

**OFFICIAL OCTOBER 2014 FINAL UPDATE SUBMISSION TO
THE NATIONAL TELECOMMUNICATIONS AND
INFORMATION ADMINISTRATION UNDER THE
STATE BROADBAND INITIATIVE GRANT PROGRAM FOR
THE STATE OF NEVADA**



October 1, 2014

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October 1, 2014

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

Dear Ms. Neville:

As the State Broadband Designated Entity, in partnership with the Nevada Broadband Task Force, please accept this final submission from Connected Nation on behalf of Connect Nevada, the state of Nevada State Broadband Initiative (SBI) Grant Program.

It has been an honor and privilege for our organization to have participated in this historical effort over the last five years. Because of this extraordinary program and the support of the NTIA, communities across the country, and across the state of Nevada, have enjoyed unprecedented access to data and resources with which to engage, assess, and plan for a more connected future.

Indeed, a sturdy foundation has been set, yet there is still much to do to capture the full potential contemplated by this initial investment. Because of investments in broadband and related technologies, the future of institutions in education, healthcare, and economic development is brighter today than in any other time in our country's history; it is returns in these areas that will be the final measure of this program's impact on America. We look forward to the work ahead.

Connect Nevada would like to recognize the faithful and energized contributions of the many state stakeholders, particularly the broadband providers, in making this and all of the program's previous submissions possible. Truly, the significance of complete and validated data through their participation has added to the many successes our program has enjoyed.

The items that comprise this submission are compliant with the October 1, 2014, 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, Connect Nevada: October 1, 2014

| <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.xlsx | Worksheets of Contact Information, Record Count, and Provider Summary Table |
| n/a | n/a | List of Changes and Corrections to the Dataset |
| n/a | n/a | Non-Participating Provider (NPP) Narratives |
| n/a | n/a | Broadband Provider Roster and Participation Status |

In addition, this data update submission is compliant with the additional program requirements instituted by the National Telecommunications and Information Administration since the time of the April 2014 SBI data submission for the Connect Nevada program. Specifically, these new requirements are:

SBI Data Transfer Model

The submission of the broadband dataset for October 1, 2014, is contained within the SBI Data Transfer Model as provided to SBI Grantees on May 29, 2014. All efforts have been made to comply with formatting, domain, and metadata requirements to include as much information on each provider as possible.

Additional Submission Guidance

In collecting broadband service area datasets for inclusion on the National Broadband Map, this October 2014 submission includes business/commercial broadband service areas in addition to the residential datasets that have been collected for the SBI program. Following guidance from the program office, the end user category appropriately delineates the differences in residential service areas, business service areas, and combination residential/business service areas. Further, all contacted providers were asked if they provide broadband services to business customers within their existing coverage areas and, if so, this information was noted.

This final submission also includes information regarding the data and coverage estimation of non-participating providers. While Connect Nevada continued outreach to all providers prior to each submission period, the need to submit broadband service data for all providers regardless of their participation is evident as the SBI program continues into this final round of data submissions. The submission of this estimated broadband service area for providers that have not supplied data to Connect Nevada is essential in being able to portray a more accurate depiction of the current broadband landscape.

This October 2014 final data update under the SBI Grant Program continues to demonstrate our dedication to implementing the joint purposes of the Recovery Act and the Broadband Data Improvement Act (BDIA) by gathering comprehensive and accurate state-level broadband mapping data, developing state-level broadband maps, aiding in the development and maintenance of the National Broadband Map, and undertaking statewide initiatives for broadband planning.

Broadband Service Availability — Provider Outreach and Verification

This data update submission under the SBI program includes datasets for 100 percent of the Nevada provider community, or 58 total providers. Of the 58 participating providers, 16 supplied an update to their network or coverage area(s), while 38 have reported no change. The remaining 4 represent providers who previously supplied data but were non-responsive in the October 2014 update effort; therefore, their previous dataset is being put forward as part of this compilation. A complete roster by provider depicting participation status and contact history is contained herein.

This submission also includes business/commercial providers; of the 61 residential datasets represented in this submission, including providers that offer multiple technology types, 29 are broadband datasets that do not distinguish between serving primarily residential or primarily non-residential users (end user category 5). There are 11 business-only broadband datasets (end user category 2) also included in this submission.

In addition to the facilities-based and middle-mile broadband providers tracked above, this submission contains datasets for 1 reseller that was able to provide sufficient information on their service area(s) to be included in the data transfer model.

As the aforementioned roster and attached methodology documentation will attest, it is the collective opinion of the Connect Nevada principals that all commercially reasonable efforts have been made to account for 100 percent of the known Nevada broadband provider community, pursuant to this final data update submission.

Connect Nevada has also continued to perform broadband verification activities through several means. In addition to confirmation of service area(s) by each provider, Connect Nevada has conducted field validation efforts. As of this final submission, 50 (86.21 percent) viable providers have been validated through field verification activities. Additional details on verification activities are contained within the Field Validation Methodology.

The Connect Nevada website (www.connectnv.org) has served a prominent role in the outreach and data collection effort. This program asset has provided 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.

As an indicator of stakeholder penetration, the Connect Nevada website encountered 1,247 unique visits during this final reporting period (27,084 total to date for the life of the grant awarded on December 20, 2009). Additionally, this Web activity has netted 46 broadband inquiries from grant inception to date. The website also provides access to the My ConnectView™ interactive mapping application, which allows consumers and broadband providers to confirm or dispute the coverage represented on the broadband inventory map. These consumer-initiated actions have been facilitated through the Connect Nevada website and the Connect Nevada interactive mapping tool (My ConnectView™) that offer the stakeholders the vehicles to provide information regarding availability in their respective service area, either in affirmation or contest of the reported data represented in the Connect Nevada mapping artifacts. Since the initial data collection and release of corresponding maps, feedback in the form of broadband inquiries has allowed Connect Nevada to identify additional areas that are in need of field validation.

Community Anchor Institutions

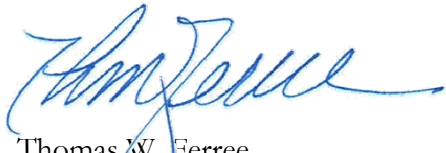
Connect Nevada has been committed to gathering data regarding the location and broadband connectivity of Community Anchor Institutions in accordance with the data requirements of the SBI NOFA Technical Appendix. Multiple agencies and leaders have continued to support CAI data collection, reiterating the importance of a relationship-oriented approach with state-level agencies and organizations that generates more responses than local outreach.

In conjunction with the Nevada Broadband Task Force, Connect Nevada conducted final outreach during this data update reporting period to continue identification of existing, centralized sources for CAI connectivity data. Additionally, outreach was coordinated to distribute the CAI survey to institutions throughout the state through multiple methods, including a customized online survey available on the Connect Nevada website. Building on existing relationships with statewide associations has reinforced the importance of broadband connectivity at anchor institutions and encouraged participation in this data collection process. The value of these relationships has

impacted the entire success of the Grant Program, and the CAI engagement has been a logical extension of new and existing relationships.

The Connect Nevada program exists to improve lives through the deployment and adoption of broadband services and to assist in the extension of broadband technology across all regions of the great state of Nevada, as well as the United States and its territories. Through the SBI program and our contribution to the National Broadband Map, communities have been given meaningful data that has helped them plan and take informed action resulting in improved technology access, adoption, and use in unserved and underserved areas.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Tom Ferree'.

