

MINUTES OF THE HOUSE ENERGY AND UTILITIES COMMITTEE

The meeting was called to order by Chairman Carl Holmes at 9:00 A.M. on February 3, 2011, in Room 785 of the Docking State Office Building.

All members were present except:  
Representative Rob Bruchman-excused

Committee staff present:  
Matt Sterling, Office of the Revisor of Statutes  
Cindy Lash, Kansas Legislative Research Department  
Corey Carnahan, Kansas Legislative Research Department  
Rena Hansen, Committee Assistant

Presenters:  
Guy McDonald, KCC  
Tom Day, KCC

Others attending:  
Twenty-six including the attached list.

Representative Forrest Knox moved the committee introduce variable time of use tariff requirement bill introduced.. Seconded by Vern Swanson. Motion carried.

Representative Holmes noted that the committee will have a tour of AT&T facilities across the street.

Representative Holmes noted that ERCOT had some rolling blackouts during this snow storm and Representatives Knox noted that Sunflower is having some electric issues also.

Informational Updates:  
KCC Report on Broadband Mapping

Tom Day, KCC, introduced the Broad band initiative topic. He noted that the KCC will attempt to have the ARRA updates that was scheduled for Tuesday of this week. He introduced Ward Lloyd, Christine Aarnes and Guy McDonald.

Guy McDonald, KCC, (Attachment 1), offered the committee information testimony on the broadband availability initiative. His testimony was an explanation of the report to the legislature required by K.S.A. 66-1250 through 1254. Within the testimony were several attachments that helped explain the state of broadband service to the residents of the State of Kansas. He noted that there are 21 counties that are falling below the statewide average of 99.72% coverage.

Questions were asked and comments made by Representatives: Don Hineman, Vern Swanson, Reynaldo Mesa, Tom Sloan, Forrest Knox; and Carl Holmes.

Christine Aarnes, Kansas Corporation Commission, and Corey Mohn, Department of Commerce, helped answer questions posed by the committee.

The next meeting is scheduled for February 4, 2011.

The meeting was adjourned at 9:41 A.M.

# HOUSE ENERGY AND UTILITIES COMMITTEE

## GUEST LIST

DATE: February 3, 2011

NAME	REPRESENTING
JOHN BOTTENBERG	WESTAR
JOATH EADD	CAPITAL ADVANTAGE
WADE HADGORD	" "
TOM DAY	KCC
GUY McDONALD	KCC
CHRISTINE ARNES	KCC
Joe Mosimann	Dmca of KS
Sarah Green	KDA
Phil WAGGS	KEPCO
Corey Mohr	Commerce
Carole Jordan	Commerce
Dan Holker	KCC
Tim Gartner	KTAT
Whitney Jamar	KS Gas Service
Dan Murray	KCTA
Mike Smith	NTT
Leigh Keck	Capitol Strategoes
Mark Schreiber	Westar
Nick Roesch	Sprint

DATE: February 3, 2011

[illegible]



Mark Parkinson, Governor  
Thomas E. Wright, Chairman  
Joseph F. Harkins, Commissioner  
Ward Loyd, Commissioner

January 14, 2011

✓ Susan Kannarr, Chief Clerk  
Kansas House of Representatives  
Statehouse  
Topeka, Kansas 66612

Pat Saville, Secretary  
Kansas Senate  
Statehouse  
Topeka, Kansas 66612

RE: Report to the Legislature Regarding the Availability of Broadband Services in the State of Kansas, as directed by the 2008 Legislature in K.S.A. 66-1250 through 1254.

The attached report is provided pursuant to the requirements of K.S.A 2009 Supp. 66-1250 through 66-1254. K.S.A. 66-1251 states:

a) On or before January 15, 2009, and annually thereafter, subject to the provisions of K.S.A. 2009 Supp. 66-1252, and amendments thereto, the commission shall report to the legislature on broadband service being provided in the state of Kansas. Such report shall include the following information:

(1) A report by census tract or other identifiable geographic unit indicating whether broadband service is available and the number of providers that offer service to customers in each census tract;

(2) Beginning with the commission's report in 2010, a report by census tract of the change in: (A) The number of broadband providers; and (B) the geographic area or census tract where broadband service is available.

(b) The commission shall maintain the information provided by each provider pursuant to K.S.A. 2009 Supp. 66-1250, and amendments thereto, as confidential and shall report only the aggregated information by census tract to the legislature. In maintaining the information, the commission shall adhere to the confidentiality provisions in K.S.A. 66-1220a, and amendments thereto.

(c) The commission, after consulting with broadband providers, may adopt rules and regulations as necessary to establish the form and manner in which the provider information

DATE: 2/3/2011

ATTACHMENT 1-1

shall be submitted and to fulfill all other requirements of the commission under this act.

(d) The commission shall, in addition to those reports required by subsection (a), on or before January 15, 2008, and annually thereafter, report to the legislature the names of the broadband service providers that fail to comply with the reporting requirements of K.S.A. 2009 Supp. 66-1250, and amendments thereto.

However, the Commission notes that K.S.A. 66-1252 states:

In the event the federal government or any federal agency implements a national program to collect information regarding broadband service deployment, the provisions of K.S.A. 2009 Supp. 66-1250 and subsections (a), (c) and (d) of K.S.A. 2009 Supp. 66-1251, and amendments thereto, shall no longer be effective, and the commission shall collect such broadband service data and report such data to the legislature in a form and manner that is in conformance with such federal program.

