

**OFFICIAL OCTOBER 2011 UPDATE SUBMISSION TO
THE NATIONAL TELECOMMUNICATIONS AND INFORMATION
ADMINISTRATION UNDER THE
STATE BROADBAND INITIATIVE GRANT PROGRAM FOR THE
STATE OF NEVADA**



October 1, 2011

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NEVADA COVER LETTER

October 1, 2011

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

Dear Ms. Neville:

As the State Broadband Designated Entity, in partnership with the 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.

These artifacts should be found to be compliant with the October 1, 2011, deadline for the semi-annual data update and in accordance with the terms of the July 1, 2009, Notice of Funds Availability (NOFA) and all subsequent clarifications pertaining to delivery of state-level mapping of broadband service availability. This packet includes:

Inventory of Deliverables, Connect Nevada: October 1, 2011

<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 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 April 2011 SBI data submission for the Connect Nevada program. Specifically, these new requirements are:

SBI Data Transfer Model

The submission of the broadband dataset for October 1, 2011, is contained within the SBI Data Transfer Model as released on the Grantee Workspace on June 30, 2011. 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

This submission also includes a list of changes and corrections made to the dataset between the April 2011 submission and the October 2011 submission. This represents a summary of why data displays and/or supplied speeds, etc. are different from the previous submission. Changes can include upgrades to infrastructure to allow for higher throughput speeds for customers, an expansion of the service area (e.g. additional fixed wireless towers, recently activated DSLAMs, etc.), or a new provider in the marketplace. Corrections can include revisions to speed tier information that was previously reported incorrectly or the addition of a previously existing provider that has not yet been submitted in a semi-annual dataset.

Another addition in this submission is a narrative describing 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 fourth round of data submissions. The submission of this estimated broadband service area for a provider that has not supplied data to Connect Nevada is essential in being able to portray a more accurate depiction of the current broadband landscape.

This October 2011 semi-annual data update under the State Broadband Initiative 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 approximately 91.38 percent of the Nevada provider community, or 53 of 58 total providers. There are 52 participating

providers and 1 additional non-participating provider whose estimated coverage areas have been submitted. Of the 52 participating providers, 28 supplied an update to their network or coverage area(s), while 21 have reported no change. The remaining 3 represent providers who previously supplied data but were non-responsive in the October 2011 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 record is contained herein. Of the 5 providers that are not represented in the attached datasets, 4 have refused to participate in the voluntary program or were non-responsive to multiple contact attempts, and 1 provider is currently in some form of progress toward data submission but was not able to submit coverage areas at the time of this submission.

As the aforementioned roster and attached methodology documentation will attest, it is the collective opinion of the 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, 37 (63.79 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 1,951 unique visits during this reporting period (5,467 total to date for the life of the grant awarded on December 20, 2009). Additionally, this pronounced Web activity netted 2 broadband inquiries over this same reporting period (26 grant inception to date). The website also provides the BroadbandStat application, which allows the consumer to confirm or dispute the coverage represented on the broadband inventory map. These consumer-initiated actions are facilitated through the Connect Nevada website and the Connect Nevada interactive mapping tool (BroadbandStat) that offer the citizens 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 Connected Nation to identify additional areas that are in need of field validation, which is scheduled as soon as possible.

Community Anchor Institutions

Connect 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.

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. Connect Nevada has specifically focused efforts during this reporting period on the education and library sectors through our coordination with the Nevada Department of Education and the Nevada State Library and Archives. Additionally, a CAI survey continues to be made available for all institutions on the Connect Nevada website and has been utilized for our outreach to schools and libraries. During this reporting period Connect Nevada has developed a number of new relationships with statewide associations such as the State Health IT Director and the Clark County Library District to promote the importance of broadband connectivity at anchor institutions and participation in this data collection process. 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.

During this reporting period a Connect Nevada CAI newsletter was developed and distributed to contacts throughout the state to assist with outreach and highlight Duckwater School, a small, rural, one-room school utilizing broadband to provide unique opportunities for its students. 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.

In acquiring both broadband availability and CAI data within the state of Nevada, Connected Nation continues engagement with all federally recognized native communities in the area covered by the Connect Nevada SBI grant. During the last reporting period Connect Nevada was invited to present to the Inter-Tribal Council of Nevada and requested participation by the tribes with completing the Nevada CAI survey. Connect Nevada has distributed the CAI survey to the Council's participating members and will continue outreach throughout the next reporting period. Connect Nevada understands the connectivity challenges facing these communities, and we have identified a need to include their data as part of our upcoming submissions.

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 through contribution to the National Broadband Map. We look forward to the continuing work ahead.

Respectfully submitted,

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

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

DATA ACQUISITION: NEVADA COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY

In this fourth reporting period of the SBI, Connect Nevada, working in close coordination with the Nevada Broadband Task Force, 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. During this reporting period Connect Nevada has continued to focus efforts on conducting outreach and raising awareness of this important project.

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 to a targeted list of CAI throughout the state. 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 using the following password:

http://connectnv.org/mapping/Community_Anchor_Institution_Data_Collection.php

Password: CAI_NV_6549

During this reporting period Connect Nevada conducted research with the Nevada Broadband Task Force to identify existing, centralized sources for CAI connectivity data. One source that was identified within the state for this data for the healthcare sector is the Nevada State HIT Coordinator's Office. This office provided Connect Nevada with a database of broadband connectivity for thousands of healthcare providers throughout the state. This data is included within the submission and we will continue to work with this office over the upcoming reporting period.

