

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



April 1, 2014

TABLE OF CONTENTS

Cover Letter	3
Nevada Community Anchor Institutions Methodology	8
SBI Data Submission Methodology	10
Datasets for In-Kind Match.....	12
Nevada Field Validation Methodology	13
Data Submission and Coverage Estimation of Non-Participating Providers (NPP) ..	14
Provider Validation Methodology	15
Wireless Methodology.....	16
Broadband Inquiries Methodology	18
My ConnectView Methodology.....	19
Speed Test Methodology	20
Providers Deemed Non-Viable	21
Appendix A: Broadband Provider Log.....	30

April 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 Nevada Broadband Task Force, please accept this submission from Connected Nation on behalf of the state of Nevada's State Broadband Initiative (SBI) Grant Program, known as Connect Nevada.

Truly, now more than ever, the significance of complete and validated data through this effort is impacting lives in communities all across our great country. The Connect Nevada program and its collective stakeholder community continue to be faithful and energized contributors, and we are proud to play a part in forging the innovation economy of the twenty-first century.

The artifacts that comprise this submission should be found to be compliant with the April 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: April 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 should be found to be compliant with the additional program requirements instituted by the National Telecommunications and Information Administration since the time of the October 2013 SBI data submission for the Connect Nevada program. Specifically, these new requirements are:

SBI Data Transfer Model

The submission of the broadband dataset for April 1, 2014, is contained within the SBI Data Transfer Model as provided to SBI Grantees on January 24, 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 April 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. 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 submission also includes information regarding the data and coverage estimation of a non-participating provider. While Connect Nevada continues 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 ninth 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 April 2014 semi-annual 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 60 total providers. There are 57 participating providers and 3 additional non-participating providers whose estimated coverage areas have been submitted. Of the 57 participating providers, 26 supplied an update to their network or coverage area(s), while 27 have reported no change. The remaining 4 represent providers who previously supplied data but were non-responsive in the April 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 53 residential providers represented in the above section, 26 are providers that do not distinguish between serving primarily residential or primarily non-residential users (end user category 5). Eight business-only providers (end user category 2) are 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 were made to account for 100 percent of the known Nevada broadband provider community, pursuant to this semi-annual 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 conducts field validation efforts. To date, 52 (86.67 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) 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.

As an indicator of stakeholder penetration, the Connect Nevada website encountered 2,504 unique visits during this reporting period (25,837 total to date for the life of the grant awarded on December 20, 2009). 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 are 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, which is scheduled as soon as possible.

Community Anchor Institutions

Connect Nevada remains 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 taken the opportunity to recommit to 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, outreach was conducted during this data update reporting period by Connect Nevada 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 the success of past campaigns to generate excitement about CAI outreach, research, and mapping, there has been one campaign conducted since the previous NTIA data submission: Economic Development (November 2013). The Connect Nevada Economic Development Campaign highlighted the benefits of broadband for economic development by building awareness, engaging stakeholders, and enlisting new stakeholders through events and a coordinated release of business surveys, widgets, infographics, policy analyses, maps, and stories from around our states and partnerships. Each release included a call to action to complete a CAI Survey and allowed the opportunity to conduct outreach outside of the releases. Survey of the government sector helped to build awareness and to establish a centralized database of key connectivity data for the mapping project. This building on existing relationships with statewide associations promotes the importance of broadband connectivity at anchor institutions and encourages participation in this data collection process.

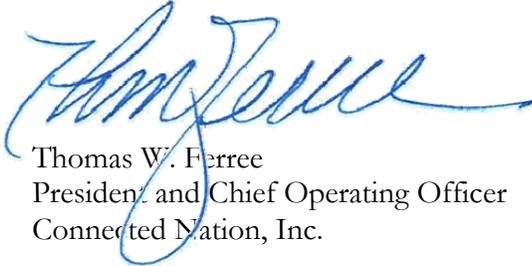
The value of these relationships continues to impact the entire success of the Grant Program, and the CAI engagement is a logical extension of new and existing relationships. Connect Nevada will continue to expand on these relationships over the coming months and utilize its contacts throughout the state to collect data and raise awareness of this project.

