addition, our Public Information Office has taken ten verbal comments in this matter, all expressing the need for and support for lower Internet access charges.

Current activity in this general area, includes:

- KCC open docket 193,506-U.

- Development of the State Strategic Information Management Plan by the Telecommunications Committee of the Information Technology Advisory Board (ITAB). Note: As presently charged, this plan will only address State agency needs, not the Public Switched Network.

- Pending approval of SWBT's TeleKansas Education Ancillary Services tariff *(Access Service Tariff, Section 17).* This tariff is a part of SWBT's commitment to provide educational services under TeleKansas II and offers dedicated high capacity services *(1.54Mbps and Frame Relay 56Kbps)* ,at significantly discounted rates. Implementation of this tariff is pending a Federal waiver from MFJ provisions concerning non-discriminatory pricing.

- SWBT's filing of their optional '1+ SAVER Direct' service. This is a discounted Toll service where by the customer designates one number, within their LATA, for unlimited calling for $15.00/Mo. Additional numbers may be designated for $10.00/Mo. This filing is currently under Staff review.

- An Internet Task Force, Chaired by the Chief Information Architect, charged to research Internet deployment problems and to formulate cost-effective solutions for deployment to K-12 schools and libraries.

- Various Legislative interests.

- A variety of actual and planned unaided private enterprise initiatives; KIN-Net., Oskaloosa (Pop. ~1,000), Herington (Pop. ~2,500), Clay Center (Pop. ~5,000), a LEC taking the initiative to provide I-Net. access to 21 of their exchanges, many with populations in the 100-200 range in Southeast Kansas and, no doubt more.

So where are we now?

Again, we are still receiving information with the most voluminous expected from the IXCs, LECs and CAPs not latter than Monday, January 29th.

Based on preliminary information and Staff research, there is no question as to the need for lower rates for rural consumers to access the Internet. The only real question is how to best meet those needs. It appears that three options are developing:

1. Take no Regulatory action.
   Considerations:
   a. With no Regulatory/Legislative action, to date, ISPs have moved on their own to provide local access in over 145 Kansas cities representing over 35% of the rural access lines in Kansas, with many more currently in the planing stage.
   b. Consistent with the long term objective of reducing regulation.

2. Require/allow LECs to provide a local access or toll discount plan for use in accessing the Internet.
   Considerations:
   a. Conflicting messages to the industry. On one hand, through the Local Competition proceedings, we are removing supports/subsidies from current rate structures by Rate re-balancing, then, by this action, another support recipient would effectively be created.
   b. Subsequent requests from other information providers may be problematic.
   c. By mandating lower rates, we could be delaying the introduction of competition in this very active market.

3. Require/encourage Alliances between Carriers and ISPs to provide rural access.
   Considerations:
   a. ISPs are exempt from regulatory jurisdiction.
   b. Already being done by at least two LECs.

In summary .... the comment period will be closing on this matter in just a few days. Staff intends to complete it's evaluation of comments received and have a Recommendation formulated for Commission action by March 1, 1996.

Attachment A

Mail List for
RFI to ISPs (1)

AccuNet, Inc.
1036A NE Jib Court
Lee's Summit, Missouri 64064

Concentric Network Corporation
10590 N. Tan Tau Ave.
Cupertino, Calif. 95014

Cook's Computer Programming (5)

Databank, Inc.
1473 Highway 40
Lawrence, Kansas 66044

DTC Supernet (3)
957 S. Glendale
Wichita, Kansas 67218

Elysian Fields, Inc.
333 E. English, Suite 150
Wichita, Kansas 67202

Flint Hills Computers, Inc.
1344 Westloop Shopping Center
Manhattan, KS 66502

Future Net., Inc.
8100 East 22nd Street, North
Wichita, Kansas 67226

Unicom Communications, Inc.
7223 West 95th Street, Suite 325
Overland Park, Kansas 66212

Internet Direct Comm. (5)

Internet Online Services
294 State Street
Hackensack,. New Jersey 07601

Interstate Networking Corp. (5)

MegaMedia, Inc.
315 Houston Street, Suite C
Manhattan, Kansas 66502

Global Internet Net. Services
MIDnet
201 North 8th, Suite 421
Lincoln, Nebraska 68508

2-5

Attachment A

NETCOM On-line Comm. Services
3031 Tisch Way
San Jose, Calif. 95128

SkyNet, Corp.
PO Box 240106
Kansas City, Missouri 64124

Synergy Communications, Inc.
1941 South 42nd Street
Omaha, Nebraska 68105

Tyrell Corporation
8300 NE Underground Dr.
Kansas City, Missouri 64161

Q-Networks, Inc.
1036 A NE Jib Court
Lee's Summit, Missouri 64064

SouthWind Internet Access, Inc. (4)
120 South Market, Suite 330
Wichita, Kansas 67202

Tri-Rivers
PO Box 3711
Salina, Kansas 67402

KIN-Network/Computerland (2)
621 Westport Blvd.
Salina, Kansas 67401

Footnotes:
(1) Source: THE LIST http://thelist.com/kansas.html.
(2) Added to list locally.
(3) Received reply, Nov. 22, 1995.
(4) Received reply, Dec. 13, 1995.
(5) Unable to locate mailing addresses.

Attachment B

Request For Information
from
Kansas Internet Service Providers

On October 19, 1995, the Citizens' Utility Ratepayer Board (CURB) filed an application (Docket No. 193,506-U) with the Kansas Corporation Commission (KCC) requesting;

> *'... a General Investigation into the provision of efficient and sufficient {telecommunication} service as it relates to accessing and utilizing The Internet, open on-line electronic communication and similar services for the primary benefit of residential and small business rural and toll customers of Kansas.'* ({ }= Added text.)

A hard copy of CURB's formal, 8 page, application can be provided, upon request, by calling 913/271-3188 and requesting a copy of Docket No. 193,506-U.

While the thrust of CURB's application is focused on discounted services from the telecommunication industry, over which this Commission has regulatory responsibilities/authority, we recognize that this matter is of considerable interest to the ISP community at large. Thus, we are seeking your comments for use in guiding our consideration of CURB's application.

Your firm was identified as a Kansas Internet Service Provider (ISP) in THE LIST (http://thelist.com/kansas.html). Please advise if this information is not correct so that we may update our records.

We are soliciting your comments concerning this matter, we especially welcome your input in the following areas:

- Please describe your services, rates and market area. Do you have any near term expansion plans, in Kansas?

- In what Kansas cities do you offer a local access number? Do you market to areas outside of these cities and, if so, how does the customer access your service? Are there other ISPs offering service in the same cities?

2-7

Request For Information
from
Kansas Internet Service Providers
(continued)

- From your perspective, are current Telco. toll charges a significant impediment to rural consumers accessing Internet or other on-line services? Please elaborate.

- What alternatives do ISP providers presently have in reducing Telco. toll charges for their customers?

- If you are aware of flat rate or toll discount plans in other States, please identify and comment.

- Any other relevant information which you feel would be helpful in proceeding with this matter.

By a sperate solicitation, we are also requesting comments from the Local Exchange Carriers (LECs) and Interexchange Carriers (IXCs) operating in Kansas. For your information, a copy of that request is included as Attachment 1.

For consideration, your written comments should be received not latter than Friday, December 15, 1995.

Please submit your comments to:

Judith McConnell, Executive Director
The Kansas Corporation Commission
Attention: Docket 193,506-U
1500 Arrowhead Road
Topeka, Kansas 66604

Your comments and input in matter are greatly appreciated!

