

North Dakota Broadband Data Changes and Corrections Report
June 30, 2011 Data (Fall 2011 Update)
9/23/2011

DATA PROCESSING NOTES

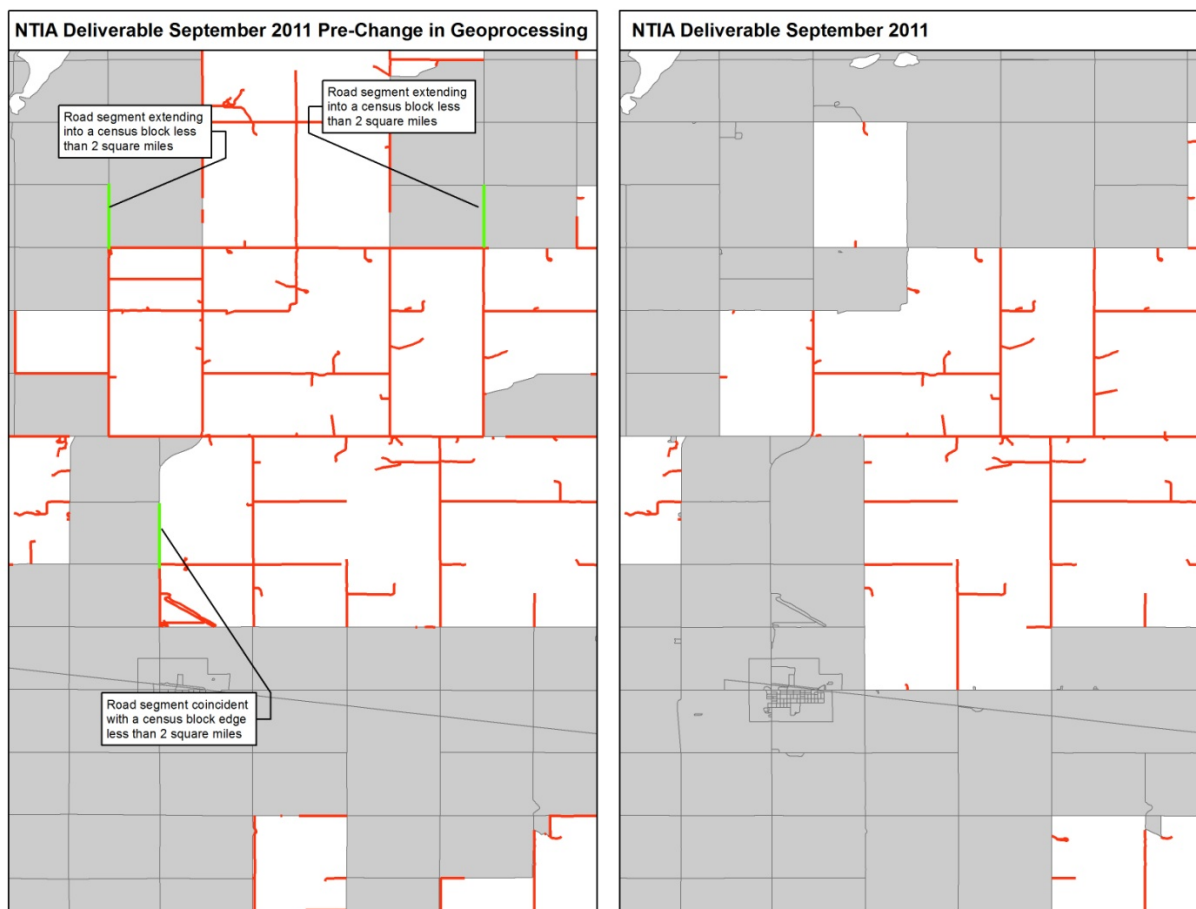
2000 to 2010 Census Block Conversion

The September 2011 deliverable to NTIA required the transition from 2000 census data to 2010 census data. The conversion process was dependent upon the type of data submitted by a provider - block providers or coverage providers. Block providers submit their data by census block, coverage providers submit data by defining their service area geographically in GIS, CAD, or map format.

