**OFFICIAL APRIL 2013 UPDATE SUBMISSION TO
THE NATIONAL TELECOMMUNICATIONS AND INFORMATION
ADMINISTRATION UNDER THE
STATE BROADBAND INITIATIVE GRANT PROGRAM
FOR THE STATE OF NEVADA**

April 1, 2013

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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.

Connected Nation and Connect Nevada congratulate the National Telecommunications and Information Administration (NTIA) and the Federal Communications Commission (FCC) on achieving the two-year anniversary of the National Broadband Map. 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 such 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, 2013, 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, 2013

NOFA Requirement	Data Transfer Model	Data Description
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 2012 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, 2013, is contained within the SBI Data Transfer Model as released on the Grantee Workspace on December 14, 2012. 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
On February 8, 2013, NTIA released new guidance regarding the processing of wireless data, for both fixed and mobile broadband providers. All wireless provider coverage records have been reviewed and are in compliance with this grantee guidance for this April 2013 submission period. Even providers that did not have an update for this submission cycle were reviewed and data reprocessed as necessary for those records that were not yet in compliance with the new guidance.

This submission continues to follow the speed technology guidance released by the Program Office on August 9, 2012, to review speed tier codes in correspondence with technology of transmission codes. In the October 2012 submission, descriptions were provided in the methodology paper that offered an explanation for any submitted technology of

transmission and speed combinations that were outside of the expected value range. That practice continues in this submission as technology and speed combinations are reviewed and scrutinized; any questionable information supplied by providers is reviewed more in depth with the provider to ensure the information is accurately captured or a proper explanation is provided as to why the speed information should be submitted as supplied even if it falls outside the expected value range.

This submission also includes narratives describing the data and coverage estimation of non-participating providers. 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 seventh 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 2013 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 - 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 28 have reported no change. The remaining 3 represent providers who previously supplied data but were non-responsive in the April 2013 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.

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, 49(81.67 percent) 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 4,454 unique visits during this reporting period (18,890 total to date for the life of the grant awarded on December 20, 2009). Additionally, this pronounced Web activity netted 1 broadband inquiry over this same reporting period (45 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 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.
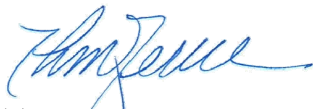
Community Anchor Institutions

Connect Nevada continues to make significant inroads 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 uptick in CAI data collection was further supported by NTIA's outreach to grantees reiterating the importance of this outreach. With the continued commitment of the Nevada Broadband Task Force, we have continued to focus on a relationship-oriented approach with state-level agencies and organizations that generates more responses than general contact.

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 past success of the September 2012 Education Campaign, February 2013 was recognized as Public Safety Month where the public safety sector was the focus of CAI data collection, research, and public affairs outreach. Connect Nevada has developed a number of new relationships with statewide associations, such as the Education SuperHighway, to promote the importance of broadband connectivity at anchor institutions and 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 build upon these new 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,

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

NEVADA COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY

In this seventh reporting period of the SBI, Connect Nevada, working in close coordination with the state of Nevada, has established an ongoing mechanism for gathering data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBI NOFA Technical Appendix. Since the October 2012 data submission, the CAI outreach process method has been modified to improve data collection. Specifically, the outreach process is a more focused sector-specific and relationship-oriented approach that generates more responses than general contact.

Connect Nevada has continued to identify and process CAI data obtained through an ongoing statewide outreach campaign. Physical address information continues to be augmented through manual sourcing and geocoded by 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

In addition to the survey, Connect Nevada has developed a number of new relationships with statewide associations, such as the Education SuperHighway, 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 new 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 2012 submission, the sector-specific approach included a month-long public safety campaign in February 2013. During this campaign, Connect Nevada committed to improve relationships with key stakeholders, distribute survey requests to sector representatives, and provide sector-specific education through communications and webinar resources. Outreach to and survey of 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	Physical Address	Lat/Long	Technology of Transmission	Download Speed	Upload Speed
K-12 Schools	822	822	791	529	528	524
Libraries	108	108	100	61	64	64
Healthcare	5034	5034	4672	27	4877	4877
Public Safety	146	146	140	22	29	29
Higher Ed Institutions	81	81	72	38	39	39
Other Government	887	887	853	81	128	129
Other Non-Government	908	908	846	21	60	62
Total	7986	7986	7474	779	5725	5724

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, 2013, is contained within the SBI Data Transfer Model and additional components as released on the Grantee Workspace on December 14, 2012. 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, 2013

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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.

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.

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:

As part of an in-kind contribution, Connect Nevada received a dataset from the Lyon County School District containing Lyon County student records. This dataset provides statistics illustrating the number of parents who have checked on their child's progress via an online system set-up and maintained by the school. - $100.

Connect Nevada received a dataset from the state containing total population for counties, cities, and towns as part of an in-kind contribution that will be utilized by the project to assist with its mapping and planning goals. - $10,592.

Connect Nevada received a dataset from the state, containing age, sex, race, and Hispanic origin estimates and projections for 2010-2030 as part of an in-kind match contribution to assist the project with its mapping and planning goals. - $29,332.

Connect Nevada obtained a dataset containing Nevada healthcare Community Anchor Institution (CAI) data. Since the dataset was developed using federal funds, it was not valued nor was it counted as match toward the program.

As part of an in-kind contribution from the Nevada Department of Transportation, Connect Nevada received a dataset containing 2011 road segments. This was instrumental in processing the 2010 Census road data. Since the dataset was developed using federal funds, it was not valued nor was it counted as match toward the program.

As part of an in-kind contribution from the Nevada Department of Taxation, Connect Nevada received a dataset that contained all registered business locations with a sales or use tax account in the state. Connect Nevada used this dataset to create an in-depth analysis of business locations by sector and by rural/non-rural counties. This dataset will continue to be used to inform future Connect Nevada surveys and research reports. - $125,339.

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 providers: Above All Communications (d.b.a. Express Internet); Air-Internet, Inc.; Arizona Nevada Tower Corporation; AT&T Inc.; Avant Wireless LLC; Baja Broadband LLC; CalNeva Broadband LLC; CC Communications; CenturyLink; Charter Communications; Citizens Telecommunications Company of Nevada (d.b.a. Frontier Communications of Nevada); Clearwire Corporation; Cox Communications; ETAN Industries (d.b.a. Clark Cablevision and CMA Cablevision); EZZnet, Inc.; Fort Mojave; Great Basin Internet Services; High Desert Internet Services; Highlands Wireless Inc.; Hot Spot Broadband Inc.; InfoWest (d.b.a. A & J Hardy Enterprises, Inc.; Comnett Computer Services, and Peak Internet Services); JAB Wireless (formerly d.b.a. KeyOn Wireless and Wells Rural Electric Telephone); Las Vegas Net; Leap Wireless (d.b.a. Cricket License Company LLC); Level 3 Communications; Lincoln County Telephone; Mason Valley Quicknet; Metro PCS; Moapa Valley

Telephone Company; Mt. Wheeler Power; Oasis Online Inc.; Reliance Connects (d.b.a. Rio Virgin Telephone & Cablevision); Robinson Communication Corporation (d.b.a. Oregon-Idaho Utilities, Inc. and Humboldt Telephone Company); Schatnet Internet LLC; SMS Computing Inc. (d.b.a. Performance Computing Internet); Spring Creek Wireless; Sprint Nextel; TelePacific Communications (d.b.a. Nextweb and Covad); T-Mobile USA Inc.; tw telecom; Vegas Wi-Fi Communications LLC; Verizon Wireless; Wave Direct Telecommunications LLC; WENR Corporation (f.k.a. Satview Broadband, Ltd.); Wireless Beehive LLC (d.b.a. Beehive Telephone Company Inc.); XO Communications; Yonder Media (formerly High Speed Networks-Mound House, LLC); and Zayo Bandwidth LLC.

