

**OFFICIAL OCTOBER 2010 UPDATE SUBMISSION TO
THE NATIONAL TELECOMMUNICATIONS AND INFORMATION
ADMINISTRATION UNDER THE
STATE BROADBAND DATA AND DEVELOPMENT GRANT PROGRAM
FOR THE STATE OF TEXAS**



October 1, 2010

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COVER LETTER

September 30, 2010

Ms. Anne W. Neville
SBDD Grant Program Director
National Telecommunications and Information Administration
U.S. Department of Commerce
1401 Constitution Avenue, NW Room 4716
Washington, DC 20230

Dear Ms. Neville:

As the Designated Entity, and in partnership with the Texas Department of Agriculture, please accept this submission from Connected Nation on behalf of the state of Texas' State Broadband Data and Development (SBDD) Grant Program, Connected Texas.

These artifacts should be found to be compliant with the October 1, 2010, deadline for the semi-annual data update and in accordance with the terms of the July 1, 2009, Notice of Funds Availability (NOFA) and all subsequent clarifications pertaining to delivery of State-Level Mapping of Broadband Service Availability. This packet includes:

Inventory of Deliverables, Connected Texas: October 1, 2010

<u>NOFA Requirement</u>	<u>Data Transfer Model</u>	<u>Data Description</u>
Appendix A: 1(a)(i)	BB_Service_CensusBlock	Broadband Service Availability of Facilities-Based Providers in Census Blocks of No Greater Than Two Square Miles in Area
Appendix A: 1(a)(ii)	BB_Service_RoadSegment	Broadband Service Availability of Facilities-Based Providers by Road Segment in Census Blocks Larger in Area Than Two Square Miles
Appendix A: 1(b)	BB_Service_Wireless	Broadband Service Availability of Wireless Services Not Provided to a Specific Address
Appendix A: 3(b)	BB_ConnectionPoint_MiddleMile	Broadband Service Infrastructure Middle-Mile and Backbone Interconnection Points
Appendix A: 4	BB_Service_CAInstitutions	Community Anchor Institutions-Listing

Appendix A: 4	n/a	Community Anchor Institutions- Narratives
VII.A.1(a)	n/a	Accuracy and Verification Report
n/a	DataPackage.xls	Worksheets of Contact Information, Data Dictionary, and Provider Summary Table
n/a	n/a	Broadband Provider Roster and Participation Status

In addition, this data update submission should be found to be compliant with the additional program requirements instituted by the National Telecommunications and Information Administration since the time of the initial SBDD data submission for the Connected Texas program, on May 31, 2010. Specifically, these new requirements are:

Census Blocks

This dataset should be found to be in full compliance with the request to use Census 2000 geography with the availability of wireline broadband services in census blocks with an area of no greater than two square miles.

SBDD Data Transfer Model

The submission of the broadband dataset for October 1, 2010, is contained within the SBDD Data Transfer Model as released on the Grantee Workspace on September 9, 2010. All efforts have been made to comply with formatting, domain, and metadata requirements to include as much information on each provider as possible.

It is therefore with great pleasure that the Connected Texas program submits this first, semi-annual data update under the State Broadband Data and Development Grant Program. We will continue in partnership with the Texas Department of Agriculture to implement the joint purposes of the Recovery Act and the BDIA by the gathering of comprehensive and accurate state-level broadband mapping data, developing state-level broadband maps, aiding in the development and maintenance of a national broadband map, and undertaking statewide initiatives for broadband planning.

As the submission of this semi-annual data update is concentrated on the delivery of Broadband Service Availability and Community Anchor Institutions (CAI) data, we provide the following insight into the compilation of these datasets contained herein.

Broadband Service Availability — Provider Outreach

This data update submission under the SBDD includes the participation of approximately 73.3% of the Texas provider community, or 137 of 187 total providers. Of the 137 participating providers, 32 supplied an update to their network or coverage area(s), while 81 have reported no change. The remaining 24 represents providers who supplied initial submission data but were non-responsive in the October 2010 update effort or could not verify coverage areas at the time of this submission; therefore their initial dataset is being put forward as part of this compilation. A complete roster by provider depicting participation status and contact record is contained herein. Of the 50 providers that are not represented in the attached datasets, 21 have either refused to participate in the

voluntary program or have remained unresponsive to the numerous attempts at contact by Connected Texas. The remaining 29 providers are currently in some form of progress toward data submission but were not able to either submit or verify coverage areas at the time of this submission.

As the aforementioned roster and attached methodology documentation will attest, it is the collective opinion of the Connected Texas principals that all commercially reasonable efforts were made to account for 100% of the known Texas broadband provider community, pursuant to this semi-annual data update submission.

At the program's inception, Connected Texas launched a website to create awareness about the initiative. Connectedtx.org continues to serve a prominent role in the outreach and data collection effort. This program asset provides a way for the general public to participate in the process by offering interactive tools for users to test their connection speed, submit broadband inquiries, or contact a program representative. These program stakeholders are an essential component in the larger Connected Texas data validation methodology.

As an indicator of stakeholder penetration, the Connected Texas website encountered 22,377 unique visits during this reporting period, which includes 22,309 visits to the English website and 68 visits to the Spanish website (24,459 total to date for the life of the grant awarded on January 1, 2010, which includes 24,327 to the English website and 132 to the Spanish website). Additionally, this pronounced Web activity netted 325 broadband inquiries over the same reporting period (363 grant inception to date). The website also provides the BroadbandStat application, which allows the consumer to confirm or dispute the coverage represented on the broadband inventory map. These consumer initiated actions are facilitated through the Connected Texas website and offer the citizens a vehicle to provide information regarding availability in their respective service area, either in affirmation or contest of the reported data represented in the Connected Texas mapping artifacts. Since the initial data collection and release of corresponding maps, feedback in the form of broadband inquiries has allowed Connected Nation to identify additional areas that are in need of field validation, which is scheduled as soon as possible. Additional information on field validation can be found in the Field Validation Narrative.

Community Anchor Institutions

Connected Texas has established an ongoing mechanism for gathering data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBDD NOFA Technical Appendix.