The Kansas Corporation Commission
Utilities Division, Staff

Attachment C

THE STATE CORPORATION COMMISSION
OF THE STATE OF KANSAS

Before Commissioners: Susan M. Seltsam, Chair
F.S. Jack Alexander
Timothy E. McKee

In the Matter of the Application of Citizens' Utility Ratepayer Board Requesting the Commission Investigate and Authorize on an Expedited Basis a Calling Plan to Benefit Users of the Internet, Open On-Line Electronic Communication and Similar Services.	)	Docket No. 193,506-U 96-CURI-242-GII

ORDER REQUESTING COMMENTS

NOW, the above-captioned matter comes before the State Corporation Commission of the State of Kansas ("Commission"). Having examined its files and records, and being duly advised in the premises, the Commission finds and concludes as follows:

1. On October 19, 1995 the Citizens' Utility Ratepayer Board (CURB) filed an application for the Commission to initiate a general investigation into the provision of efficient and sufficient service as it relates to accessing and utilizing the Internet, open on-line electronic communication and similar services for the primary benefit of residential and small business rural and toll customers. CURB also requested expedited hearings to address these matters of pressing public concern. CURB's filing is included here as Attachment "A".

2. The Commission is hereby soliciting comments concerning CURB's filing from both the Interexchange Carriers (IXCs) and Local Exchange Carriers (LECs) potentially affected by this matter. The following comment areas may be better addressed by telecommunications providers as opposed to Internet providers, although the Commission welcomes information from any persons or organizations in these topic areas. (By a separate request, the Commission is also requesting comments from the existing Internet Service Providers in Kansas and elsewhere.)

3. Comments should not be limited to "dial-up" access, but should also consider the need for and ramifications of dedicated access for higher volume users. In addition, it may be helpful to consider comments by Internet Service Providers (ISP) domains (i.e. commercial, government, education, etc.).

4. The Commission is requesting comments addressing the following areas:

A. Please comment on CURB's rationale in its application for requesting a specific generic investigation into this matter, and the variety of "Issues to Consider" as CURB's application suggest.

B. To what extent is regulatory involvement needed in order to provide affordable rates for rural consumers to access the Internet and other Information Providers.

C. To what extent are Kansas telecommunications providers likely to provide (flat rate or discounted) Internet access as an "Internet Service Provider" (ISP)?

D. To what extent are Kansas telecommunications providers likely to provide (flat rate or discounted) Internet access as a telecommunications provider?

E. Have other states or other providers in other states set up any plans or frameworks to promote economical Internet access that would be useful for consideration here? Please comment on those plans as they may apply to Kansas.

F. The Commission currently has pending in Docket 191,206-U the appropriate definition of "basic telephone service". To what extent should the topic of access to the Internet and other Information Providers be included in that definition?

G. To the extent that you may be aware of specific ISP actions or plans which have the effect of lowering costs for rural consumers to access their services (eg. node placements, etc.), please comment. What is the cost impact on the ISP?

H. To what extent is competition for telecommunications services in Kansas going to reduce the cost or price of access to the Internet throughout Kansas? What commitments will individual telecommunications providers make to promote this outcome?

I. (1) If a "toll provider" path is taken to promote economical access to Internet, via discounted flat rate plans or discounted minute of use charges, how may such toll plans be made competitively neutral?

(2) In the alternative that competitively neutral discounted toll plans are not feasible, but a statewide need still exists, can such plans or discounts be focused solely on Internet usage, for instance, by restricting discounts or plans just to the telephone numbers associated with Internet Providers? To what extent will existing billing systems support such a focused approach to discounting toll for Internet access purposes?

J. Any other issues a party may deem relevant.

5. The Commission requests that comments and information responsive to the above inquiries to be filed on or before Friday, January 5, 1996 to:

Judith McConnell, Executive Director
Kansas Corporation Commission
1500 SW Arrowhead Road
Topeka, Kansas 66604

The Commission encourages maximum participation and provision of information by all who have an interest in Internet access, regardless of whether or not the Commission has regulatory jurisdiction over the entity or business.

IT IS THEREFORE BY THE COMMISSION ORDERED THAT:

Comments may be filed by any interested party, as set forth above.

Any party may file a petition for reconsideration of this Order within fifteen days of the date this Order is served. If service is by mail, service is complete upon mailing and three days may be added to the above time frame.

The Commission retains jurisdiction over the subject matter and the parties for the purpose of entering such further order or orders as it may deem necessary and proper.

BY THE COMMISSION IT IS SO ORDERED.

Seltsam, Chr.; Alexander, Com.; McKee, Com.

Dated: Dec. 6, 1995

Judith McConnell
Executive Director

Attachment D

KCC COMMENT LOG
InterNet access docket # 193,506-U

Written Comments:

Ms. Barbara Myers
320 N. School
Eureka, Ks. 67045
December 11, 1995

Mr. Art Chandler
410 S. St. John
Lyons, Ks. 67554
December 12, 1995

Highland Community College
Ms. Kathleen Shattuck, Library Dir.
602 West Main
Highland, Ks. 66035
December 14, 1995

Golden Plains USD 316
Mr. Bill Leggett, Superintendent
335 School St.
Rexford, Ks. 67753
December 20, 1995

Lane County
Mr. Don Hineman, Commissioner
P.O. Box 788
Dighton, Ks. 67839
December 27, 1995

Emprise Bank
Mr. Leonard Cahoj, Vice Pres.
418 N. Main
Eureka, Ks. 67045
December 28, 1995

Alliance Insurance Companies
Mr. James Ketcherside, Pres. & CEO
1122 North Main St.
McPherson, Ks. 67460
January 3, 1996

Cheyenne County Dev. Corp.
Ms. Donna Terry, Coordinator
212 E. Washington St.
St. Francis, Ks. 67756
January 10, 1996

Dr. Tom Keller, D.V.M.
P.O. Box 645
St. Francis, Ks. 67756
January 10, 1996

Cheyenne County Economic Dev.
Mr. Robert Grace
P.O. Box 827
St. Francis, Ks. 67756
January 10, 1996

Attachment D

USD No. 208
Mr. Daniel Newman, Superintendent
527 Russell Ave.
WaKeeney, Ks. 67672
January 12, 1996

Mr. Dallas Rogers
927 Dennison, Apt. #16
Manhattan, Ks. 66502
January 16, 1996

Ms. Linda Rogers
528 East Jackson
St. Francis, Ks. 67756
January 16, 1996

Norman Conard

Uniontown High School
P.O. Box 70
Uniontown, Kansas 66779
(316) 756-4301

Home
1613 S. Crawford
Fort Scott, Kansas 66701
(316) 223-1515

KANSAS
Teacher of the Year

1992

TESTIMONY

I appreciate the opportunity to testify before this committee and have brought along four of my students, who are not passengers , but drivers down the Superhighway of information. (Don Bailey, Cody Carey, Jon Fewins and Faith Robinson) It is with great pleasure that I am able to share with you some thoughts about the Internet.

I teach Social Studies at Uniontown High School, a small rural high school near Fort Scott. I was provided training by the State Board of Education last summer and we introduced online services into the classroom this past August. The use of online services is beginning to transform my classroom. It allows wonderful opportunities to our rural students, and allows me great freedom in networking with educators around the world.

The use of the Internet is a wonderful tool in integrating the curriculum, it allows students in social studies to improve; English research skills, communication skills, technical skills, and much more.....Online use allows each teacher and student to become better at what they do and it does not take the place of textbooks, study groups, or maps and charts. The Internet can best be described as an excellent supplement to learning in every area.

House Sel/comm Telecomm
1-25-1995
Attachment 3

(Examples of research and our recent trip to Little Rock) We in rural America have certain disadvantages in research possibilities. Our students are involved in history research for special projects, every night after school. The nearest large library is an hour away, the KU library or Kansas Historical Society Library is 2 or 2 and one half hours away. Our students do not have the access capabilities of students in urban America. With the advantage of online services we have the world at our fingertips. This world includes the Library of Congress card catalog, the University of Minnesota card catalog and hundreds of millions of documents to choose from.

Besides the outstanding research opportunities, another great value of the online services is e-mail. Our students e-mail China, Thailand and Sweden every morning. They receive replies the same day. Faith, a ninth grader and one of the students present, regularly retrieves information from around the world. She can access through e-mail many pictures and facts in a matter of seconds. Other students can communicate with authors and educators for instant success. With downloading and scanners, pictures, maps, and information can be sent instantly to our classroom. As a teacher I can network instantly with teachers all over America,teachers within Kansas, and with the State Board of Education and legislators in Topeka.