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

From program initiation through this reporting period, CN has completed in-the-field validation testing against 49 companies (out of a universe of 60 viable providers) totaling 81.67 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 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 published on the NTIA Grantee Workspace on December 14, 2012. 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.). Appendix A presents full reports on the estimated broadband service territory for the providers in this state that have either been non-responsive or that have refused to participate in the SBI mapping initiative as of April 2013. These coverage estimation reports are for non-participating providers whose data has not been previously submitted to NTIA in past mapping cycles.

The section below provides a summary of the status of CN's outreach and findings on all non-participating provider coverage for the April 2013 SBI submission.

Avant Wireless
The coverage estimation for Avant Wireless was not updated from the previous submission in October 2012. 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
Coverage for this NPP is being submitted for the first time; please find white paper on provider outreach and coverage estimation in Appendix A.

Spring Creek Wireless
Coverage for this NPP is being submitted for the first time; please find white paper on provider outreach and coverage estimation in Appendix A.

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.

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 0.89 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 4.89 percent of rural Nevada households do not have terrestrial fixed broadband service available, and approximately 0.48 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 **S**ystem.

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 18,839 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 1 inquiry (45 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 522 visits this reporting period; to date the interactive mapping application has received 3,266 visits.

SPEED TEST METHODOLOGY

The 447 speed tests that are represented in the Connect Nevada Speed Test Report during this reporting period (1,652 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 2013 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, etc.

	Company Name	URL	Comments
1	21Globe, Inc.	www.21globe.com/is/access/	General Reseller of DSL and backhaul.
2	360networks	http://www.360networks.com/	Acquired by another company.
3	650Net	www.650net.net/	Dial-up only except CA DSL Reseller.
4	A & J Hardy Enterprises, Inc.	http://comnett.net	Acquired by InfoWest.
5	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.
6	A-1 Vegas.com	www.zekes.com	dba Zeke's Internet Service resells Qwest DSL.
7	AAA Internet Service	n/a	No longer in business.
8	Aaccess Network Communications	www.aaccess.net/	Not a broadband provider; provides services for business IT, home computer, web design.
9	Access123.net	n/a	No longer in business.
10	ACERX.NET	www.acerx.net/	General reseller of cable, DSL, and satellite broadband access.
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 general reseller of DSL and satellite for 36 companies (e.g. ACC Business, HughesNet et al.).
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	$81 million BIP/BTOP grant to construct 10 Gbps middle mile fiber network that would mainly follow U.S. Route 395 from Carson City to Topaz Lake; project 5% done as of 8/11 report.
26	Camino-Net Internet Services	www.camino-net.com	Reseller; no longer in business; was dial-up only.
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/home page/	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.
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	Offers web hosting only.
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_acce ss/United_States.html	International reseller of dial-up and 3G wireless reseller.
42	DSL @ Interlync	www.interlync.com	Reseller of business DSL, T-1 and wireless.
43	DTS-NET.COM	www.dts-net.com/	Reseller; provides wholesale and retail telecommunications services.
44	e-Care Nevada, Inc.	http://ecarenevada.com	Not an operating company; a management company.
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	Imbris, Inc.	www.imbris.com	Broadband referral site.
53	IMGISP.NET	www.imgisp.net/	Broadband referral site.
54	In the Air Data	n/a	No URL found; no info.
55	Incredible Networks	n/a	No URL found; no info.
56	Inercom Communications Inc.	www.inercom.com	No longer in business.
57	Integra Telecom	http://www.integratelecom.com	Facilities-based B2B provider of communication and networking services in the western United States.
58	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.
59	iRadical	n/a	No URL found.
60	Ironwood Communications	www.ironwoodcommunications.com	Direct TV.
61	ISPartner.net	n/a	No URL found.
62	Jenco Speed Web	www.jencospeed.net	Ohio WISP only.
63	Jetstream Wireless	n/a	No URL found.

64	LANwaves	n/a	No longer in business.
65	LARIAT.NET	www.lariat.net/	WISP in Wyoming only.
66	LCSisp.com	www.lcsisp.com/index.cfm	National dial-up only.
67	Light Link Broadband	www.light-link.net/	Redirects to www.digis.net, a provider of fixed wireless broadband internet in Utah.
68	Lightyear Network Solutions, LLC	www.lightyear.net/	Telecommunications network company.
69	LinkAmerica.Net	www.linkamerica.net/	Shopping site.
70	MainBoard	www.mainboard.cc/internet.htm	VA-based computer store; general reseller; not a WISP.
71	Maine Cable and Wireless	www.mainecableandwireless.com	Broadband referral site.
72	Marcin Company	n/a	No URL found; no info.
73	Millenicom Inc.	www.millenicom.com/internet_access.html	Resells mobile wireless on Sprint network EVDO cards.
74	Nanomega.Com	www.nanomega.com	Redirects to GoDaddy; out of business.
75	Nanosecond, Inc.	www.nanosecond.com	Provides computer repair, website design, website hosting, SEO, e-mail, and technology consulting.
76	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.
77	NetAccess, Inc.	www.nas.net/	Not a WISP; business portal site.
78	Netriplex	www.netriplex.com/	Data center.
79	NetSpeed Online	www.netspeed-online.net	No URL found; no info.
80	NetVoice	www.netvoice.net/	VoIP search site.
81	Nevada Comstock Communications, LLC	nevadacomstock.com	Phone systems.
82	Nevada Hospital Association	www.nvha.net/	Not a broadband provider.
83	Nevada Telecommunications Association	www.nevtelassn.org	Not a broadband provider.

84	Nextlink Wireless, Inc.	www.nextlink.com	Acquired by XO Communications.
85	NextWeb, Inc.	n/a	Acquired by another company.
86	Northwest ISP	www.northwestisp.com/	No longer in business.
87	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.
88	Overarch Broadband	www.overarch.com/	Broadband access in Idaho.
89	Pacific Internet Exchange	www.pie.us/, www.pacificinternetexchange.com	URLs not active; no longer in business.
90	Paknet Limited	www.ptcl.com.pk/pd_content.php?pd_id=279	Subsidiary of Pakistan Telephone Company; no USA services.
91	Planet Online	www.planetonline.net/	Offers website hosting services.
92	PremoWeb	www.premoweb.com/about_us/contact_us.html	URL inactive, out of business.
93	PrimeVision Communications, LLC	www.myprimevision.net	URL inactive, out of business.
94	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.
95	Pyramid Lake Paiute Tribe	n/a	Not operational, BIP/BTOP funded project to deploy fiber-optic middle mile network across 742 square mile reservation.
96	Pyramid Net	http://www.pyramid.net/	Offers service, but below broadband threshold.
97	Rapid Cable	n/a	Rapid Cable was recently acquired by CalNeva Broadband in December 2008.
98	Renaissance Networks	www.renaissancenetworks.com/	IT support company based in New Mexico; not a WISP.