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

NEVADA COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY

Connect Nevada has been committed to working with Nevada to gather data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBI NOFA Technical Appendix. This commitment continued based on NTIA's encouragement to improve data numbers specifically in the K-12 school and library sectors to support the ConnectED White House Initiative, launched in June 2013. The commitment has continued for the October 2014 submission. In addition to collecting new data, physical address information continues to be augmented through manual sourcing and geocoded by Connect Nevada through Esri ArcGIS software.

Connect Nevada has continued to utilize a customized online survey hosted through SurveyMonkey, with a landing page on the Connect Nevada website that was developed during the first reporting period. This survey, in combination with a customized data-gathering spreadsheet, was distributed on a regular basis to a targeted list of CAI throughout the state as well as organizations and agencies that work closely with the CAI. The distributions were completed with the support of the state client.

Connect Nevada realizes the value of key relationships, new and old, to promote the importance of broadband connectivity at Community Anchor Institutions and participation in this data collection process. It is apparent that these relationships have been beneficial to the entire success of the grant program, and the CAI engagement has been a logical extension of new and existing relationships.

Connect Nevada has conducted significant research as part of an ongoing process to identify existing, centralized sources for CAI connectivity data. In tandem with these efforts to identify existing data, Connect Nevada identified key CAI contacts in an effort to distribute and promote the online survey and raise awareness of the importance of CAI broadband connectivity. Also, when possible, Connect Nevada has worked with the Nevada Broadband Task Force to identify existing relationships that can support CAI outreach.

Connect Nevada has had an ongoing mission to educate CAI throughout the state on the importance of participating in the project and the value this data affords for federal decision makers. Participation by these institutions has raised awareness about the importance of broadband connectivity and the need to report the requested data for inclusion on the National Broadband Map.

The greatest challenge with collecting CAI data continues to be educating the CAI about the Connect Nevada project as well as self-awareness of their own broadband connectivity (specifically upload and download speeds).

A CAI summary of all processed and submitted data is provided below:

| CAI Type | Total | Lat/Long | Technology of Transmission | Download Speed | Upload Speed |
|------------------------|-------|----------|----------------------------|----------------|--------------|
| K-12 Schools | 912 | 818 | 532 | 667 | 665 |
| Libraries | 105 | 103 | 57 | 61 | 61 |
| Healthcare | 4,945 | 4,940 | 50 | 4,830 | 4,829 |
| Public Safety | 160 | 158 | 23 | 33 | 33 |
| Higher Ed Institutions | 82 | 81 | 38 | 40 | 40 |
| Other Government | 868 | 847 | 95 | 141 | 142 |
| Other Non-Government | 902 | 879 | 24 | 84 | 86 |
| Total | 7,974 | 7,826 | 819 | 5,856 | 5,856 |

Outreach to Nevada K-12 Schools resulted in multiple points of data; however, many of them were duplicate information. Therefore, the data points show improved speeds for existing school data but not much data.

The CAI data has proven to be an invaluable resource to all components of the Connect Nevada effort. The data identifies potential local champions, sector trends, and opportunities for improvement as well as opportunities to educate CAI not familiar with their current connectivity.

SBI DATA SUBMISSION METHODOLOGY

The submission of the broadband dataset for October 1, 2014, is contained within the SBI Data Transfer Model and additional components as provided to SBI Grantees on May 29, 2014.

Connected Nation (CN) 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.

Connected Nation has complied with the following guidance documents published by NTIA:

- Technical Mapping Guide, as released on the Grantee Workspace on March 24, 2011, was followed to ensure the completeness and validity of the submission through completion steps and checklists, completing the DataPackage spreadsheet, uploading broadband datasets into the Data Transfer Model, and checking the dataset using the SBDD_CheckSubmission receipt process.
- Naming Conventions and Category of End User, as released on the Grantee Workspace on March 26, 2012, was followed to ensure the consistency of individual file and zip package naming.
- Wireless Data Processing Guidance, as sent to SBI grantees on February 8, 2013, was followed to ensure that all fixed and mobile wireless provider coverage records are

submitted to NTIA as separate, closed polygons whenever there is a variation in any of the required fields.

In addition to the methodologies contained herein, the Changes and Corrections documentation, 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 SBI Data Transfer Model for the state of Nevada.

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| 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. |

The provider data collected by CN on behalf of the state of Nevada have been formatted per the given specifications and uploaded into the appropriate feature classes of the SBI Data Transfer Model. Wireline availability is contained within census blocks and road segments, wireless availability is contained as polygons of coverage areas, and middle-mile connections and Community Anchor Institutions are contained as point data. 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.

In collecting broadband service area datasets for inclusion on the National Broadband Map, this October 2014 submission includes business/commercial broadband service areas in addition to the residential datasets that have been collected for the SBI program. Following guidance from the program office, the end user category appropriately delineates the differences in residential service area, business service areas, and combination residential/business service areas.

Connected Nation has continued outreach to satellite providers on their availability, technology, and speed information, but granular coverage, based on complex geoprocessing models that require

specific satellite details, is not currently available. Submitted within the wireless feature class are the satellite companies providing service to Nevada as a polygon of the state boundary.

DATASETS FOR IN-KIND MATCH

Connect Nevada received an in-kind match contribution to assist with SBI mapping goals which has been beneficial to the program in the following ways:

- **Population Datasets:** This dataset contains population estimates for the counties and incorporated cities in Nevada. These datasets are used in combination with Connect Nevada research data to estimate and double-check the number of adults and children who do (or do not) have access to broadband. While the Connect Nevada survey provides the percentage of residents who may or may not meet technology adoption criteria, this spreadsheet helps the Connect Nevada research team to turn those percentages into actual numbers.
- **Age, Sex, Race, and Hispanic Origin Datasets:** This dataset contains a total of 65,800 data points showing the 2013 state population, the 2014 state population, as well as population estimates through 2031 by Age, Sex, Race, and Hispanic Origin. These datasets are used as a tool to validate the weighting for the Connect Nevada residential surveys, which is based on information from the U.S. Census. This data also provides the opportunity to identify the fastest-growing racial and ethnic groups in the state, thus directing Connect Nevada research papers to address the populations that will have the greatest need for improved broadband access and adoption in the upcoming years.
- **Sales & Use Tax Dataset:** Connect Nevada has been asked by the Nevada Broadband Task Force to measure impact of broadband on the state's economy. This dataset provides the most granular business data available, as it is updated daily. The dataset includes a spreadsheet containing 6,758 data fields showing results from 146,592 business establishments that pay sales and use taxes, organized by NAICS codes that identify the primary type of economic activity that each business does, in each Nevada county. This dataset was used as part of the Connect Nevada analysis for a paper entitled "Technology Use among Rural Nevada Businesses," which was released in February 2013. This dataset was used to identify key industrial sectors that are most prevalent in rural portions of the state to provide more in-depth analyses of technology usage patterns within those sectors.
- **Douglas County Commercial and Industrial Planning Zone Dataset:** The Technology Services Department for Douglas County provided the Connect Nevada SBI project with commercial and industrial planning zone shape files. This dataset is a GIS file that contains the exact boundaries of all commercial and industrial planning zones. The Connect Nevada GIS staff used this file to create broadband Internet overlay maps of both commercial and industrial zones in Douglas County to show what type of broadband technology platforms are available in each of those zones. These maps aided the Douglas County Community Engagement Planning Team in implementing a priority project entitled "Collect and display business and zoning information" located on page 7 of the county technology plan. The goal was to collect business and zoning information to contribute as a layer on the availability map to analyze business access, specifically across areas considered for possible economic

development. The community team plans to use this map both as a marketing tool for economic development and to assist any future construction locations.