In accordance with K.S.A. 66-1252, the Commission's report has relied exclusively on the Federal Communications Commission's bi-annual report of *High-Speed Services for Internet Access*. That report solicited and summarized high-speed service availability by zip code.

This year's report draws primarily on data compiled by Connect Kansas<sup>1</sup> and provides a more granular view of availability in Kansas with data collected at the census block level. This data collection undertaking was initiated by the federal Broadband Data Improvement Act, signed into law October 10, 2008, and funded by the American Recovery and Reinvestment Act of 2009. The effort is guided by the State Broadband Data and Development Grant Program, its Notice of Funds Availability (NOFA) (0660-ZA29) and its 12 page Technical Appendix identifying and defining the respective data elements to be collected.

In addition to the collection of broadband specific data, the process makes use of census data including population, household and other demographic statistics. The information is compiled using the following definitions:

Households: A household includes all of the people who occupy a housing unit. A housing unit is a house, an apartment, a mobile home, a group of rooms, or a single room occupied (or if vacant, intended for occupancy) as separate living quarters. Separate living quarters are those in which the occupants live separately from any other people in the building and that have direct

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<sup>1</sup> Connect Kansas is a subsidiary of Connected Nation and operates as a nonprofit in the state of Kansas working closely with the Kansas Department of Commerce. See <http://www.connectkansas.org/index.php> for additional information.

access from the outside of the building or through a common hall. The occupants may be a single family, one person living alone, two or more families living together, or any other group of related or unrelated people who share living quarters.<sup>2</sup>

Speeds: The Download/Upload speeds are "Maximum Advertised Download/Upload Speeds"<sup>3</sup> as indicated in the following Attachments.

Served: "... 'broadband service' is 'available' at an address if the provider does, or could, within a typical service interval (seven to ten business days) without an extraordinary commitment of resources, provision two-way data transmission to and from the Internet with advertised speeds of at least 768 kilobits per second (kbps) downstream and greater than 200 kbps upstream to end-users at that address."<sup>4</sup>

Broadband service generally refers to the high speed transmission of digital (as opposed to analog) signals. Such transmission is necessary for the efficient connection and transmission of telephony, video and data communications. The more specific definition of broadband service is an evolving definition. K.S.A. 66-1,187(a) defines broadband service as "... the transmission of digital signals at rates equal to or greater than 1.5 megabits per second." The FCC currently defines the service as a transmission rate of at least 768 kbps down (toward the end user) and 200 kbps up (from the end user). The National Broadband Plan recommends a target of 4 mbps down and 1 mbps up<sup>5</sup>. This status report presents data using the FCC's criteria (Attachments B & C) and the National Broadband Plan's recommendation (Attachments D & E).

This year's report is presented in five attachments summarized at the county level. Additional granularity is available down to the census block level and is available at the Connect Kansas website, [http://www.connectkansas.org/mapping/Census\\_Block-Level\\_Data.php](http://www.connectkansas.org/mapping/Census_Block-Level_Data.php).

**Attachment A** illustrates the number of broadband service providers in Kansas and adjacent states.

**Attachment B** illustrates the number and percent of households where broadband service is available. This Attachment utilizes the FCC's current definition of broadband service of 768 kbps download and 200 kbps upload speeds, less satellite coverage. The Attachment shows a statewide average of 99.72% with twenty-one (21) counties falling below the state average. Chautauqua's 1,796 households have the lowest availability at 68.25%.

**Attachment C** illustrates the number and percent of households where broadband service is available. This Attachment utilizes the FCC's current definition of broadband service of 768 kbps download and 200 kbps upload speeds, less satellite and mobile wireless coverage. The

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<sup>2</sup> 2000 Census of Population and Housing-Technical Documentation, Appendix B, Definitions of Subject Characteristics, B-9.

<sup>3</sup> NOFA (number 0660-ZA29, dated July 2, 2009), Technical Appendix, page 2.

<sup>4</sup> NOFA (number 0660-ZA29, dated July 2, 2009) Technical Appendix, page 1.

<sup>5</sup> Connecting America: The National Broadband Plan. Chapter 8, Availability, Page 135.

Attachment shows a statewide average of 97.16% with fifty-seven (57) counties falling below the state average. Chautauqua has the lowest availability at 66.6%.

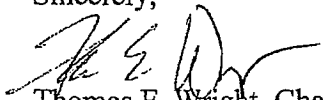
**Attachment D** illustrates the number and percent of households where broadband service is available. This Attachment utilizes the National Broadband Plan's recommended definition<sup>6</sup> of broadband service of 4 mbps download and 1 mbps upload speeds, less satellite coverage. The Attachment shows a statewide average of 99.41% with twenty-six (26) counties falling below the state average. Chautauqua has the lowest availability at 66.6%.

**Attachment E** illustrates the number and percentage of households where broadband service is available. This Attachment utilizes the National Broadband Plan's recommended definition<sup>7</sup> of broadband service of 4 mbps download and 1 mbps upload speeds, less satellite and mobile wireless coverage. The Attachment shows a statewide average of 92.74% with sixty-seven (67) counties falling below the state average. Linn's 3,807 households has the lowest availability at 23.62%.