99	Sierra Internet Services, Corp.	http://www.sierranv.net/	Reseller of DSL services.
100	Silver State Internet	www.ssinternet.net	URL inactive; out of business.
101	Simply Dialup A Metrogeek Company	www.simplydialup.com/	Dial-up only; not a broadband supplier.
102	Sky Technologies, Inc.	www.skyforall.com	Dish network reseller.
103	SkyBridge Wireless	n/a	Not an ISP; renamed SkyBridge Technology Group; acquired aviation business.
104	Sling Broadband	www.slingbroadband.com/	Florida WISP.
105	SONNET Networking, LLC	www.sonnet.com/	California WISP.
106	Sparkplug Las Vegas, Inc.	www.airband.com/	Provides fixed wireless broadband to businesses.
107	Speakeasy, Inc.	www.speakeasy.net/	Business phone systems; not an ISP.
108	StarNetWX	www.starnetinc.com/	Dial-up and VoIP.
109	Surferz.Net	www.surferz.net/	Dial-up in upstate NY only; not a WISP.
110	Switch Communications Group LLC	www.switchnap.com/	Colocation; NOC services.
111	T1 Shopper	www.t1shopper.com/	Search engine for general reseller.
112	The-OnRamp.Net	www.the-onramp.net/	Access provider below NTIA definition.
113	Total Access Networks, Inc.	www.totalaccess.net	Fixed wireless provider in Elgin, TX.
114	TSISP.NET	www.tsisp.net	Shopping site.
115	U.S. TELEPACIFIC CORP	www.telepacific.com	Acquired by MegaPath.
116	UNEV Communications, Inc.	n/a	UNEV (Lovelock) does not offer Internet Access.
117	United Cable Management, Inc.	n/a	Out of business March 2011.

118	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.
119	UNUM Telecommunications, Inc.	www.utinet.net/	URL inactive; out of business.
120	USA Airnet, Inc.	www.usaairnet.com	URL inactive; out of business.
121	Velocitus	www.velocitus.net	URL inactive; out of business.
122	Verde Communications	www.sparkplug.net/	Acquired by Sparkplug in July 2007.
123	Washoe Weblinks	www.washoeweblink.com	URL inactive; out of business.
124	Wireless Roanoke, Inc.	www.wirelessroanoke.com/	URL inactive; out of business.
125	Wireless TelCorp, Inc.	www.wirelesstelcorp.com/	Fixed wireless provider with offices in TX, NV, and NC.
126	Wireless Think Tank	www.wirelessthinktank.com/	URL inactive; out of business.
127	wisbin	www.wisbin.com/	Wisconsin ISP resells DSL.
128	www.AmericanAngel.us	www.americanangel.us/	URL inactive; out of business.
129	YEYZOO.NET	www.yeyzoo.net/	URL inactive; out of business.
130	YLISP (Your Local ISP)	www.itsyournet.com	Provider inactive; no longer in business.
131	YourT1Wifi.com	www.yourt1wifi.com/	Providing service In Idaho, Washington, and Alaska.
132	ZOOM Internet Services, LLC	n/a	Acquired by another company.

APPENDIX A: ESTIMATION OF NON-PARTICIPATING PROVIDERS

Mason Valley Quicknet

Spring Creek Wireless

MASON VALLEY QUICKNET LLC

As part of its ongoing broadband mapping efforts, Connected Nation (CN) has developed a series of processes with the goal of submitting mapping data to NTIA for every known and qualifying last-mile broadband provider, regardless of whether the provider has chosen to support and participate in the State Broadband Initiative (SBI) mapping program.

The following narrative provides detail regarding the recent data collection activities related to Mason Valley Quicknet (MVQ), a wireless Internet service provider (WISP), located in Yerington, NV, with a service area around Yerington, Nevada. The narrative will include information regarding how and where CN obtained publicly available data and the on-the-ground due diligence, verification and validation techniques that support the underlying data.

Background
CN staff members have continued trying to obtain the participation of the provider with 17 instances of communication via telephone and e-mail sessions since July 7, 2012, through February 28, 2013. No response has been received from a company representative.

The Issue
MVQ, by its lack of responsiveness since July 7, 2012, has predicated its unwillingness to participate in the Connect Nevada broadband mapping initiative.

Identification of Provider's Service Plans, Service Area, Legal Name, d.b.a., FRN, and Licensing
CN began building a file based on research information and, as time progressed, enriched the file with information obtained through the public domain. For example, CN reviewed the provider's website (http://www.mvqn.net/joomla/index.php) to determine the residential service plans **(Exhibit A)** and the service area **(Exhibit B)** of the provider's wireless network. A search for a Federal Registration Number (FRN) on the FCC **CO**mmission **RE**gistration **S**ystem (CORES) system yielded an FRN of 0018906461 **(Exhibit C)** with contact information relative to the owner of the company. Also, to support field validation of potential transmit sites and wireless access points, the FRN was referenced against the FCC Universal Licensing System (ULS) to identify any authorizations that the provider may hold for spectrum or leasing arrangements which could possibly enhance locating active transmit sites and wireless access points for the service area. This process yielded a 3650 MHz authorization for Station WQPY563 **(Exhibit D)**, with one unique location.

Exhibit A: MVQ Service Plans

How much will my internet service and equipment cost?				
Installation & Equipment (One-Time)				
Standard Wireless Equipment[1]			$	300.00
Standard Installation & Configuration[2]			$	100.00
Additional Equipment (As Needed)[3]				
Linksys 4-Port Switch			$	40.00
Linksys Wireless Router with 4-Port Switch			$	100.00
Linksys Wireless Access Point			$	80.00
Internet Service (Monthly)				
Economy	384Kb/s	384Kb/s	$	40.00
Basic	512Kb/s	512Kb/s	$	50.00
Standard	768Kb/s	768Kb/s	$	75.00
Professional	1,024Kb/s	1,024Kb/s	$	100.00
Business	1,536Kb/s	1,536Kb/s	$	150.00
Corporate	2,048Kb/s	2,048Kb/s	$	200.00
Executive	3,072Kb/s	3,072Kb/s	$	300.00

Exhibit B: MVQ Service Area (Mason Valley and Smith Valley)

Exhibit C: Federal Registration Number

Registration Detail	
FRN:	0018906461
Registration Date:	06/29/2009 02:08:00 PM
Last Updated:	
Business Name:	Mason Valley Quicknet, LLC
Business Type:	Private Sector , Limited Liability Corporation
Contact Organization:	Mason Valley Quicknet
Contact Position:	Manager
Contact Name:	Mr Ryan N Spaeth
Contact Address:	235 North Main Street Yerington, NV 89447 United States
Contact Email:	rspaeth@mvqn.net
ContactPhone:	(775) 463-7510
ContactFax:	(775) 463-7520

Exhibit D: WQPY563 License Reference

MAIN	ADMIN	LOCATIONS			
Call Sign		WQPY563		Radio Service	NN - 3650-3700 MHz
1 Total Location					
Return to Locations Summary					

1. Site Yerington Water Tank

ASR Number			
Transmitter	38-59-57.7 N, 119-11-12.0 W	Support Structure Type	TANK - Any type of Tank (Water, Gas, etc)
City	Yerington	State	NV
County/Borough/Parish	LYON		
Elevation of Site AMSL	1362.0 meters	Overall Height AGL Without Appurtenances	14.0 meters
Overall Height AGL With Appurtenances	18.0 meters		
NEPA Required	No		
Quiet Zone Notification Date		Quiet Zone Consent	
Has an agreement with the grandfathered satellite earth station been negotiated?	No		
Special Conditions	None		

Antenna Data

Manufacturer	Ubiquiti	Model Number	AirMax Sector 3G-120-18
Gain	18.0 dBi	Beamwidth	120.0 degrees
Center Line	17.0 meters - AGL	Azimuth	160.0 degrees
Elevation Angle	-5.0 degrees	Polarization	Horizontal and Vertical

Equipment Data

FCC ID Number	SWX-M365	Lower/Center Frequency	3650.00000000 MHz
EIRP	42.0 dBm	Upper Frequency	3675.00000000 MHz
Emission Designator	17M8D7D	Modulation Scheme	BPSK, QPSK, QAM16, QAM64
Transmission Method/ Protocol Restricted or Unrestricted?	Restricted		
Transmission Method or Protocol Description	AirMax - Dynamic TDMA protocol implemented with a proprietary polling mechanism in which the BaseStation controls when each client transmi		
Special Conditions	None		

Preliminary Identification of Provider's Coverage Area

Connected Nation extracted the MVQ information from the FCC ULS database in reference to Station WQPY563. The ULS data was utilized to create an RF propagation model using RF predictive software **(Exhibit E)**.