- Parcel Datasets: The parcel datasets made available for Douglas County, Carson City, Lyon County, and Storey County contain highly valuable structure and addressing information that is essential to the Nevada SBI project in several ways. These types of data provide the exact location of all parcels in the counties represented. Thus, having this accurate address location information allows the project to submit exact coordinates of existing and new Community Anchor Institutions to NTIA for use on the National Broadband Map and in other analyses. In addition, these datasets also include household, street addressing information, which is particularly important in rural parts of the state where publicly available geocoding services typically do not determine the proper locations of residence or CAIs since these public services rely on street number estimates for calculating the location.

NEVADA FIELD VALIDATION METHODOLOGY

CN focused a portion of its time on specific validation processes such as:

- conducting random spectrum analysis studies throughout the state using an Avcom PSA-37-XP spectrum analyzer;
- conducting mobile speed tests throughout the state using an iPhone, Android (or other smart phone) as well as provider-specific aircards (Sprint 3G/4G, Clearwire et al);
- identifying pre-selected, provider-submitted wireless transmit tower sites and cross-referencing data about that tower against the Federal Communications Commission (FCC) databases such as Antenna Structure Registration and/or the Universal Licensing System;
- cross-referencing Federal Registration Number data against available FCC Form 477 data as well as the FCC **CO**mmission **RE**gistration **S**ystem (CORES);
- validating provider submitted data (for example: latitude/longitude) using a handheld Garmin eTrex Summit GPS unit or GPS enabled software such as Microsoft *Streets & Trips*;
- locating physical wire-line attributes (such as Central Offices, Remote Terminals, CATV plant, etc.) and comparing them against provider submitted data; and
- conducting on-net and off-net speed tests using the FCC portal at <http://www.broadband.gov/qualitytest/about/> or using the Ookla Net Metrics enabled speed test utility located on each of CN's program specific websites.

Additionally, CN cross-referenced numerous public documents in order to ensure that all known broadband providers were located and contacted. This included searching membership logs from trade associations (WISPA, WCAI, PCIA, etc.), the Cable Television Fact Book, Public Utility Commission records, Public Service Commission records, Chamber of Commerce, etc.

To date, Connected Nation's staff has conducted on-site validation tests in Nevada on the following viable providers: Above All Communications, LLC ; Arizona Nevada Tower Corporation; AT&T Inc.; Atlantic Tele-Network, Inc.; Avant Wireless LLC; CalNeva Broadband, LLC; CenturyTel, Inc.; Charter Communications, Inc.; Churchill County Telephone ; CoxCom, Inc.; Cricket License

Company, LLC; Ezznet, Inc.; Fort Mojave Telecommunications, Inc. ; Frontier Communications Corporation ; Great Basin Internet Services, Inc.; High Desert Internet Services; Highlands Wireless Inc.; Hot Spot Broadband, Inc.; InfoWest, Inc.; Jab Wireless, Inc.; LasVegas.Net LLC; Level 3 Communications, Inc.; Lincoln Communications, Inc.; Martell Telecommunications ; Mason Valley Quicknet, LLC ; MetroPCS Wireless, Inc.; Moapa Valley Telephone; Mt. Wheeler Power; Nevada System of Higher Education; Northern Nevada High Speed ; Oasis Online, Inc.; Rio Virgin Telephone Company; Robinson Communications Corporation; Schatnet Internet LLC; SMS Computing, Inc.; Spring Creek Wireless; Sprint Nextel Corporation; TDS Telecommunications Corporation; Tele-NET.net LLC; T-Mobile USA, Inc.; tw telecom of nevada, llc; Ultra Communications Group, LLC; Vegas Wifi Communications LLC; Verizon Communications, Inc.; ViaSat, Inc. ; WENR Corporation ; Wireless Beehive, LLC; XO Communications, LLC; Yonder Media; and Zayo Bandwidth, LLC.

Additionally Connected Nation had previously validated 16 providers which are now considered non-viable, due to mergers and acquisitions or because they are no longer in business: A & J Hardy Enterprises, Inc.; Absolute Best Communications, LLC; Air-Internet, Inc.; Baja Broadband Holding Company, LLC; California Broadband Cooperative, Inc.; Clearwire Corporation; e-Care Nevada, Inc.; ETAN Industries; High Speed Networks-Mound House, LLC; KeyOn Communications, Inc.; LasVegas.Net LLC; NextWeb, Inc.; Pyramid Lake Paiute Tribe; United Cable Management, Inc.; WaveDirect Telecommunications, LLC; and Wells Rural Electric Company.

From program initiation through this reporting period, CN has completed in-the-field validation testing against 50 viable companies (out of a universe of 58 viable providers) totaling 86.21 percent within the state of Nevada. This percentage also considers the non-participating provider record submitted to NTIA as may be contained herein (see “Data Submission and Coverage Estimation of Non-Participating Provider” below).

CN has also continued to review provider datasets for accurate speed information, platform listings, and other intricacies that may fall outside of the standard SBI Data Transfer Model parameters, as included with the submission materials provided to grantees on May 29, 2014. Any providers whose submitted coverage and attributes are anticipated to come into question have been further reviewed and confirmed; details on a case-by-case basis are presented below.

CalNeva Broadband, LLC

Issue: Technology of transmission code 40 with maximum advertised download speed in tier 4, lower than expected value range for the technology.

Resolution: Provider representative confirmed that service area is DOCSIS 3.0, but lower speeds are still in use.

DATA SUBMISSION AND COVERAGE ESTIMATION OF NON-PARTICIPATING PROVIDER (NPP)

As part of its ongoing broadband mapping efforts, CN has developed a series of processes with the goal of submitting coverage estimation mapping data to NTIA for every known and qualifying last-mile broadband provider, regardless of platform type (cable modem, DSL, fixed wireless, etc.).

The section below provides a summary of the status of CN's outreach and findings on all non-participating provider coverage for the October 2014 SBI submission.

Avant Wireless

The coverage estimation for this provider was not updated from the prior submission in April 2014. The full white paper containing the most recent coverage estimation for this provider can be found within the October 2012 submission to NTIA.

Mason Valley Quicknet

The coverage estimation for this provider was not updated from the prior submission in April 2014. The full white paper containing the most recent coverage estimation for this provider can be found within the April 2013 submission to NTIA.

PROVIDER VALIDATION METHODOLOGY

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, CN 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, the SBI grant program gave them the opportunity to see maps of their broadband service area for the first time. 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 was provided from various sources and through the review and revision process, local engineers who operate the networks and work in the field were 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) were remedied by CN, whether they were additions, removal of service, or any other revisions. Revised maps of service area representations were sent to the provider for review and approval; CN revised data and returned maps as many times as necessary until the provider was in agreement that the map represents their service area as accurately as possible. Once the review process was completed and final approval of the data was provided, the data was deemed ready for NTIA submission. However, if approval was not received from a provider in time for the submission, but CN believed the new/updated service area to be accurate, then the coverage was submitted to NTIA without final provider approval with a note regarding the situation made in the provider log.