From our work in Nevada as well as other states, we recognize the great value of this data to future collaboration efforts within the state as well as its value to the National Broadband Map. We plan to continue to bring best practices to the Connect Nevada efforts, along with an investment of both

human and technical resources required to reach our goal of increasing the data that is secured and reported as part of this process.

The Connect Nevada 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 Nevada, as well as the United States and its territories through contribution to the National Broadband Map. We look forward to the continuing work ahead and improving upon our data collection methods.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read 'Tom Ferree', written over the typed name and title.

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

NEVADA COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY

Connect Nevada remains 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. This encouragement translated very well with the state client as well as K-12 school and library points of contact. The impact will be seen in this submission as well as the upcoming October 2014 submission.

In addition to the encouragement from NTIA, Connect Nevada continues to promote sector-specific campaigns every quarter and focused on economic development in November 2013, specifically reaching out to and education local governments. Information received from these campaign outreaches is processed and compiled with all currently collected CAI data. Physical address information continues to be augmented through manual sourcing and geocoded by Connect Nevada through Esri ArcGIS software.

Connect Nevada continues 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 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 SBI NOFA.

The survey can be accessed at this link: <http://www.surveymonkey.com/s/7RSHPBS>

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 are beneficial to the entire success of the grant program, and the CAI engagement is a logical extension of new and existing relationships. Connect Nevada will continue to build upon these relationships over the coming months and utilize its contacts throughout the state to collect data and raise awareness of this project.

In addition to fostering and building relationships with state agencies, associations, and organizations, Connect Nevada has also developed a sector-specific calendar that supports CAI outreach as well as research and communications efforts. This focused approach allows a corporate commitment to capturing CAI data in addition to developing meaningful sector-specific content. Since the October 2013 submission, the sector-specific approach included an economic development campaign in November 2013 geared toward local governments. During these campaigns, Connect Nevada committed to engage key stakeholders to educate them about the importance of our CAI data gathering efforts, distribute survey requests to sector representatives to gather CAI information, and provide campaign-specific education through communications and webinar resources. Continued outreach to and survey of schools, libraries, hospitals, local law

enforcement, and fire stations helps build awareness and establishes a centralized database of key connectivity data for planning.

Connect Nevada conducts 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 continues to identify 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 works with the Nevada Broadband Task Force to identify existing relationships that can support CAI outreach.

Connect Nevada 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 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). Connect Nevada will continue to research key CAI organizations and agency contacts in an effort to raise awareness of this project among CAI. When applicable, the Nevada Broadband Task Force will continue to be briefed on the current CAI data and provided information so it can assist with outreach and promotion within the state.

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	804	793	532	627	625
Libraries	105	103	57	61	61
Healthcare	5027	5022	49	4893	4892
Public Safety	146	145	22	29	29
Higher Ed Institutions	82	81	38	40	40
Other Government	884	870	85	134	135
Other Non-Government	911	886	23	62	64
Total	7959	7900	806	5846	5846

Due to our engagement with Education SuperHighway, the K-12 schools sector experienced a significant increase that captured broadband speeds in select states, including Nevada. Connect Nevada also received information for Washoe County Schools’ IT staff as well as additional information from the Nevada Division of Public & Behavioral Health.

Additionally, efforts were made to increase the number of CAI IDs, or federal ID codes, submitted for K-12 school and library records. The K-12 schools now have 86.13% of the CAI IDs accounted for in the records. Library records now have 98.06% of the CAI IDs accounted for in the records;

additional work will be completed prior to the October 2014 submission to further increase the number of CAI IDs submitted.

During the coming months, CAI data collection will be supported by regular reporting to the Connect Nevada team. The CAI data is proving 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 April 1, 2014, is contained within the SBI Data Transfer Model and additional components as provided to SBI Grantees on January 24, 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.

Inventory of Deliverables, Connect Nevada: April 1, 2014

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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.