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. Connect Nevada continues to work closely with statewide organization and government agencies such as the Nevada State Library and Archives and the Nevada Department of Education to distribute the CAI survey to contacts throughout the state.

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. During this reporting period Connect Nevada developed and distributed a CAI newsletter to CAI contacts throughout the state across all CAI sectors with the assistance of the Nevada Broadband Task Force. This newsletter highlights Duckwater School, a one-room school in Nevada utilizing broadband Internet to connect its students with other students across the county. Additionally, the newsletter encourages institutions to share their data by participating in the

CAI online survey and highlights the release of the National Broadband Map. This newsletter will continue to be utilized for outreach, be made available on the CAI page of the Connect Nevada website, and be updated over the next reporting period.

The greatest challenge with collecting this data continues to be the difficulty in securing CAI broadband connectivity data for K-12 schools and public safety facilities. Connect Nevada is overcoming this challenge through developing a relationship with the Nevada Superintendent’s Association and working with the group to jointly distribute our CAI survey. Additionally, we are investigating similar partnerships in the public safety sector. Connect Nevada expects noted progress to occur over the coming months leading up to the April 2012 submission and will continue to work in close coordination with the Nevada Broadband Task Force to raise awareness of this important project.

In acquiring both broadband availability and CAI data within the state of Nevada, Connect Nevada has previously engaged all federally recognized native communities in the area covered by the Connect Nevada grant and reported that outreach as part of past submissions. During this reporting period Connect Nevada continued to engage directly with these communities through a partnership with the Nevada Indian Commission. Connect Nevada, in a joint presentation with the Nevada Indian Commission, provided an overview of the CAI data collection efforts during a meeting of the Nevada Inter-Tribal Council. As a result of this outreach, Connect Nevada was provided an updated contact list for tribes throughout the state and created a customized survey that was distributed through multiple methods including utilizing the online survey and a paper survey. Connect Nevada understands the connectivity challenges facing these communities, and we have identified a need to include their data as part of our upcoming submissions.

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	866	866	866	141	139	136
Libraries	91	91	91	44	42	42
Healthcare	5,004	5,004	5,004	26	4,965	4,965
Public Safety	108	108	108	4	9	9
Higher Ed Institutions	57	57	56	40	39	39
Other Government	836	836	834	48	97	97
Other Non-Government	1,706	1,706	1,705	15	550	551
Total	8,668	8,668	8,664	318	5,841	5,839

SBI DATA SUBMISSION METHODOLOGY

The submission of the broadband dataset for October 1, 2011, is contained within the SBI Data Transfer Model and additional components as released on the Grantee Workspace on June 30, 2011. Connected Nation has reviewed all literature that relates to the release and use of this data transfer model and recognizes that it does not replace or dictate how data is stored, processed, or displayed for the state, as it is meant primarily as a means to transfer the broadband data from all states and territories and populate the National Broadband Map in a seamless fashion. Guidance from the

Technical Mapping Guide, as released on the Grantee Workspace on March 24, 2011, was also 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.

As part of the ongoing review and analysis process, NTIA has requested further information in the submission of the DataPackage spreadsheet. In addition to the information on providers whose coverage and accompanying attributes are submitted in the SBI Data Transfer Model, information on other providers that are considered to be non-viable is also included in the DataPackage. Providers deemed non-viable that have been excluded from continued outreach may have been eliminated for reasons such as (i) the company offers Internet service but at speeds below the current definition of broadband; (ii) the company was listed in advertisements as a broadband provider, but is actually a network solution or consulting firm, etc.; (iii) the company may build or install network infrastructure, but does not actually provide the broadband service to consumers; and (iv) the company has gone out of business. The submitted DataPackage includes any relevant information that has been obtained through the course of due diligence and/or direct provider outreach, such as a Federal Registration Number (if applicable), the company’s URL, the existence of an executed Nondisclosure Agreement, and brief notations regarding the status of the company.

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

Inventory of Deliverables, Connect Nevada: October 1, 2011

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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 Connected Nation 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.

PROVIDER CHANGES AND CORRECTIONS FOR OCTOBER 2011

As requested by the SBI Program Office, a listing of the changes and/or corrections to the datasets between the April 2011 and October 2011 submissions is included in this narrative. This information is presented in this section as well as in the Broadband Provider Log. Changes to the data include expansion of service area(s), activation of new wireless towers, and upgrades to the network to provide higher download speeds to consumers. Corrections to the dataset include the addition of previously existing providers whose coverage has never been submitted, revision of coverage or speed information that was incorrect, and any other items that were misrepresented in the April 2011 dataset.