Once the data collection has been aggregated at 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, My ConnectView, 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 has been a validation method in itself, as consumers submit inquiries to CN 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 has allowed for a follow-up to providers regarding revisions to the data as it is represented; it also allowed CN to identify locations where on-site visits may have been necessary to complete field validation of available services. Public feedback on all forms of mapping products served as a localized validation method for provider-supplied information and allowed CN to resolve inaccuracies as they were identified to ensure that only the highest quality information is provided to stakeholders.

Additionally, non-participating provider narratives that were submitted in previous mapping cycles were subjected to the same level of scrutiny. Occasionally, a provider may have elected to voluntarily participate (thus eliminating the need for data estimation activities in the field). However, more often than not, the NPP narrative has been updated with a combination of data gleaned from the provider's website, data obtained through FCC research, and/or data collected/verified in the field by a CN staff engineer.

Estimates derived from provider-validated data indicate that approximately 0.89 percent of Nevada households do not have terrestrial fixed broadband service available, and approximately 0.27 percent of Nevada households have neither mobile nor fixed broadband service available.

Within rural areas of the state, results derived from provider-validated data indicate that approximately 4.83 percent of rural Nevada households do not have terrestrial fixed broadband service available, and approximately 0.43 percent of rural Nevada households have neither mobile nor fixed broadband service available. Please note that the availability estimates presented are based on Census 2010 household information.

The estimates above, in accordance with NTIA's definition of available broadband service as specified in the SBI NOFA, include broadband service with download speeds of at least 768 Kbps and upload speeds greater than 200 Kbps.

In addition, due to the nature of the SBI 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.

WIRELESS METHODOLOGY

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

Data solicited from a fixed wireless provider to create propagation models include, but are not limited to:

1. The name of the structure.
2. Whether the transmitting device is operational or proposed.
3. The maximum advertised downstream speed, the maximum advertised upstream speed.
4. The typical downstream speed, the typical upstream speed (peak periods for both).
5. The frequency range of spectrum being used (as prescribed by NTIA). This may include (but is not limited to) spectrum authorizations identified within the Federal Communications Commission (FCC) Universal Licensing System (ULS) database or located on the FCC's Spectrum Dashboard. This research often proves to be exceptionally effective when estimating the coverage area of an NPP.
6. The primary population center(s) being served (for geopolitical boundary reference).
7. 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).
8. Latitude in either Degrees, Minutes, and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83).
9. Longitude in either Degrees, Minutes and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83).
10. Antenna pattern (e.g. omnidirectional, 180°, 120°, 90°, etc.).
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 manufacturer's specification sheet).
18. Power output of the transmitting device (if unknown, FCC standards or manufacturer specifications are 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 in rural areas to account for foliage and in metropolitan areas to account for types and heights of buildings if known).
23. Average gain of receive antenna.
24. Receive antenna is estimated at height above average terrain (HAAT) of 6.2 meters/20 feet.
25. Federal Registration Numbers (if applicable) which may allow opportunities to cross-reference and/or obtain additional data from the FCC's ULS and the **COMmission REgistration System**.

Propagation modeling combines scientific data and empirical mathematical formulation for the characterization of radio wave propagation as a function of frequency, distance, and other conditions. Propagation software(s) typically use 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 model, 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).

After converting propagation models into a geospatial format, additional processing is completed to remove the small pixels representing service present in the resulting dataset. These areas are initially created based on the parameters entered in the software from the provider equipment information, the underlying data parameters of elevation, hill shade, etc., and the limitations of the software itself to display a broadband service area as accurately as possible. Generally, these random pixel striations appear as a result of signal levels reaching the highest elevated points within the prescribed radius. Typically, while this pixilation anomaly shows legitimate areas where signals can be received, these highly elevated points may have exceedingly sparse populations or are entirely void of population. As a result, and congruent to the *Wireless Technology Methodologies and Business Logic* white paper submitted to NTIA on January 20, 2011, all independent pixels representing service that are less than 0.125 square miles in area have been removed from the geospatial representation of each wireless provider.

BROADBAND INQUIRIES METHODOLOGY

CN has collected consumer feedback in the form of broadband inquiries (BBIs). These inquiries represent any type of communication received from the public regarding broadband service. Once BBIs are received across the state, this information is overlaid with the broadband availability information which was collected through the SBI program. This allows for a real-world comparison of the broadband landscape to the information received from broadband inquiries. Consumers

submitting these inbound comments and/or inquiries are able to provide information regarding five categories: 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; 4) residents who have broadband but want a faster connection speed; and 5) residents who have broadband but want a less expensive service option.

BBIs are submitted frequently by consumers via the Connect Nevada website. Inquiries often seek help to identify local broadband provider options, or to learn when a specific provider may be able to provide service to that consumer. Consumer comments also provide information which may help modify maps with actual service area information. The primary objectives of CN regarding these inquiries has been 1) to improve the accuracy of the state maps with submitted consumer information and follow-up field research; 2) to provide broadband options to consumers through cooperation with mapped providers and by facilitating new broadband service options; and 3) to map and analyze information from consumers about areas of unmet broadband demand and alternatives to currently mapped services. A prime example of the second option is the utilization of the Rural Utility Service satellite eligibility tool. By simply entering the consumer's address, the CN engineer can quickly determine if the consumer meets the initial qualification status for BIP satellite subsidies.

New BBIs are assigned to either the GIS department or the Engineering & Technical Services (ETS) team depending on the category entered by the consumer on the website submission form. The GIS or ETS team members respond to each inquiry according to the information entered by the consumer. Many BBIs can be resolved through desktop research; however, if a BBI requires research in the field, the assigned ETS team member conducts such research when performing field validations in the area of the inquiry or at another such time as is practical and appropriate. GIS and ETS team members respond to and conclude BBIs via telephone contact and/or e-mail communication.

The broadband inquiry process has been implemented in each of the CN state programs with successful results. Altogether CN has received over 19,388 broadband inquiries since 2007, allowing the state programs to evaluate each inquiry for broadband demand and data verification. These inquiries have been continuously examined against current broadband availability, updated every six months, to determine if previously unserved households have been expanded to and can now receive broadband at their residence. This database of broadband inquiries has also allowed the CN state programs 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 states 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 the state programs have 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 these states has been altered to create a more accurate map based on the inquiries submitted by the public.

During this reporting period, the Connect Nevada project received no inquiries; however, they have received 46 inquiries from the grant inception to date.

MY CONNECTVIEW METHODOLOGY

My ConnectView is an interactive online mapping tool for viewing, analyzing, and validating broadband data. Developed using Esri's ArcGIS for Server and Adobe's Flex Framework and hosted and maintained by Connected Nation, My ConnectView 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, My ConnectView 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 several coverage analysis layers, speed analyses, Community Anchor Institutions, and tools to search and export household demographic information, as well as extract data in GIS, spreadsheet, and/or PDF formats.

My ConnectView also features more interactive data layers and additional tools than ever before to allow the consumer to explore the broadband data. My ConnectView provides consumers with the ability to print, e-mail, and provide feedback on the broadband data displayed on the interactive map. Through the collection of this feedback, a visual demand for broadband is presented. This visualization allows the CN state programs the ability to validate the broadband availability for accuracy. If residents within a region state they are without broadband, but the interactive map shows otherwise, this allows CN 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.

