

Kansas Statewide Broadband Initiative

Interim Committee Hearing

Wednesday, November 14, 2012

The Kansas Department of Commerce, Kansas Statewide Broadband Initiative
and
Data Access & Support Center, Kansas Geological Survey
Stanley Adams



Data Access & Support Center (DASC) Overview

Kansas Statewide Broadband Initiative

- Established by the GIS Policy Board in 1991
- Central repository of GIS databases of statewide/regional importance
- State and local government coordination
- GIS database development and integration
- Located at the Kansas Geological Survey at the University of Kansas
- Development and maintenance of the Kansas GIS portal
- Web site – <http://www.kansasgis.org>



NTIA State Broadband Initiative - Outline

Kansas Statewide Broadband Initiative

- Overview of National Telecommunications and Information Administration data submission requirements
- What information is collected from the broadband provider industry?
- How is the information collected, assembled, and submitted to NTIA?
- What information is released to the public? What information is not released to the public?
- Provider web tools & public web map
- Suitable uses of the broadband map



Broadband Service Provider Data Collection

Kansas Statewide Broadband Initiative

- DASC Partnered with KDOC in January, 2012 to support KSBI in the NTIA Broadband Data Collection and Mapping project
- April 1, 2012 and October 1, 2012 data collection and outreach cycles are complete
- NTIA site visit in May 2012 – mapping effort given very positive review
- Semi-annual data collection timeline:
 - Spring
 - Data collection begins January 1
 - data current to December 31
 - State map delivered to NTIA April 1
 - National Map released mid-July
 - Fall
 - Data collection begins July 1
 - data current to June 30
 - State map delivered to NTIA October 1
 - National Map released mid-January

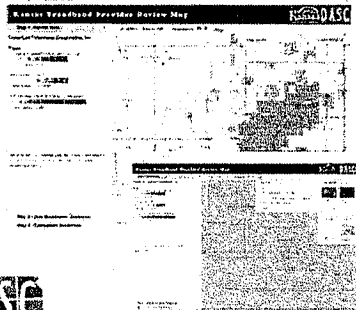


Kansas Broadband Provider Outreach

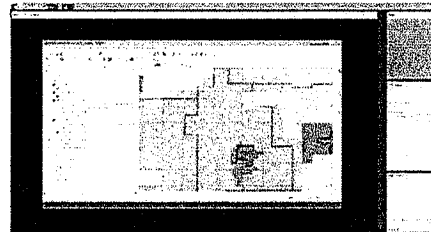
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- Kansas Broadband providers are participating in this voluntary data collection effort
- The KSBI team provides multiple opportunities to engage:
 - Data collection webinars
 - Provider roundtable discussions
 - Provider web portal
 - Interactive data review web meetings with individual service providers

Provider Portal



Web Meeting



Overview of NTIA Requirements

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Data Collected

- Wireline service area (Cable, DSL, and FTTH)
 - NOT current customer service area
 - Can provide service in 7-10 business days "without extraordinary commitment of resources"
- Wireless service area (fixed, mobile, and satellite)
- Community Anchor Institutions
 - Schools
 - Libraries
 - Hospitals
 - Etc
- Middle- and Last-mile infrastructure (optional)



Overview of NTIA Requirements

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Which data are publicly-available?

- Wireline service area
- Wireless service area
- Community Anchor Institutions

Which data are NOT publicly-available?