Changes

- Above All Communications, LLC (fixed wireless): New WISP provider.
- Above All Communications, LLC (DSL) New DSL provider.
- Arizona Nevada Tower Corporation (fixed wireless): Provider added a new tower, expanded coverage.
- AT&T Inc. (mobile wireless): Provider expanded coverage area.
- Baja Broadband Holding Company, LLC (cable): Provider upgraded its speeds to tier 7.
- CC Communications (fiber): Provider expanded coverage area and increased download speeds to tier 8.
- Filer Mutual Telephone Company (DSL): Provider upgraded infrastructure and can now offer download speeds in some areas of tier 7.
- Fort Mojave Telecommunications, Inc. (DSL): New provider in the market.
- Great Basin Internet Services, Inc. (fixed wireless): Provider added two new towers.
- KeyOn Communications, Inc. (fixed wireless): KeyOn took over WREC's towers. Coverage expanded.
- Moapa Valley Telephone (DSL): Provider upgraded infrastructure and can now offer download speeds of tier 7 in additional areas.
- Moapa Valley Telephone (fiber): Provider upgraded max download speed to tier 9.
- Rio Virgin Telephone Company (DSL): Provider upgraded infrastructure and can now offer tier 7 download speeds.
- Rio Virgin Telephone Company (fiber): Provider upgraded infrastructure and can now provide tier 10 download speeds.

- Robinson Communications Corporation (DSL): Provider upgraded infrastructure and can now offer tier 6 download speeds.
- Satview Broadband LTD (cable): Expanded coverage area.

Corrections

- Avant Wireless LLC (fixed wireless): Provider refused to participate. Coverage area and attributes extracted from its website.
- CC Communications (DSL): Provider revised service area extent.
- DISH Network Corporation (satellite): Satellite data is being submitted and was not included in the April 2011 submission. While coverage is currently the entire state boundary, work continues on having more granular data.
- Hughes Network Systems, LLC (satellite): Satellite data is being submitted and was not included in the April 2011 submission. While coverage is currently the entire state boundary, work continues on having more granular data.
- LasVegas.Net LLC (fixed wireless): Propagations were created to replace generalized polygons.
- ViaSat, Inc. (satellite): Satellite data is being submitted and was not included in the April 2011 submission. While coverage is currently the entire state boundary, work continues on having more granular data.

Changes and/or Corrections – Entirely New Dataset Submitted

- AT&T Inc. (DSL)
- Cellco Partnership (mobile wireless)
- CenturyLink (DSL)
- Charter Communications, Inc. (cable)
- Citizens Telecommunications Company of Nevada (DSL)
- Clearwire Corporation (fixed wireless, mobile wireless)
- CoxCom Inc. (cable)
- Leap Wireless International, Inc. (mobile wireless)
- Sprint Nextel Corporation (mobile wireless)
- T-Mobile USA, Inc. (mobile wireless)

NEVADA FIELD VALIDATION METHODOLOGY

Connected Nation 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 System (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 and Trips;
- locating physical wire-line attributes (such as 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 Connected Nation's state specific websites.

Additionally, Connected Nation cross-referenced numerous public documents in order to ensure that all known broadband providers were located and contacted. This included searching membership logs from the 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: A & J Hardy Enterprises, Inc. (d.b.a. Comnett Computer Services, Peak Internet Services) Arizona Nevada Tower Corporation; AT&T, Inc.; Baja Broadband LLC; Beehive Telephone Company, Inc.; 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, CMA Cablevision); Great Basin Internet Services; High Desert Internet Services; High Speed Networks-Mound House LLC; KeyOn Wireless; Las Vegas.Net; Leap (d.b.a. Cricket License Company LLC); Lincoln County Telephone; Moapa Valley Telephone Company; Mount Wheeler Power; Nextweb-Covad; Oasis Online, Inc.; Oregon-Idaho Utilities, Inc. (d.b.a. Humboldt Telephone Company); Performance Computing Internet Reliance Connects (d.b.a. Virgin Telephone & Cablevision); Satview Broadband LTD; Schatnet Internet LLC; Sprint Nextel Corporation; United Cable Management; Vegas Wi-Fi Communications LLC; Verizon Wireless; Wells Rural Electric Telephone; and Yonder Media.

From program initiation through this reporting period, Connected Nation has completed in-the-field validation testing against 37 companies (out of a universe of 58 viable providers) totaling 63.79 percent within the state of Nevada.

Connected Nation 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. 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

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

Resolution: Additional information on the technology in use was not received and the dataset is submitted as-is; work will continue on the technology clarification.

Charter

Issue: Technology of transmission 41 with maximum advertised download speed in tier 8, higher than expected value range for the technology.

Resolution: Provider representative confirmed that speed tier 8 is available without the use of DOCSIS 3.0 technology.

Great Basin Internet Services

Issue: Fixed wireless platform with a maximum advertise download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider’s website advertises 12 Mbps; screenshot available below.

STARTER	1 x 1 (down vs. up mbps speed)	\$24.95 (monthly)
	2 x 1 (down vs. up mbps speed)	\$29.95 (monthly)
	4 x 2 (down vs. up mbps speed)	\$39.95 (monthly)
	8 x 2 (down vs. up mbps speed)	\$49.95 (monthly)
	12 x 3 (down vs. up mbps speed)	\$69.95 (monthly)

DATA SUBMISSION AND COVERAGE ESTIMATION OF NON-PARTICIPATING PROVIDER

Avant Wireless, 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 broadband provider, regardless of whether the provider has chosen to support and participate in the SBI mapping initiative.