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 April 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 is not yet available. Submitted within the wireless feature class are the satellite companies providing service to Nevada as a polygon of the state boundary. Efforts will continue to collect, process, or otherwise create more granular satellite data based on availability analyses and guidance received from NTIA. Process development continues as well to be able to create more granular satellite coverage based on satellite equipment positioning and geographic inputs; a pilot study has been initiated in Alaska to evaluate the analysis.

DATASETS FOR IN-KIND MATCH

- **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 conducted on-site validation tests in Nevada on the following viable providers: Above All Communications, LLC ; Absolute Best Communications, LLC; Arizona Nevada Tower Corporation; AT&T Inc.; Atlantic Tele-Network, Inc.; Avant Wireless LLC; Baja Broadband Holding Company, LLC; CalNeva Broadband, LLC; CenturyTel, Inc.; Charter Communications, Inc.; Churchill County Telephone ; CoxCom, Inc.; ETAN Industries; 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; Leap Wireless International, Inc.; 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; Tele-NET.net LLC; T-Mobile

USA, Inc.; tw telecom of nevada, llc; Vegas Wifi Communications LLC; Verizon Communications, Inc.; ViaSat, Inc. ; WaveDirect Telecommunications, LLC; WENR Corporation ; Wireless Beehive, LLC; XO Communications, LLC; Yonder Media; and Zayo Bandwidth, LLC.

In addition to the field verification tests that have been conducted, Connected Nation has also conducted work in the field to collect information for the non-participating providers Avant Wireless, Mason Valley Quicknet, and Spring Creek Wireless, which, by nature of the methodology required for this collection, are also included in the above list.

Additionally Connected Nation had previously validated 11 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.; Air-Internet, Inc.; California Broadband Cooperative, Inc.; Clearwire Corporation; e-Care Nevada, Inc.; High Speed Networks-Mound House, LLC; KeyOn Communications, Inc.; NextWeb, Inc.; Pyramid Lake Paiute Tribe; United Cable Management, Inc.; and Wells Rural Electric Company.

From program initiation through this reporting period, CN has completed in-the-field validation testing against 52 viable companies (out of a universe of 60 viable providers) totaling 86.67 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 Providers” 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 January 24, 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 PROVIDERS (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 April 2014 SBI submission.

Avant Wireless

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

Spring Creek Wireless

The coverage estimation for this provider was not updated from the prior submission in October 2013. 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, 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 CN, 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; CN 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. However, if approval is not received from a provider in time for the submission, but CN believes the new/updated service area to be accurate, then the coverage will be 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 becomes 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 allows for a follow-up to providers regarding revisions to the data as it is represented; it also allows for CN 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 CN to resolve inaccuracies as they are 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 are subjected to the same level of scrutiny. Occasionally, a provider may elect to voluntarily participate (thus eliminating the need for future data estimation activities in the field). However, more often than not, the NPP narrative is 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 0.87 percent of Nevada households do not have terrestrial fixed broadband service available, and approximately 0.28 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 4.73 percent of rural Nevada households do not have terrestrial fixed broadband service available, and approximately 0.45 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 **CO**mmission **RE**gistration 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 collects 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 are 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 19,196 broadband inquiries since 2007, allowing the state programs to evaluate each inquiry for broadband demand and data verification. These inquiries are 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 has received no inquiries; however there have been 46 inquiries from grant inception to date. As more inquiries are submitted to Connect Nevada, 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.

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 223 visits this reporting period; to date the interactive mapping application has received 3,856 visits.

SPEED TEST METHODOLOGY

The 361 speed tests that are represented in the Connect Nevada Speed Test Report during this reporting period (4,930 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 April 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.
9	Access 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.
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	Received grant to build middle-mile fiber network; not yet in service.
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 CWTT's assets and is operating its networks.
30	Clartouch.Com	www.clartouch.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.
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_acces/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.
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.
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.
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.pic.us/ , www.pacificinternetexchange.com	Website for sale.
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	Received grant to deploy fiber-optic middle-mile network across reservation; not yet in service.
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.
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.
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.wirelessthanktank.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	YEYZOO.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	79
Non-Responsive/Refused	0
In Progress	0
Reseller Providing Data	1
Count of Datasets by Status	80
Total Unique Providers	61