The Connect Nevada project launched My ConnectView on April 2, 2012, and has received 199 visits this reporting period; to date the interactive mapping application has received 4,055 visits.

SPEED TEST METHODOLOGY

The 130 speed tests that are represented in the Connect Nevada Speed Test Report during this reporting period (3,659 grant inception to date) are the result of a partnership between CN 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 Connect Nevada speed test website, for partners around the world. This network of sites that is developed and run on its 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 Connect Nevada 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. The benefit of this collection of speed information is two-tiered. First, it allows for a comprehensive dataset of speeds, while also providing Connect Nevada with the information on where broadband services are available. Second, unlike theoretical speed information which may be 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 Nevada.

PROVIDERS DEEMED NON-VIABLE

The following list of companies represents the remainder of the broadband provider universe that was originally identified as complete for outreach to begin for the State Broadband Initiative. These providers are not included in the Data Package for the October 2014 submission because they have been deemed non-eligible under the parameters and guidance of the SBI grant program. This list of companies includes, but is not limited to: providers offering service but below the current definition of broadband, those that have gone out of business, technology consulting firms, infrastructure or network construction companies, non-facilities based general resellers that have not provided sufficient mapping information, etc.

| | Company Name | URL | Comments |
|---|-------------------------------|--|--|
| 1 | 21Globe, Inc. | www.21globe.com/is/access/ | Does not offer broadband services; not a broadband provider. Website works but not updated since December 2012. |
| 2 | 360networks | http://www.360networks.com/ | Acquired by another company. |
| 3 | 365 Wireless | www.365wireless.net | CLEC in Nevada, provider is not facilities based and therefore is a reseller. It is doubtful that this company is doing business. |
| 4 | 650Net | www.650net.net/ | Website references emergency food and power items. |
| 5 | A & J Hardy Enterprises, Inc. | http://comnett.net | Acquired by InfoWest. |
| 6 | A 007 Access | www.a007.com/ | D.B.A. of Cyberonic Communications Inc. reselling DSL and mobile wireless; general reseller of Quest DSL and mobile wireless; DSL does not qualify as the max advertised speed is 768 kbps x 128 kbps. |
| 7 | A-1 Vegas.com | www.zekes.com | D.B.A. Zeke's Internet Service resells Qwest DSL. |
| 8 | AAA Internet Service | n/a | Dial-up service with nonfacilities-based DSL. |

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|----|-------------------------------------|--|--|
| 9 | Aaccess Network Communications | www.aaccess.net/ | Not a broadband provider; provides services for business IT, home computer, web design. |
| 10 | ACERX.NET | www.acerx.net/ | Nonfacilities-based reseller of national and regional broadband companies with cable, DSL, and mobile wireless applications. |
| 11 | ACI, Inc. | http://www.aci.net | Reseller; unresponsive to multiple attempts to gather data. |
| 12 | ACS Wireless | n/a | No longer in business. |
| 13 | Advanced Communications Integration | http://www.aci.net/ | Company is currently not a viable provider. |
| 14 | Airewaves Broadband, LLC | n/a | No longer in business. |
| 15 | Airmail247.com | www.airmail247.com/ | Business mailing list search site; not an ISP. |
| 16 | American Wireless Networks, Inc. | n/a | American Wireless does not provide broadband access in Nevada. The company is out of business. |
| 17 | Amigo.Net | www.amigo.net/cms/ | Qwest reseller in Alamosa, CO offering fixed wireless in CO and NM. |
| 18 | Antioch Wireless Broadband | n/a | Resells DSL and cellular service in Antioch, IL only. |
| 19 | Arrowheadnet.com | www.arrowheadnet.com/ | Domain registration and web-hosting company. |
| 20 | ATEK Communications | www.atekcommunications.com | Not an ISP; ATEK is a national data contractor specializing in structured data cabling and fiber optic distribution designs and installations. |
| 21 | bargainisp.net | www.bargainisp.net/ | Generic web directory site; company does not offer broadband. |

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|----|--|--|---|
| 22 | Big Kahuna Network | n/a | No longer in business. |
| 23 | Broadband National | www.broadbandnational.com | Nonfacilities-based reseller of national and regional broadband companies offering residential/business cable and DSL services. |
| 24 | CAC MediaNet, Inc. | www.cac.net/ | DSL reseller; d.b.a. First Step. |
| 25 | California Broadband Cooperative, Inc. | www2.ntia.doc.gov/grantee/california-broadband-cooperative-inc | Middle-mile fiber network under construction with signed access agreements with AT&T Nevada and Schatnet. |
| 26 | Camino-Net Internet Services | www.camino-net.com | Website is redirected to http://www.mytechproservices.com/ offering ancillary (not broadband) services. |
| 27 | CCIS.net | www.ccis.net | Verizon reseller in DE and NJ. |
| 28 | Celito Communications | www.celito.net/ | Raleigh, NC company supplying tech services to businesses (networks, VoIP, and broadband access) in North Carolina. |
| 29 | Cheetah Wireless Technologies, Inc. | www.cwti.us/cheeweb/homepage/ | LV.Net has assumed CWTI's assets and is operating its networks. |
| 30 | Cleartouch.Com | www.cleartouch.com/ | Reseller of DSL and cable and mobile wireless broadband for various national providers. |
| 31 | Clover Cable | n/a | Not an ISP; cable television line construction in Las Vegas, NV. |
| 32 | Colorado River Internet | n/a | No longer in business. |
| 33 | Comtech Communications Systems | www.comtechlv.com | Not an ISP; business telephone systems. |
| 34 | Connecting America | www.coam.net/ | Dial-up ISP. |

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| 35 | Corridor Communications | www.corridorcomms.ca | URL redirects to http://www.cciwireless.ca/ , a Canadian company providing broadband access to Alberta. |
| 36 | Cyberonic Internet Communications, Inc. | http://www.cyberonic.com/ | Reseller; A 007 Access (above) is d.b.a. of Cyberonic. |
| 37 | Deltaforce | www.deltaforce.net | Dial-up provider located in Raleigh, NC. |
| 38 | deluxehost.com | www.deluxe-host.com | Company delivers web hosting services. |
| 39 | DGUI | www.dgui.com/ | No longer in business; domain name for sale. |
| 40 | Dial National | www.dialnational.com/ | Inactive URL; out of business. |
| 41 | Dialer.net | www.dialer.net/internet_access/United_States.html | England-based, international pay-as-you-go mobile wireless and hot spot reseller. |
| 42 | DSL @ Interlync | www.interlync.com | Reseller of business DSL, T-1 and wireless. |
| 43 | DTS-NET.COM | www.dts-net.com/ | Web-hosting and non-facilities based reseller. |
| 44 | e-Care Nevada, Inc. | http://ecarenevada.com | Received grant to build and operate statewide telemedicine network; not yet in service. |
| 45 | Elko Broadband | n/a | No URL found; no info. |
| 46 | estream Wireless | www.estreamwireless.net/ | Reseller; no longer in business. |
| 47 | ETI LLC | www.cyberenet.net/ | General reseller of DSL services from infrastructure owned by Verizon, AT&T, and Covad. |

