Utah Broadband Project:
Fall 2010 Data Submission & Methodology

The Utah Broadband Project, is the NTIA-sponsored state broadband mapping and planning program for the State of Utah. It is staffed by the Utah Public Service Commission, the Governor's Office of Economic Development, and the Department of Technology Services' Automated Geographic Reference Center.

Data Description:

The Utah Broadband Project's Fall 2010 submission to the NTIA/FCC State Broadband Data and Development (SBDD) program includes both confidential and non-confidential data relating to service availability and infrastructure for over 40 broadband providers. Non-confidential data depicts broadband availability, speed, and technology for wireless service provision as service area polygons and, for wireline provision, as service areas and address points aggregated to a census block level in urban and rural settled areas and along road segments in rural and exurban areas where census blocks are greater than 2 square miles in size. Additionally, provider-submitted middle and last mile infrastructure data and pre-aggregation address-level wireline service information were submitted to the SBDD program as confidential data.

The locations of community anchor institutions, such as schools, libraries, government offices, health and human service provision locations, and public safety facilities were also collected and submitted. Where possible, speed and service technology are indicated, especially for those institutions that receive broadband service from the Utah Education Network, the State of Utah Department of Technology Services, or the Utah Telehealth Network and those organizations that report this information to the State Library.

The State of Utah and its provider engagement contractor, International Research Council (of Mesa, Arizona) developed program communication packets, worked to develop NDAs where necessary, and provided engagement and technical assistance to providers regarding the submission guidelines and process.

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Providers participating in the Utah Broadband Project in time for inclusion in the Fall 2010 submission include:

Broadband Provider	FRN
360 Networks	n/a
American Fiber Systems	0006651202
Albion Telephone	0001623388
All West Communications	0004924809
AltaZip	0016082869
AT&T Corp	0004496774

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AT&T Mobility	0004979233
Baja Broadband Holding Company	0014860522
Beehive Broadband	0004339784
Beehive Broadband (wireless)	0012998175
Bresnan	0007001977
Carbon Emery Telcom, Inc.	0004531166
Centracom Interactive	0004261004
Clearwire Corporation	0011712635
Comcast	0004441663
Covad Communications Company	0003753753
Cricket Communications	0002963528
Digis	0013795273
Direct Communications Cedar Valley	0011862927
Emery Telcom	0001607340
Emery Telecommunications and Video	0001600311
Frontier Communications of Utah	0003574506
Frontier Navajo Communications	0001671320
GTelCo	0001590595
Hanksville Telcom	n/a
HNS License Sub	0018483073
InfoWest, Inc.	0016096398
Integra Telecom	0005069570
Level 3 Communications	0003723822
Manti Telephone	0015031065
Myvocom	n/a
New Edge Networks	0000372047
Qwest Communications	0003605953
SatView Broadband	0015817075
South Central Utah Telephone Association	0001607175
Spanish Fork Community Network	n/a
Sprint	0003774593
Strata Networks	0004533105
T-Mobile	0006945950
Union Wireless	0001630201
Utah Broadband	0018608117
Utopia	0016004087
Veracity Networks	0000010827
Verizon Business Global	0010856284
Verizon Wireless	0003290673
WildBlue Communications	0007843766
XO Communications Services	0006275945
Xpressweb Internet Services	0016099210

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Validation:

The Utah Broadband Project submission was in the data structure outlined in the National Broadband Map Data Transfer Model (NBMDTM) v1.0.1. In order to submit data in this format, all provider data submissions were transformed to this data structure and loaded into an ESRI File Geodatabase. The project worked with provider data in many formats including customer and

‘buildings-passed’ addresses and address ranges in spreadsheet, text file, and geographic information system formats. Census blocks, pdf maps, computer assisted design (CAD) data files , and public-facing websites showing provider service areas were also translated into NBMDTM compliant formats.

Aerial photography, address location services, census block geometry, and road segment geometry used for broadband service mapping and quality control of the data are from public domain resources in Utah’s State Geographic Information Database (SGID) maintained by the Utah Automated Geographic Reference Center and funded and supported by the State of Utah general fund, the Utah 911 Committee, and partnering local, state and federal agencies.

Additionally, in cases where providers were only able to provide last-mile infrastructure locations, terrain modeling was used to generate wireless coverage data and network distance modeling was used to form DSL provision areas using the street network as a surrogate for the broadband delivery system’s wire network.

Due to time constraints, validation work was somewhat limited to the work to translate provider data submissions into the NBMDTM and its list of coded values and other attribute specifications. In subsequent submissions, the Project will incorporate automated procedures developed by the FCC to ensure that project data conforms to the evolving NBMDTM.

Verification

Utah feels strongly the best verification resource is a continued relationship with participating providers and the display of availability and speed data through the state broadband interactive map. Along these lines, Utah prepared provider feedback packages including a CD containing the providers NBMDTM transformed data, pdf overview maps of the providers service area by download speed, submission record counts, transformation process notes (including problem areas), and suggestions on how to improve the data quality and/or how to make subsequent submissions easier.

Utah also compared data submitted to the American Roamer and Media Print Cable Boundaries data and to the Public Service Commission’s telecommunications territory boundaries. In preparation for the release of the Utah Broadband Map, project staff is holding interactive review sessions with providers to review service area data together via online meetings and a preview version of the map. These sessions are targeted to providers where further clarification is deemed necessary.

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Utah has also experimented with mapping and analysis of FCC speed test data and terrain analysis of statewide satellite coverage claims.