In conjunction with the Texas Department of Agriculture, significant additional research and outreach was conducted during this data update reporting period by Connected Texas to continue identification of existing, centralized sources for CAI connectivity data. Outreach was coordinated with the Texas Department of Agriculture to distribute the CAI survey to institutions throughout the state. The Texas Department of Agriculture assisted in the outreach effort by providing their contact information for their CAI partners. Connected Texas has identified and processed a list of CAI through a combination of datasets including publicly available and privately held datasets from online sources, including:

- The National Public Safety Information Bureau
<http://www.safetysource.com>
- American Hospital Association
http://www.hospitalconnect.com/hospitalconnect_app/hospitalfinder
- National Center for Education Statistics
Public Schools: <http://nces.ed.gov/ccd/schoolsearch/>
Private Schools: <http://nces.ed.gov/surveys/pss/privateschoolsearch/>
Colleges: <http://nces.ed.gov/collegenavigator>
Libraries: <http://nces.ed.gov/surveys/libraries/librarysearch/>
- United States Fire Administration
<http://www.usfa.dhs.gov/applications/census/search.cfm>

As of this semi-annual reporting period, a total of 96.6% Texas CAI were identified, addressed, and geocoded. As is evident in the datasets being conveyed, while we were able to document institutions and the related addresses, the connectivity data collected in most categories remains less than complete. From our work in Texas, as well as other states, we recognize the great value of this data to future collaboration efforts within the state, and to the accomplishment of the purposes in the recently released National Broadband Plan. We plan to continue to bring best practices to the Texas efforts, along with an investment of both human and technical resources required to reach these goals in advance of the submission of the semi-annual update of this data due in April 2011.

In acquiring both broadband availability and CAI data within the state of Texas, Connected Nation made special effort to engage all federally recognized tribal lands in the area covered by the Texas SBDD grant. According to the U.S. Department of the Interior — Bureau of Indian Affairs, there are three Native-American lands: Alabama-Coushatta Tribes, Kickapoo Traditional Tribe of Texas, and Ysleta Del Sur Pueblo of Texas in the area covered by the Texas SBDD grant. Connected Nation has successfully contacted all three tribes as part of the SBDD program and is accounting for the resulting data in the creation of the artifacts for this submission.

The Connected Texas program exists to improve data on the deployment and adoption of broadband services and to assist in the extension of broadband technology across all regions of the great state of Texas, as well as the United States through contribution to the National Broadband Map. We look forward to the remaining work ahead.

Respectfully submitted,



Thomas W. Ferree
Chief Operating Officer
Connected Nation, Inc.

DATA ACQUISITION: TEXAS COMMUNITY ANCHOR INSTITUTIONS

In this second reporting period of the SBDD, Connected Texas, working in close coordination with the Texas Department of Agriculture has established an ongoing mechanism for gathering data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBDD NOFA Technical Appendix. Connected Texas has focused efforts during this reporting period on conducting outreach and raising awareness of this important project.

Connected Texas has continued to identify and process CAI data obtained through an ongoing statewide outreach campaign. Physical address information continues to be augmented through manual sourcing and geocoded by Connected Texas through ESRI ArcGIS software.

Connected Texas continues to utilize a customized online survey hosted through SurveyMonkey, with a landing page on the Connected Texas website that was developed during the first reporting period. This survey in combination with a customized data-gathering spreadsheet was distributed to a targeted list of CAI throughout the state. Connected Texas will continue to use these data-gathering tools for future targeted outreach efforts throughout the coming months leading up to the next reporting period. These materials are customized to fit the CAI categories as defined in the SBDD NOFA.

The survey can be accessed here:

http://www.connectedtx.org/mapping/Community_Anchor_Institution_Data_Collection.php

Connected Texas and the Texas Department of Agriculture have worked closely together during this reporting period to conduct research as part of an ongoing process to identify existing, centralized sources for CAI connectivity data. The research has resulted in the identification an extensive database within the state containing CAI connectivity data. The Department of Information Resources (DIR) provides broadband Internet service to approximately 6,000 CAI within the state. DIR has agreed to provide Connected Texas with access to their network and is currently in the process of augmenting and formatting this data for incorporation into the April 2011 submission.

In tandem with these efforts to identify existing data, Connected Texas continues to identify CAI contacts among all CAI categories in an effort to distribute and promote the online survey and raise awareness of the importance of CAI broadband connectivity. Recently Connected Texas and the Texas Department of Agriculture conducted a conference call with contacts statewide. The call provided an overview of the CAI project and presented an opportunity for these contacts to ask questions and share ideas for data collection across their organizations. As a result, numerous follow-up conversations have occurred and data has been promised or provided by multiple organizations.

Additional outreach and coordination throughout the reporting period has resulted in the identification of key contacts at organizations and facilities throughout the state. The Texas Department of Agriculture has also offered the assistance of their Regional Teams to assist with data collection and outreach. Connected Texas will be providing survey materials and customized spreadsheets to each Regional Team during the upcoming months and conducting regular updates

to educate them on progress and share ideas from across the state. Connected Texas also continues to operate a CAI hotline to answer questions related to the survey tools and CAI data collection.

Connected Texas has an ongoing mission to educate CAI throughout the state on the importance of participating in the project. Participation by these institutions will raise awareness about the importance of broadband connectivity and the need to report the requested data for inclusion on the Connected Texas interactive map. Part of this mission has included conducting educational awareness meetings with institutions such as Austin-based Educational Resources. Additional meetings of this type will continue to occur throughout the life of the project.

The greatest challenge faced in both reporting periods continues to be the difficulty in securing CAI broadband connectivity data. Connected Texas will continue its ongoing work with the Texas Department of Agriculture and Texas' CAI contacts in an effort to raise awareness of this project. Future efforts will involve targeted planning with representatives from each of the CAI categories, as well as a structured outreach to each category, supported by messaging and meetings showcasing the value of these data for planning and collaboration purposes. Coordination, updates, and presentations will also continue to be provided to the Texas Broadband Task Force.

SBDD DATA TRANSFER MODEL METHODOLOGY

The submission of the broadband dataset for October 1, 2010, is contained within the SBDD Data Transfer Model as released on the Grantee Workspace on September 9, 2010. Connected Nation has reviewed all literature that relates to the release and use of this data transfer model and recognizes that it does not replace or dictate how data is stored, processed, or displayed for the state, as it is meant primarily as a means to transfer the broadband data from all states and territories and populate the National Broadband Map in a seamless fashion.