The conversion to 2010 census geography was a straightforward process for the coverage providers; the reference to the census block data in the geoprocessing model used to select census blocks and road segments was simply changed from the 2000 data to the 2010 data and each provider's data was re-run. The conversion from 2000 census to 2010 census data for block providers required several geoprocessing steps due to the inability to simply match census block IDs from 2000 to 2010 vintages. The census blocks for each provider were dissolved by type of technology to form a quasi-coverage area. The dissolved blocks were then used to select any 2010 census block whose centroid fell within the "coverage area."

Road Segment Geoprocessing Change

In previous submissions to NTIA, road segment in census blocks greater than 2 square miles were selected with a straight intersect. This resulted in road segments being selected that were coincident with census block edges in blocks less than or equal to 2 square miles. Using this same geoprocessing methodology combined with the new 2010 census blocks and TIGER roads, road segments were selected that were coincident with census block edges and that extended into census block less than or equal to 2 square mile. We believe this "error" occurred due to the improvements in the spatial accuracy of both the 2010 census blocks and road segments (green lines in the image below are examples of this issue) for 2010 where features were now coincident. For the September 2011 submittal a small negative buffer (-0.5 feet) was applied to the intersect to avoid selecting roads that were coincident with census block edges and/or those that extended into census blocks less than 2 square miles. This resulted in a significant decrease in the number of road segments reported but overall we believe this method more accurately portrays each provider's coverage area.



SBDD Request on Speed Frequency

In our data review of last NTIA submission with Andrew MacRae on July 19, 2011, he requested that we contact all providers reporting DSL speed tier codes of 7 or greater and request clarification on how they were able to meet those speed tiers. We subsequently sent out emails to four providers, to verify if their reported speeds were accurate and if so provide documentation (Midstate Telephone Company, Polar Communications Mutual Aid Corporation & Polar Telcom, Inc., SRT Communications, Inc., West River Telecommunications Cooperative.) Most of the providers reported speed tier 7, one (SRT) reported speed tier 8. We received email from two of the providers we emailed who responded with explanation they were using DSL2+ technology, and provided detailed documentation, including speed tests to verify that their speeds were correctly in the speed tier 7 (10-25 mbps) range. Further research showed that they were correct, the ADSL 2+ appears to have been introduced in 2007 and is standard technology, and speeds are commonly in the speed tier 7 and potentially in speed tier 8. In examining the spreadsheet that Andrew sent summarizing all nationwide speed tiers, our analysis shows 36% of the responses from providers nationwide were speed tier 7. This represents the largest response percentage of any speed tier for ADSL, and does not appear in retrospect to be an anomaly that should have been pursued. The SRT speed tests did indicate that their coverage was in speed tier 7, so they were recoded from speed tier 8 to speed tier 7.

SBDD Request on Provider Research

In our data review for the last NTIA submission with Andrew MacRae on July 19, 2011, he requested that we add to Data Package Provider Table all providers in the state that we researched, but that did not

meet the criteria for broadband service. He also requested that we include providers in the state that did not meet with criteria for broadband service, but have not or will not provide data. These providers are included in the Data Package Provider Table.

SBDD Request on FCC FRNs

For those providers who did not submit an FRN, we changed or added the FRN to match FCC Form 477 (June 2009) ND SBDD Submission Summary.xlsx.

Data Package Revision

We added a column to the Data Package Provider Table titled "Company Name" because of the large number of providers who have the same DBA.