- Middle- and Last-mile infrastructure
- Raw data products submitted to DASC by Kansas Broadband Providers that are covered by Non-Disclosure Agreements



Overview of NTIA Requirements

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Wireline Attributes

- Provider and DBA name
- FCC Registration Number (FRN)
- Transmission technology
 - Asymmetric DSL
 - Symmetric DSL
 - Other Copper Wireline
 - Cable Modem - DOCSIS 3.0
 - Cable Modem - Other
 - Optical Carrier/Fiber to the End User (Fiber To The Home)
- Max advertised download/upload speeds
- Typical download/upload speeds



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Overview of NTIA Requirements

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Speed Tiers per NTIA Database Standard:

1. Less than or equal to 200 Kbps.
2. Greater than 200 Kbps and less than 768 Kbps.
3. **Greater than or equal to 768 Kbps and less than 1.5 Mbps.***
4. Greater than or equal to 1.5 Mbps and less than 3 Mbps.
5. **Greater than or equal to 3 Mbps and less than 6 Mbps****
6. Greater than or equal to 6 Mbps and less than 10 Mbps.
7. Greater than or equal to 10 Mbps and less than 25 Mbps.
8. Greater than or equal to 25 Mbps and less than 50 Mbps.
9. Greater than or equal to 50 Mbps and less than 100 Mbps.
10. Greater than or equal to 100 Mbps and less than 1 Gbps.
11. Greater than or equal to 1 Gbps.

* NTIA minimum definition of broadband – 768 Kbps download, 200 Kbps upload

** FCC National Broadband Plan found national median speed to be 4 Mbps download, 1 Mbps upload



Overview of NTIA Requirements

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Wireless Attributes

- Same as wireline plus...
- Spectrum
- Transmission technology
 - Satellite
 - Terrestrial Fixed Wireless – Unlicensed
 - Terrestrial Fixed Wireless – Licensed
 - Terrestrial Mobile Wireless



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Overview of NTIA Requirements

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Middle- and Last-mile Attributes

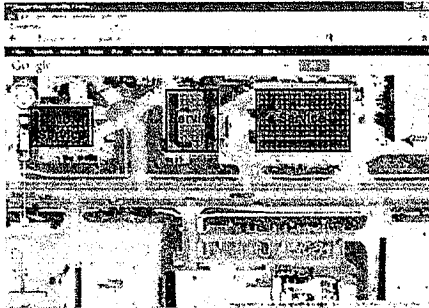
- Provider name
- DBA Name
- FCC Registration Number (FRN)
- Geographic coordinates (latitude/longitude)
- Elevation
- Capacity
- Transmission technology
- Number served (last-mile only)
- **Again, this is not required and is not released to the public**



The State Broadband Map is *not* based on...

High-Resolution Aerial Photography

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Or Google StreetView

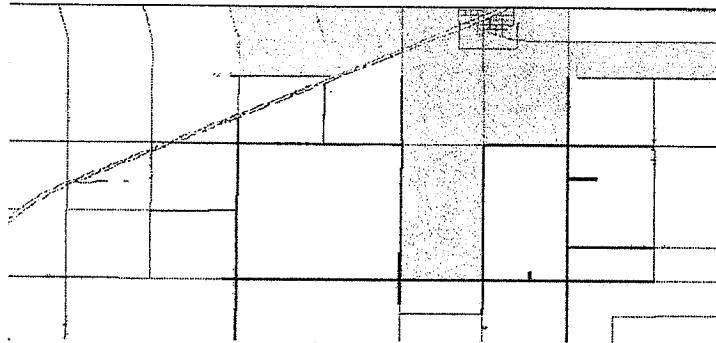


Overview of NTIA Requirements

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Wireline Data Structure

- NTIA standard
- By census block where block area < 2 sq. miles*
- By road segment where block area > 2 sq. miles
- Consistent, nationwide demographic analyses using Census data
- Generalized service area



* 98% of the population in Kansas lives in a census block that is less than 2 square miles in area

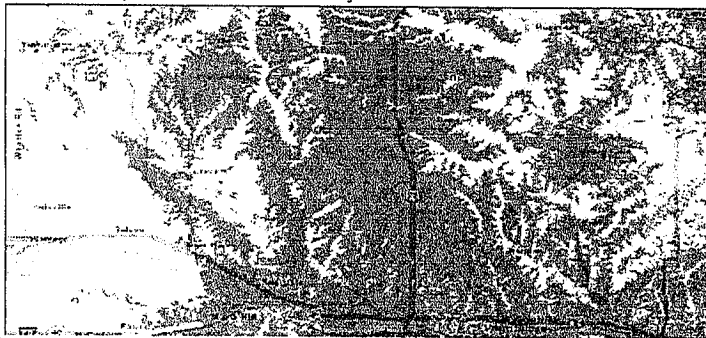


Overview of NTIA Requirements

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Fixed Wireless Data Structure