We have a program at UHS called TJ Online. TJ stands for Thomas Jefferson, whose brilliance was evident to everyone. The inclusion of online in the classroom has the same effect, showing brilliance to the child in rural America. Our TJ Online program involves; a key-pal geography e-mail program, and a web surfing program where students can go from the Andes of South America to the art museums of New York City. Thomas Jefferson online also includes a Sister High School project, classes communicating with other classes, a current events study and much research for our National History Day program. WE LIKE MOST SCHOOLS WITH THE INTERNET, ARE JUST BEGINNING TO TAP THE UNLIMITED RESOURCES.

Some states, like Kentucky, have instituted programs to provide Internet services to every school district. Their EDUCATION EQUITY THROUGH TECHNOLOGY program is meant to do many things, but especially provide the rural schools equal access to information. Their program offers: toll-free dial-in access to the Internet, uses of the network as often and as long as their schools want, unlimited use of Netscape, a tool for finding specific information on the the World Wide Web, and all this at no cost. They also provide discount prices for modems and phone line hook-ups. They have seen the value of linking schools to each other and to the world in a high-speed electronic network for integrated voice, video and data exchange. All of this is to support teaching, learning and school improvement.

You hear about negatives of the Internet and there are some, but we have found that with proper supervision the negative information is not accessed. If you watch 60 Minutes too much, you might think the Internet is nothing but R rated material, but servers like Scholastic offer nothing but educational services. These educational services are at the fingertips of students. We allow our students to use the Internet for multiple purposes and do not experience negatives.

Now let's talk about a real problem on the Internet ---- COST. Allowing our students to use the Internet is costly. We limit every student and clock their time. The Internet costs rural America too much for major use...(example of our first month's phone bill).....rural America needs the telephone companies, service centers, legislatures and Boards of Education to cooperate.... and provide inexpensive access for our children.

What are the answers: our schools need the free nodes for telephone access, that most cities have now. Our teachers need training on the Internet and all of our school districts need Internet hook-ups. (While we're on this subject, every classroom needs at least one computer. I know of schools in Kansas where teachers are just now receiving computers....and schools with one computer for every 50 students).....Now back

to the Internet, we need to be able to use the servers, like Scholastic, America Online, and Prodigy, with these hook-ups.

What can this provide: well, Scholastic brings thousands of resources to the classroom, is filled with curriculum plans and activities, allows students to meet famous authors, scientists and news makers,and bring teachers together in collaborative projects. America Online allows our students the opportunity to read the Washington Post every morning, check the stock market, examine the latest budget proposal before Congress, ask questions to Newt Gingrich about the flat tax, or Ted Kennedy about education...all with turning on a computer.

Kansas needs a master plan for technology in education. We need a plan which would guarantee Kansas children the necessary skills to meet the challenges of the 21st century. Let me paraphrase Walt Whitman, who said, ' every teacher at one time or another, will walk each student to the window, and with the left hand around the waist, will point with the right, to those endless and beginning less roads.' The Kansas legislature, the telephone companies, Kansas business, and Kansas educators, now have the opportunity to open this window of endless roads.

To: The ~~Select~~ Committee on Telecommunications

From: Rob Little, Ph.D., Superintendent of Schools,
USD #325, Phillipsburg

Date: January 25, 1996

Re: Internet Access Costs

Thank you for allowing me to participate in this information gathering portion of your deliberations. I am appreciative of this opportunity and am coming to you to report on several issues that were discussed in the most recent meeting of our I-CAN interactive network in North Central Kansas. (The network includes eleven public school systems and Fort Hays State University).

During discussions concerning telecommunications, it is apparent that several competitive issues are demanding attention as public schools approach the turn of the century. These issues relate directly to the availability of cost-efficient internet access.

1. *Issue:* Current educational debate suggests that our students will graduate into a work environment that will expect them to adapt to at least six or seven major changing job expectations during their first twenty years of employment.

   Partial Solution: One of the best ways to help students prepare for this fluid environment is to allow them to access and manage the vast amounts of information that will be available. Critical to this preparation is the economically viable provision of internet services.

2. *Issue:* When husbanding limited resources, all schools cannot, and should not, own all sources of information.

   Partial Solution: To limit unnecessary duplication of expensive resources, both staff and students should be trained in the access and management of resource rich environments, e. g., the internet.

3. *Issue:* In a democracy, access to information by all citizens is important to all citizens.

   Partial Solution: Information is needed to help make decisions in all aspects of an informed democracy. The internet, when available to all, will be a major player in providing the sites

House Sel/Comm. Telecomm.
1-25-1996
Attachment 4

where much of this information will be exchanged.

4. *Issue:* The cost of access to the internet, when long distance charges are included, runs between 287% to 300% higher in rural areas than in areas served with a local access number.

   Partial Solution: There must be an effort throughout Kansas to address these cost differentials so that no population is excluded from participation due to economic reasons.

5. *Issue:* Students need to be able to integrate what they learn across the curriculum. Local efforts will continue, but imagine the access needed to integrate current issues and research in such courses as government, economics, health, applied mathematics, or the sciences, for example.

   Partial Solution: Internet access will be essential to competitive teaching strategies in all curricular areas, especially when the goal is to integrate knowledge through research.

6. *Issue:* With our universities providing more outreach through telenet, interactive television, and other off-campus offerings, it makes sense to insure that all Kansans can access, equally, the assistance necessary to excel in the classes.

   Partial Solution: The internet, if economically available, will play an important and essential part in meeting the needs of the non-traditional student.

It is hoped that this presentation of issues and their relationship to the internet for possible solutions adds to the completeness of your deliberations. It is clear to those I represent that the Kansans who can only access the internet through long distance charges will be placed at a clear competitive disadvantage compared to those who have access to large population centers and their concurrent "on-ramps".

Thank you, again, for the opportunity to address you on this important issue. If I may be of any further assistance or if I may provide further information, it would be my honor to assist in any way that I can.

A REPORT TO THE HOUSE SELECT COMMITTEE
ON TELECOMMUNICATIONS
INTERNET USE IN RURAL KANSAS
U.S.D. 461
NEODESHA, KANSAS
JOHN K. BURKE, PH.D.

In the fall of 1994, personnel in Neodesha U.S.D. 461 began researching the various sources of Internet access available to the school district. I had been a subscriber to Prodigy and America On Line services and realized that the service charge coupled with the long distance charges which only applied to rural areas relegated these rural areas to second class status for use of this exciting technology. We were in search of a system which would allow us maximum use at the most affordable rates. It became obvious to us that standard dial up services would be too costly, too slow, and too limiting to provide the kinds of services we were interested in providing for our students, teachers and community. The best answer was to enter into a relationship with KANREN at the University of Kansas. There we were able to access the Internet through a 56K direct line access to the Neodesha High School. The other two attendance centers, the central office, and the city library were connected to the Internet via wireless connections to the high school.

Next we installed a World Wide Web browser called Netscape. This user-friendly piece of software allows the user to access information throughout the world with the assistance of powerful search engines. Staff development to insure that teachers would use the new technology was incredibly easy. In fact, I taught the majority of the teachers how to use it working one to one with them during planning periods and after school. As each teacher learned how to "surf the 'net", he/she would share it with another member of the staff. Soon the only complaint was that there wasn't enough time in the day to find all the neat stuff the Internet had to offer for classroom curriculum integration.