Provider Name	Platform	Status	NDA Execution Date	Notes	End User Category
Arizona Nevada Tower Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/8/2010	[MAR-7-2013 Jess Cary] Changes and corrections: ANTC added a tower and lowered their residential max download speed tier to tier 5.	1 – Residential Only
Arizona Nevada Tower Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/8/2010	[MAR-13-14 Jess Cary] Change: Provider now offers business service with different speeds than residential.	2 – Business Only
AT&T Inc.	DSL	Data Added to Statewide Inventory	12/16/2009	[FEB-19-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for APR 2014 submission.	1 – Residential Only
AT&T Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	[JAN-30-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2014 submission.	5 – Both Residential/Business
Atlantic Tele-Network, Inc.	Mobile Wireless	Data Added to Statewide Inventory		[MAR-13-14 Jess Cary] Change provider now offers speed tier 4 maximum download.	1 – Residential Only
CalNeva Broadband, LLC	Cable	Data Added to Statewide Inventory	4/8/2010	[JAN-23-14 Jess Cary] Change: Provider expanded coverage area.	5 – Both Residential/Business
CenturyTel, Inc.	DSL	Data Added to Statewide Inventory	12/4/2009	[FEB-18-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for APR 2014 submission.	5 – Both Residential/Business
Charter Communications, Inc.	Cable	Data Added to Statewide Inventory	12/15/2009	[FEB-18-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for APR 2014 submission.	5 – Both Residential/Business
Frontier Communications Corporation	DSL	Data Added to Statewide Inventory	1/22/2010	[FEB-19-14 Jess Cary] Change and Correction: Provider expanded coverage area and a small coverage area was removed through analysis.	5 – Both Residential/Business
LasVegas.Net LLC	Fixed Wireless	Data Added to Statewide Inventory		[FEB-29-14 Jess Cary] Change: provider expanded coverage area.	5 – Both Residential/Business
Level 3 Communications, Inc.	Fiber	Data Added to Statewide Inventory	12/14/2009	[JAN-29-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.	2 – Business Only
MegaPath Corporation	DSL	Data Added to Statewide Inventory	2/15/2010	[FEB-24-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.	2 – Business Only
Moapa Valley Telephone	DSL	Data Added to Statewide Inventory	2/22/2010	[Feb-3-14 Jess Cary] Change: Provider increased maximum download speeds to tier 9 in additional areas.	5 – Both Residential/Business
Moapa Valley Telephone	Fiber	Data Added to Statewide Inventory	2/22/2010	[Feb-3-14 Jess Cary] Change: Provider expanded coverage area and now offers a speed tier 9 max download.	5 – Both Residential/Business
Mojave Development, LLC	Fixed Wireless	Data Added to Statewide Inventory		[FEB-17-14 Jess Cary] Correction: Provider supplying data for the first time, but was previously in service.	5 – Both Residential/Business
Northern Nevada High Speed	Fixed Wireless	Data Added to Statewide Inventory	2/4/2014	[FEB-17-14 Jess Cary] Change: Provider supplying data for the first time.	1 – Residential Only
Sprint Nextel Corporation	Mobile Wireless	Data Added to Statewide Inventory	1/14/2010	[FEB-7-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2014 submission	5 – Both Residential/Business