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|----|--------------------------------|--|--|
| 48 | Exwire | www.exwire.com/ | Wi-Fi hotspot network where Exwire customers can easily access the Internet at several cafes, ski resorts, and other convenient public locations throughout Truckee and Lake Tahoe with Wi-Fi enabled devices. |
| 49 | Fast Dependable Access | www.fda.net/ | No longer in business. |
| 50 | Go Mango Technologies | n/a | Can find no evidence that Go Mango is a company providing broadband in Nevada. |
| 51 | Hubwest Protected Networks LLC | www.hubwest.com | Dial-up and web hosting only; not a WISP; merged with Southwest Cyberport. |
| 52 | IMGISP.NET | www.imgisp.net/ | Domain name is for sale. |
| 53 | In the Air Data | n/a | No URL found; no info. |
| 54 | Incredible Networks | www.incredible-networks.com | Incredible Networks is an independent network engineering services business based in Adelaide Australia. |
| 55 | Inercom Communications Inc. | www.inercom.com | No longer in business. |
| 56 | Interactiveinfo.com Inc. | www.rocketbroadband.com | Redirects to drumbeatnetworks.com, a Buffalo, NY company designing, developing, and managing the network infrastructure; offers cable television services in NY only. |
| 57 | iRadical | n/a | Could not locate any information on company. |
| 58 | Ironwood Communications | www.ironwoodcommunications.com | Direct TV. |
| 59 | ISPartner.net | n/a | Could not locate any information on company. |

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| 60 | Jenco Speed Web | www.jencospeed.net | Ohio WISP only. |
| 61 | Jetstream Wireless | n/a | No URL found. |
| 62 | LANwaves | n/a | No longer in business. |
| 63 | LARIAT.NET | www.lariat.net/ | WISP in Wyoming only. |
| 64 | LCSisp.com | www.lcsisp.com/index.cfm | Website no longer in service. |
| 65 | Light Link Broadband | www.light-link.net/ | Redirects to www.digis.net , a provider of fixed wireless broadband internet in Utah. |
| 66 | Lightyear Network Solutions, LLC | www.lightyear.net/ | Telecommunications network company. |
| 67 | LinkAmerica.Net | www.linkamerica.net/ | Shopping site. |
| 68 | MainBoard | www.mainboard.cc/internet.htm | Website no longer in service. |
| 69 | Maine Cable and Wireless | www.maineableandwireless.com | Could not locate any information on company. Redirects to a "coming soon" website for Maine Culinary Workshop. |
| 70 | Marcin Company | n/a | No longer in business; phone and website are both inactive. |
| 71 | Millenicom Inc. | www.millenicom.com/internet_access.html | Reseller of 3G and 4G mobile wireless services. |
| 72 | Mosaic Networxs, Inc. | www.mosaicnetworx.com | Mosaic NetworX is not a provider of residential or business broadband access. |
| 73 | Nanomega.Com | www.nanomega.com | Website is listed on Go-Daddy as for sale. |
| 74 | Nanosecond, Inc. | www.nanosecond.com | Provides computer repair, website design, website hosting, SEO, e-mail, and technology consulting. |

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| 75 | Net Nevada | www.netnevada.net/ | D.B.A. Intuitive Logic, providing IT management and consulting and solutions including colocation, remote network backup and monitoring, shared server hosting, and bandwidth aggregation. |
| 76 | NetAccess, Inc. | www.nas.net/ | Canadian based ISP; does not offer service in U.S. |
| 77 | Netriplex | www.netriplex.com/ | Data center. |
| 78 | NetSpeed Online | www.netspeed-online.net | Website no longer in service. |
| 79 | NetVoice | www.netvoice.net/ | VoIP search site. |
| 80 | Nevada Comstock Communications, LLC | nevadacomstock.com | Phone systems. |
| 81 | Nevada Hospital Association | www.nvha.net/ | Doing business as e-Care Nevada, Inc. |
| 82 | Nevada Telecommunications Association | www.nevtelassn.org | Not a broadband provider. |
| 83 | Nextlink Wireless, Inc. | www.nextlink.com | Acquired by XO Communications. |
| 84 | NextWeb, Inc. | n/a | Acquired by another company. |
| 85 | Northwest ISP | www.northwestisp.com/ | No longer in business. |
| 86 | NuTel Broadband Corporation | www.nutelbroadband.com/ | No evidence that this company offers broadband services in Nevada; it appears that this company was extremely vocal in 2006 then disappeared. |
| 87 | Overarch Broadband | www.overarch.com/ | Broadband access in Idaho. |
| 88 | Pacific Internet Exchange | www.pie.us/ , www.pacificinternetexchange.co m | Website for sale. |

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| 89 | Paknet Limited | www.ptcl.com.pk/pd_content.php?pd_id=279 | Subsidiary of Pakistan Telephone Company; no USA services. |
| 90 | Planet Online | www.planetonline.net/ | Offers website hosting services. |
| 91 | PremoWeb | www.premoweb.com/about_us/contact_us.html | Website no longer in service. |
| 92 | PrimeVision Communications, LLC | www.myprimevision.net | URL inactive, out of business. |
| 93 | Priority Wire & Cable | www.prioritywire.com | Not an ISP; priority wire and cable is a distributor of wire and cable serving electrical, utility, telecommunications, mining, and welding wholesale distributors. |
| 94 | Pyramid Lake Paiute Tribe | http://plpt.nsn.us/btop/index.html | Fiber-optic middle-mile network construction completed with connections to CAI being implemented. |
| 95 | Pyramid Net | http://www.pyramid.net/ | Offers service, but below broadband threshold. |
| 96 | Rapid Cable | n/a | Rapid Cable was recently acquired by CalNeva Broadband in December 2008. |
| 97 | Renaissance Networks | www.renaissancenetworks.com/ | IT support company based in New Mexico; not a WISP. |
| 98 | Sierra Internet Services, Corp. | http://www.sierranv.net/ | Reseller of DSL services. |
| 99 | Silver State Internet | www.ssinternet.net | URL inactive; out of business. |
| 100 | Simply Dialup A Metrogeek Company | www.simplydialup.com/ | Dial-up services and general reseller of DSL, satellite and cable modem. |
| 101 | Sky Technologies, Inc. | www.skyforall.com | Dish network reseller. |

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| 102 | SkyBridge Wireless | n/a | Not an ISP; renamed SkyBridge Technology Group; acquired aviation business. |
| 103 | Sling Broadband | www.slingbroadband.com/ | Florida WISP. |
| 104 | SONNET Networking, LLC | www.sonnet.com/ | California WISP. |
| 105 | Sparkplug Las Vegas, Inc. | www.airband.com/ | Merged with Airband in 2010. |
| 106 | Speakeasy, Inc. | www.speakeasy.net/ | Business phone systems; not an ISP. |
| 107 | StarNetWX | www.starnetinc.com/ | Dial-up and VoIP. |
| 108 | Surferz.Net | www.surferz.net/ | Website manager and developer. |
| 109 | Switch Communications Group LLC | www.switchnap.com/ | Colocation; NOC services. |
| 110 | T1 Shopper | www.t1shopper.com/ | Search engine for general reseller. |
| 111 | The-OnRamp.Net | www.the-onramp.net/ | Access provider below NTIA definition. |
| 112 | Total Access Networks, Inc. | www.totalaccess.net | Website no longer in service. |
| 113 | TSISP.NET | www.tsisp.net | Website no longer in service. |
| 114 | U.S. TELEPACIFIC CORP | www.telepacific.com | Acquired by MegaPath. |
| 115 | UNEV Communications, Inc. | n/a | UNEV (Lovelock) does not offer Internet Access. |
| 116 | United Cable Management, Inc. | n/a | Out of business March 2011. |
| 117 | University Corporation for Advanced Internet Development | www2.ntia.doc.gov/grantee/university-corporation-for-advanced-internet-development | Currently ineligible under the parameters and guidance of the SBI grant program. |