Exhibit E: MVQ Service Area Propagation Model – Estimated Coverage Area
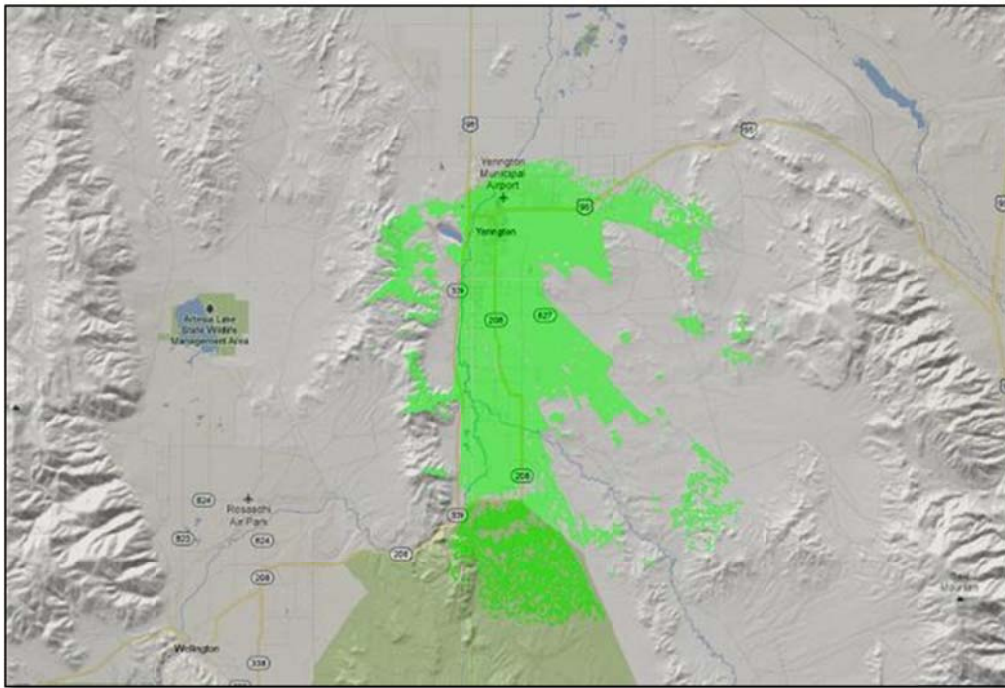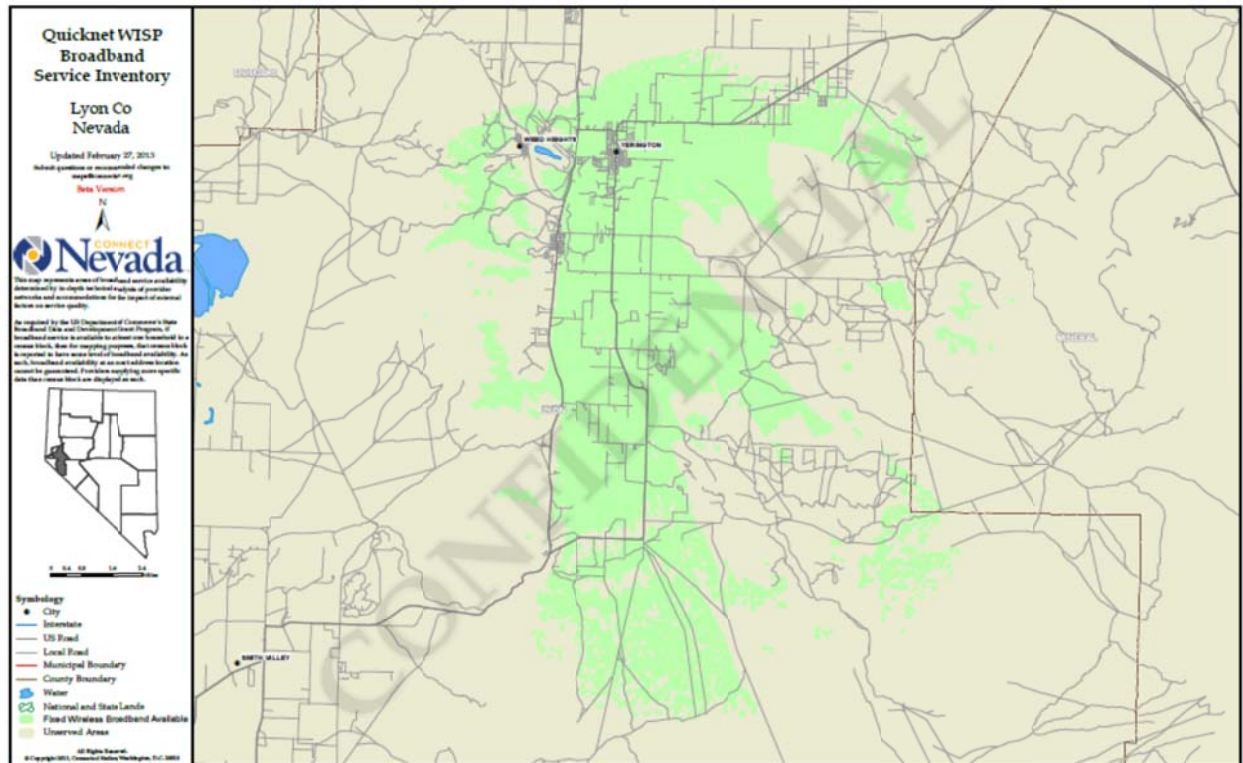

Results and Submission for April 2013

The ULS data and publicly available data were logged into the MVQ provider information spreadsheet **(Exhibit F)**. A composite propagation study was completed based on the data, and a PDF map was created for submission to the provider **(Exhibit G)**. This document was then forwarded to MVQ and the provider was advised that the information would be submitted to Connect Nevada and the NTIA broadband mapping project for processing if there is no input received from the provider within a 48-hour period regarding discrepancies of the estimated coverage.