In addition to the narratives and methodologies contained herein, as well as the DataPackage.xls containing contact information, the data dictionary, and a provider summary table, the following feature classes are submitted within the SBDD Data Transfer Model for the state of Texas.

Inventory of Deliverables, Connected Texas: October 1, 2010

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The provider data collected by Connected Nation on behalf of the state of Texas have been formatted per the given specifications and uploaded into the appropriate feature classes of the SBDD Data Transfer Model. Wireline availability is contained within census blocks and road segments, wireless availability is contained as polygons of coverage areas, middle-mile connections and community anchor institutions are contained as point data, and the subscriber weighted nominal speed (if available) is contained within the overview feature class. All speed data is contained at the census block, road segment, or wireless polygon level of availability. All efforts have been made to comply with formatting, domain, and metadata requirements to include as much information as possible.

TEXAS FIELD VALIDATION NARRATIVE

Chip Spann (Director of Engineering and Technical Services), Dwayne Goodman (WiMAX Engineering Consultant), Daryl Coffey (Technology Assessment Consultant), David Coffey (Technology Assessment Consultant), Rick Langenek (Project Manager – Strategic Programs Office), and Erin Flournoy (Stakeholder Relations Associate, Texas) focused their efforts on both data collection and field validation. In addition to the interaction between Connected Nation and the broadband providers (which ultimately culminates in the data transfer process), that same interaction fosters an open dialogue and healthy environment under which the data validation efforts occur.

As an example, the Connected Nation and Connected Texas staff and the Texas Statewide Telephone Cooperative have conducted numerous teleconferences to discuss ways in which more granular data can be submitted by the provider community as well as explaining the various field validation processes employed to ensure the accuracy of the broadband inventory map itself. These field validation techniques include (i) conducting random spectrum analysis testing to confirm spectrum usage and to potentially identify wireless operators that have not yet participated in the voluntary program, (ii) verifying the coordinates of all physical plant and transmission points reported by providers, and (iii) conducting on-net and off-net speed tests for all fixed and mobile providers to gauge the accuracy of throughput speeds reported by broadband providers.

With 254 counties in the Lone Star State and the identification of 187 broadband providers (which meet NTIA's criteria for voluntary participation), data validation is of paramount importance. In order to engage and involve the broadband provider community and the residents of the state, Connected Texas has held meetings with the Texas Broadband Task Force, the Texas Association of Regional Councils, and the Texas Geographic Information Council, as well as on-site meetings with numerous broadband providers.

Site validation testing of 38 broadband providers (representing 102 test points and/or 20.32% of the provider universe in Texas) has been completed in the following locations:

South Padre Island, Port Isabel, Laguna Vista, Brownsville, Laguna Madre, Point Isabel, San Pedro, Chireno, Lindale, Tyler, Lufkin, Huntington, Bedford, Dallas, Chandler, Colleyville, Canton, Van, Dell City, Buffalo, Smithville, Nacogdoches, Henderson, Mesquite, Flatonia, Fayetteville, Ruttersville, Reimer, Gonzales, Shiner, Harwood, Hallettsville, Schulenburg, Franklin, Giddings, Santa Ana, Paige, Franklin, Lohne, Coleman, Voss, Goldthwaite, Mullin, San Saba, and Corsicana.

Only one instance has been identified where broadband coverage was reported to exist (Chireno, Texas) but, in fact, did not. In that isolated case, the Connected Texas staff contacted the broadband provider and discovered that the provider's engineers had initially reported a coverage area in which a build-out was underway but had not yet been completed. Accordingly, the data has been revised and this iteration of the coverage map has been amended to depict the revised status.

To date, field validation and data verification has been conducted on the following companies: Rioplex, Colorado Valley Telephone, Allegiance Communications, Guadalupe Telephone, Cequel, SuddenLink, GVEC Net, JAB Wireless, Texas Broadband, KeyOn Wireless, Reveille Broadband, Riviera Telephone Company, East Texas DSL, Smithville Net (d.b.a. PC Guns), Windstream, Live Air Networks, Texas Broadband Inc., Consolidated Communications, Sky Beam, Time Warner Cable, DC Texas, CenturyLink, Neu Ventures, Gower Net, Basin Broadband, Verizon Wireless, Dell Telephone Central Texas Communications, US Cable, ERF Wireless, Clearwire, Hill Country Telephone Cooperative, Target/NetWest, Coleman County Telephone Cooperative, Northland Communications, and Reach Broadband.

ACCURACY AND VERIFICATION: METHODOLOGY - PROVIDER VALIDATION

Broadband providers maintain their service area data in many different formats, all in varying levels of complexity and granularity. In order to ensure that the data required by the NTIA is standardized across all providers and that it is as accurate as possible, Connected Nation translates and formats the data that providers are able to supply into a GIS shapefile and produces maps for the provider to review. The resulting map(s) and review process allow for providers to see their service area in a geographic format – for some providers, this is the first time they have seen maps of their broadband service area. Having the mapped service area allows providers to quickly identify any issues that appear in the data representation, whether the issue is in the data translation into a GIS format or from the original data collection and submission. Often data is provided from various sources and through the review and revision process, local engineers who operate the networks and work in the field are able to ensure that the tabular data that has been submitted is accurate and represents the real-world network extent. Any issues in how the service area is represented on the map(s) are remedied by Connected Nation, whether they are additions, removal of service, or any other revisions. Revised maps of service area representations are sent to the provider for review and approval; Connected Nation will revise data and return maps as many times as necessary until the provider is in agreement that the map represents their service area as accurately as possible. Once the review process has been completed and final approval of the data is provided, the data is deemed ready for NTIA submission.

Once the data collection has been aggregated to a statewide level, static maps of statewide and county-level availability are produced and made publicly available. In addition, consumers can visit the interactive online tool, BroadbandStat, to create customized views of broadband service areas and analyze corresponding demographic information. Leveraging broadband service data on various platforms allows for public users, providers, and other stakeholders to review, scrutinize, and provide feedback on the represented data. This feedback becomes a validation method in itself as consumers submit inquiries to Connected Nation either affirming where service is not available or identifying areas where broadband service is shown on the map, but in actuality is not available. This allows for a follow-up to providers regarding revisions to the data as it is represented; it also allows for Connected Nation to identify locations where on-site visits may be necessary to complete field validation of available services. Public feedback on all forms of mapping products serves as a localized validation method for provider-supplied information and allows Connected Nation to resolve inaccuracies as they are identified to ensure that only the highest quality information is provided to stakeholders.