In a very short time, teachers at all levels were using information from the Internet to improve teaching and learning. At the elementary level, students routinely do research for reports via the Internet. Other elementary students have contacted students in Alaska. As they have learned about each other, our students have learned about geography, climate and understanding people from other places. Another elementary class has used the Internet to do a simulation about Canada. The students have researched various parts of this country and planned trips as part of the simulation. They have accessed weather forecasts, discovered maps, and communicated with students in a grade school in Canada via email. Before the elementary students attended the Treasures of the Czars Exhibit in Topeka, they found the home page on the Internet and studied all it had to offer. It made the trip more worthwhile because of the extra research that was done on the Internet. At the middle school level, in English class the students have used the Internet to research facts about the Iditarod and will be keeping up on this year's race results. In social studies, each student used the Internet to do research on an African country, including its current leader. Some of the most current information was not available in the library.

House Sel/Comm. Telecomm
1-25-1996
Attachment 5

Once the research was done, the students gave oral presentations to the class. At the high school level, in French class students have been learning about France by accessing French sites on the Internet. Many of the students have been able to use their second language on French chat lines. The teacher has found audio and video clips which she has downloaded and will use later in class when the time is right. She has also found some French stories which would be appropriate with second and third year students. The high school Latin teacher and his students have found primary source documents on the Internet. They have downloaded these documents and used them for translation exercises. At all levels, the integration of information available on the Internet has produced better learning and more student engagement in the curriculum and instruction.

Our experience with KANREN has been wonderful. We first came on line in June of 1995. After paying the $3,500 membership fee, our only payment is $615 per month for unlimited use of a 56 K line to the high school. As many as 50-100 students and teachers can access the Internet at the same time. The total cost per year equals $7,380. Along with access to the Internet we also receive ongoing support and training.

Our colleagues in Nebraska and Missouri already have affordable access to the Internet. In Nebraska, each school district has a 56 K line. There is a $3,500 start up fee and monthly payments of as much as $100 per month. In Missouri, each school district has the option of dial up or direct line access to the Internet. The costs vary depending upon the method of access and the number of teachers in the school district. After the initial $3,500 start up fee, most even the largest district has to pay is $2,000 per year.

Affordable access to the Internet is an essential ingredient in a first rate school. It seems odd that students in Nebraska and Missouri would have access to this technology years before students in Kansas. If our graduates are to remain competitive, we must make this technology available to all school districts at an affordable rate.

More and more teachers and students will access the Internet for: better quality learning experiences, opportunities to access research from all over the world, the development of group projects with students from other countries, and access to college level courses that they can enroll in via the Internet.

The future uses of the Internet for quality classroom experiences is limitless. Current See You, See Me software enables people on the Internet to see and speak to each other in real time via their computers. A student could literally interview an expert in a field of study using this technology. In the near future, students in Neodesha will be able to access the Internet from computers in their homes through a dial up connection at the school. Our advanced computer students are constructing a home page on the Internet for Neodesha. These students will make this an entrepreneurial endeavor by soliciting area businesses to construct pages for them linked to the Neodesha home page. Affordable access to the Internet will allow Neodesha to fully participate in the 21st Century.

In short, I want our students in rural Neodesha to have the same advantages as students who go to school in Johnson County, Kansas, Lincoln, Nebraska or St. Louis, Missouri. If education is a matter of equity, than all students in this state, be they urban, suburban, or rural, should have equitable, affordable access to the Internet.

SOUTHWEST PLAINS REGIONAL SERVICE CENTER #626

The Southwest Plains Regional Service Center will provide leadership and promote a cooperative effort in the establishment and maintenance of quality services for members and other clients.

Mr. Don Nigus, Executive Director
Dr. Ramona Anshutz, Assistant Director
Dr. Dennis Thompson, Assistant Director

W. Hwy 56 and Lark Avenue P. O. Box 1010 Sublette, KS 67877 316-675-2241 316-675-8396 FAX

Date: January 25, 1996

To: Representative Doug Lawrence and the Select Committee on Telecommunications.

From: Dennis Thompson

Re: Equitable Access to Telecommunications in Kansas

Thank you for an opportunity to address you about a topic very vital to an area of the state that I represent but I understand the problem exists all over the state. SWPRSC works with 32 schools in Southwest Kansas and in that area we have several telecommunication providers. Cooperation and access varies with each of them. In talking with others pursuing access to telecommunications in all areas of the state, we are more fortunate than most to have one telecommunication company that serves several of our sites that not only does an excellent job of providing services but is willing to work with other providers to make access affordable to schools.

The problem that needs to be addressed is to have affordable access for all. It seems the cost should not be that much different between providers especially if we use the same rationale as is used in funding education. In talking with sites all over western Kansas, I have found that it is more economical for some to access on-line services by dialing out of state as the long distance rate is more economical. It is hard to understand why that is happening.

We realize that just having economical access to on-line services will not mean that all are going to access it. At the same time we need to realize that getting the economical access to on-line services is not the only telecommunication needs we have. Equitable accessing for the purpose of two way interactivity is needed to enable sharing of resources within our regional areas. This sharing has become a necessity where accessing on-line services is a supplement in the education of our youth.

The education of the youth of Kansas will be improved by the use of affordable telecommunications. Those educators that have the initiative to use it will justify the cost no matter what it is and their students will benefit from it and so will Kansas. Others might be more likely to use it if it is affordable and their students will also benefit. If it is affordable and all have access to it, it will be easier for the expectation to use it to be there. Inservice in how to use it will be more practical as it can be done for all and not have some that will and can use it and the others that would not as they have an excuse for not doing so.

Thank you for the opportunity to share my thoughts with you.

House Sel/comm. Telecomm.
1-25-1996
Attachment 6

Telecommunications Legislative Subcommittee
Internet Access for Primary / Secondary School Systems
Dr. David Stephens
January 25, 1996

WHAT IS IT?

Internet is potentially the most sweeping revolution in the history of mankind. It has often been said that "knowledge is power". Perhaps a more appropriate wording of this saying is "the application of knowledge is power". With the development of the internet, the body of information that is potentially accessible increased several orders of magnitude. The key word in the last statement is "potentially". Without access to the internet, this mass of information might as well be in the next solar system.

WHY IS IT OF VALUE?

One of the primary objectives of an education system is to foster the innate curiosity of children so that they will continue to study, learn, and grow intellectually. It doesn't matter whether the intellectual growth is in literature, economics, science, technology, or mathematics. For growth to occur, there must be intellectual stimulation. The quality of instructional material and the ability to stimulate the student will be directly and significantly affected by the presence or absence of internet access. This is particularly true in those subject areas exhibiting rapid expansion (e.g., science, technology, and mathematics). Further, the declining half-life of information will soon make knowledge taught a student entering high school obsolete by the time they graduate from high school. The continuing presence of the internet is very important.

As an example, the presence or absence of internet access parity has the potential to cause a significant skill disparity between those students with internet access and those without internet access. With the potential of accessing a world-wide database of information on every conceivable subject, the teacher and student have the tools to achieve intellectual growth beyond what could have been imagined before internet. Those with internet access will have a decided educational edge. From an educational perspective, the availability and equality of internet access is fundamental.

HOW CAN THIS BE ACCOMPLISHED?

As with every other form of "advancement", there are key issues that must be addressed. In this case, the five issues associated with public education access to internet are the availability of software, hardware, user time to learn the internet, telecommunication service, and access to the internet itself. In most cases, plans and processes are in place or in the works to address the issues of software, hardware, and user time to learn the internet and, comparatively speaking, the costs associated with these issues are small compared to the recurring costs of telecommunication service and access to the internet. As shown in **Figure 1**, the issue of internet access availability is currently being addressed by existing economic processes, i.e., the Law of Supply and Demand is dramatically increasing the number of available internet service providers. As the number of service providers increases, it can be expected that competition will force the internet access unit cost into the

House Sel/comm. Telecomm.
1-25-1996
Attachment 7

affordable range. This will be especially true for the types of volume discounts that might be expected for school districts. This leaves the one remaining issue to be addressed; that of affordable telecommunication service for the remotely located school systems' use in internet access.

WHERE DO WE GO FROM HERE?