Exhibit F: Mason Valley Quicknet Provider Information Spreadsheet

Coordinates: Latitude - Degrees (e.g., 36° 24' 47.8" would be entered as: 36 in this column 24 in column L; and 47.8 in column M)	Coordinates: Latitude - Minutes (cannot be greater than 60)	Coordinates: Latitude - Seconds (cannot be greater than 60)	Decimal Degree Conversion (automatically converted here if you completed columns K, L and M)	Coordinates: Longitude - Degrees (e.g., 089° 08' 59.0" would be entered as 089 in this column 08 in column P; and 59.0 in column Q)	Coordinates: Longitude - Minutes (cannot be greater than 60)	Coordinates: Longitude Seconds (cannot be greater than 60)	Decimal Degree Conversion (automatically converted here if you completed columns O, P and Q)
36.0	24.0	47.8	36.413278	89.0	8.0	59.0	-89.149722
38.0	59.0	57.7	38.999361	119.0	11.0	12.0	-89.149722

Exhibit G: Mason Valley Quicknet Composite Coverage

SPRING CREEK WIRELESS

As part of its ongoing broadband mapping efforts, Connected Nation (CN) has developed a series of processes with the goal of submitting mapping data to NTIA for every known and qualifying last-mile broadband provider, regardless of whether the provider has chosen to support and participate in the State Broadband Initiative (SBI) mapping program.

The following narrative provides detail regarding the recent data collection activities related to Spring Creek Wireless (also d.b.a. Mighty Moose), a wireless Internet service provider (WISP), located in Spring Creek, Nevada, with a service area around Spring Creek. The narrative will include information regarding how and where CN obtained publicly available data and the on-the-ground due diligence, verification and validation techniques that support the underlying data.

Background
CN staff members have continued trying to obtain the participation of the provider with seven instances of communication via telephone and e-mail sessions since May 20, 2011, through July 16, 2012.[1] No communication was received from a company representative. This provider has no sales office.

The Issue
Spring Creek Wireless, by its lack of responsiveness since May 20, 2011, has predicated its unwillingness to participate in the Connect Nevada broadband mapping initiative.

Identification of Provider's Service Plans, Service Area, Legal Name, d.b.a., FRN, and Licensing
CN began building a file based on research information and, as time progressed, enriched the file with information obtained through the public domain. For example, CN reviewed the provider's website (www.springcreekwireless.com) to determine the residential service plans **(Exhibit A)** of 1 Mbps downstream by 1 Mbps upstream and the service area **(Exhibit B)** of the provider's wireless network stated as "…the Spring Creek Housing Section"[2] and "…the Spring Creek Mobile Section."[3] A search for a Federal Registration Number (FRN) on the FCC **CO**mmission **RE**gistration **S**ystem (CORES) system yielded an FRN of 0017505199 **(Exhibit C)** with contact information relative to the owner of the company. Also, to support field validation of potential transmit sites and/or wireless access points, the FRN was referenced against the FCC Universal Licensing System (ULS) to identify any authorizations that the provider may hold for spectrum or leasing arrangements that could possibly enhance locating active wireless access points for the service area. This process yielded a 3650 MHz authorization for Station WQIQ571 **(Exhibit D)**, with zero unique locations.

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[1] Including the recent distribution of the NPP estimated coverage area to the provider on March 7, 2013.
[2] Spring Creek website.
[3] Mighty Moose website.

Exhibit A: Service Plans

Exhibit B: Defined Service Areas from Provider's Websites
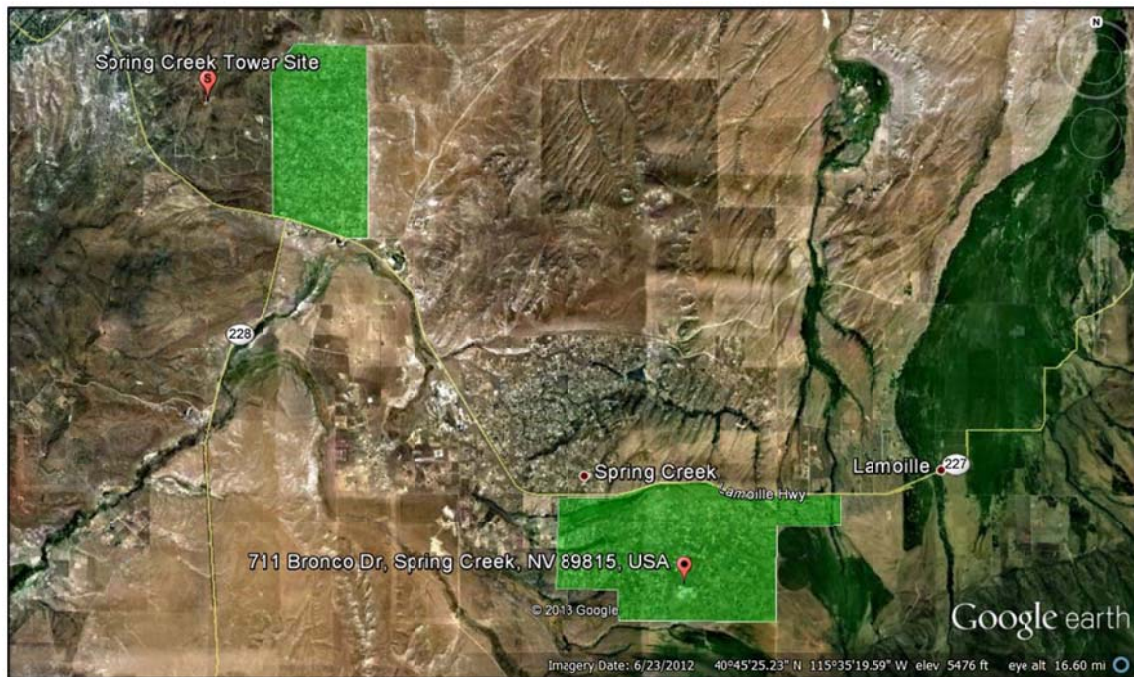
Exhibit C: Federal Registration Number

Registration Detail	
FRN:	0017505199
Registration Date:	03/02/2008 12:21:00 PM
Last Updated:	
Business Name:	Spring Creek Wireless
Business Type:	Private Sector , Sole Proprietor
Contact Organization:	Spring Creek Wireless
Contact Position:	Owner
Contact Name:	Terry Vance
Contact Address:	PO Box 8352 Spring Creek, NV 89815 United States
Contact Email:	terry@springcreekwireless.com
ContactPhone:	(775) 777-9999
ContactFax:	

Exhibit D: WQIQ571 License Reference

Specified Search
FRN like 0017505199
Matches 1- 2 (of 2)

P = Pending Application(s)
TP = Termination Pending
L = Lease

Page 1

	Call Sign/Lease ID	Name	FRN	Radio Service	Status	Expiration Date
1	KE7TMY	Vance, Terry E	0017505199	HA	Active	04/24/2018
2	WQIQ571	Spring Creek Wireless	0017505199	NN	Active	04/15/2018

MAIN	ADMIN	LOCATIONS			
Call Sign		WQIQ571		Radio Service	NN - 3650-3700 MHz
0 Total Locations 10 Locations per Summary Page					
		No Locations			
0 Total Locations 10 Locations per Summary Page					

Preliminary Identification of Provider's Coverage Area

Spring Creek Wireless does not provide a map of its service area on its website nor do they provide the location of a sales office. Connected Nation identified the Spring Creek Wireless service area using information from their website and other Internet based sources. Spring Creek Wireless claims to provide Internet access service in two discrete and easily identifiable areas of Spring Creek: the "Trailer Section" and the "Housing Section." This information was utilized to create Google Earth images of the service areas **(Exhibit E, Exhibit F)**.