The following narrative provides detail regarding the recent data collection activities related to Avant Wireless, LLC, a wireless Internet service provider (WISP), located in Carson, Nevada, with a service area around Reno, Washoe Valley, Spanish Springs, Palomino Valley, Pleasant Valley, and Stead Airport. The narrative will include information regarding how and where CN obtained publicly available 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 February 11, 2010, through August 4, 2011. Provider replies on April 17, 2011, and August 4, 2011, have clearly indicated this provider has no interest in participating.

The Issue

Avant Wireless, LLC, by its lack of responsiveness since February 11, 2010, has predicated its unwillingness to participate in the 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.avantwireless.com) 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 for Avant Wireless, LLC, Avant Wireless, and Avant * and yielded no FRN. Exhibit A is presented on the following page.

Exhibit A: Service Plans

Avant Wireless, LLC

<u>Typical Residential service is \$45.95/month and \$150 Installation fee</u>
<u>1 Install Rate</u>
<p>Basic One-time Installation \$150 standard \$200-\$400 for special/business installations, \$300 typical</p> <ul style="list-style-type: none"> • If customer purchases equipment (not recommended*) installation is free • If customer purchases equipment monthly, one time installation fee is \$75 • Beyond Basic Installation contact us for details
<u>2 Equipment Purchase Price</u> (Not Recommended*)
<ul style="list-style-type: none"> • Radio, antenna, power supply and cable \$249.99 + tax
<u>3 Equipment Lease Price</u>
<ul style="list-style-type: none"> • Radio, antenna, power supply and cable \$17 + tax for 12 months
Choose Only One of the above 3 options
<u>Monthly Service Fees</u> (Residential) this is guaranteed rate, speed will typically be around Max speed. Our outbound speeds are the same as the inbound speeds.
1. 128 kilobits/sec min rate - 7 megabits/sec Max \$45.95/month \$60/month Mt Rose area
2. 1 megabit/sec min rate - 10 megabits/sec Max \$60/month

Exhibit B: Service Area

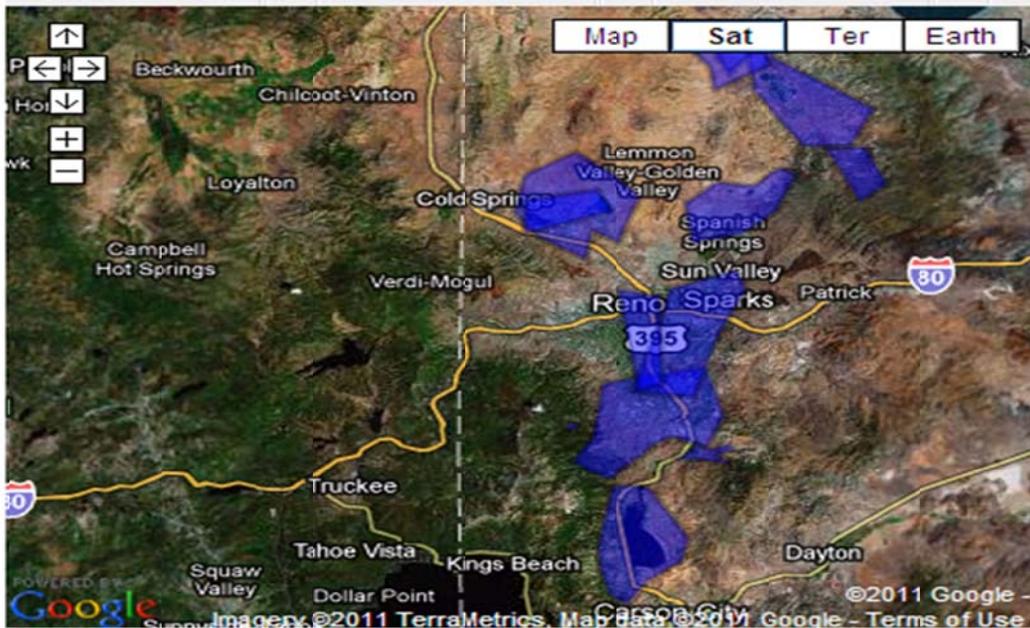


Exhibit C: Federal Registration Number Search Results

FCC Registration

FCC > FCC Registration

Search Public Information

[Return to FCC Registration Home](#)

Displaying Records 1-10 (of 19)

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FRN	Registrant	Contact	Address	City	State
0001881929	Avant Construction Company Inc		2035 Wolfe Creek Rd	Walterboro	SC
0002504603	Avant Ministries	Shaner, Mr. Ricky L	210608	Auke Bay	AK
0007345952	Avante International Technology, inc.	Chu, Cynthia	70 Washington Road	Princeton Junction	NJ
0010078038	Avanti Hearth Products	Packard, Mr. Loren C	204 So. Avon Street, suite 200	Gastonia	NC
0010181345	Avant Fire Dept	Soule, Mr. Dale M	P.O. Box 147, 100 S. Broadway	AVANT	OK
0010314615	Avantair, Inc.	Gancar, Eric J	27 Wight Way, Suite 10	Fairfield	NJ
0010582351	Avant Fire Department		26941 Cabot Rd #134	Laguna Hills	CA
0012035226	Avant Public School	Frazier, Ms. Susan G	207 E. Main	Hominy	OK
0012709010	AVANTI HIGH SCHOOL	Morsette, Ron	1113 LEGION WAY S.E.	OLYMPIA	WA
0013594890	Avantic Corporation	Nihill, Mr. Julian D	4514 Cole Avenue, Suite 806	Dallas	TX

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[REFINE SEARCH](#)

Preliminary Identification of Provider's Coverage Area

Connected Nation extracted the Avant Wireless, LLC service area map polygons from its website. The degree of accuracy of the image overlay was maintained at less than .2 mile (1058 ft.) to establish a minimum search criteria of a given access point.