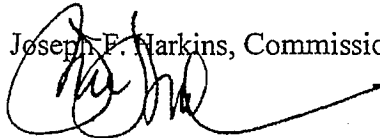
Satellite service coverage, while it is generally available throughout the state, is not included herein because of the service providers inability to precisely (down to street address level) indicate its coverage area. Satellite service generally requires a clear unobstructed path between the end user's antenna and the southwest sky.

This report was prepared by the Telecommunications Section of the Commission's staff. Please contact Mr. Guy McDonald at 271-3230 or [g.mcdonald@kcc.ks.gov](mailto:g.mcdonald@kcc.ks.gov) with questions or comments.

Sincerely,



Thomas E. Wright, Chairman



Joseph F. Harkins, Commissioner

Ward Loyd, Commissioner

Cc: File Docket 09-GIMT-045-GIT  
Department of Commerce; Ms. Carole Jordan, Mr. Stanley Adams  
Kansas Broadband Advisory Task Force (Mr. Brad Williams, Chair)

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<sup>6</sup> *Connecting America: The National Broadband Plan*. Chapter 8, Availability, Page 135.

<sup>7</sup> *Connecting America: The National Broadband Plan*. Chapter 8, Availability, Page 135.

**Providers of High-Speed Connections by Technology by State<sup>1</sup>**  
**As of December 31, 2009**

1-5

<u>State</u>	<u>ADSL</u>	<u>SDSL</u>	<u>Other Wireline</u>	<u>Cable Modem</u>	<u>Fiber</u>	<u>Satellite<sup>2</sup></u>	<u>Fixed Wireless</u>	<u>Mobile Wireless</u>	<u>Total +/- Last Yr.<sup>3</sup></u>
Colorado	35	13	33	15	22	*	25	10	88 +15
Kansas	40	15	20	27	31	*	29	9	92 + 6
Missouri	38	15	22	22	23	*	32	5	98 + 6
Nebraska	33	8	13	19	20	*	24	5	69 + 1
Oklahoma	40	10	23	14	16	*	13	11	80 + 3

ADSL – Asymmetric Digital Subscriber Line.

SDSL – Symmetrical Digital Subscriber Line

<sup>1</sup> FCC report *Internet Access Services: Status as of December 31, 2009*, (Table 23). Complete report is available at [www.fcc.gov/wcb/stats](http://www.fcc.gov/wcb/stats). High Speed is defined by the FCC as connections over 200 kbps in at least one direction.

<sup>2</sup> With fewer than 1-3 providers this data is shown with an \* in order to protect the service provider's confidentiality.

<sup>3</sup> Total count of non-duplicated providers with changes from last year noted.

1-5



# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment B  
Report to the Legislature  
January, 2011

County	Total	----- @ 768Kbps Down, 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Allen	5,775	2.05	5,772.95	99.96%	
Anderson	3,221	2.32	3,218.68	99.93%	
Atchison	6,275	24.21	6,250.79	99.61%	*
Barber	2,235	3.93	2,231.07	99.82%	
Barton	11,393	0.00	11,393.00	100.00%	
Bourbon	6,161	7.22	6,153.78	99.88%	
Brown	4,318	0.46	4,317.54	99.99%	
Butler	21,527	0.00	21,527.00	100.00%	
Chase	1,246	0.40	1,245.60	99.97%	
Chautauqua	1,796	570.23	1,225.77	68.25%	*
Cherokee	8,875	20.28	8,854.72	99.77%	
Cheyenne	1,360	151.12	1,208.88	88.89%	*
Clark	979	0.05	978.95	99.99%	
Clay	3,617	0.00	3,617.00	100.00%	
Cloud	4,163	0.00	4,163.00	100.00%	
Coffey	3,489	0.24	3,488.76	99.99%	
Comanche	872	0.27	871.73	99.97%	
Cowley	14,039	31.66	14,007.34	99.77%	
Crawford	15,504	0.37	15,503.63	100.00%	
Decatur	1,494	206.85	1,287.15	86.15%	*
Dickinson	7,903	0.00	7,903.00	100.00%	
Doniphan	3,173	60.02	3,112.98	98.11%	*
Douglas	38,486	0.14	38,485.86	100.00%	
Edwards	1,455	0.00	1,455.00	100.00%	
Elk	1,412	201.01	1,210.99	85.76%	*
Ellis	11,193	1.13	11,191.87	99.99%	
Ellsworth	2,481	0.00	2,481.00	100.00%	
Finney	12,948	1.83	12,946.17	99.99%	
Ford	10,852	0.00	10,852.00	100.00%	
Franklin	9,452	2.35	9,449.65	99.98%	
Geary	10,458	0.45	10,457.55	100.00%	
Gove	1,245	0.00	1,245.00	100.00%	
Graham	1,263	289.97	973.03	77.04%	*
Grant	2,742	0.00	2,742.00	100.00%	
Gray	2,045	0.00	2,045.00	100.00%	
Greeley	602	25.89	576.11	95.70%	*
Greenwood	3,234	45.33	3,188.67	98.60%	*

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment B  
Report to the Legislature  
January, 2011