3

Exhibit E: Google Earth Spring Creek Trailer Section
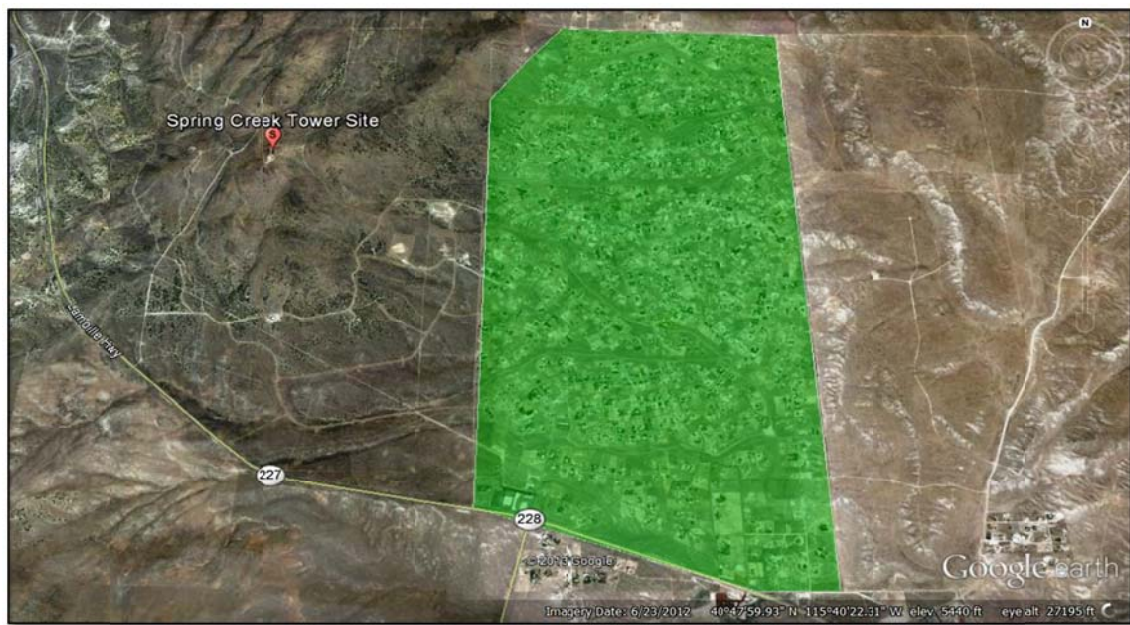
Exhibit F: Spring Creek Housing Section

Testing Techniques

Connected Nation staff developed a site validation route based on data established from the Google Earth image. The CN wireless engineer was equipped with an AVCOM PSA-37XP analyzer with RF detection from 1 MHz to 6 GHz and an array of antennas tuned specifically for the 900 MHz, 2.4 GHz, 3.65 GHz, and 5 GHz frequency bands **(Exhibit G)**. Each validation point was scrutinized for specific frequency of operation. A screen image of the operating frequency (or frequencies) was captured; general notes were recorded for each location and photographs were taken of the transmit sites, wireless access points, or customer premise equipment that help triangulate tower site locations or that verified actual operation of service.

Exhibit G: Field Data for Spring Creek Wireless Hub Location
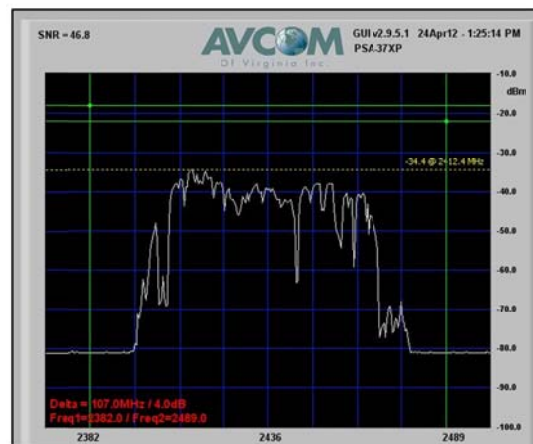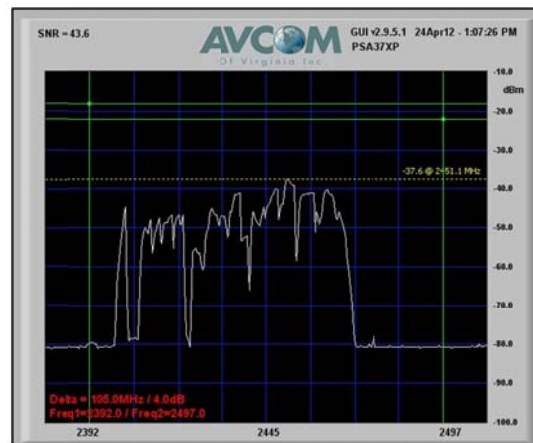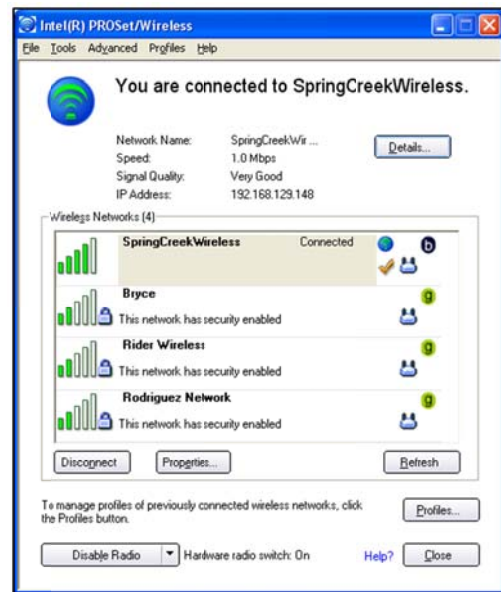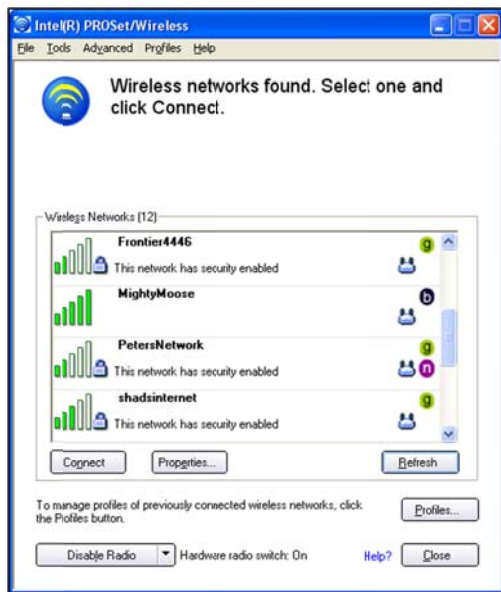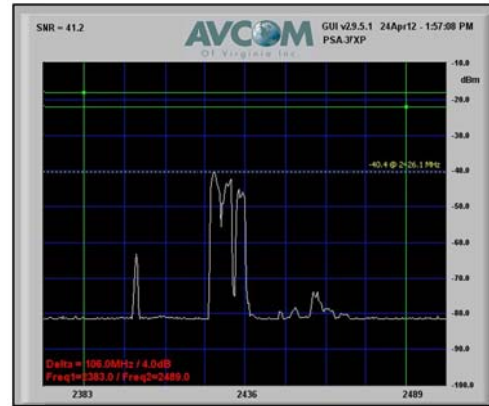
Results and Submission for April 2013

Of the seven locations visited during the validation point route, two access points were identified and relative information was logged into the Spring Creek Wireless field validation notes file **(Exhibit H)**. The field and the publicly available data were transferred to the Connected Nation provider information file and a composite propagation study was completed based on the field data **(Exhibit I)**. Both documents were forwarded to Spring Creek Wireless and the provider was advised the information would be submitted to Connect Nevada and the NTIA broadband mapping project for processing if the provider did not report discrepancies of the estimated coverage 48-hour hours of receipt.