Changes/Corrections

Changes

- **Alltel Wireless** - Removed coverage because of merger with AT&T. (approx April 2011).
- **AT&T Mobility LLC** - Submitted shapefile for coverage. First round in which data was included for this provider.
- **BEK Communications Cooperative** - Worked with provider to update ADSL and FTTEU census blocks.
- **Cable One Inc.** - Submitted spreadsheet to update census blocks and maximum advertised download/upload speeds.
- **Cellco Partnership** - Submitted shapefile for updated coverage.
- **CenturyTel, Inc.** - Submitted shapefile for coverage. First round in which data was included for this provider.
- **Consolidated Telecom** - Worked with provider to update FTTEU census blocks. Revised BB_Service_Overview.
- **Dakota Carrier Network** - Submitted updated circuit report to update the CAI.
- **Dakota Central Telecommunications Cooperative** - Worked with provider to update FTTEU census blocks. Submitted updated FTTEU speeds. Revised BB_Service_Overview.
- **HNS License Sub, LLC** - Added satellite coverage for the entire state per Andrew MacRae (NTIA review on 7/19). Used speeds from website. First round in which data was included for this provider.
- **i29 Wireless** - Submitted updates for coverage.
- **Inter - Community Telephone Company** - Submitted updates for middle-mile.
- **Polar Communications Mutual Aid Corporation** - Worked with provider to update FTTEU census blocks and speeds.
- **Polar Telecom, Inc.** - Worked with provider to update FTTEU census blocks and speeds.
- **Qwest Corporation** - Deleted coverage because of merger with CenturyTel, Inc. (approx March 2011).

- **Sprint Nextel Corporation** - Submitted shapefile for updated coverage.
- **SRT Communications, Inc.** - Submitted updated speed for ADSL census blocks with a maximum advertised downstream speed tier 8 to speed tier 7. (No changes to census blocks with maxaddown 4 or 6.)
- **StarBand Communications Inc.** - Added satellite coverage for the entire state per Andrew MacRae (NTIA review on 7/19). Used speeds from original provider submission. First round in which data was included for this provider.
- **Turtle Mountain Communications** - Submitted data to update coverage for FTTEU.
- **United Telephone Mutual Aid Corporation** - Submitted data to update coverage for FTTEU. Changed DBA to match FCC Form 477 (June 2009) ND SBDD Submission Summary.xlsx
- **WildBlue Communications, Inc.** - Added satellite coverage for the entire state per Andrew MacRae (NTIA review on 7/19). Used speeds from website. First round in which data was included for this provider.

Corrections

- **360 Networks** - Submitted spreadsheet of middle-mile locations, but there were no changes from the original data submitted on 20100513.
- **Halstad Telephone Company** - Revised Technology of Transmission from licensed (TFWL) to unlicensed (TFWU), based on original submission.
- **OrbitCom, Inc.** - Deleted BB_Service_Overview because of multiple speeds within counties.
- **Roberts County Telephone Cooperative Association** - Reviewed maps and responded that there are no updates for this round. Added FRN to match FCC Form 477 (June 2009) ND SBDD Submission Summary.xlsx. Changed name/dba to match information from Provider.
- **Zayo Enterprise Networks, LLC** - Changed DBA to match FCC Form 477 (June 2009) ND SBDD Submission Summary.xlsx

ADVERTISED SPEED REPORT

PROVNAME	TRANSTECH	SPECTRUM	MAXADDDOWN	MAXADUP	NOTES
Absaraka Cooperative Telephone Co., Inc.	10	0	4	2	
AT&T Mobility LLC	80	1	4	3	
BEK Communications Cooperative	10	0	3	2	
BEK Communications Cooperative	10	0	6	2	
BEK Communications Cooperative	50	0	8	5	
BTInet	70	6	3	2	
Cable One Inc.	41	0	9	4	
Cable Services Inc.	41	0	5	2	
Cellco Partnership	80	1	5	4	
CenturyTel, Inc.	10	0	4	3	
CenturyTel, Inc.	10	0	5	2	
CenturyTel, Inc.	10	0	6	3	
Consolidated Telcom	10	0	5	3	
Consolidated Telcom	41	0	7	4	