<u>County</u>	Total	----- @ 768Kbps Down, 200Kbps Up -----		
	<u>Households (HH)</u>	<u>Unserved HHs</u>	<u>Served HHs</u>	<u>% HH Served</u>
Hamilton	1,054	0.06	1,053.94	99.99%
Harper	2,773	0.37	2,772.63	99.99%
Harvey	12,581	0.00	12,581.00	100.00%
Haskell	1,481	0.00	1,481.00	100.00%
Hodgeman	796	0.26	795.74	99.97%
Jackson	4,727	4.16	4,722.84	99.91%
Jefferson	6,830	1.63	6,828.37	99.98%
Jewell	1,695	52.20	1,642.80	96.92% *
Johnson	174,570	0.00	174,570.00	100.00%
Kearny	1,542	0.00	1,542.00	100.00%
Kingman	3,371	0.10	3,370.90	100.00%
Kiowa	1,365	0.00	1,365.00	100.00%
Labette	9,194	22.26	9,171.74	99.76%
Lane	910	2.63	907.37	99.71% *
Leavenworth	23,071	0.00	23,071.00	100.00%
Lincoln	1,529	2.04	1,526.96	99.87%
Linn	3,807	1.28	3,805.72	99.97%
Logan	1,243	4.54	1,238.46	99.63% *
Lyon	13,691	0.87	13,690.13	99.99%
McPherson	11,205	0.00	11,205.00	100.00%
Marion	5,114	0.00	5,114.00	100.00%
Marshall	4,458	7.17	4,450.83	99.84%
Meade	1,728	3.27	1,724.73	99.81%
Miami	10,365	0.13	10,364.87	100.00%
Mitchell	2,850	4.07	2,845.93	99.86%
Montgomery	14,903	17.80	14,885.20	99.88%
Morris	2,539	0.00	2,539.00	100.00%
Morton	1,306	0.00	1,306.00	100.00%
Nemaha	3,959	1.26	3,957.74	99.97%
Neosho	6,739	0.26	6,738.74	100.00%
Ness	1,516	0.00	1,516.00	100.00%
Norton	2,266	477.62	1,788.38	78.92% *
Osage	6,490	0.00	6,490.00	100.00%
Osborne	1,940	0.26	1,939.74	99.99%
Ottawa	2,430	0.55	2,429.45	99.98%
Pawnee	2,739	0.00	2,739.00	100.00%
Phillips	2,496	11.65	2,484.35	99.53% *

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment B  
Report to the Legislature  
January, 2011

County	Total	----- @ 768Kbps Down, 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Pottawatomie	6,771	0.86	6,770.14	99.99%	
Pratt	3,963	0.00	3,963.00	100.00%	
Rawlins	1,269	199.07	1,069.93	84.31%	*
Reno	25,498	0.00	25,498.00	100.00%	
Republic	2,557	20.48	2,536.52	99.20%	*
Rice	4,050	0.00	4,050.00	100.00%	
Riley	22,137	2.04	22,134.96	99.99%	
Rooks	2,362	36.94	2,325.06	98.44%	*
Rush	1,548	0.00	1,548.00	100.00%	
Russell	3,207	1.00	3,206.00	99.97%	
Saline	21,436	0.00	21,436.00	100.00%	
Scott	2,045	0.25	2,044.75	99.99%	
Sedgwick	176,444	0.00	176,444.00	100.00%	
Seward	7,419	0.18	7,418.82	100.00%	
Shawnee	68,920	0.00	68,920.00	100.00%	
Sheridan	1,124	51.94	1,072.06	95.38%	*
Sherman	2,758	3.87	2,754.13	99.86%	
Smith	1,953	173.23	1,779.77	91.13%	*
Stafford	2,010	0.00	2,010.00	100.00%	
Stanton	858	0.00	858.00	100.00%	
Stevens	1,988	0.00	1,988.00	100.00%	
Sumner	9,888	0.19	9,887.81	100.00%	
Thomas	3,226	0.02	3,225.98	100.00%	
Trego	1,412	0.00	1,412.00	100.00%	
Wabaunsee	2,633	11.25	2,621.75	99.57%	*
Wallace	674	90.14	583.86	86.63%	*
Washington	2,673	2.02	2,670.98	99.92%	
Wichita	967	0.37	966.63	99.96%	
Wilson	4,203	0.09	4,202.91	100.00%	
Woodson	1,642	4.28	1,637.72	99.74%	
Wyandotte	<u>59,700</u>	<u>0.00</u>	<u>59,700.00</u>	100.00%	
Totals >	1,037,891	2,864.44	1,035,026.56	99.72%	

Notes: \* County rate is less than state-wide average.

1 Includes all technologies except Satellite.

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment C  
Report to the Legislature  
January, 2011