DATA VALIDATION: SURVEY RESEARCH

Between June and August 2010, Connected Texas conducted a statistically significant telephone survey of 800 businesses, to offer as a comparison against the provider-validated statewide broadband inventory. The survey provides an estimate of the percentage of all Texas businesses and a subset percentage of all *rural* Texas businesses that report that they are unaware of available broadband service at their location. These figures are then compared against broadband availability estimates derived from provider-supplied data to provide a macro level comparison to the provider-validated data. This test measures how state businesses' awareness of broadband availability compares to provider-validated availability information. Results are reported below.

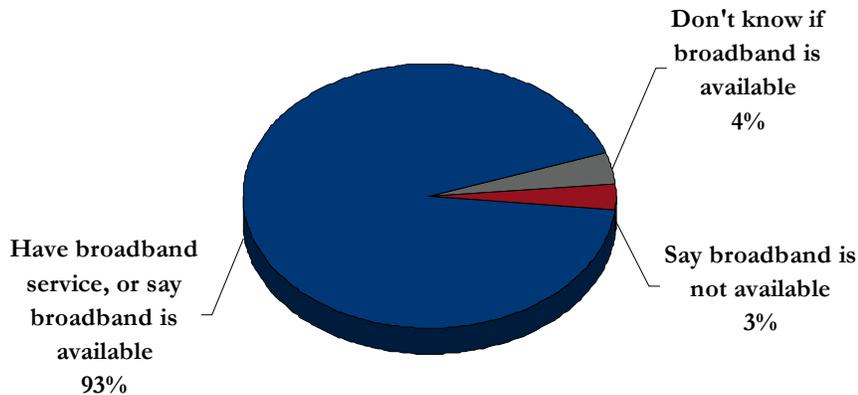
DATA VALIDATION: METHODOLOGY

Connected Texas conducted a random digit dial (RDD) phone survey of 800 businesses contacted between June 28 and August 11, 2010. Data were collected by telephone through live, computer-assisted interviews, with quotas set by industry sector to ensure adequate representation of all businesses across the state. Weights were applied to correct for minor variations and ensure that the sample matched U.S. Census estimates of the state's business establishments, as reported in their County Business Patterns Report. The statewide full sample (n=800) provides a margin of error of $\pm 4.0\%$ at the 95% level of confidence. The full sample of rural businesses (n=132 businesses located in rural counties) provides a margin of error of $\pm 10.0\%$ at the 95% level of confidence. These sample errors account for sample weighting, using the effective sample size. For the purposes of this survey, broadband is defined as "an Internet connection with speeds of 768 kilobits per second or higher in at least one direction."

Results

Statewide, 3% of businesses report that broadband service is not available at their location, 4% don't know if broadband is available, and 93% report with certainty that broadband is available (Figure 1).

Figure 1.
Awareness of broadband availability among Texas businesses



Taking into account the survey's margin of error, the results estimate that between 0% and 7% of Texas businesses do not have broadband service available.

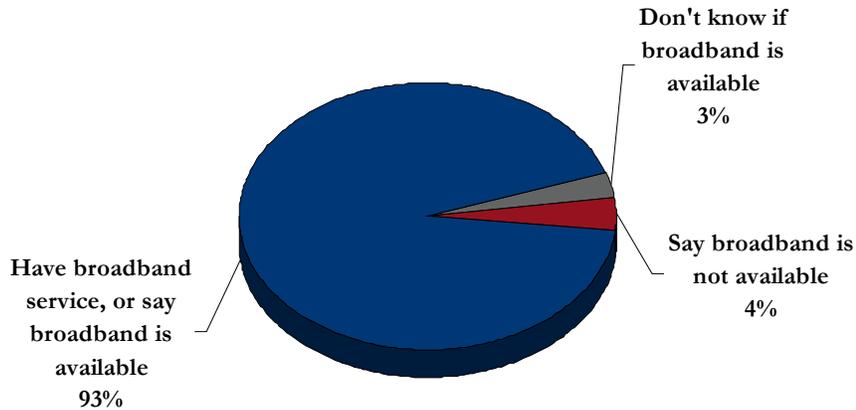
Estimates derived from provider-validated data indicate that approximately 3.86% of Texas households do not have terrestrial fixed broadband service available, and approximately 0.42%¹ of Texas households have neither mobile nor fixed broadband service available.²

Among rural businesses, 4% of respondents report that broadband service is not available to them, 3% do not know if broadband is available, and 93% report with certainty that broadband is available (Figure 2).

¹ In accordance with NTIA's definition of available broadband service as specified in the SBDD NOFA, this estimate includes both terrestrial fixed *and* mobile broadband service, if the service offers download speeds of at least 768 Kbps and upload speeds greater than 200 Kbps.

² Due to the nature of the SBDD data collection methodology as defined by the NTIA and based on both Census Block geographic units and street segment data, the estimates of broadband availability derived from provider-validated data may include an overstatement of the actual number of households with broadband availability. Under the Census Block-based data collection method, a provider will typically report broadband availability for an entire Census Block whether its network is present across the whole or only a subset of that Census Block. This potential overestimation at the Census Block level can be amplified as the data is aggregated across the entire state.

Figure 2.
Awareness of broadband availability among *rural* Texas businesses



Taking into account the survey’s margin of error, the results estimate that between 0% and 14.0% of rural Texas businesses do not have broadband service available.

Results derived from provider-validated data indicate that approximately 12.07% of rural Texas households do not have terrestrial fixed broadband service available, and approximately 1.36%³ of rural Texas households have neither mobile nor fixed broadband service available.⁴

WIRELESS METHODOLOGY

Broadband Service Availability in Provider’s Service Area Wireless Services Not Provided to a Specific Address

Data is solicited from the wireless provider to include, but is not limited to:

1. The name of the structure
2. Whether the transmitting device is operational or proposed
3. The maximum advertised downstream speed and the maximum advertised upstream speed
4. The typical downstream speed and the typical upstream speed (peak periods for both)
5. The frequency range of spectrum being used (as prescribed by NTIA)
6. The primary population center(s) being served (for geopolitical boundary reference)
7. Latitude in either Degrees, Minutes and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83)
8. Longitude in either Degrees, Minutes and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83)
9. The physical address of the transmit site (in the event latitude/longitude is unavailable from the provider this allows a quick reference point for geocoding)
10. Antenna pattern (e.g. omni-directional, 180°, 120°, 90°, etc.)