Consolidated Telcom	50	0	7	4
Consolidated Telcom	70	6	5	2
Dakota Central Telecommunications Cooperative	10	0	5	4
Dakota Central Telecommunications Cooperative	50	0	7	2
Dakota Central Telecommunications Cooperative	70	6	4	3
Dakota Central Telecommunications Cooperative	71	7	4	3
Dickey Rural Telephone Cooperative	10	0	5	2
Dickey Rural Telephone Cooperative	50	0	8	5
Extend America	70	6	3	3
Griggs County Telephone Company	10	0	4	2
Griggs County Telephone Company	10	0	6	3
Halstad Telephone Company	10	0	4	3
Halstad Telephone Company	71	6	4	3
HNS License Sub, LLC	60	9	4	2
i29 Wireless	70	6	3	2
i29 Wireless	70	6	4	2
IdeaOne Telecom	71	6	3	2
Inter-Community Telephone Company	10	0	3	2
Inter-Community Telephone Company	70	6	5	5
InvisiMax Inc.	70	6	5	5
InvisiMax Inc.	70	6	6	5
InvisiMax Inc.	70	6	6	6
Mid-Rivers Internet	10	0	4	2
Mid-Rivers Internet	41	0	7	3
Midcontinent Communications	40	0	9	5
Midstate Communications Inc.	10	0	6	5
Midstate Telephone Company	10	0	7	3
Moore & Liberty Telephone Company	10	0	4	3
Moore & Liberty Telephone Company	10	0	5	3
Moore & Liberty Telephone Company	10	0	6	3
Moore & Liberty/Griggs County Telephone	41	0	6	3
Nemont Telephone Cooperative, Inc.	10	0	3	2
Nemont Telephone Cooperative, Inc.	50	0	3	2
Nemont Telephone Cooperative, Inc.	71	2	3	2
North Dakota Telephone Company	10	0	3	3
North Dakota Telephone Company	10	0	4	3
North Dakota Telephone Company	10	0	7	3
North Dakota Telephone Company	50	0	8	5
Northwest Communications Cooperative, Inc.	10	0	3	2
Northwest Communications Cooperative, Inc.	10	0	5	2
Northwest Communications Cooperative, Inc.	50	0	5	2
Northwest Communications Cooperative, Inc.	70	6	3	2
OrbitCom, Inc.	10	0	4	3
OrbitCom, Inc.	10	0	5	3
Polar Communications Mutual Aid Corporation	10	0	6	3
Polar Communications Mutual Aid Corporation	50	0	10	9
Polar Communications Mutual Aid Corporation	71	2	5	3
Polar Telcom, Inc.	40	0	7	3
Polar Telcom, Inc.	50	0	10	9
Red River Rural Telephone Association, Inc.	10	0	6	2
Red River Rural Telephone Association, Inc.	50	0	9	5
Red River Rural Telephone Association, Inc.	70	6	4	3
Red River Rural Telephone Association, Inc.	71	2	4	3
Reservation Telephone Cooperative	10	0	3	2
Reservation Telephone Cooperative	10	0	4	2

Reservation Telephone Cooperative	10	0	5	2
Roberts County Telephone Cooperative	10	0	3	2
Roberts County Telephone Cooperative	10	0	4	2
Sprint Nextel Corporation	80	3	3	2
SRT Communications, Inc.	10	0	4	2
SRT Communications, Inc.	10	0	6	2
SRT Communications, Inc.	10	0	7	4
SRT Communications, Inc.	20	0	8	8
SRT Communications, Inc.	50	0	9	9
StarBand Communications Inc.	60	9	3	2
Turtle Mountain Communications	10	0	5	2
Turtle Mountain Communications	50	0	8	8
Turtle Mountain Communications	70	6	5	2
Turtle Mountain Communications	71	5	5	2
United Telephone Mutual Aid Corporation	10	0	5	2
United Telephone Mutual Aid Corporation	50	0	8	8
United Telephone Mutual Aid Corporation	70	6	5	2
United Telephone Mutual Aid Corporation	71	5	5	2
VAL-ED Joint Venture LLP	10	0	5	3
VAL-ED Joint Venture LLP	71	6	5	3
West River Cooperative Telephone Company	10	0	5	3
West River Cooperative Telephone Company	50	0	5	3
West River Telecommunications Cooperative	10	0	5	4
West River Telecommunications Cooperative	10	0	7	4
West River Telecommunications Cooperative	71	2	3	3
WildBlue Communications, Inc.	60	9	3	2
Wolverton Telephone Company	10	0	6	3

	From Provider Data Submission
	No Speed Data from Provider, Entered Lowest Domain Value
	From Provider Website