County	Total	----- @ 768Kbps Down, 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Allen	5,775	234.94	5,540.06	95.93%	*
Anderson	3,221	224.56	2,996.44	93.03%	*
Atchison	6,275	209.55	6,065.45	96.66%	*
Barber	2,235	97.79	2,137.21	95.62%	*
Barton	11,393	278.90	11,114.10	97.55%	
Bourbon	6,161	428.87	5,732.13	93.04%	*
Brown	4,318	180.24	4,137.76	95.83%	*
Butler	21,527	1,618.49	19,908.51	92.48%	*
Chase	1,246	352.05	893.95	71.75%	*
Chautauqua	1,796	599.79	1,196.21	66.60%	*
Cherokee	8,875	292.20	8,582.80	96.71%	*
Cheyenne	1,360	219.70	1,140.30	83.85%	*
Clark	979	9.93	969.07	98.99%	
Clay	3,617	40.86	3,576.14	98.87%	
Cloud	4,163	108.59	4,054.41	97.39%	
Coffey	3,489	364.91	3,124.09	89.54%	*
Comanche	872	18.27	853.73	97.90%	
Cowley	14,039	291.22	13,747.78	97.93%	
Crawford	15,504	69.81	15,434.19	99.55%	
Decatur	1,494	307.86	1,186.14	79.39%	*
Dickinson	7,903	118.53	7,784.47	98.50%	
Doniphan	3,173	336.93	2,836.07	89.38%	*
Douglas	38,486	371.41	38,114.59	99.03%	
Edwards	1,455	53.04	1,401.96	96.35%	*
Elk	1,412	260.35	1,151.65	81.56%	*
Ellis	11,193	92.93	11,100.07	99.17%	
Ellsworth	2,481	219.14	2,261.86	91.17%	*
Finney	12,948	56.09	12,891.91	99.57%	
Ford	10,852	7.96	10,844.04	99.93%	
Franklin	9,452	1,258.16	8,193.84	86.69%	*
Geary	10,458	161.70	10,296.30	98.45%	
Gove	1,245	128.61	1,116.39	89.67%	*
Graham	1,263	497.92	765.08	60.58%	*
Grant	2,742	0.81	2,741.19	99.97%	
Gray	2,045	0.54	2,044.46	99.97%	
Greeley	602	40.50	561.50	93.27%	*
Greenwood	3,234	857.78	2,376.22	73.48%	*

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment C  
Report to the Legislature  
January, 2011

County	Total	----- @ 768Kbps Down, 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Hamilton	1,054	0.08	1,053.92	99.99%	
Harper	2,773	10.81	2,762.19	99.61%	
Harvey	12,581	24.49	12,556.51	99.81%	
Haskell	1,481	4.63	1,476.37	99.69%	
Hodgeman	796	17.78	778.22	97.77%	
Jackson	4,727	298.82	4,428.18	93.68%	*
Jefferson	6,830	626.82	6,203.18	90.82%	*
Jewell	1,695	106.88	1,588.12	93.69%	*
Johnson	174,570	395.37	174,174.63	99.77%	
Kearny	1,542	1.92	1,540.08	99.88%	
Kingman	3,371	101.88	3,269.12	96.98%	*
Kiowa	1,365	42.59	1,322.41	96.88%	*
Labette	9,194	209.80	8,984.20	97.72%	
Lane	910	7.86	902.14	99.14%	
Leavenworth	23,071	2,347.31	20,723.69	89.83%	*
Lincoln	1,529	64.07	1,464.93	95.81%	*
Linn	3,807	596.63	3,210.37	84.33%	*
Logan	1,243	38.79	1,204.21	96.88%	*
Lyon	13,691	1,074.88	12,616.12	92.15%	*
McPherson	11,205	67.47	11,137.53	99.40%	
Marion	5,114	94.05	5,019.95	98.16%	
Marshall	4,458	89.52	4,368.48	97.99%	
Meade	1,728	77.30	1,650.70	95.53%	*
Miami	10,365	1,142.83	9,222.17	88.97%	*
Mitchell	2,850	75.15	2,774.85	97.36%	
Montgomery	14,903	865.95	14,037.05	94.19%	*
Morris	2,539	41.79	2,497.21	98.35%	
Morton	1,306	1.70	1,304.30	99.87%	
Nemaha	3,959	237.95	3,721.05	93.99%	*
Neosho	6,739	362.59	6,376.41	94.62%	*
Ness	1,516	0.00	1,516.00	100.00%	
Norton	2,266	559.49	1,706.51	75.31%	*
Osage	6,490	610.67	5,879.33	90.59%	*
Osborne	1,940	5.48	1,934.52	99.72%	
Ottawa	2,430	33.71	2,396.29	98.61%	
Pawnee	2,739	27.71	2,711.29	98.99%	
Phillips	2,496	615.00	1,881.00	75.36%	*

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment C  
Report to the Legislature  
January, 2011

County	Total	----- @ 768Kbps Down, 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Pottawatomie	6,771	224.26	6,546.74	96.69%	*
Pratt	3,963	322.70	3,640.30	91.86%	*
Rawlins	1,269	309.27	959.73	75.63%	*
Reno	25,498	229.96	25,268.04	99.10%	
Republic	2,557	73.71	2,483.29	97.12%	*
Rice	4,050	118.54	3,931.46	97.07%	*
Riley	22,137	866.74	21,270.26	96.08%	*
Rooks	2,362	526.65	1,835.35	77.70%	*
Rush	1,548	21.11	1,526.89	98.64%	
Russell	3,207	1.09	3,205.91	99.97%	
Saline	21,436	44.12	21,391.88	99.79%	
Scott	2,045	18.58	2,026.42	99.09%	
Sedgwick	176,444	1,053.47	175,390.53	99.40%	
Seward	7,419	763.66	6,655.34	89.71%	*
Shawnee	68,920	761.37	68,158.63	98.90%	
Sheridan	1,124	240.61	883.39	78.59%	*
Sherman	2,758	74.63	2,683.37	97.29%	
Smith	1,953	224.27	1,728.73	88.52%	*
Stafford	2,010	480.29	1,529.71	76.10%	*
Stanton	858	0.00	858.00	100.00%	
Stevens	1,988	38.83	1,949.17	98.05%	
Sumner	9,888	20.17	9,867.83	99.80%	
Thomas	3,226	71.65	3,154.35	97.78%	
Trego	1,412	108.06	1,303.94	92.35%	*
Wabaunsee	2,633	333.12	2,299.88	87.35%	*
Wallace	674	126.79	547.21	81.19%	*
Washington	2,673	11.48	2,661.52	99.57%	
Wichita	967	72.14	894.86	92.54%	*
Wilson	4,203	359.65	3,843.35	91.44%	*
Woodson	1,642	225.38	1,416.62	86.27%	*
Wyandotte	<u>59,700</u>	<u>510.96</u>	<u>59,189.04</u>	99.14%	
Totals >	1,037,891	29,523.96	1,008,367.04	97.16%	