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| 118 | UNUM Telecommunications, Inc. | www.utinet.net/ | URL inactive; out of business. |
| 119 | USA Airnet, Inc. | www.usairnet.com | URL inactive; out of business. |
| 120 | Velocitus | www.velocitus.net | URL inactive; out of business. |
| 121 | Verde Communications | www.sparkplug.net/ | Acquired by Sparkplug in July 2007. |
| 122 | Washoe Weblinks | www.washoewebblink.com | URL inactive; out of business. |
| 123 | Wireless Roanoke, Inc. | www.wirelessroanoke.com/ | URL inactive; out of business. |
| 124 | Wireless TelCorp, Inc. | www.wirelesstelcorp.com/ | Fixed wireless provider with offices in TX, NV, and NC. |
| 125 | Wireless Think Tank | www.wirelessthinktank.com/ | URL inactive; out of business. |
| 126 | wisbin | www.wisbin.com/ | Reseller of DSL Internet service in Wisconsin. |
| 127 | www.AmericanAngel.us | www.americanangel.us/ | Website no longer in service. |
| 128 | YEEZOO.NET | www.yeyzoo.net/ | Appears to no longer be in business. |
| 129 | YLISP (Your Local ISP) | www.itsyournet.com | Redirects to https://www.securepaynet.net - website and indicates for sale. |
| 130 | YourT1Wifi.com | www.yourt1wifi.com/ | Providing service In Idaho, Washington, and Alaska. |
| 131 | ZOOM Internet Services, LLC | n/a | Acquired by another company. |

APPENDIX A: BROADBAND PROVIDER LOG



Broadband Provider Log

| | |
|------------------------------------|----|
| Complete | 88 |
| Non-Responsive/Refused | 0 |
| In Progress | 0 |
| Reseller Providing Data | 1 |
| Count of Datasets by Status | 89 |
| Total Unique Providers Represented | 59 |

| Provider Name | Platform | Status | NDA Execution Date | Notes | End User Category |
|-------------------------------------|-----------------|-----------------------------------|--------------------|---|-----------------------------|
| AT&T Inc. | DSL | Data Added to Statewide Inventory | 12/16/2009 | [AUG-28-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 1 Residential Only |
| AT&T Inc. | Mobile Wireless | Data Added to Statewide Inventory | 12/16/2009 | [AUG-11-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 5 Both Residential/Business |
| Atlantic Tele-Network, Inc. | Mobile Wireless | Data Added to Statewide Inventory | | [AUG-25-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 1 Residential Only |
| CenturyTel, Inc. | DSL | Data Added to Statewide Inventory | 12/4/2009 | [AUG-27-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 5 Both Residential/Business |
| Charter Communications, Inc. | Cable | Data Added to Statewide Inventory | 12/15/2009 | [AUG-25-14 Jess Cary] Change: provider expanded service area. | 5 Both Residential/Business |
| Cogent Communications, Inc. | Fiber | Data Added to Statewide Inventory | | [AUG-29-14 Jess Cary] Correction: Provider supplying data for the first time, but was previously in service. | 2 Business Only |
| Cricket License Company, LLC | Mobile Wireless | Data Added to Statewide Inventory | 4/6/2010 | [AUG-12-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 5 Both Residential/Business |
| Frontier Communications Corporation | DSL | Data Added to Statewide Inventory | 1/22/2010 | [AUG-28-14 Jess Cary] Change: Provider expanded coverage area. | 5 Both Residential/Business |
| Jab Wireless, Inc. | Fixed Wireless | Data Added to Statewide Inventory | 6/14/2010 | [AUG-26-14 Jess Cary] Change: Provider expanded coverage area. [SEP-22-14 Ashley Hitt] Change: Provider acquired WaveDirect (via DIGIS); residential coverage added. | 5 Both Residential/Business |
| Level 3 Communications, Inc. | Fiber | Data Added to Statewide Inventory | 12/14/2009 | [AUG-27-14 Jess Cary] Change: Provider expanded coverage area. | 2 Business Only |
| MegaPath Corporation | DSL | Data Added to Statewide Inventory | 2/15/2010 | [AUG-29-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 2 Business Only |
| Moapa Valley Telephone | Fiber | Data Added to Statewide Inventory | 2/22/2010 | [AUG-25-14 Jess Cary] Change: Provider expanded coverage. | 5 Both Residential/Business |
| Moapa Valley Telephone | DSL | Data Added to Statewide Inventory | 2/22/2010 | [AUG-27-14 Jess Cary] Change: Provider expanded coverage area. | 5 Both Residential/Business |
| Sprint Nextel Corporation | Mobile Wireless | Data Added to Statewide Inventory | 1/14/2010 | [AUG-21-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 5 Both Residential/Business |
| T-Mobile USA, Inc. | Mobile Wireless | Data Added to Statewide Inventory | 1/8/2010 | [AUG-12-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 5 Both Residential/Business |
| TDS Telecommunications Corporation | Cable | Data Added to Statewide Inventory | | [AUG-26-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 1 Residential Only |
| tw telecom of nevada, llc | DSL | Data Added to Statewide Inventory | 4/27/2010 | [AUG-29-14 Jess Cary] Changes and/or Corrections: Entirely new dataset submitted for the October 2014 submission. | 2 Business Only |