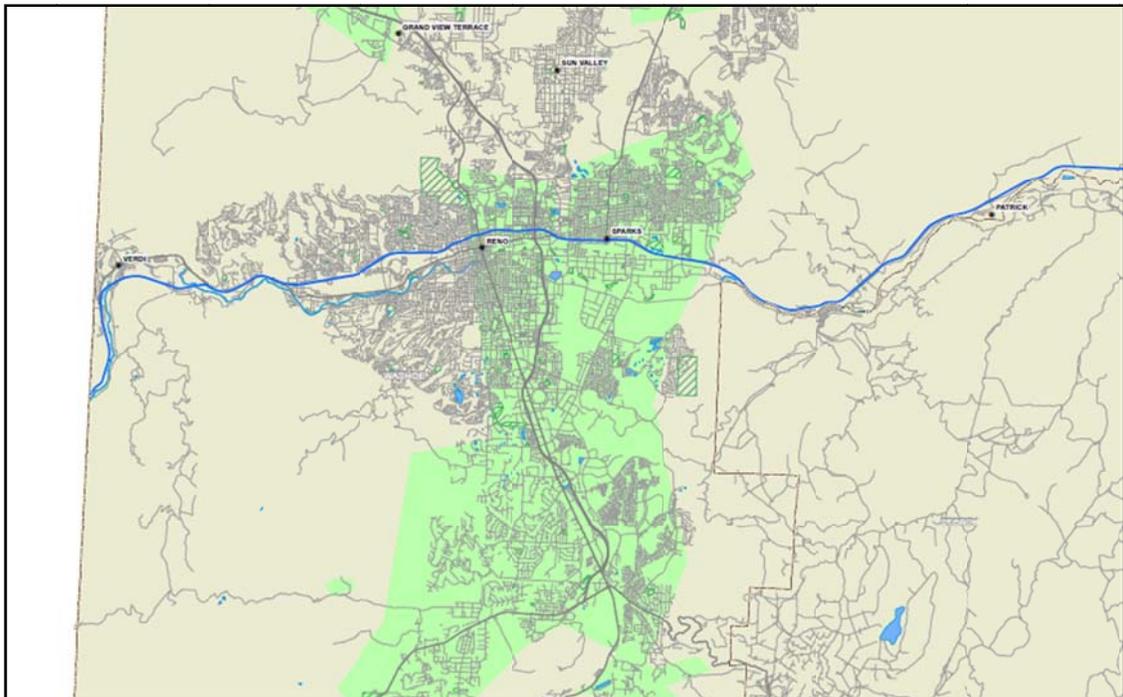
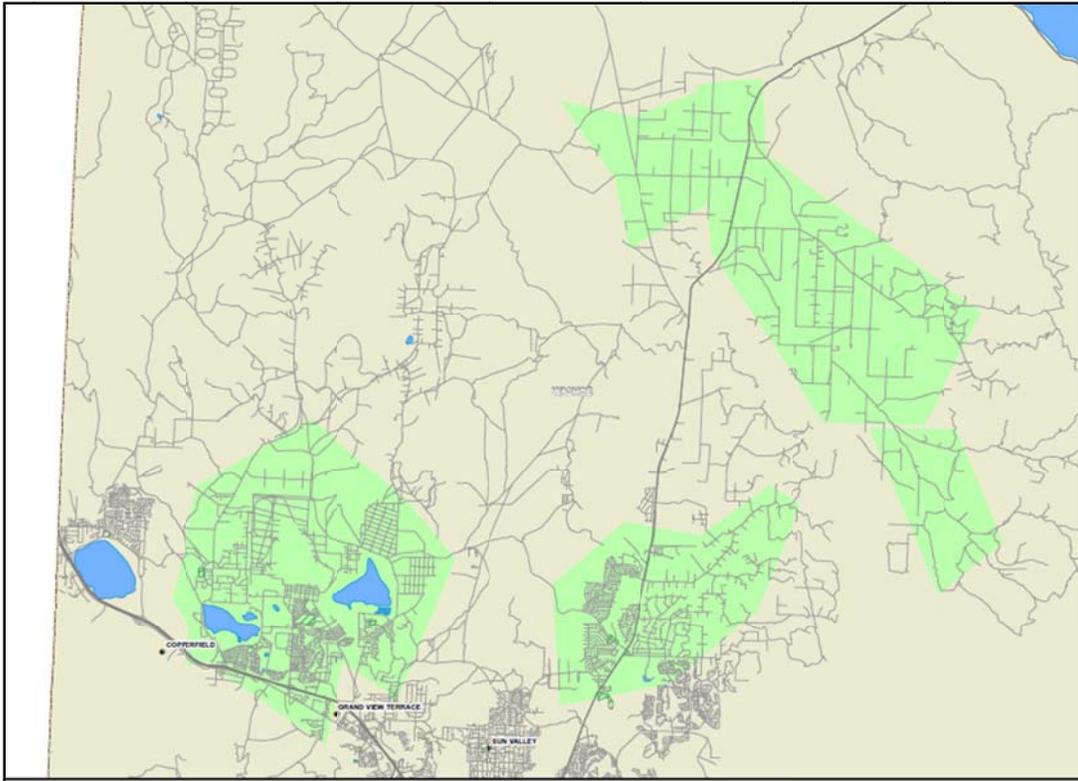
Testing Techniques