Notes: \* County rate is less than state-wide average.

1 Includes all technologies except Satellite and Wireless Mobile.

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment D  
Report to the Legislature  
January, 2011

County	Total	----- @ 3-6Mbps Down, at least 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Allen	5,775	7.18	5,767.82	99.88%	
Anderson	3,221	2.82	3,218.18	99.91%	
Atchison	6,275	100.59	6,174.41	98.40%	*
Barber	2,235	22.20	2,212.80	99.01%	*
Barton	11,393	0.00	11,393.00	100.00%	
Bourbon	6,161	67.01	6,093.99	98.91%	*
Brown	4,318	0.50	4,317.50	99.99%	
Butler	21,527	0.00	21,527.00	100.00%	
Chase	1,246	0.40	1,245.60	99.97%	
Chautauqua	1,796	603.66	1,192.34	66.39%	*
Cherokee	8,875	716.88	8,158.12	91.92%	*
Cheyenne	1,360	510.18	849.82	62.49%	*
Clark	979	1.70	977.30	99.83%	
Clay	3,617	0.00	3,617.00	100.00%	
Cloud	4,163	0.00	4,163.00	100.00%	
Coffey	3,489	0.64	3,488.36	99.98%	
Comanche	872	2.35	869.65	99.73%	
Cowley	14,039	37.46	14,001.54	99.73%	
Crawford	15,504	229.78	15,274.22	98.52%	*
Decatur	1,494	206.85	1,287.15	86.15%	*
Dickinson	7,903	0.00	7,903.00	100.00%	
Doniphan	3,173	131.19	3,041.81	95.87%	*
Douglas	38,486	16.47	38,469.53	99.96%	
Edwards	1,455	0.00	1,455.00	100.00%	
Elk	1,412	211.32	1,200.68	85.03%	*
Ellis	11,193	1.47	11,191.53	99.99%	
Ellsworth	2,481	0.00	2,481.00	100.00%	
Finney	12,948	3.96	12,944.04	99.97%	
Ford	10,852	0.00	10,852.00	100.00%	
Franklin	9,452	2.53	9,449.47	99.97%	
Geary	10,458	0.64	10,457.36	99.99%	
Gove	1,245	0.00	1,245.00	100.00%	
Graham	1,263	289.97	973.03	77.04%	*
Grant	2,742	0.00	2,742.00	100.00%	
Gray	2,045	0.00	2,045.00	100.00%	
Greeley	602	68.96	533.04	88.54%	*
Greenwood	3,234	46.77	3,187.23	98.55%	*

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment D  
Report to the Legislature  
January, 2011

<u>County</u>	<u>Total Households (HH)</u>	----- @ 3-6Mbps Down, at least 200Kbps Up -----			
		<u>Unserved HHs</u>	<u>Served HHs</u>	<u>% HH Served</u>	
Hamilton	1,054	0.08	1,053.92	99.99%	
Harper	2,773	9.31	2,763.69	99.66%	
Harvey	12,581	0.00	12,581.00	100.00%	
Haskell	1,481	0.18	1,480.82	99.99%	
Hodgeman	796	1.14	794.86	99.86%	
Jackson	4,727	13.54	4,713.46	99.71%	
Jefferson	6,830	3.45	6,826.55	99.95%	
Jewell	1,695	103.60	1,591.40	93.89%	*
Johnson	174,570	7.39	174,562.61	100.00%	
Kearny	1,542	0.55	1,541.45	99.96%	
Kingman	3,371	71.49	3,299.51	97.88%	*
Kiowa	1,365	0.00	1,365.00	100.00%	
Labette	9,194	39.39	9,154.61	99.57%	
Lane	910	2.78	907.22	99.69%	
Leavenworth	23,071	759.45	22,311.55	96.71%	*
Lincoln	1,529	2.04	1,526.96	99.87%	
Linn	3,807	3.01	3,803.99	99.92%	
Logan	1,243	4.54	1,238.46	99.63%	
Lyon	13,691	0.87	13,690.13	99.99%	
McPherson	11,205	0.00	11,205.00	100.00%	
Marion	5,114	0.00	5,114.00	100.00%	
Marshall	4,458	32.36	4,425.64	99.27%	*
Meade	1,728	5.23	1,722.77	99.70%	
Miami	10,365	0.51	10,364.49	100.00%	
Mitchell	2,850	4.07	2,845.93	99.86%	
Montgomery	14,903	18.35	14,884.65	99.88%	
Morris	2,539	0.00	2,539.00	100.00%	
Morton	1,306	1.34	1,304.66	99.90%	
Nemaha	3,959	25.33	3,933.67	99.36%	*
Neosho	6,739	0.26	6,738.74	100.00%	
Ness	1,516	0.00	1,516.00	100.00%	
Norton	2,266	477.62	1,788.38	78.92%	*
Osage	6,490	0.00	6,490.00	100.00%	
Osborne	1,940	0.26	1,939.74	99.99%	
Ottawa	2,430	0.55	2,429.45	99.98%	
Pawnee	2,739	0.00	2,739.00	100.00%	
Phillips	2,496	11.65	2,484.35	99.53%	



# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment D  
Report to the Legislature  
January, 2011

County	Total	----- @ 3-6Mbps Down, at least 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Pottawatomie	6,771	35.75	6,735.25	99.47%	
Pratt	3,963	0.00	3,963.00	100.00%	
Rawlins	1,269	199.09	1,069.91	84.31%	*
Reno	25,498	0.00	25,498.00	100.00%	
Republic	2,557	301.54	2,255.46	88.21%	*
Rice	4,050	0.00	4,050.00	100.00%	
Riley	22,137	2.94	22,134.06	99.99%	
Rooks	2,362	37.09	2,324.91	98.43%	*
Rush	1,548	0.00	1,548.00	100.00%	
Russell	3,207	1.00	3,206.00	99.97%	
Saline	21,436	0.00	21,436.00	100.00%	
Scott	2,045	2.23	2,042.77	99.89%	
Sedgwick	176,444	0.00	176,444.00	100.00%	
Seward	7,419	1.56	7,417.44	99.98%	
Shawnee	68,920	0.00	68,920.00	100.00%	
Sheridan	1,124	51.94	1,072.06	95.38%	*
Sherman	2,758	3.88	2,754.12	99.86%	
Smith	1,953	173.23	1,779.77	91.13%	*
Stafford	2,010	0.00	2,010.00	100.00%	
Stanton	858	0.00	858.00	100.00%	
Stevens	1,988	0.56	1,987.44	99.97%	
Sumner	9,888	0.42	9,887.58	100.00%	
Thomas	3,226	0.03	3,225.97	100.00%	
Trego	1,412	0.00	1,412.00	100.00%	
Wabaunsee	2,633	13.19	2,619.81	99.50%	
Wallace	674	141.29	532.71	79.04%	*
Washington	2,673	215.67	2,457.33	91.93%	*
Wichita	967	4.16	962.84	99.57%	
Wilson	4,203	0.96	4,202.04	99.98%	
Woodson	1,642	5.07	1,636.93	99.69%	
Wyandotte	<u>59,700</u>	<u>0.00</u>	<u>59,700.00</u>	100.00%	
Totals >	1,037,891	6,075.42	1,031,815.58	99.41%	

Notes: \* County rate is less than state-wide average.

1 Includes all technologies except Satellite.

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment E  
Report to the Legislature  
January, 2011

County	Total	----- @ 3-6Mbps Down, at least 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Allen	5,775	999.12	4,775.88	82.70%	*
Anderson	3,221	879.24	2,341.76	72.70%	*
Atchison	6,275	365.19	5,909.81	94.18%	
Barber	2,235	192.83	2,042.17	91.37%	*
Barton	11,393	310.71	11,082.29	97.27%	
Bourbon	6,161	1,965.68	4,195.32	68.09%	*
Brown	4,318	968.60	3,349.40	77.57%	*
Butler	21,527	4,101.23	17,425.77	80.95%	*
Chase	1,246	542.73	703.27	56.44%	*
Chautauqua	1,796	635.59	1,160.41	64.61%	*
Cherokee	8,875	2,324.60	6,550.40	73.81%	*
Cheyenne	1,360	597.65	762.35	56.06%	*
Clark	979	97.48	881.52	90.04%	*
Clay	3,617	303.31	3,313.69	91.61%	*
Cloud	4,163	253.78	3,909.22	93.90%	
Coffey	3,489	771.17	2,717.83	77.90%	*
Comanche	872	167.94	704.06	80.74%	*
Cowley	14,039	1,006.01	13,032.99	92.83%	
Crawford	15,504	2,299.53	13,204.47	85.17%	*
Decatur	1,494	308.18	1,185.82	79.37%	*
Dickinson	7,903	424.47	7,478.53	94.63%	
Doniphan	3,173	593.00	2,580.00	81.31%	*
Douglas	38,486	805.52	37,680.48	97.91%	
Edwards	1,455	322.79	1,132.21	77.82%	*
Elk	1,412	279.94	1,132.06	80.17%	*
Ellis	11,193	285.02	10,907.98	97.45%	
Ellsworth	2,481	386.75	2,094.25	84.41%	*
Finney	12,948	521.52	12,426.48	95.97%	
Ford	10,852	703.36	10,148.64	93.52%	
Franklin	9,452	1,817.39	7,634.61	80.77%	*
Geary	10,458	209.17	10,248.83	98.00%	
Gove	1,245	163.36	1,081.64	86.88%	*
Graham	1,263	500.26	762.74	60.39%	*
Grant	2,742	3.59	2,738.41	99.87%	
Gray	2,045	9.53	2,035.47	99.53%	
Greeley	602	87.67	514.33	85.44%	*
Greenwood	3,234	1,042.46	2,191.54	67.77%	*