T-Mobile USA, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/8/2010	[FEB-11-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2014 submission.	5 – Both Residential/Business
tw telecom of nevada, llc	DSL	Data Added to Statewide Inventory	4/27/2010	[JAN-28-14 Jess Cary] Changes and/or Corrections: Entirely new dataset submitted for the April 2014 submission.	2 – Business Only
tw telecom of nevada, llc	Fiber	Data Added to Statewide Inventory	4/27/2010	[JAN-28-14 Jess Cary] Changes and/or Corrections: Entirely new dataset submitted for the April 2014 submission, possible coverage expansion.	2 – Business Only
Verizon Communications, Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/14/2009	[JAN-30-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2014 submission.	5 – Both Residential/Business
ViaSat, Inc.	Satellite	Data Added to Statewide Inventory	1/8/2010	[MAR-11-14 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2014 submission	1 – Residential Only
Arizona Nevada Tower Corporation	Backhaul	Backhaul Provider Only Processing Complete	3/8/2010		N/A - Backhaul
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
T-Mobile USA, Inc.	Backhaul	Backhaul Provider Only Processing Complete	1/8/2010		N/A - Backhaul
SMS Computing, Inc.	Fixed Wireless	Speed Only Update; Data Processing Complete	3/19/2010	[JAN-23-14 Jess Cary] Change: Provider now offers speed tier 7 maximum advertised download speed.	1 – Residential Only
WENR Corporation	Cable	Speed Only Update; Data Processing Complete	1/11/2010	[FEB-4-14 Jess Cary] Change: Provider now offers up to speed tier 9 maximum download in some areas.	1 – Residential Only
ETAN Industries	Cable	End User Category Update Only; Data Processing Complete		[MAR-13-14 Jess Cary] Change: Provider now offers business coverage. Area and speeds are the same as residential.	5 – Both Residential/Business
Great Basin Internet Services, Inc.	Fixed Wireless	End User Category Update Only; Data Processing Complete	4/6/2010	[MAR-13-14 Jess Cary] Change: Provider only offers residential service.	1 – Residential Only
Hot Spot Broadband, Inc.	Fixed Wireless	End User Category Update Only; Data Processing Complete		[MAR-13-14 Jess Cary] Change: Provider now offers both residential and business coverage.	5 – Both Residential/Business
Jab Wireless, Inc.	Fixed Wireless	End User Category Update Only; Data Processing Complete	6/14/2010	[MAR-13-14 Jess Cary] Change: Provider now offers business coverage, same as residential.	5 – Both Residential/Business
Oasis Online, Inc.	Fixed Wireless	End User Category Update Only; Data Processing Complete		[MAR-13-14 Jess Cary] Change: Provider now offers business coverage. Coverage and speeds the same as residential.	5 – Both Residential/Business
Schatnet Internet LLC	Fixed Wireless	End User Category Update Only; Data Processing Complete		[MAR-13-14 Jess Cary] Change: Provider now offers business coverage. Coverage and speeds the same as residential.	5 – Both Residential/Business
WaveDirect Telecommunications, LLC	Fixed Wireless	End User Category Update Only; Data Processing Complete		[MAR-13-14 Jess Cary] Change: Provider now offers separate speeds for business coverage.	2 – Business Only
WaveDirect Telecommunications, LLC	Fixed Wireless	End User Category Update Only; Data Processing Complete		[MAR-13-14 Jess Cary] Change: Provider now offers separate speeds for business coverage.	1 – Residential Only
Avant Wireless LLC	Fixed Wireless	No Update-Estimated Coverage Submitted for Non-Participating Provider			1 – Residential Only
Mason Valley Quicknet, LLC	Fixed Wireless	No Update-Estimated Coverage Submitted for Non-Participating Provider			5 – Both Residential/Business
Spring Creek Wireless	Fixed Wireless	No Update-Estimated Coverage Submitted for Non-Participating Provider			1 – Residential Only
Above All Communications, LLC	Fixed Wireless	No Update to Provide			1 – Residential Only
Above All Communications, LLC	DSL	No Update to Provide			5 – Both Residential/Business
Absolute Best Communications, LLC	Fixed Wireless	No Update to Provide			1 – Residential Only
Baja Broadband Holding Company, LLC	Cable	No Update to Provide	2/22/2010		1 – Residential Only
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
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
High Desert Internet Services	Fixed Wireless	No Update to Provide			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
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
Leap Wireless International, Inc.	Mobile Wireless	No Update to Provide	4/6/2010		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
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
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
Skycasters	Satellite	No Update to Provide	10/16/2012		1 – Residential Only
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
Wireless Beehive, LLC	Fiber	No Update to Provide	4/5/2010		5 – Both Residential/Business
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
Cogent Communications, Inc.	Backhaul	No Update Provided – Use Last Submission Data			N/A - Backhaul
Spacenet, Inc.	Satellite	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
Zayo Bandwidth, LLC	Backhaul	No Update Provided – Use Last Submission Data			N/A - Backhaul