Exhibit H: Field Validation Notes

Site #	Date	Provider	Provider Ref #	FRN Validation	Test City	Test State	Test County	Physical Address	Location Description
		Provider						**Test Site Info**	
1	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	2340 Dove Creek Ct	Residence (CPE)
2	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	475 Edgewater Dr	Residence (CPE)
3	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	382 Brent Dr	Residence (CPE)
4	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	400 Brent Drive	Residence (CPE)
5	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	425 Brent Dr	Residence (CPE)
6	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	Lamoille Hwy	AP Antenna Site
7	4/24/12	Spring Creek	5994	Yes	Spring Creek	NV	Elko	711 Bronco Dr	Residence; Headend

Engineer	Lat Deg	Lat Min	Lat Sec	(-) Long Deg	Long Min	Long Sec	(N) Lat Decimal	(-)(W) Long Decimal
	Coordinates NAD 83 REQUIRED							
C. Roodenburg	40	47.318		-115	39.781		40.78863	-115.66302
C. Roodenburg	40	47.309		-115	40.175		40.78848	-115.66958
C. Roodenburg	40	47.663		-115	39.835		40.79438	-115.66392
C. Roodenburg	40	47.743		-115	39.863		40.79572	-115.66438
C. Roodenburg	40	47.861		-115	39.904		40.79768	-115.66507
C. Roodenburg	40	48.75		-115	42		40.81250	-115.70000
C. Roodenburg	40	42.274		-115	33.333		40.704567	-115.555550

| Type	Presence Confirmed	Type	Pass or Fail?	Type	Images	Peak Freq	Peak Sig Strength	Spectrum Analyzer	Time	Images
Platform Type		**Test Data**		**Visual Confirmation**		**Signal Verification/Spectrum Analyzer**				
Fixed Wire	Yes	Visual	Pass	Customer	Yes	2451.1	-37.6	Avcom PS	1:07 PM	Yes
Fixed Wire	Yes	Visual	Pass	Customer	Yes	2412.4	-34.4	Avcom PS	1:25 PM	Yes
Fixed Wire	Yes	Visual	Pass	Customer	Yes	2426.1	-40.4	Avcom PS	1:57 PM	Yes
Fixed Wire	Yes	Visual	Pass	Customer	Yes					
Fixed Wire	Yes	Visual	Pass	Customer	Yes					
Fixed Wire	Yes	Visual	Pass	Wi-Fi/AP	Yes					
Fixed Wire	Yes	Signal Ver	Pass	Wi-Fi/AP	Yes	2450.9	-32.8	Avcom PS	3:37 PM	Yes

Exhibit I: Spring Creek Wireless Composite Coverage
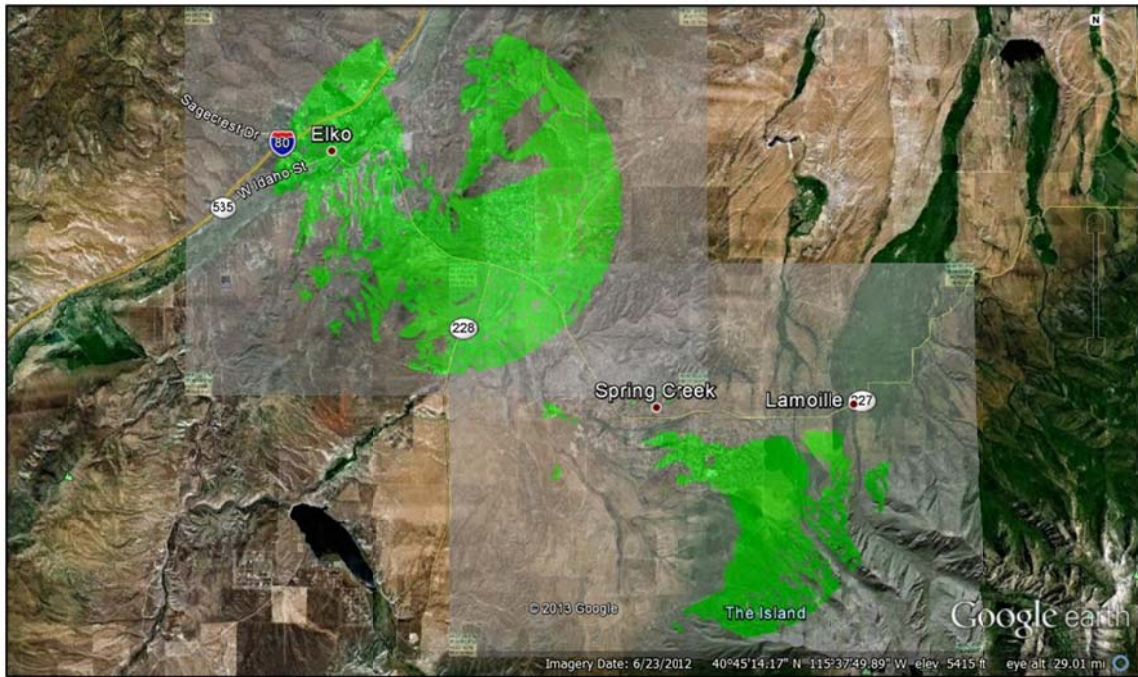
APPENDIX B: BROADBAND PROVIDER LOG

Broadband Provider Log

Complete	81
Non-Responsive/Refused	0
In Progress	0
Reseller Providing Data	1
Count of Datasets by Status	82
Total Unique Providers Represented	60

Provider Name	Platform	Status	NDA Execution Date	Notes
Arizona Nevada Tower Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/8/2010	[MAR-13-13 Jess Cary] Change: Provider expanded coverage area.
Arizona Nevada Tower Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/8/2010	[MAR-13-13 Jess Cary] Change: Provider expanded coverage area.
AT&T Inc.	DSL	Data Added to Statewide Inventory	12/16/2009	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
AT&T Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	[FEB-13-2013 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
CenturyLink	DSL	Data Added to Statewide Inventory	12/4/2009	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Charter Communications, Inc.	Cable	Data Added to Statewide Inventory	12/15/2009	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Clearwire Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/3/2010	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Clearwire Corporation	Mobile Wireless	Data Added to Statewide Inventory	3/3/2010	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Commnet Wireless, Inc.	Mobile Wireless	Data Added to Statewide Inventory		[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
CoxCom, Inc.	Cable	Data Added to Statewide Inventory	2/3/2010	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Filer Mutual Telephone Company	DSL	Data Added to Statewide Inventory	2/9/2010	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Fort Mojave Telecommunications, Inc.	Fiber	Data Added to Statewide Inventory		[MAR-13-13 Jess Cary] Change: Provider expanded coverage area.
Frontier Communications Corporation	DSL	Data Added to Statewide Inventory	1/22/2010	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Hot Spot Broadband, Inc.	Fixed Wireless	Data Added to Statewide Inventory		[MAR-13-2013 Jess Cary] Correction: Provider no longer offers speed tier 10 download. Max download speed is now speed tier 7.
Leap Wireless International, Inc.	Mobile Wireless	Data Added to Statewide Inventory	4/6/2010	[FEB-14-2013 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
MegaPath Corporation	DSL	Data Added to Statewide Inventory	2/15/2010	[MAR-13-13 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Moapa Valley Telephone	DSL	Data Added to Statewide Inventory	2/22/2010	[MAR-13-13 Jess Cary] Change: Provider expanded coverage area.
Robinson Communications Corporation	DSL	Data Added to Statewide Inventory	2/25/2010	[MAR-13-2013 Jess Cary] Change and Correction: Provider submitted new DSLAM locations; coverage was also modified from buffers around DSLAM to network analyst coverage.
Skycasters	Satellite	Data Added to Statewide Inventory	10/16/2012	[MAR-13-2013 Jess Cary] Correction: Provider added satellite coverage but previously in operation.