- Service area potential produced by provider, or modeled using RF propagation software
 - Requires detailed tower/antenna specs
 - e.g., location, elevation, frequency, power, sectorization, gain, etc.
- Results merged into unique spectrum/speed combinations
- Tower XY location NOT submitted to NTIA
- Site-specific conditions will vary

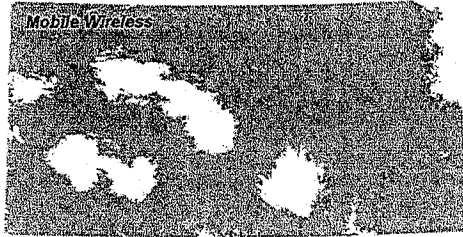


Overview of NTIA Requirements

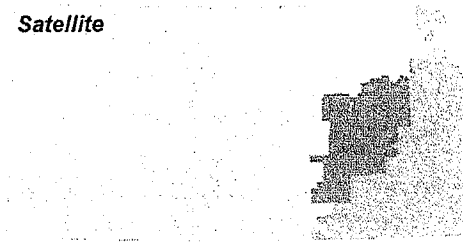
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Mobile & Satellite Wireless Data Structure

- Service area polygon submitted by provider

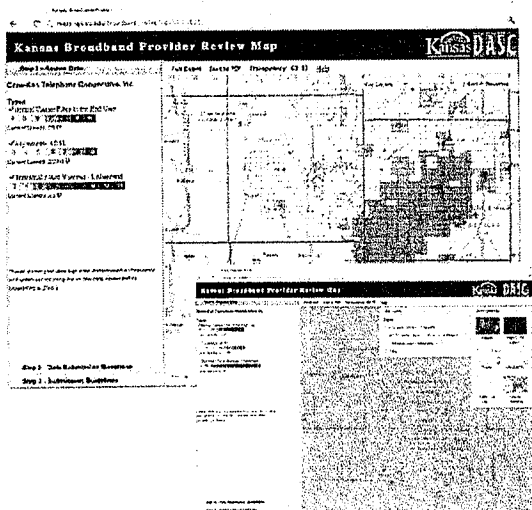


Satellite



Provider Portal – Streamlined Process

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- Custom developed by DASC
- Provides a quick and easy way to review previous data submission
- Unique URL emailed to each provider
- Data submission survey including provider contact info, DBA, FRN, update status, etc
- Map rendered by technology type and speed
- Data submission guidelines



State Broadband Map Web Site

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Kansas Broadband Access Map - Access Center

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Map by Address
 Map by Speed
 Map by Technology
 Map by Provider

Full Fiber All Availability Service Provider Transparency ID U Top 1000 Service Providers Academy

- Beta v1.0
- Displays the latest-approved NTIA public release of the data
- Provides simplified views of the data by speed tier, technology type, provider extent
- Map overlay tool – county, state house, state senate, rural opportunity zone
- Print maps
- Coming Soon
 - Demographic profiles
 - Community Anchor Institutions
 - User Feedback

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Department of Labor

Suitable Uses of the Broadband Map

Kansas Statewide Broadband Initiative

- Strategic planning and needs assessment
- Broadband service potential, not actual
 - No information on demand (e.g., subscription take rates, pricing, etc.)
 - Not site-specific – conditions may vary
- Voluntary program
- Gap analysis
 - Number of providers in an area
 - Served/under-served areas
- Trends
 - Evolution of transmission technology
 - Max. Advertised Download/Upload speed
 - Progress of taxpayer investments
- Giant step forward

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