³ Ibid.

⁴ Ibid.

11. Azimuth of antenna (e.g. 360° with magnetic declination if known)
12. Approximate transmit radius (in feet, miles or kilometers)
13. Polarity of transmit antenna (Vertical or Horizontal)
14. Transmit antenna gain (in dBi)
15. Line loss (applicable only to providers using coax, heliax, waveguide or other forms of cabling – excludes power-over-Ethernet devices)
16. Mechanical and/or electrical beam tilt (if applicable)
17. Equipment manufacturer (allows easy cross-reference against manufacturers' specification sheet)
18. Power output of the transmitting device (if unknown FCC standards applied)
19. AMSL at base of tower site
20. Antenna centerline AGL (height of antenna above ground level measured at the centerline of the actual antenna)
21. Foliage factors (evergreens/deciduous and percent of ground cover)
22. Ground clutter (primarily used only in metropolitan areas – accounts for types and heights of buildings)

Propagation modeling is an empirical mathematical formulation for the characterization of radio wave propagation as a function of frequency, distance, and other conditions. Propagation software typically uses the Irregular Terrain Model (also known as Longley-Rice) of radio propagation for frequencies between 20 MHz and 20 GHz. This model is based on electromagnetic theory and statistical analyses of the combination of terrain features and radio measurements, then predicting the median attenuation of a radio signal as a function of distance and the variability of the signal in time and in space. For metropolitan areas, the software can typically be adjusted to use the Okumura-Hata, which accounts for predicting the behavior of cellular transmissions in areas where buildings are the primary obstructions.

The resulting product from either model depicts a graphical illustration of the theoretical propagation characteristics of a selected frequency range based on defined variables (receiver sensitivity of the home/mobile device, foliage factor, and digital elevation terrain input).

BROADBAND INQUIRIES METHODOLOGY

Connected Nation collects consumer feedback in the form of broadband inquiries. These inquiries represent any type of communication received from the public regarding broadband service. Once broadband inquiries are received across the state, this information is overlaid with the broadband availability information which was collected through the SBDD program. This allows for a real-world comparison of the broadband landscape to the information received from broadband inquiries. Broadband inquiries are able to provide three types of information: 1) Residents who do not have broadband but want it. 2) Residents who have broadband but want a different provider. 3) Residents who do not have broadband, but the broadband inventory maps indicate that they do.

Through the collection of broadband inquiries, a visual demand for broadband is presented. This visualization allows Connected Nation the ability to validate broadband availability maps for accuracy. If residents within a region state that they are without broadband, but the broadband

inventory maps show otherwise, this allows Connected Nation to approach the providers within that area in an effort to trim down their coverage to more accurately represent real-world availability on the ground. On the other hand, if there is a region in the state in which broadband is not available, broadband inquiries allow providers close to that region to see where they can successfully expand their broadband networks, leading to a high return on investment. In short, the higher number of inquiries leads to a higher level of certainty in regard to the broadband availability maps. Since the initial data collection and release of corresponding maps, feedback in the form of broadband inquiries has allowed Connected Nation to identify additional areas that are in need of field validation, which are scheduled as soon as possible. Additional information on field validation can be found in the Field Validation Narrative.

The broadband inquiry process has been implemented in several other Connected Nation state programs with successful results. Citizens in the State of Tennessee have submitted over 10,000 broadband inquiries since 2007, allowing the Connected Tennessee program to evaluate each inquiry for broadband demand and data verification. These inquiries are continuously examined against current broadband availability, updated every three months, to determine if previously unserved households have been expanded to and can now receive broadband access at their residence. This database of broadband inquiries has also allowed Connected Tennessee to aggregate demand in concentrated areas to show providers the exact locations where the population has made it clear that they would purchase broadband if it was made available to them. Providers in the state have responded to this process and have expanded to areas knowing that their investment will be worthwhile. Data verification methods have also proven successful, as Connected Tennessee has been able to show those inquiries that indicate the broadband service areas are misrepresented on the map to providers, who then verify where service cannot reach in regard to that residence(s). The broadband coverage in Tennessee has been altered to create a more accurate map based on the inquiries submitted by the public.

During this reporting period, the Connected Texas project has received a total of 325 inquiries (363 grant inception to date). As more inquiries are submitted to Connected Texas, a more thorough validation of the broadband landscape can be performed, while also allowing providers to see which areas have a high demand for broadband adoption.

BROADBANDSTAT METHODOLOGY

BroadbandStat is an online, interactive mapping tool for viewing, analyzing, and validating broadband data. Developed through a partnership with ESRI, the market leader in geographic information system (GIS) software, BroadbandStat is a multi-functional, user-friendly way for local leaders, policymakers, consumers, and technology providers to devise a plan for the expansion and adoption of broadband.

First and foremost, BroadbandStat allows consumers to locate their residence and identify providers that offer broadband Internet service to that location. The interactive platform allows for users to build and evaluate broadband expansion scenarios using a wealth of data, including education and population demographics, broadband availability, and research about the barriers to adoption.

On June 16, 2010, BroadbandStat was published in conjunction with a media conference. The webinar for stakeholders was held on June 16, 2010. BroadbandStat has received a total of 11,758 visits to date.

SPEED TEST METHODOLOGY

The 3,723 speed tests that are represented in the Connected Texas Speed Test Report during this reporting period (4,236 grant inception to date) are the result of a partnership between Connected Nation and Ookla Net Metrics. Utilizing this relationship increases the level of confidence in the data being collected and provides for a far greater sample size than could be collected by a single testing site.

Ookla owns and operates Speedtest.net, as well as develops and deploys speed tests, such as the Connected Texas speed test website, for partners around the world. This network of sites that is developed and run on their testing technology provides Ookla with a vast dataset that, due to the variability of geographic information collected across the varying speed test sites, is geocoded utilizing Geo-IP technology. This technology allows for tests to be geocoded to points of aggregation, typically larger nodes across provider networks. While there are hundreds of thousands of tests that have been conducted, the level of aggregation is only sufficient for county-level detail due to the test results being located at these larger nodes and not at an absolute location for each speed test.