In the short term, affordable telecommunications capability will be the determining factor whether internet access will be integrated with existing curriculum. The mileage sensitive nature of telecommunications and the time sensitive nature of internet will make the use of internet resources to enhance curriculum cost prohibitive. So long as this is true, with school districts already experiencing difficulties meeting basic operating expenses, the money available for telecommunications expenditures will effectively leave the rural areas without internet service.

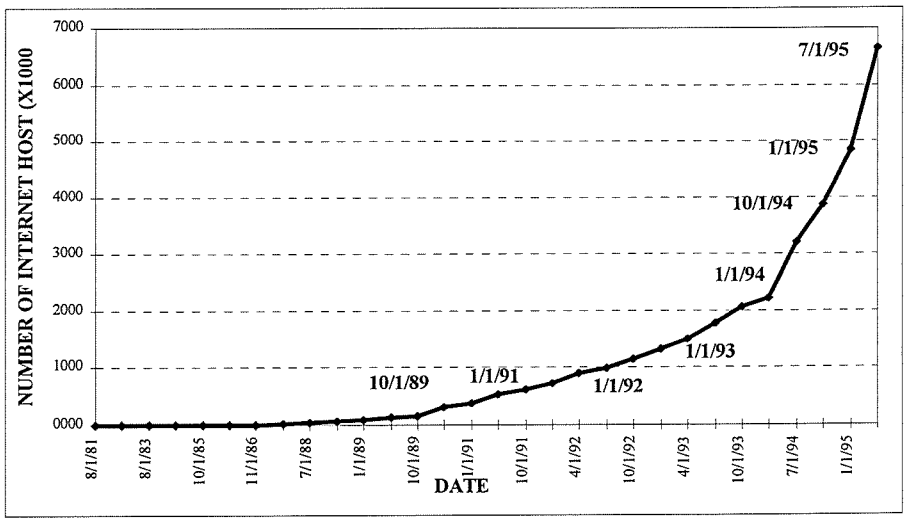


Figure 1 - Internet Host Growth Trend

I would pose that you have the opportunity to create an environment where the state of Kansas can realize President Clinton's recent challenge of having every classroom on the internet. It is not only an achievable goal, but an essential goal if students are to move effectively from the educational world to the working world of tomorrow. The work environment is becoming increasingly dependent on technology and information at every level. This nation must have a informational literate work force as it moves into the 21st century if is be able to maintain its world leadership role. A broad scale infusion of internet access capability will greatly facilitate the realization of the skills necessary to achieve the world class status our constituents deserve.

KANSAS ASSOCIATION OF SCHOOL BOARDS

1420 S.W. Arrowhead Rd, Topeka, Kansas 66604
913-273-3600

Testimony on Internet Access
before the
Select Committee on Telecommunications

by

Kansas Association of School Boards
January 25, 1996

Mr. Chairman, Members of the Committee:

Thank you for the opportunity to address the Committee on Internet access. While use of the words "schools," "districts," "boards" and "educational entities" abound in the formal language of legislation, the really important word here is "children," the children of our State and the opportunities we can offer them for their future.

The Internet is but one technology that has entered our schools in the last few years. Others, as discussed in the report of the Telecommunications Strategic Planning Committee, will add to our educational arsenal, but only if you truly can achieve, as your mission statement reads, "...first class telecommunications infrastructure that provides excellent services at an affordable price" for every Kansan, and by that we include our youngest Kansans, the students in public education.

The largest barrier to Internet access for schools is the lack of affordable access to Internet providers. While this problem is more prevalent in rural areas, it exists in urban areas as well. What may be considered affordable to individuals or commercial users becomes unaffordable to school districts in our State due to the number of students and employees. The problem is compounded in rural areas due to the addition of long distance charges on top to access charges. Internet access for schools should be easy to obtain, of high quality and extremely affordable.

Thank you for the opportunity to present these concerns.

House Sel/comm. Telecomm.
1-25-1996
Attachment 8

WHAT DOES INTERNET MEAN FOR ALLEN COUNTY, KANSAS?

WHAT CAN INTERNET MEAN FOR KANSAS?

JANUARY 25, 1996

LAURA B. BAKER
ALLEN COUNTY CLERK

As Allen County Clerk I believe . . .

Better Government requires:
Effective Government which requires:
Effective Employees which requires:
Effective Decision making which requires:
Effective Knowledge which requires:
Accurate Information, Sharable Information, Available Information which requires:
PLANNING AND BUILDING A GOOD INFORMATION INFRASTRUCTURE.

Good Steward of Taxpayers' Money requires:
Wise use of Tax Dollars which requires:
Ability to Provide Good Management which requires:
Ability to Manage Information about Government Responsibilities which requires:
PLANNING AND BUILDING A GOOD INFORMATION INFRASTRUCTURE.

Because of these beliefs, during May of 1995, I encouraged the formation of a non-profit group of Allen County citizens that has become know as "STAR" (Strategic Technology with Area Resources). This group's Vision Statement is to combine resources and knowledge through the use of technology for the benefit of the community. "STAR" consists of administrators and computer technicians from city governments, schools, the county government, the community college, the library, the chamber of commerce and local businesses along with citizens from the private sector. In the interest of improving our community "STAR" chose Internet for its first project.

After six months "STAR" reached it's first goal, local access to the Internet for Iola City. Two months later, Iola City has the luxury of two local Internet providers. This is very progressive for a County consisting of 14,644 individuals and a valuation of 58 mills. Our tasks are far from finished. Future goals include local access for all citizens within Allen County, the education of our community about the internet and web pages, formation of support groups within the community, local ISDN or POP, and an increased utilization of the internet within our educational systems.

When someone says Internet, what image comes to your mind?

By definition, Internet is a communication system that utilizes inter connected networks to share a vast amount of information.

"STAR" members initial response to this question was improved education for our youth and increased information available to our county citizens.

As the members of "STAR" increased their Internet awareness their impressions changed.
Today, the perception not only includes improved education and increased information, but increased tourism, improved economic base, improved communication, improved access to accurate public

records, increased awareness of our ever changing world and increased awareness of the assets within Allen County.

Allen County businesses who have expressed interest in the Internet, or who are already using the Internet include Herf Jones, Berg/Midland Brake, Gates Rubber Company, Klein Tool, Iola Register, Tramec, Strickler Farms, Iola Pharmacy, Allen County Hospital, and Red Barn Veterinary Services.

Government and non-profit entities within Allen County who currently utilize the Internet include Allen County Community College, Southeast Kansas Library, Iola Municipal Library, USD 257, USD 258, the City of Iola, Iola Lions, Allen County Area Chamber of Commerce, and Allen County.

As Allen County Clerk and Election Officer, some of my goals for 1996 are to encourage the Kansas Secretary of State Office to utilize the Internet by the transmission of

- voter registration data from Kansas County Election Officers to the SOS,
- voter registration data between Kansas Counties, and
- election results to be certified to the SOS office the night of an election in a format that can be immediately utilized by the SOS office.

This week Allen County transmitted our voter registration data files to the Secretary of State's Office.

There is an approximately 945,000 households in the State of Kansas. If 50% of these households where to use the Internet at $20.00/ month, this investment would be approximately $225 million annually within the State of Kansas.

What will your average tax payer expect to obtain from the internet for this 1/4 billion dollars?
improvement of . . .

- education,
- economic base,
- communication at all levels of our communities,
- accuracy of our public records.

increase . . .

- tourism,
- our access to information,
- our awareness of our ever changing world,

and

- the opportunities to reach their dreams.

If we plan correctly, we can build a good information infrastructure,
which will allow us to have Accurate Information, Sharable Information, Available Information,
which will allow us to make Effective Decisions,
which will allow us to have Effective Employees,
which will allow us to have Effective Government,

which will allow us to have Effective Government,
which will allow us to have Better Government.

In closing, as we ponder the possibilities, power, and even responsibilities of the Internet, I would like to remind you of philosophy expressed by our fourth President during the time of 1809 to 1817. President Madison stated "A popular government, without popular information, or the means of accruing it, is but a Prologue to a Farce or a Tragedy; or perhaps both. Knowledge will forever govern ignorance: And a people who mean to be their own Governors, must arm themselves with the power which knowledge gives."