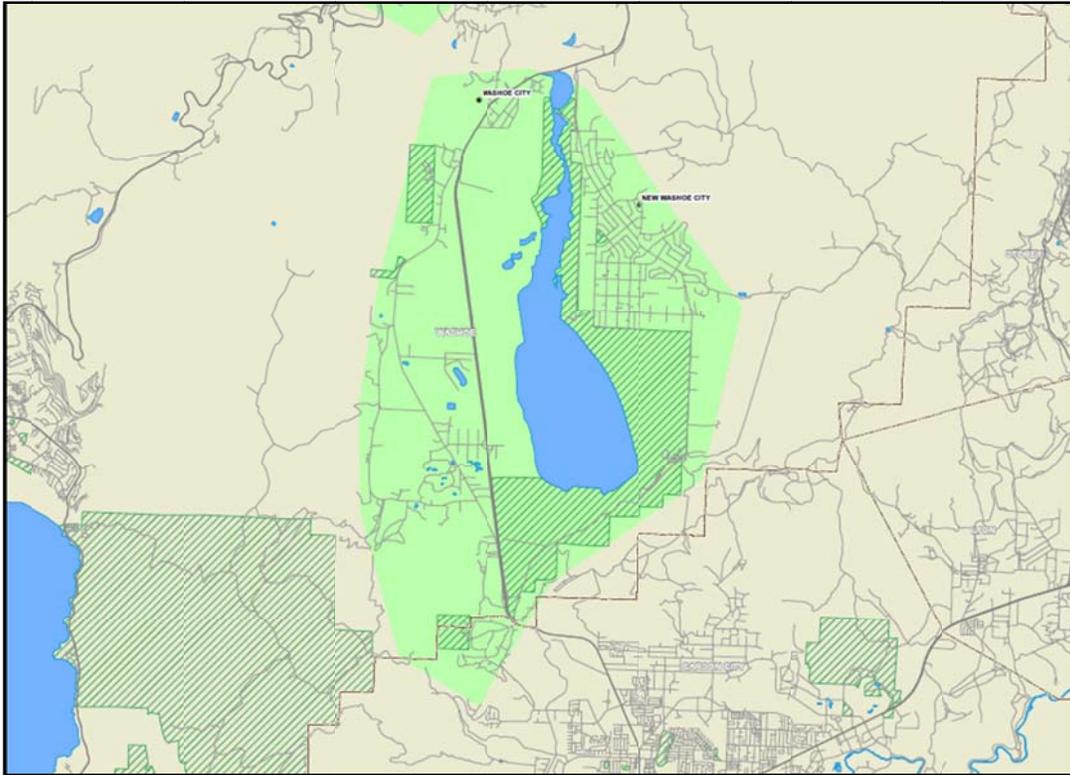
Connected Nation staff will develop a site validation plan of action based on data established with the Google Earth image overlay and publicly available data through the FCC ULS database for Avant Wireless, LLC. Such plan of action will seek to identify each transmitting location and frequency. Once this information is gathered, a Connected Nation engineer will develop propagation maps for each frequency emanating from each transmit site to validate the provider's service area. The CN wireless engineer will be equipped with an AVCOM PSA-37XP analyzer with RF detection from 1MHz to 6GHz and an array of antennas tuned specifically for the 900 MHz, 2.4 GHz, 3.65 GHz, and 5 GHz frequency bands. Each validation point will be scrutinized for frequency of operation to ascertain if multiple frequencies are being utilized by the provider. A screen image of the operating frequency (or frequencies) will be captured; general notes will be recorded for each location – approximate antenna height, frequency of operation, antenna type (omni or sectored), and photographs will be taken of the access points.

Results and Submission for October 2011

The publicly available data was transferred to the Connected Nation Provider Information file. A composite propagation study was completed based the service area map polygons extracted from the provider's website (**Exhibit D**) and is presented on the following pages.

Exhibit D: Avant Wireless, LLC Composite Coverage





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

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

Estimates derived from provider-validated data indicate that approximately 1.07 percent of Nevada households do not have terrestrial fixed broadband service available, and approximately 0.22 percent¹ of Nevada households have neither mobile nor fixed broadband service available.²

Within rural areas of the state, results derived from provider-validated data indicate that approximately 7.04 percent of rural Nevada households do not have terrestrial fixed broadband service available, and approximately 1.61 percent³ of rural Nevada households have neither mobile nor fixed broadband service available.⁴ Please note that the availability estimates presented are based on Census 2000 household information; these figures will be updated in the near future with Census 2010 household information.

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)

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

² Due to the nature of the 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.

³ See footnote 1.

⁴ See footnote 2.