In an effort to validate broadband data from the Connected Texas project, speed test information is collected throughout the state. Speed tests provide speed information on the path taken through all networks (a provider's network as well as additional networks) a local machine must connect to in order to reach the host test. This collection of speed information is two tiered. First, it allows for a comprehensive dataset of speeds, while also providing Connected Texas with the information on where broadband services are available. Second, unlike theoretical speed information which was received through the data collection process, the use of speed tests provide real world information on the speeds that currently exist within the state of Texas.



Broadband Provider Log

Complete	149
Non-Responsive/Refused	21
In Progress	29
Count of Datasets by Status	199
Total Unique Providers Represented	187

Provider Name	Platform	Status	NDA Execution Date	Notes
AT&T Communications of Texas, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	12/16/2009	
AT&T Communications of Texas, Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	
Big Bend Telephone Company, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	3/10/2010	
Cebridge Acquisition, LP	Cable	Data Added to Statewide Inventory	12/15/2009	
CenturyLink	ILEC/CLEC	Data Added to Statewide Inventory	12/4/2009	
Comcast Cable Communications, LLC	Cable	Data Added to Statewide Inventory	12/7/2009	
Community Telephone Company, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	3/10/2010	
Consolidated Communications	ILEC/CLEC	Data Added to Statewide Inventory	11/30/2009	
DCTexas.Net	Fixed Wireless	Data Added to Statewide Inventory	6/15/2010	
Digitex.com	Fixed Wireless	Data Added to Statewide Inventory	5/25/2010	
Gower Computer Support, Inc.	Fixed Wireless	Data Added to Statewide Inventory		
Grande Communications Network LLC	Cable	Data Added to Statewide Inventory	3/31/2010	
Greasy Bend Ventures, Inc.	Fixed Wireless	Data Added to Statewide Inventory	8/16/2010	
GTEK Communications	Fixed Wireless	Data Added to Statewide Inventory	5/24/2010	
Hill Country Telephone Cooperative, Inc.	Fixed Wireless	Data Added to Statewide Inventory		
Leap Wireless International, Inc.	Mobile Wireless	Data Added to Statewide Inventory	4/6/2010	
Millenium Telcom, LLC	Fixed Wireless	Data Added to Statewide Inventory	8/26/2010	
Millenium Telcom, LLC	ILEC/CLEC	Data Added to Statewide Inventory	8/26/2010	
Millenium Telcom, LLC	Cable	Data Added to Statewide Inventory	8/26/2010	
Millenium Telcom, LLC	Fiber	Data Added to Statewide Inventory	8/26/2010	
North Texas Cellular, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	3/22/2010	
Northland Communications	Cable	Data Added to Statewide Inventory	8/19/2010	
Poka Lambro Telephone Cooperative, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	2/15/2010	
SmartBurst, LLC	Fixed Wireless	Data Added to Statewide Inventory	8/4/2010	
South Plains Telephone Cooperative, Inc.	Fiber	Data Added to Statewide Inventory	3/15/2010	
South Plains Telephone Cooperative, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	3/15/2010	
Southwest Arkansas Telephone Cooperative, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	1/19/2010	
Speed of Light Broadband, Inc.	Fixed Wireless	Data Added to Statewide Inventory	11/3/2009	
Sprint Nextel Corporation	Mobile Wireless	Data Added to Statewide Inventory	1/14/2010	
Stelera Wireless, LLC	Fixed Wireless	Data Added to Statewide Inventory		
T-Mobile USA, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/8/2010	
Totecom Communications, LLC	Fixed Wireless	Data Added to Statewide Inventory	11/30/2009	
Verizon Southwest, Inc.	ILEC/CLEC	Data Added to Statewide Inventory	12/14/2009	
Verizon Southwest, Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/14/2009	
Wes-Tex Telecommunications, Ltd.	ILEC/CLEC	Data Added to Statewide Inventory	3/1/2010	
Alenco Communications, Inc.	Backhaul	Backhaul Provider Only Processing Complete	11/17/2009	
CenturyLink	Backhaul	Backhaul Provider Only Processing Complete	12/4/2009	
Covad Communications	Backhaul	Backhaul Provider Only Processing Complete	1/19/2010	
Santa Rosa Telephone Cooperative, Inc.	Backhaul	Backhaul Provider Only Processing Complete	3/9/2010	
South Plains Telephone Cooperative, Inc.	Backhaul	Backhaul Provider Only Processing Complete	3/15/2010	
T-Mobile USA, Inc.	Backhaul	Backhaul Provider Only Processing Complete	1/8/2010	
Windstream Communications	ILEC/CLEC	Approval for Update Not Received - Use Initial Data	1/19/2010	
Centrovision		Provider Approval Solicited		
McleodUSA Telecommunications Services, Inc.	ILEC/CLEC	All Data Received		
360networks		No Update to Provide	1/19/2010	
Allegiance Communications		No Update to Provide	2/4/2010	
AT&T Communications of Texas, Inc.		No Update to Provide	12/16/2009	
Basin 2 Way Radio, Inc.		No Update to Provide		
Blossom Telephone Company, Inc.		No Update to Provide	3/26/2010	
Border to Border Communications, Inc.		No Update to Provide		
Brazoria Telephone Company		No Update to Provide	6/17/2010	
Broadband Data Services of Texas, LLC		No Update to Provide	4/29/2010	
Broadcomm.US		No Update to Provide		
Cable ONE Inc.		No Update to Provide	12/7/2009	
Cameron Telephone Company, LLC		No Update to Provide	3/18/2010	
Cap Rock Telephone Cooperative, Inc.		No Update to Provide	3/4/2010	
Central Texas Cable Partners, Inc.		No Update to Provide	2/22/2010	
Central Texas Telephone Cooperative, Inc.		No Update to Provide	3/2/2010	
Charter Communications, Inc.		No Update to Provide	12/15/2009	
Clearwire Corporation		No Update to Provide	3/3/2010	
Coleman County Telephone Cooperative, Inc.		No Update to Provide	3/10/2010	
Connexions Telcom		No Update to Provide		
Cumby Telephone Cooperative, Inc.		No Update to Provide	3/5/2010	
Dell Telephone Cooperative, Inc.		No Update to Provide	4/6/2010	
Eastex Telephone Cooperative, Inc.		No Update to Provide		
ECTISP		No Update to Provide		
ELC Internet Services, Inc.		No Update to Provide		
Electra Telephone Company		No Update to Provide	11/24/2009	
Element Networks, LLC		No Update to Provide	5/14/2010	
eNet		No Update to Provide		
ENMR Telephone Cooperative, Inc.		No Update to Provide	4/22/2010	
ERF Wireless		No Update to Provide		
ETAN Industries		No Update to Provide		
ETS Cablevision Co., Inc.		No Update to Provide	10/30/2009	
Farm to Market Broadband LP		No Update to Provide	4/16/2010	
Five Area Telephone Cooperative, Inc.		No Update to Provide	3/8/2010	
Galaxy Cable, Inc.		No Update to Provide	2/10/2010	