PRESENTATION TO THE SELECT COMMITTEE ON TELECOMMUNICATIONS THURSDAY JANUARY 25, 1995

NETSPACE INTERNET SERVICES

Mr. Chairman and members of the Committee, thank you for the opportunity to present a review of Netspace Internet Services. My name is Larry Pankratz, and I am Director of Network Marketing for Kin Network, Inc. With me today is John Gunn, President of ComputerLand of Salina.

KIN Network, Inc., which you may know as KINNET Fiber Optics Communications, and ComputerLand of Salina began discussions concerning the importance of Internet, and if there was the opportunity to provide the service to Kansans, in the spring of 1995. We felt the Internet was the first major convergence of computers and telecommunications. The combined efforts of both companies were needed to succeed in the ever changing Internet climate. Netspace Internet Services was formed to provide Internet services statewide in August 1995, through an alliance between ComputerLand and KINNET. Our goal is to expand our Internet services to more communities in Kansas. With our commitment to the continued technological enhancement of rural Kansas, Netspace Internet Services intends to provide affordable Internet access to residents of as many rural communities as possible.

The Netspace alliance utilizes KINNET's telecommunications expertise and ComputerLand's data knowledge and experience. The first subscriber came on-line November 15, 1995. Currently, approximately 600 subscribers in over 90 communities in rural and urban areas of Kansas are being served by Netspace Internet services. We continue to add communities to our service and look to serve over 140 communities by March 1. Plans do include future growth throughout Kansas. I would like to direct your attention to the map Mr. Gunn is holding. The areas in blue designate where Netspace Internet service is currently available. The areas in red designate where our Internet service will be provided by March of this year. By the end of the second quarter of this year, we expect to be serving over 160 locations.

House Sel/comm. Telecomm.
1-25-1996
Attachment 10

The Netspace alliance has continually been challenged by hardware and software compatibility, equipment vendors, market pricing, telecommunication provisioning and the end users of the service. The first users have been very knowledgeable about the Internet and constantly explore the boundaries of security of the service. In the areas where the service has been up for several months, we are now getting secondary users who require more customer support for software and hardware. In addition, users are staying on-line longer, exploring and using the Internet.

The Netspace alliance responsibilities are divided between the two companies. ComputerLand of Salina provides customer service support. This includes subscriptions, staffing the customer service hotline for questions, marketing, training, and software and hardware specifications and support. KINNET provisions the transmission of the data services and the connections to the Internet. KINNET also works with the independent telephone companies providing them with a link to the Internet and training. The telephone companies then provide Internet to their customers.

Subscribers to Netspace Internet Service receive connectivity by dialing a local telephone number in their community. Two Internet service packages are offered: 1) 20 hours per month; and 2) unlimited usage. The rates charged are between $ 18.95 and $ 30.00 per month. Netspace also provides direct connect services to schools and business at 56 kilo-bit up to DS-1 circuits.

I have included with my testimony copies of the map you see before you. This map sets out the communities that have local Internet service available currently and those that will have local Internet service by March 1 of this year.

Again, thank you for the opportunity to address you today. Mr. Gunn and I will be happy to stand for any questions the Committee may have.

Netspace Internet Services

Current Locations

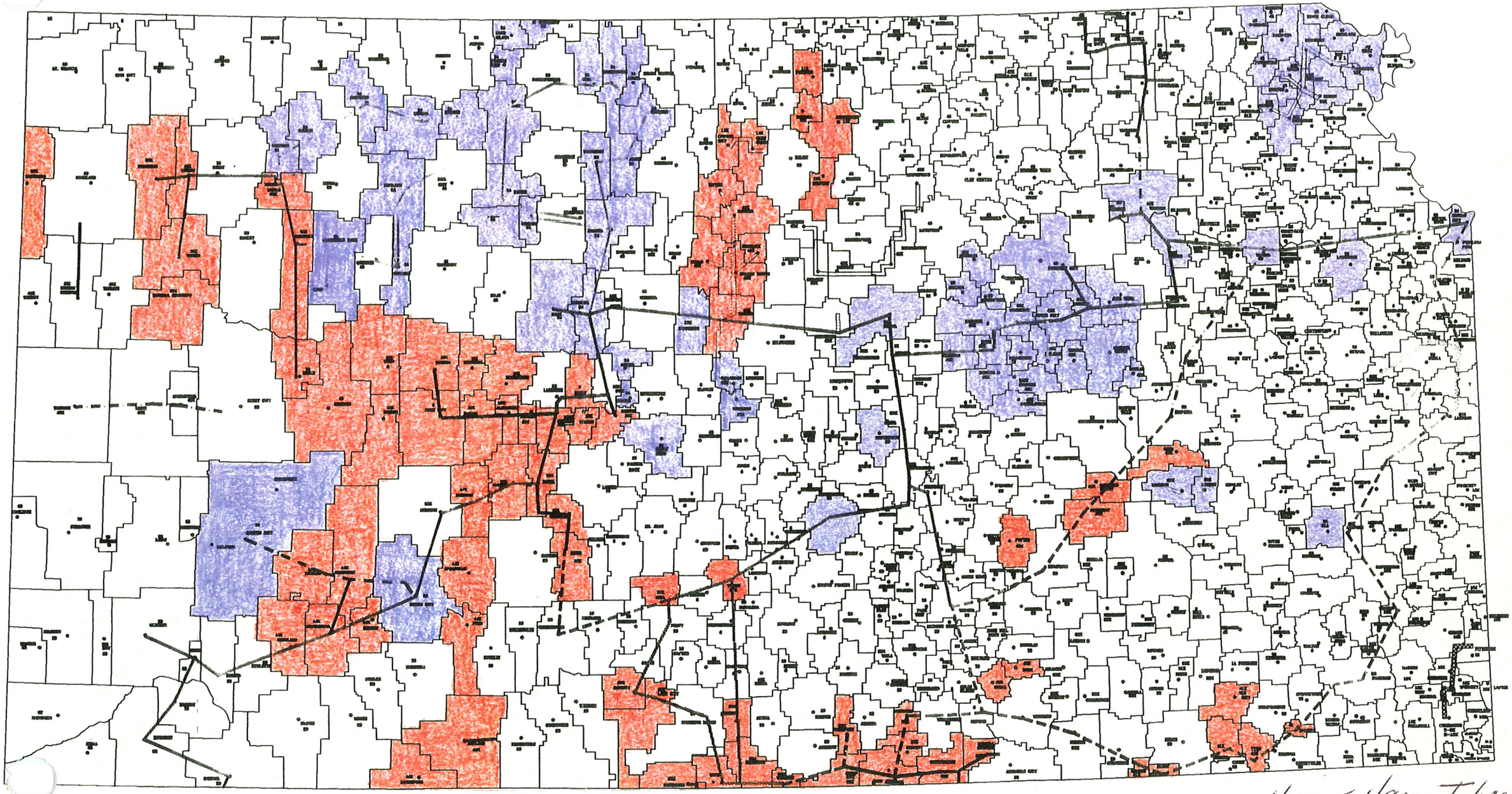
- Abilene
- Agra
- Alton
- Alta Vista
- Athol
- Bendena
- Buckeye
- Bushton
- Carlton
- Collyer
- Council Grove
- Damar
- Delavan
- Denton
- Dodge City
- Dorrance
- Dunlap
- Dwight
- Edmond
- Enterprise
- Everest
- Galatia
- Garden City
- Gaylord
- Great Bend
- Gove
- Grainfield
- Hays
- Herington
- Highland
- Holyrood
- Hope
- Horton
- Huron
- Hutchinson
- Iola
- Jennings
- Junction City
- Kansas City
- Kensington
- Lamont
- Lawrence
- Lenora
- Leona
- Logan
- Long Island
- Lost Springs
- Madison
- McPherson
- Morland
- Morrill
- Natoma
- Navarre
- Olmitz
- Palco
- Paxico
- Powhattan
- Prairie View
- Ramona
- Reserve
- Rexford
- Robinson
- St. George
- Salina
- Selden
- Severance
- Topeka
- Troy
- Victoria
- Wamego
- White City
- White Cloud
- Whiting
- Willis
- Wilsey
- Woodbine
- Woodruff
- Woodston
- Zurich