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment E  
Report to the Legislature  
January, 2011

County	Total	----- @ 3-6Mbps Down, at least 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Hamilton	1,054	0.08	1,053.92	99.99%	
Harper	2,773	42.67	2,730.33	98.46%	
Harvey	12,581	534.29	12,046.71	95.75%	
Haskell	1,481	120.87	1,360.13	91.84%	*
Hodgeman	796	188.15	607.85	76.36%	*
Jackson	4,727	1,296.39	3,430.61	72.57%	*
Jefferson	6,830	1,339.87	5,490.13	80.38%	*
Jewell	1,695	178.80	1,516.20	89.45%	*
Johnson	174,570	900.40	173,669.60	99.48%	
Kearny	1,542	16.05	1,525.95	98.96%	
Kingman	3,371	281.56	3,089.44	91.65%	*
Kiowa	1,365	65.94	1,299.06	95.17%	
Labette	9,194	2,044.47	7,149.53	77.76%	*
Lane	910	8.89	901.11	99.02%	
Leavenworth	23,071	2,803.95	20,267.05	87.85%	*
Lincoln	1,529	95.12	1,433.88	93.78%	
Linn	3,807	2,907.86	899.14	23.62%	*
Logan	1,243	143.54	1,099.46	88.45%	*
Lyon	13,691	2,401.39	11,289.61	82.46%	*
McPherson	11,205	1,513.08	9,691.92	86.50%	*
Marion	5,114	1,597.62	3,516.38	68.76%	*
Marshall	4,458	1,308.15	3,149.85	70.66%	*
Meade	1,728	366.05	1,361.95	78.82%	*
Miami	10,365	2,062.53	8,302.47	80.10%	*
Mitchell	2,850	77.52	2,772.48	97.28%	
Montgomery	14,903	1,977.06	12,925.94	86.73%	*
Morris	2,539	70.86	2,468.14	97.21%	
Morton	1,306	1.71	1,304.29	99.87%	
Nemaha	3,959	1,618.73	2,340.27	59.11%	*
Neosho	6,739	1,869.14	4,869.86	72.26%	*
Ness	1,516	0.00	1,516.00	100.00%	
Norton	2,266	559.51	1,706.49	75.31%	*
Osage	6,490	669.38	5,820.62	89.69%	*
Osborne	1,940	5.48	1,934.52	99.72%	
Ottawa	2,430	60.39	2,369.61	97.51%	
Pawnee	2,739	429.55	2,309.45	84.32%	*
Phillips	2,496	615.05	1,880.95	75.36%	*

# Summary of Broadband Availability<sup>1</sup>

## By County

a/o October 1, 2010

Attachment E

Report to the Legislature

January, 2011

County	Total	----- @ 3-6Mbps Down, at least 200Kbps Up -----			
	Households (HH)	Unserved HHs	Served HHs	% HH Served	
Pottawatomie	6,771	540.91	6,230.09	92.01%	*
Pratt	3,963	415.02	3,547.98	89.53%	*
Rawlins	1,269	310.43	958.57	75.54%	*
Reno	25,498	527.24	24,970.76	97.93%	
Republic	2,557	514.33	2,042.67	79.89%	*
Rice	4,050	443.18	3,606.82	89.06%	*
Riley	22,137	958.52	21,178.48	95.67%	
Rooks	2,362	623.27	1,738.73	73.61%	*
Rush	1,548	44.94	1,503.06	97.10%	
Russell	3,207	1.09	3,205.91	99.97%	
Saline	21,436	181.64	21,254.36	99.15%	
Scott	2,045	87.63	1,957.37	95.71%	
Sedgwick	176,444	5,010.68	171,433.32	97.16%	
Seward	7,419	826.83	6,592.17	88.86%	*
Shawnee	68,920	1,036.70	67,883.30	98.50%	
Sheridan	1,124	245.20	878.80	78.19%	*
Sherman	2,758	320.67	2,437.33	88.37%	*
Smith	1,953	225.31	1,727.69	88.46%	*
Stafford	2,010	644.62	1,365.38	67.93%	*
Stanton	858	0.00	858.00	100.00%	
Stevens	1,988	38.86	1,949.14	98.05%	
Sumner	9,888	69.17	9,818.83	99.30%	
Thomas	3,226	382.33	2,843.67	88.15%	*
Trego	1,412	109.93	1,302.07	92.21%	*
Wabaunsee	2,633	533.86	2,099.14	79.72%	*
Wallace	674	195.15	478.85	71.05%	*
Washington	2,673	1,580.13	1,092.87	40.89%	*
Wichita	967	215.69	751.31	77.69%	*
Wilson	4,203	839.71	3,363.29	80.02%	*
Woodson	1,642	461.19	1,180.81	71.91%	*
Wyandotte	<u>59,700</u>	<u>598.17</u>	<u>59,101.83</u>	99.00%	
Totals >	1,037,891	75,400.87	962,490.13	92.74%	

Notes: \* County rate is less than state-wide average.

1 Includes all technologies except Satellite and Mobile Wireless.