Ganado Telephone Company, Inc.	No Update to Provide	11/16/2009
GEUS	No Update to Provide	
Gilmer Cable Television Company, Inc.	No Update to Provide	6/18/2010
Grayson CableRocket, LLC	No Update to Provide	6/15/2010
Guadalupe Valley Communications Systems	No Update to Provide	11/23/2009
Industry Tel. Co.	No Update to Provide	11/6/2009
James Cable, LLC	No Update to Provide	1/11/2010
La Ward Telephone Exchange, Inc.	No Update to Provide	11/16/2009
Lake Livingston Telephone Company	No Update to Provide	11/20/2009
Maverick Internet	No Update to Provide	6/4/2010
McDonald Group	No Update to Provide	3/5/2010
Mid-Plains Rural Tel. Co-op. Inc.	No Update to Provide	3/5/2010
NetWest Online, Inc.	No Update to Provide	2/23/2010
Neu Ventures, Inc.	No Update to Provide	6/17/2010
Nextlink Wireless, Inc.	No Update to Provide	2/12/2010
Nortex Communications	No Update to Provide	2/12/2010
North Texas Broadband, LLC	No Update to Provide	3/1/2010
North Texas Telephone Company	No Update to Provide	11/30/2009
NTS Communications	No Update to Provide	
Our-Town Internet Service	No Update to Provide	3/31/2010
Panhandle Telephone Cooperative, Inc.	No Update to Provide	12/7/2009
Peoples Communication, Inc.	No Update to Provide	3/4/2010
Phantom Wave	No Update to Provide	
Promptwireless, LLP	No Update to Provide	4/27/2010
Pulsestream Internet Services	No Update to Provide	
RB3, LLC	No Update to Provide	10/23/2009
Rhino Communications	No Update to Provide	
Ridgewood Cable	No Update to Provide	
Riviera Telephone Company, Inc.	No Update to Provide	3/11/2010
Rock Solid Internet & Telephone	No Update to Provide	
Smithville System	No Update to Provide	6/17/2010
Southwest Texas Telephone Company	No Update to Provide	3/3/2010
Sprint Nextel Corporation	No Update to Provide	1/14/2010
Tatum Telephone Company	No Update to Provide	11/24/2009
Taylor Telephone Cooperative, Inc.	No Update to Provide	3/11/2010
Texas Broadband, Inc.	No Update to Provide	5/12/2010
Texas Wireless Internet	No Update to Provide	5/14/2010
Texhoma Wireless	No Update to Provide	
TGN Cable	No Update to Provide	5/20/2010
Tier One Converged Networks, Inc.	No Update to Provide	3/24/2010
TISD	No Update to Provide	4/19/2010
tw telecom of Texas, LLC	No Update to Provide	3/10/2010
US Cable Corp.	No Update to Provide	5/20/2010
Valley Telephone Cooperative, Inc.	No Update to Provide	11/24/2009
Verizon Southwest, Inc.	No Update to Provide	12/14/2009
Versalink Enterprises, LLC	No Update to Provide	5/11/2010
WEHCo Video	No Update to Provide	
West Texas Rural Telephone Cooperative, Inc.	No Update to Provide	3/31/2010
Wharton County Electric Cooperative, Inc.	No Update to Provide	4/15/2010
XIT Telecommunications & Technology, Ltd.	No Update to Provide	3/2/2010
XO Communications, LLC	No Update to Provide	2/12/2010
AirBand Communications, Inc.	No Update Provided - Use Initial Data	3/29/2010
Aledo Broadband	No Update Provided - Use Initial Data	3/26/2010
AwesomeNet, Inc.	No Update Provided - Use Initial Data	
Basin Broadband, Inc.	No Update Provided - Use Initial Data	3/23/2010
CIT Broadband	No Update Provided - Use Initial Data	
Cogent Communications of Texas, Inc	No Update Provided - Use Initial Data	
Colorado Valley Telephone Cooperative, Inc.	No Update Provided - Use Initial Data	3/9/2010
CTX Unwired	No Update Provided - Use Initial Data	
Dot11 Networks	No Update Provided - Use Initial Data	
East Texas DSL	No Update Provided - Use Initial Data	5/25/2010
Eccentrix Technologies, LLC	No Update Provided - Use Initial Data	3/30/2010
ETEX Communications, LP	No Update Provided - Use Initial Data	2/25/2010
GVEC.net	No Update Provided - Use Initial Data	2/25/2010
JAB Wireless, Inc.	No Update Provided - Use Initial Data	6/14/2010
KeyOn Communications, Inc.	No Update Provided - Use Initial Data	10/15/2009
Level 3 Communications, LLC	No Update Provided - Use Initial Data	12/14/2009
Livingston Telephone Company Incorporated	No Update Provided - Use Initial Data	2/25/2010
Partnership Broadband, Inc	No Update Provided - Use Initial Data	
Rioplex Wireless LTD	No Update Provided - Use Initial Data	3/3/2010
Texas CellNet	No Update Provided - Use Initial Data	
Time Warner Cable LLC	No Update Provided - Use Initial Data	12/21/2009
UrNet	No Update Provided - Use Initial Data	2/23/2010
Zayo Group, LLC	No Update Provided - Use Initial Data	
AMA TechTel	Solicited Initial Data	
Cybercom Corporation	Solicited Initial Data	
Dot 10 Wireless	Solicited Initial Data	
East Texas Broadband	Solicited Initial Data	
East Texas Wifi	Solicited Initial Data	
Helmsco, Inc.	Solicited Initial Data	2/15/2010
High Speed Wireless Communication	Solicited Initial Data	
Hometown Computing	Solicited Initial Data	
Iguanenet	Solicited Initial Data	
Liquid Stone Wireless	Solicited Initial Data	
One Ring Network	Solicited Initial Data	5/14/2010
Phonoscope Enterprises Group, LLC	Solicited Initial Data	5/20/2010
RodZoo Wireless	Solicited Initial Data	
SOS Communications	Solicited Initial Data	
Sterling Cable	Solicited Initial Data	
Terral Telephone Company	Solicited Initial Data	
Twilight Communications	Solicited Initial Data	
TWIN Wireless, Inc.	Solicited Initial Data	
West Central Net	Solicited Initial Data	4/22/2010
Western Broadband	Solicited Initial Data	