Netspace Internet Services
Planned Locations

- Albert
- Alexander
- Ashland
- Bazine
- Beeler
- Bison
- Bluff City
- Brewster
- Brownell
- Burnett
- Caldwell
- Cassoday
- Cimmaron
- Corbin
- Dighton
- Elgin
- Elk City
- Englewood
- Ensign
- Ford
- Freeport
- Garfield
- Geuda Springs
- Grinnell
- Hanston
- Hardtner
- Havana
- Hazelton
- Healy
- Hewins
- Ingalls
- Iuka
- Kanorado
- Kiowa
- Lake City
- Lewis
- Levant
- Liberty
- Matfield Green
- Mayfield
- McCracken
- Menlo
- Montezuma
- Nekoma
- Ness City
- Olpe
- Potwin
- Ransom
- Rock
- Rozel
- Rush Center
- Russell Springs
- Sharon
- South Haven
- Spearville
- Sun City
- Timkon
- Turon
- Tyro
- Udall
- Utica
- Waldron
- Winona

NETSPACE INTERNET SERVICES

Salina, KS



– Current

– Future

House Sel/Comm. Telecomm.
1-25-1996
Attachment 11

HESSTON AND THE INTERNET

In July 1995, the Hesston Chamber of Commerce sponsored a seminar on the internet at Hesston College. So successful was the seminar that the Chamber soon formed a task force to study ways of bringing the internet to Hesston. It wasn't long before the task force got the message that the project faced a major roadblock - long-distance telephone service.

Major metropolitan areas like Wichita have a distinct advantage over rural communities when it comes to the benefits of technology. Many innovations catch on slowly - only where there is a large population base will there be enough participants to provide necessary economies of scale. It is no surprise then that Wichita would receive the internet at affordable rates much sooner than outlying areas. Besides population, the city's area-wide toll-free telephone service was crucial. For low-cost access to the internet depends on the users ability to reach the point of presence without having to make a long-distance call. While Wichita residents experience rates in the range of $22/month for virtually unlimited access, users in Hesston must pay nearly $5 per hour above and beyond the monthly fee, simply because that's what it costs to call Wichita's point of presence when you must make a long-distance call.

House Sel/comm. Telecomm
1-25-1996
Attachment 12

For several months, the Hesston Chamber's task force wrestled with the problem without success. At last, the solution became obvious - bring the internet to Hesston by establishing a point of presence in Hesston. This would provide internet access at Wichita's monthly rates to users throughout Hesston's 327 exchange, which includes customers within a several mile radius of Hesston as well as city residents.

Fortunately for Hesston, a locally-owned company, SouthWind Internet, had already initiated internet service in several nearby south-central Kansas communities, including Wichita, Hutchinson and El Dorado. But even though SouthWind was warm to the idea of establishing a POP in Hesston, the small population of Hesston made the venture extremely risky. To determine the extent of local interest, the Hesston Chamber and the City of Hesston jointly sponsored a citizen survey. Many of us were surprised by the overwhelmingly large favorable response that was received. Armed with the fact that at least 150 likely internet customers resided in Hesston, the task force asked SouthWind for a definitive proposal to bring a POP to Hesston. The answer was that if SouthWind could obtain a loan at favorable interest rates, the company would bring the internet to Hesston.

At a January 8 meeting, the internet task force and SouthWind presented a proposal to the Hesston City Council. The governing body believed its role of facilitating economic development in the community would be well served by participating in the internet project. The City agreed to loan SouthWind $16,000 to establish a POP in Hesston. It is now expected that before the end of February the 327 exchange will have the same access to the internet as major metropolitan areas.

Though I am proud of the city's role in bringing internet access to Hesston, I am disturbed that the approach we took was even necessary. In an ideal world, access to the internet would not be dependent on the vagaries of telephone service. (And neither would access to caller ID, call waiting, voice messaging, and a host of other telecommunications services now available in most urbanized areas. But that's a larger issue.) And however easy it may be to point a finger of blame for the present chaotic situation, I believe a better approach would be to find solutions. As a body representing all Kansans, the State Legislature seems a logical place to look for those solutions. The Hesston City Council has 'solved' the problem for its citizens. Unfortunately, not every local governing body is positioned to play such a role. Only the Legislature has a wide enough jurisdiction to resolve the issue for all Kansans.

I would be happy to answer any questions you may have on this matter.

Presented by

Fred Carpenter, Hesston City Administrator

January 25, 1996

WICHITA INDUSTRIES & SERVICES FOR THE BLIND, INC.

January 25, 1996

TO: Select Committee on Telecommunications

REPLY TO: Michael Byington
WISB Governmental Affairs Office
P. O. Box 1063
Topeka, Kansas 66601
(913) 575-7477 (office and voice mail)
(913) 233-2539 (FAX)

SUBJECT: Internet Access

I am going to tell you a little bit about my job, my vision, and how and why I access the Internet. I will also talk about the jobs of some of my friends who are blind or have low vision and about how these individuals access the Internet as a part of their professional duties. I will then discuss some of the problems and issues of concern which we who are blind or visually impaired see arising as access to the internet continues to develop.

My employer, Wichita Industries and Services for the Blind (WISB) may be known to you as an organization which provides training and rehabilitation services for persons who are blind or low vision. Our largest operations, however, are in providing employment for persons who are blind and visually impaired in manufacturing and value added production functions. We have manufacturing plants in three Kansas Cities, and we do around $20,000,000.00 in sales per year of the products we manufacture. More than 75% of our labor force is blind or legally blind, and we pay competitive wages and benefits to these individuals so they make an honest day's pay for an honest day's work. The largest percentage of jobs we do are custom manufacturing tasks ordered by federal contract, and to very exacting and specifically defined standards. To stay in business in these times of great change in governmental procurement, we have on our staff, a Director of Marketing and Customer Services, a Development Engineer, and my position where I attempt to keep track of all of the changes in State and federal government which could effect our contracts which allow us to keep our employees working or effect our rehabilitation operations. To do this work, I use the Information Network of Kansas (INK) and information services concerning federal bills and regulations

801 East Lincoln
Wichita, Kansas 67211
(316) 267.2244
Fax (316) 267.4312

925 Sunshine Road
Kansas City, Kansas 66115
(913) 281.0710
Fax (913) 281.2450

1600 North Walnut
Pittsburg, Kansas 66762
(316) 231.8600
Fax (316) 231.8620

House Sel/Comm. Telecomm.
1-25-1996
Attachment 13

activities. I access most of this stuff on the Internet. The nature of my visual impairment allows me to read almost any size print for short periods of time, but if I am required to read very much standard sized or smaller print, I suffer extreme eye fatigue and simply can not do it. Large print helps me read longer, and speech access, where the computer reads what is on the screen to me combined with large print allows me to work at speeds and durations similar to most sighted workers. I thus have both a large print monitor and speech reading hardware and software on my computers. My current Internet access is through INK because my speech reading software is currently able to only read DOS text, and INK is one of very few providers who offers DOS text access to the Internet. INK frequently announces to their subscribers that they are not a wise choice in Internet server access because it is not their primary field and they are much more expensive than most other services. They recommend access through Netscape or several other providers instead of through the INK server. I thus pay much more for my Internet access than do most users simply because Windows only Internet access software and/or servers will not talk with my system and I thus can not use them as well.