5. The frequency range of spectrum being used (as prescribed by NTIA)
6. The primary population center(s) being served (for geopolitical boundary reference)
7. 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. omni-directional, 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 Federal Communications Commission Universal Licensing System and the **CO**mmission **RE**gistration **S**ystem

Propagation modeling is an empirical mathematical formulation for the characterization of radio wave propagation as a function of frequency, distance, and other conditions. Propagation software(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, hillshade, 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

Connected Nation 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 three categories: 1) residents who do not have broadband but want it; 2) residents who have broadband but want a different provider; and 3) residents who do not have broadband, but the broadband inventory maps indicate that they do.

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 Connected Nation 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.

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 requested 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 other 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 Connected Nation state programs with successful results. Altogether Connected Nation has received over 17,000 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 Connected Nation 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 a total of 2 inquiries (26 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.

BROADBANDSTAT METHODOLOGY

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

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

New functionality in BroadbandStat allows the consumer to 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 Connected Nation 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 Connected Nation to approach the providers within that area in an effort to trim down their coverage to more accurately represent real-world availability on the ground.

The Connect Nevada project launched BroadbandStat on June 3, 2010, and has received a total of 1,386 visits to date, of which 332 occurred this reporting period.

SPEED TEST METHODOLOGY

The 262 speed tests that are represented in the Connect Nevada Speed Test Report during this reporting period (522 grant inception to date) are the result of a partnership between Connected Nation and Ookla Net Metrics. Utilizing this relationship increases the level of confidence in the data being collected and provides for a far greater sample size than could be collected by a single testing site.

Ookla owns and operates Speedtest.net, as well as develops and deploys speed tests, such as the 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 was received through the data collection process, the use of speed tests provide real-world information on the speeds that currently exist within the state of Nevada.



Broadband Provider Log

Complete	70
Non-Responsive/Refused	4
In Progress	2
Count of Datasets by Status	76
Total Unique Providers Represented	58

Provider Name	Platform	Status	NDA Execution Date	Notes
Above All Communications, LLC	DSL	Data Added to Statewide Inventory		[SEP-12-11 Jess Cary] Change: New DSL Provider.
Above All Communications, LLC	Fixed Wireless	Data Added to Statewide Inventory		[SEP-13-11 Jess Cary] Change: New WISP provider.
Arizona Nevada Tower Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/8/2010	[SEP-13-11 Jess Cary] Change: Provider added a new tower, expanded coverage.
AT&T Inc.	DSL	Data Added to Statewide Inventory	12/16/2009	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
AT&T Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	[SEP-12-11 Jess Cary] Change: Provider expanded coverage area.
Baja Broadband Holding Company, LLC	Cable	Data Added to Statewide Inventory	2/22/2010	[SEP-12-11 Jess Cary] Change: Provider upgraded their speeds to tier 7.
CC Communications	Fiber	Data Added to Statewide Inventory	6/11/2010	[SEP-12-11 Jess Cary] Change: Provider expanded coverage area and increased download speeds to tier 8.
CC Communications	DSL	Data Added to Statewide Inventory	6/11/2010	[SEP-12-11 Jess Cary] Correction: Provider revised service area extent.
Cellco Partnership	Mobile Wireless	Data Added to Statewide Inventory	12/14/2009	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
CenturyTel, Inc.	DSL	Data Added to Statewide Inventory	12/4/2009	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Charter Communications, Inc.	Cable	Data Added to Statewide Inventory	12/15/2009	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Citizens Telecommunications Company of Nevada	DSL	Data Added to Statewide Inventory	1/22/2010	[SEP-16-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Clearwire Corporation	Mobile Wireless	Data Added to Statewide Inventory	3/3/2010	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Clearwire Corporation	Fixed Wireless	Data Added to Statewide Inventory	3/3/2010	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
CoxCom Inc.	Cable	Data Added to Statewide Inventory	2/3/2010	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Filer Mutual Telephone Company	DSL	Data Added to Statewide Inventory	2/9/2010	[SEP-13-11 Jess Cary] Change: Provider upgraded infrastructure and can now offer download speeds in some areas of tier 7.
Fort Mojave Telecommunications, Inc.	DSL	Data Added to Statewide Inventory		[SEP-12-11 Jess Cary] Change: New provider in the market.
Great Basin Internet Services, Inc.	Fixed Wireless	Data Added to Statewide Inventory	4/6/2010	[SEP-12-11 Jess Cary] Change: Provider added two new towers.
LasVegas.Net LLC	Fixed Wireless	Data Added to Statewide Inventory		[SEP-13-11 Jess Cary] Correction: Propagations were created to replace generalized polygons.
Leap Wireless International, Inc.	Mobile Wireless	Data Added to Statewide Inventory	4/6/2010	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Moapa Valley Telephone	Fiber	Data Added to Statewide Inventory	2/22/2010	[SEP-12-11 Jess Cary] Change: Provider upgraded max download speed to tier 9.
Moapa Valley Telephone	DSL	Data Added to Statewide Inventory	2/22/2010	[SEP-13-11 Jess Cary] Change: Provider upgraded infrastructure and can now offer download speeds of tier 7 in additional areas.