WesTex Connect Internet		Solicited Initial Data		
Windjammer Communications, LLC		Solicited Initial Data	11/16/2009	
Zeecon/Wireless Internet, LLC		Solicited Initial Data		
281 Communications, Inc.		Refused to Participate		[MAY-13-10 David Coffey] Spoke with a company representative and he stated that we had spoken previously and his decision was still the same and he was declining to participate. He is not comfortable with the detail of the data request.
Anvil Communications		Refused to Participate		[AUG-02-10 Daryl Coffey] After walking through BroadbandStat with the provider, the company representative still refuses saying that he doesn't need marketing help and doesn't feel there is a benefit.
Broadwaves		Refused to Participate		[AUG-03-10 David Coffey] Spoke with a company representative and he stated that he was not interested in participating in the Texas mapping program.
Buford Media Group		Refused to Participate		[AUG-02-10 Daryl Coffey] Discussed BroadbandStat and the benefits with a company representative, but he still declines to participate stating that the map provides "too much information to competitors."
CKS Wireless		Refused to Participate		[MAY-13-10 David Coffey] Received e-mail from a company representative that he would not participate.
East Texas Cable Co.		Refused to Participate		[SEPT-20-10 Sarah Finne] Spoke with a company representative in March who stated that East Texas Cable is not interested in participating with the mapping project. In April, David Coffee spoke with the receptionist and requested to speak with a company representative. The receptionist came back on line and indicated that the representative was on another call and stated that they are not interested in participating with the mapping project.
Fiberlight, LLC		Refused to Participate	4/20/2010	[MAY-21-10 Erin Flournoy] Spoke with a company representative; he's refusing to provide backhaul information; he sees no reason to give up confidential information.
Gecko Inter.net		Refused to Participate		[AUG-09-10 Dwayne Goodman] A company representative stated Gecko Internet does not have any interest to participate with the broadband mapping project.
Internet America Wireless Internet Access		Refused to Participate		[AUG-11-10 Dwayne Goodman] Company representatives have been non-responsive to voicemails and e-mails. Left voicemail indicating if a call is not returned, an assumption will be made that his position of "Refusal to Participate" still stands as noted for the June 2010 map release.
Kentucky Data Link, Inc.		Refused to Participate		[JUL-22-10 Ira Dye] Company representative replied back and stated that they are "electing not to contribute at this time."
LSCWeb.Com		Refused to Participate		[AUG-05-10 David Coffey] Spoke with representative of LSCWeb and they are still not interested in participating in the Texas broadband mapping initiative.
Pathwayz Communications, Inc.		Refused to Participate		[MAY-21-10 John Determan] After leaving several voicemails and sending unanswered e-mails, including a partially filled-in data sheet for their convenience, we have heard nothing from the provider. Status has been established as a "Refuse to Participate." E-mail sent to the company representative on May 24, 2010 noting the same.
Star-NET Online Systems		Refused to Participate		[MAR-04-10 James Tull] Received an e-mail reply from a company representative with the following statement, "I have not had the time to fully review this proposal so maybe I am missing something. I do not see anywhere that we get compensated for the amount of time we will have to spend on this project..."
Texas Communications		Refused to Participate		[AUG-11-10 Dwayne Goodman] Multiple voicemails left and e-mails sent inquiring of participatory status. No responses. It is safe to assume the company's position of "Refusal to Participate" still stands.
TEXAS I.S.P.		Refused to Participate		[AUG-04-10 Dwayne Goodman] Spoke directly to the owner. Again, she indicated that Texas ISP is not interested with participation. Currently, they are down to six subscriber units in the field.
Xanadoo, LLC		Refused to Participate		[JAN-15-10 Layne Wagner] Received a phone call from company representative this morning who stated they will not be participating because they feel they are not required to do so.
Yipes Enterprise Services, Inc.		Refused to Participate		[AUG-05-10 Dwayne Goodman] Received an e-mail reply from a company representative indicating that the decision of not participating still stands. There was no specific reason provided upon a request.

Bee Creek Communications		Non-Responsive to Multiple Attempts	5/21/2010	After multiple attempts between September 9, 2009 and May 24, 2010, additional contacts were attempted between July 26 and August 9.
ELP Networks, Inc.		Non-Responsive to Multiple Attempts		In addition to multiple attempts between September 3, 2009 and May 25, 2010, four attempts were made between August 4 and August 13.
Indian Creek Internet Services		Non-Responsive to Multiple Attempts		In addition to multiple attempts between September 3, 2009 and May 12, 2010, four attempts were made between August 4 and August 13.
VRFuturenet		Non-Responsive to Multiple Attempts		In addition to multiple attempts between September 3, 2009 and May 14, 2010, contacts were made on August 4 and August 11.
DISH Network Corporation		Other	1/27/2010	[SEPT-16-10 Sarah Finne] Satellite data will not be submitted due to additional information being necessary to show where service is available in the state, rather than submitting the entire state boundary as serviceable area.
Hughes Network Systems, LLC		Other	2/5/2010	[SEPT-16-10 Sarah Finne] Satellite data will not be submitted due to additional information being necessary to show where service is available in the state, rather than submitting the entire state boundary as serviceable area.
Utopian Wireless Coporation		Other		[AUG-12-10 Wes Kerr] Utopian confirmed that they do not yet offer any services however will begin offering services in Quarter 4 of 2010.
WildBlue Communications, Inc.		Other	1/8/2010	[SEPT-16-10 Sarah Finne] Satellite data will not be submitted due to additional information being necessary to show where service is available in the state, rather than submitting the entire state boundary as serviceable area.