Now Windows will talk, and if my employer or I spend an additional $500.00 or so on my system, some Windows functions will start talking for me. I, however, have found it difficult to impossible to use a mouse because, If I enlarge the arrow enough to be able to use it easily, it often completely covers what I am looking for on the screen. I thus use Windows with keystrokes. Windows 95 originally had planned to remove all equivalent keystrokes from the latus of operations, but due to some law suits from organizations representing people who are blind or visually impaired, and from people who can not use mice because of severe physical disabilities, keystrokes are still an available feature of the Windows 95 operating system. The documentation does not tell what they are, and only some of them are marked in an understandable way on the screen, but they are still available if a keystroke user can figure them out. The problem is, however, writers of software can produce individual pieces of Windows operating system software which either do or do not offer keystroke options. Most of the major Internet servers are not only using Windows as their operating system, but they are going exclusively with point and click and are eliminating keystroke options.

My wife is totally blind, and has been from birth. She teaches Braille at the Kansas Rehabilitation Center for the Blind and is a highly qualified professional educated at the Master's level. The teaching of Braille these days certainly includes teaching computer access, and my wife uses computers with a combination of speech and Braille output. She has not gotten on to the Internet at this point, but is seeing an increasing need to do so in order to keep her professional knowledge current and competitive. As we upgrade our systems and select our method of Internet access, the concept of universal access for us is to have a system which can be accessed equally well using large print, speech access, or Braille. The technology exists to do this, and as future changes take place, engineers and product developers working with access for blind users will certainly do their best to keep up. Five years ago, for example, Windows would not talk at all. It now does not talk as well as DOS text, but as long as the materials contained in the Windows access file are at their core text based, Windows will now talk in a useable fashion. The Internet through Windows, however, will not work unless the access software offers keystroke commands as an alternative to point and click. Blind and severely disabled people who can not use point and click are a fairly small part of the market. Because of this, in an Internet world devoid of any product standards regulations, we are often left out of the competitive mix. We need laws and regulations stating, for example, that in this State, an Internet server can not operate unless they offer keystroke alternatives to point and click. This is certainly technically doable, and is no different than the currently in force federal requirement that all televisions having a 13" screen or larger have the ability to receive closed captions for the deaf and hearing impaired.

My mother, who is now retired, has been blind all of her life, and she worked for many years as a newspaper journalist. Back in the 1950s, using nothing but a manual typewriter and her creativity, she worked full time for the Wichita Eagle and was the first blind staff reporter to work on a major newspaper in the midwest. It is ironic but true that it was easier for her to do her job back then using lower technology than it would be today were she to be working for a newspaper using Windows based mainframe compositing software and using Windows access to the Internet for research.

Currently, unemployment among working age blind and low

vision people in the United States is between 65 and 70 percent. Some rather small sample studies completed recently in the midwest suggest that we may be doing a little better in this part of the country, but here as well, unemployment among working age blind and low vision is over 50%. Within the next five to ten years, I strongly suspect that Internet access will be an aspect of more that half of the jobs in the job market. Lawmakers at State and federal levels are thus faced with a choice. In the name of deregulation, does the majority in the marketplace rule causing the Internet to be largely inaccessible to the blind, or do we maintain enough control over the telecommunications industry that persons who are blind are assured a competitive opportunity to be employed, productive tax payers rather than a draw on the tax system? I sincerely hope the later option will be selected. Such regulation should not be considered to be a handout, but rather a hand up so that persons who are blind can be productive and competitive.

I have maintained close ties with the blindness community in Kansas throughout my upbringing and adult life. I will tell you that blind people of Kansas largely do not want to be considered to be a part of the welfare state. There is a work ethic among the blind of Kansas and great anger that unemployment is so high. Access to the Internet will have a lot to do with the future of that unemployment percentage.

A very relevant discussion on this point took place this morning in the House Business, Commerce and Labor Committee between Secretary Wayne Franklin of the Kansas Department of Human Resources and Representative Greg Packer concerning the closing of job services centers and the development of the Kansas One Stop system. Representative Packer pointed out that the enabling federal legislation for the Kansas Job Service Centers was adopted in 1933. He asked, that given the development of better roads, more people driving, and better technology, if there really needed to be as many job services centers, and if there were more efficient ways to provide the services. Secretary Franklin and his Director of Employment Services, Peter LaTessa, responded that the Kansas One Stop concept would be looking at more access through computer, heavy use of the Internet, and perhaps placing a job services access computer in every local library, courthouse, SRS service center, etc. I would not question the fact that this is the waive of the future, but if this is to be the case, and if human assistance is going to be more and more limited through

State governmental sources, thus it becomes all the more important that the Internet and services like it be accessible. I have talked several times with Secretary Franklin and Mr. LaTessa about the need for such access on all computers which allow citizens to access State job services information. They agree that it is important and express the intent to do it, but they seem to have the impression that it can be added on after the system is designed as one of the last phases of development. I have not been able to get across to them that such add on accessibility is inefficient, more time consuming, and more costly than building the access features into the system from ground zero. Their planning may have already progressed to a point where this will not be possible.

My wife and I have a blind friend who is an ordained Presbyterian minister at the doctoral level and who has just completed additional academic work in the specialty of chaplaincy. Our friend is willing to go anywhere in the country to get a job now that she has finished her latest round of education, but jobs in such a specialized field are not the type of thing one goes to the local job services center to find. Her job search is largely taking place through the Internet as this is where she can find facilities based and religious home pages which list such opportunities. Our friend is using Delphi which is one of the few other Internet servers outside of INK which still provides DOS based access to the Internet. Delphi, however, has just announced the intent to move completely to a graphical user interface which will block this highly competent minister's use of the system. She will have to probably switch to INK as a server at much higher rates - rather difficult for someone who is currently experiencing unemployment.

We at WISB have every desire to grow and expand as an employer and employment services entity for persons who are blind or low vision. We want the opportunity to teach the people who work with us to use the Internet to grow professionally and to learn about opportunities for competitive employment outside of the jobs we offer directly. In this way, our workers will have more options and greater choice. We also have every intent to expand into information related services industries as this is one of the fastest growing employment fields. To employ blind and visually impaired workers in these fields, the existence of ways for persons who are blind to access the Internet will be essential. We do not rebel against progress into the Windows environment. We have some blind and low vision employees using Windows functions now. We

simply need regulatory assurance that the potential of these employees to continue to access the Internet will be there as technology grows and advances.

Lastly, we need to return to the concept of universal access. True universal access means not only any of us should be able to afford to get on to the Internet, but also that we should know we have a way of doing so no matter what may happen to us. If one of you on this committee were to suddenly lose your vision, universal access means that you should be able, with a minimal amount of re-training, to continue doing the jobs you have and accessing the information you need. You all know Representative Edlund, and you all know that he is very capable and manages to access information he needs despite his blindness. Although he and I have not discussed this point, I think he would be the first to tell you, that his access to information is not yet universal and that we have a long way to come. Also, Representative Edlund has been blind for many years and has had the opportunity to develop skills accordingly. Universal access means one should not have to risk losing a job in order to take time to develop such skills. Being able to continue to access information through the Internet is a major part of this picture.

I will close with one more story concerning a personal friend who is low vision. This gentleman holds a Master's in Library Science and works as the Director of Inter Library Loans for one of the State's busier libraries. Though, like myself, he has been low vision all of his life, until recently, he was able to access computers without specialized equipment. Recently, however, he began to lose more vision. Major eye surgery and repeated follow-up surgeries have stabilized his remaining vision somewhat, but he has now lost much more vision. About 90% of this gentleman's work is done on computer, and an increasing amount of it is Internet related. When he experienced his vision loss, his employer provided him with equipment to access his work in large print, and this is currently working for him. His physician tells him, however, that his remaining vision continues to be quite unstable. if he loses more vision, universal access should mean that he would be able to continue doing his job nonetheless by simply switching from large print computer to speech access. As his library currently uses Netscape, however, which, though better than some, is not fully accessible through keystrokes, loss of more vision may very well mean the loss of a job for someone who is otherwise extremely well qualified. The best way to

assure that human resources are not wasted in this manner is to make sure that our laws and regulations require servers operating in Kansas to, in the truest sense of the word, provide universal access.