Provider	Technology	Status	Date	Notes
Sprint Nextel Corporation	Mobile Wireless	Data Added to Statewide Inventory	1/14/2010	[FEB-13-Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
T-Mobile USA, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/8/2010	[FEB-13-2013 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
Verizon Communications, Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/14/2009	[FEB-13-2013 Jess Cary] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2013 submission.
WENR Corporation	Cable	Data Added to Statewide Inventory	1/11/2010	[FEB-12-13 Jess Cary] Change: Provider expanded coverage area.
Wireless Beehive, LLC	Fixed Wireless	Data Added to Statewide Inventory	4/5/2010	[MAR-13-13 Jess Cary] Change: Provider upgraded infrastructure and can now offer tier 8 download speeds and tier 7 upload speeds.
Wireless Beehive, LLC	Fiber	Data Added to Statewide Inventory	4/5/2010	[MAR-13-2013 Jess Cary] Change: Provider added initial fiber coverage
WUE Inc.	Mobile Wireless	Data Added to Statewide Inventory	3/5/2010	[MAR-13-2013 Jess Cary] Change: Provider's speeds now meet the threshold for broadband.
CoxCom, Inc.	Backhaul	Backhaul Provider Only Processing Complete	2/3/2010	
Level 3 Communications, Inc.	Backhaul	Backhaul Provider Only Processing Complete	12/14/2009	
MegaPath Corporation	Backhaul	Backhaul Provider Only Processing Complete	2/15/2010	
Sprint Nextel Corporation	Backhaul	Backhaul Provider Only Processing Complete	1/14/2010	
T-Mobile USA, Inc.	Backhaul	Backhaul Provider Only Processing Complete	1/8/2010	
Hughes Network Systems, LLC	Satellite	Speed Only Update; Data Processing Complete	2/5/2010	[MAR-13-2013 Jess Cary] Change: Provider upgraded infrastructure and can now offer tier 7 download speeds and tier 4 upload speeds.
Lincoln Communications, Inc.	DSL	Speed Only Update; Data Processing Complete	3/5/2010	[MAR-13-13 Jess Cary] Correction: Coverage area remained the same, but upload speed tier decreased to 4.
Lincoln Communications, Inc.	Fiber	Speed Only Update; Data Processing Complete	3/5/2010	[MAR-13-13 Jess Cary] Correction: Coverage area remained the same, but provider now offers speed tier 8 download.
Avant Wireless LLC	Fixed Wireless	No Update-Estimated Coverage Submitted for Non-Participating Provider		
Mason Valley Quicknet, LLC	Fixed Wireless	Estimated Coverage Submitted for Non-Participating Provider		[MAR-15-13 Jess Cary] Correction: Coverage not submitted in previous datasets; coverage created from specs obtained from FCC ULS registration site.
Spring Creek Wireless	Fixed Wireless	Estimated Coverage Submitted for Non-Participating Provider		[MAR-15-13 Jess Cary] Correction: Coverage not submitted in previous datasets; coverage created from on-site observations.
Highlands Wireless Inc.	Fixed Wireless	Approval for Update Not Received – Data Still Submitted		[MAR-15-2013 Jess Cary] Change: Provider added new towers and now has a max download speed tier of 7.
Above All Communications, LLC	DSL	No Update to Provide		Reseller providing data.
Above All Communications, LLC	Fixed Wireless	No Update to Provide		
Absolute Best Communications, LLC	Fixed Wireless	No Update to Provide		
Air-Internet, Inc.	Fixed Wireless	No Update to Provide		
Arizona Nevada Tower Corporation	Backhaul	No Update to Provide	3/8/2010	
Baja Broadband Holding Company, LLC	Cable	No Update to Provide	2/22/2010	
CalNeva Broadband, LLC	Cable	No Update to Provide	4/8/2010	
CenturyLink	Backhaul	No Update to Provide	12/4/2009	
CenturyLink	Backhaul	No Update to Provide	12/4/2009	
Charter Communications, Inc.	Backhaul	No Update to Provide	12/15/2009	
Churchill County Telephone	DSL	No Update to Provide	6/11/2010	
Churchill County Telephone	Fiber	No Update to Provide	6/11/2010	
ETAN Industries	Cable	No Update to Provide		
Ezznet, Inc.	Fixed Wireless	No Update to Provide		
Fort Mojave Telecommunications, Inc.	DSL	No Update to Provide		
Frontier Communications Corporation	Backhaul	No Update to Provide	1/22/2010	
Great Basin Internet Services, Inc.	Fixed Wireless	No Update to Provide	4/6/2010	
High Desert Internet Services	Fixed Wireless	No Update to Provide		
InfoWest, Inc.	Fixed Wireless	No Update to Provide		
Jab Wireless, Inc.	Fixed Wireless	No Update to Provide	6/14/2010	
LasVegas.Net LLC	Fixed Wireless	No Update to Provide		
Martell Telecommunications	DSL	No Update to Provide	3/23/2010	
MetroPCS Wireless, Inc.	Mobile Wireless	No Update to Provide	2/10/2012	
Moapa Valley Telephone	Fiber	No Update to Provide	2/22/2010	
Mt. Wheeler Power	DSL	No Update to Provide	4/5/2010	
Mt. Wheeler Power	Fixed Wireless	No Update to Provide	4/5/2010	
Oasis Online, Inc.	Fixed Wireless	No Update to Provide		
Rio Virgin Telephone Company	DSL	No Update to Provide		
Schatnet Internet LLC	Fixed Wireless	No Update to Provide		
SMS Computing, Inc.	Fixed Wireless	No Update to Provide	3/19/2010	
Spacenet, Inc.	Satellite	No Update to Provide		
Tele-NET.net LLC	Fixed Wireless	No Update to Provide		
tw telecom of nevada, llc	Backhaul	No Update to Provide	4/27/2010	
Vegas Wifi Communications LLC	Fixed Wireless	No Update to Provide	4/7/2010	
Verizon Communications, Inc.	Backhaul	No Update to Provide	12/14/2009	
ViaSat, Inc.	Satellite	No Update to Provide	1/8/2010	
WaveDirect Telecommunications, LLC	Fixed Wireless	No Update to Provide		

Wireless Beehive, LLC	DSL	No Update to Provide	4/5/2010	
XO Communications, LLC	Backhaul	No Update to Provide	6/2/2010	
Yonder Media	Fixed Wireless	No Update to Provide		
Cogent Communications, Inc.	Backhaul	No Update Provided – Use Last Submission Data		
Nevada System of Higher Education	Backhaul	No Update Provided – Use Last Submission Data		
Rio Virgin Telephone Company	Fiber	No Update Provided – Use Last Submission Data		
Zayo Bandwidth, LLC	Backhaul	No Update Provided – Use Last Submission Data		