
1.0 Nebraska Broadband Mapping White Paper

The deliverable for fall 2010 submission to NTIA is uploaded to the ftp location. This deliverable is per the SBDD geodatabase template provided. The data includes the following information:

1.1 Additional Data Sources

Nebraska has developed or obtained the following additional data sources of broadband availability to use in verifying the data submitted by Internet Service Providers (ISP).

Field Surveys – 1,509 field surveys were conducted by 22 interviewers in 350 Nebraska census blocks selected to provide a statistically accurate representation of broadband availability in Nebraska. Twenty-five interviewers, selected from a pool of Nebraska citizens with interviewing experience, conducted face-to-face interviews with consumers in each of their assigned census blocks. The data collected during each interview included if the consumer had broadband service, who the provider was, and other household economic and demographic data.

Mail Surveys – 3,000 mail surveys were sent to Nebraska residences asking consumers to provide information similar to the census block survey. Over 950 completed surveys were returned.

Telephone Surveys – 311 successful telephone surveys were conducted to obtain additional information similar to the census block survey.

Drive Test – To obtain data to validate mobile wireless provider data, software was developed and hardware configured to enable the automated collection of mobile wireless broadband availability by the three major providers. Two separate drive routes totaling more than 3,000 miles were developed to cover the major portions of Nebraska and collect availability of mobile wireless broadband.

Cable Franchise Boundary – Cable franchise boundary data was purchased from ESRI Media Prints to use in the validation of data provided by cable providers.

Wireless Propagation – For the wireless providers that provided the necessary data (tower location, transmitter elevation, type of transmission equipment, antenna configuration, etc) a propagation map was developed to compare with the service overview information provided by the wireless provider. Some providers only provided shape files of their broadband coverage and did not provide sufficient information to validate their data.

Speed Test – Nebraska initially procured and put in place a publically accessible speed test to collect data from consumers. However, even with changes to the configuration of the testing product, location of the server, and paths to the server, reliable and repeatable data could not be obtained. The decision was made to use data from the FCC's online speed test if it is made available to the states.



1.2 Validation

The validation process compares the various data sources identified above with the data submitted by the providers. This is an ongoing process. Considerable effort has been made to individually engage each provider in a dialogue with regard to their data submittal and the importance of accurate information.

1.3 Verification

When verifying data for the initial round of data submittal each ISP was provided with a pdf file depicting the results of their data submittal in a graphical information system format (maps). In general this method was adequate for some providers but it did not allow sufficient resolution for providers of high density coverage areas because they were not able to drill down and examine data at a more granular level. However, some wireline/cable providers were able to identify areas in which the availability of broadband service appeared to be understated. Further discussions with the providers and investigations identified some problem areas in the geocoding process. The identification of these problems enabled corrective action to be taken and will provide more accurate geocoding in future submittals.

In preparation for the second round of data submission selected providers were given ESRI project files produced from their submitted data. Using the ESRI ArcReader product providers could then drill down to the individual record level to verify the accurate representation of their data.

Beginning with the third round of data submission all providers have been provided with ESRI project files to be used in the verification of their submitted data. After a review and confirmation by the provider, their data submittal is considered to be verified.

ESRI project files and ESRI ArcReader will be the primary verification tool going forward.

The table below documents the progress in obtaining and verifying data.

Providers Identified	Providers Contacted	Agreements Reached for Data Sharing	Partial Data Sets Received	Complete Data Sets	Data Sets Verified
128	124	81	16	50	47