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|--------------------------------------|-----------------|---|------------|---|-----------------------------|
| tw telecom of nevada, llc | Fiber | Data Added to Statewide Inventory | 4/27/2010 | [AUG-29-14 Jess Cary] Changes and/or Corrections: Entirely new dataset submitted for the October 2014 submission. | 2 Business Only |
| Verizon Communications, Inc. | Mobile Wireless | Data Added to Statewide Inventory | 12/14/2009 | [AUG-12-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for the October 2014 submission. | 5 Both Residential/Business |
| Wireless Beehive, LLC | Fiber | Data Added to Statewide Inventory | 4/5/2010 | [AUG-27-14 Jess Cary] Change: Provider expanded coverage area. | 5 Both Residential/Business |
| Level 3 Communications, Inc. | Backhaul | Backhaul Provider Only Processing Complete | 12/14/2009 | | N/A Backhaul |
| MegaPath Corporation | Backhaul | Backhaul Provider Only Processing Complete | 2/15/2010 | | N/A Backhaul |
| Sprint Nextel Corporation | Backhaul | Backhaul Provider Only Processing Complete | 1/14/2010 | | N/A Backhaul |
| Ultra Communications Group, LLC | Cable | Speed Only Update; Data Processing Complete | | [AUG-26-14 Jess Cary] Change: Provider acquired ETAN Industries. Speed increase; provider now offers speed tier 7 download. | 5 Both Residential/Business |
| Above All Communications, LLC | DSL | No Update to Provide | | | 5 Both Residential/Business |
| Above All Communications, LLC | Fixed Wireless | No Update to Provide | | | 1 Residential Only |
| Arizona Nevada Tower Corporation | Backhaul | No Update to Provide | 3/8/2010 | | N/A Backhaul |
| Arizona Nevada Tower Corporation | Fixed Wireless | No Update to Provide | 3/8/2010 | | 1 Residential Only |
| Arizona Nevada Tower Corporation | Fixed Wireless | No Update to Provide | 3/8/2010 | | 2 Business Only |
| CalNeva Broadband, LLC | Cable | No Update to Provide | 4/8/2010 | | 5 Both Residential/Business |
| CenturyTel, Inc. | Backhaul | No Update to Provide | 12/4/2009 | | N/A Backhaul |
| CenturyTel, Inc. | Backhaul | No Update to Provide | 12/4/2009 | | N/A Backhaul |
| Charter Communications, Inc. | Backhaul | No Update to Provide | 12/15/2009 | | N/A Backhaul |
| Churchill County Telephone | DSL | No Update to Provide | 6/11/2010 | | 1 Residential Only |
| Churchill County Telephone | Fiber | No Update to Provide | 6/11/2010 | | 1 Residential Only |
| Cogent Communications, Inc. | Backhaul | No Update to Provide | | | N/A Backhaul |
| CoxCom, Inc. | Backhaul | No Update to Provide | 2/3/2010 | | N/A Backhaul |
| CoxCom, Inc. | Cable | No Update to Provide | 2/3/2010 | | 5 Both Residential/Business |
| Ezznet, Inc. | Fixed Wireless | No Update to Provide | | | 1 Residential Only |
| Filer Mutual Telephone Company | DSL | No Update to Provide | 2/9/2010 | | 1 Residential Only |
| Fort Mojave Telecommunications, Inc. | DSL | No Update to Provide | | | 1 Residential Only |
| Fort Mojave Telecommunications, Inc. | Fiber | No Update to Provide | | | 1 Residential Only |
| Frontier Communications Corporation | Backhaul | No Update to Provide | 1/22/2010 | | N/A Backhaul |
| Great Basin Internet Services, Inc. | DSL | No Update to Provide | 4/6/2010 | | 1 Residential Only |
| Great Basin Internet Services, Inc. | Fixed Wireless | No Update to Provide | 4/6/2010 | | 1 Residential Only |
| Great Basin Internet Services, Inc. | DSL | No Update to Provide | 4/6/2010 | | 2 Business Only |
| High Desert Internet Services | Fixed Wireless | No Update to Provide | | [SEP-22-14 Ashley Hitt] Change: Provider acquired the fixed wireless system of Absolute Best Communications; coverage added. | 1 Residential Only |
| High Desert Internet Services | Fixed Wireless | No Update to Provide | | | 2 Business Only |
| Highlands Wireless Inc. | Fixed Wireless | No Update to Provide | | | 1 Residential Only |
| Hot Spot Broadband, Inc. | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Hughes Network Systems, LLC | Satellite | No Update to Provide | 2/5/2010 | | 1 Residential Only |
| InfoWest, Inc. | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Integra Telecom Holdings, Inc. | Fiber | No Update to Provide | | | 2 Business Only |
| Jab Wireless, Inc. | Fixed Wireless | No Update to Provide | 6/14/2010 | [SEP-22-14 Ashley Hitt] Change: Provider acquired WaveDirect (via DIGIS); business coverage added as separate record since business speeds for former WaveDirect area are higher. | 2 Business Only |
| LasVegas.Net LLC | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Lincoln Communications, Inc. | Fiber | No Update to Provide | 3/5/2010 | | 2 Business Only |
| Lincoln Communications, Inc. | Fiber | No Update to Provide | 3/5/2010 | | 1 Residential Only |
| Lincoln Communications, Inc. | DSL | No Update to Provide | 3/5/2010 | | 5 Both Residential/Business |
| Martell Telecommunications | DSL | No Update to Provide | 3/23/2010 | | 5 Both Residential/Business |
| MetroPCS Wireless, Inc. | Mobile Wireless | No Update to Provide | 2/10/2012 | | 5 Both Residential/Business |
| Mojave Development, LLC | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Mt. Wheeler Power | DSL | No Update to Provide | 4/5/2010 | | 1 Residential Only |
| Mt. Wheeler Power | Fixed Wireless | No Update to Provide | 4/5/2010 | | 1 Residential Only |
| Nevada System of Higher Education | Backhaul | No Update to Provide | | | N/A Backhaul |
| Northern Nevada High Speed | Fixed Wireless | No Update to Provide | 2/4/2014 | | 1 Residential Only |
| Oasis Online, Inc. | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Rio Virgin Telephone Company | Fiber | No Update to Provide | | | 1 Residential Only |
| Rio Virgin Telephone Company | DSL | No Update to Provide | | | 1 Residential Only |
| Robinson Communications Corporation | DSL | No Update to Provide | 2/25/2010 | | 1 Residential Only |

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| | | | | [SEP-23-14 Ashley Hitt] Correction: As of August 2013, Satview Broadband is a standalone company; WENR Corporation is no longer the parent company. Name changed is submitted dataset. | |
| Satview Broadband Ltd | Cable | No Update to Provide | 1/11/2010 | | 1 Residential Only |
| Schatnet Internet LLC | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Skycasters | Satellite | No Update to Provide | 10/16/2012 | | 1 Residential Only |
| SMS Computing, Inc. | Fixed Wireless | No Update to Provide | 3/19/2010 | | 1 Residential Only |
| Spacenet, Inc. | Satellite | No Update to Provide | | | 1 Residential Only |
| T-Mobile USA, Inc. | Backhaul | No Update to Provide | 1/8/2010 | | N/A Backhaul |
| tw telecom of nevada, llc | Backhaul | No Update to Provide | 4/27/2010 | | N/A Backhaul |
| Vegas Wifi Communications LLC | Fixed Wireless | No Update to Provide | 4/7/2010 | | 5 Both Residential/Business |
| Verizon Communications, Inc. | Backhaul | No Update to Provide | 12/14/2009 | | N/A Backhaul |
| ViaSat, Inc. | Satellite | No Update to Provide | 1/8/2010 | | 1 Residential Only |
| Wireless Beehive, LLC | DSL | No Update to Provide | 4/5/2010 | | 5 Both Residential/Business |
| WUE Inc. | Mobile Wireless | No Update to Provide | 3/5/2010 | | 1 Residential Only |
| XO Communications, LLC | Backhaul | No Update to Provide | 6/2/2010 | | N/A Backhaul |
| Yonder Media | Fixed Wireless | No Update to Provide | | | 5 Both Residential/Business |
| Zayo Bandwidth, LLC | Backhaul | No Update to Provide | | | N/A Backhaul |
| Avant Wireless LLC | Fixed Wireless | No Update Provided – Use Last Submission Data | | | 1 Residential Only |
| Mason Valley Quicknet, LLC | Fixed Wireless | No Update Provided – Use Last Submission Data | | | 5 Both Residential/Business |
| Spring Creek Wireless | Fixed Wireless | No Update Provided – Use Last Submission Data | | | 1 Residential Only |
| Tele-NET.net LLC | Fixed Wireless | No Update Provided – Use Last Submission Data | | | 1 Residential Only |