Rio Virgin Telephone Company	Fiber	Data Added to Statewide Inventory		[SEP-13-11 Jess Cary] Change: Provider upgraded infrastructure and can now provide tier 10 download speeds.
Rio Virgin Telephone Company	DSL	Data Added to Statewide Inventory		[SEP-12-11 Jess Cary] Change: Provider upgraded infrastructure and can now offer tier 7 download speeds.
Robinson Communications Corporation	DSL	Data Added to Statewide Inventory	2/25/2010	[SEP-12-11 Jess Cary] Change: Provider upgraded infrastructure and can now offer tier 6 download speeds.
Satview Broadband LTD	Cable	Data Added to Statewide Inventory	1/11/2010	[SEP-12-11 Jess Cary] Change: Expanded coverage area.
Sprint Nextel Corporation	Mobile Wireless	Data Added to Statewide Inventory	1/14/2010	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
T-Mobile USA, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/8/2010	[SEP-12-11 Jess Cary] Changes and/or Corrections: possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2011 submission.
Vegas Wifi Communications LLC	Fixed Wireless	Data Added to Statewide Inventory	4/7/2010	[SEP-13-11 Jess Cary] Change: New tower added, coverage area expanded.
360networks	Backhaul	Backhaul Provider Only Processing Complete	1/19/2010	
CenturyTel, Inc.	Backhaul	Backhaul Provider Only Processing Complete	12/4/2009	
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 Inc.	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	
U.S. TELEPACIFIC CORP	Backhaul	Backhaul Provider Only Processing Complete	2/25/2010	
Zayo Bandwidth, LLC	Backhaul	Backhaul Provider Only Processing Complete		
Avant Wireless LLC	Fixed Wireless	Estimated Coverage Submitted for Non-Participating Provider		[APR-17-11 Charlie Roodenburg] Received reply from company representative stating they are not interested in participating due to bad experiences with previous big business methodology. Indicated they have a public map. [SEP-13-11 Jess Cary] Correction: Provider refused to participate. Coverage area and attributes extracted from their website.
Arizona Nevada Tower Corporation	Fixed Wireless	No Update to Provide	3/8/2010	
Beehive Telephone Co., Inc. NV	Fixed Wireless	No Update to Provide	4/5/2010	
Beehive Telephone Co., Inc. NV	DSL	No Update to Provide	4/5/2010	
CalNeva Broadband, LLC	Cable	No Update to Provide	4/8/2010	
Cellco Partnership	Backhaul	No Update to Provide	12/14/2009	
CenturyTel, Inc.	Backhaul	No Update to Provide	12/4/2009	
Citizens Telecommunications Company of Nevada	Backhaul	No Update to Provide	1/22/2010	
DISH Network Corporation	Satellite	No Update to Provide	1/27/2010	[SEP-16-11 Jess Cary] Correction: Satellite data is being submitted and was not included in the April 2011 submission. While coverage is currently the entire state boundary, work continues on having more granular data.
ETAN Industries	Cable	No Update to Provide		
High Desert Internet Services	Fixed Wireless	No Update to Provide		
Highlands Wireless Inc.	Fixed Wireless	No Update to Provide		
Hot Spot Broadband, Inc.	Fixed Wireless	No Update to Provide		
Hughes Network Systems, LLC	Satellite	No Update to Provide	2/5/2010	[SEP-16-11 Jess Cary] Correction: Satellite data is being submitted and was not included in the April 2011 submission. While coverage is currently the entire state boundary, work continues on having more granular data.
InfoWest, Inc.	Fixed Wireless	No Update to Provide		
Lincoln County Telephone System	DSL	No Update to Provide	3/5/2010	
Lincoln County Telephone System	Fiber	No Update to Provide	3/5/2010	
Martell Telecommunications	DSL	No Update to Provide	3/23/2010	
Mt. Wheeler Power	DSL	No Update to Provide	4/5/2010	
Mt. Wheeler Power	Fixed Wireless	No Update to Provide	4/5/2010	
NextWeb, Inc.	Backhaul	No Update to Provide	1/19/2010	
Oasis Online, Inc.	Fixed Wireless	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	
Tele-NET.net LLC	Fixed Wireless	No Update to Provide		
tw telecom of nevada, llc	Backhaul	No Update to Provide	4/27/2010	
ViaSat, Inc.	Satellite	No Update to Provide	1/8/2010	[SEP-16-11 Jess Cary] Correction: Satellite data is being submitted and was not included in the April 2011 submission. While coverage is currently the entire state boundary, work continues on having more granular data.
XO Communications, Inc.	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		
KeyOn Communications, Inc.	Fixed Wireless	No Update Provided - Use Last Submission Data	10/15/2009	[SEP-12-11 Jess Cary] Change: KeyOn took over WREC's towers. Coverage expanded.

Nevada System of Higher Education	Backhaul	No Update Provided - Use Last Submission Data		
American Wireless Networks, Inc.	Fixed Wireless	Solicited Initial Data		
U.S. TELEPACIFIC CORP	Fixed Wireless	Other	2/25/2010	[AUG-30-11 Ashley Littell] Covad Wireless (dba under NextWeb) was acquired by TelePacific and operation is now as a business provider and no longer residential.
Pyramid Net	DSL	Refused to Participate		[AUG-5-2011 Charlie Roodenburg] A representative of the company replied to a request for participation by asking that they be removed from our list.
ACI, Inc.	Fixed Wireless	Non-Responsive to Multiple Attempts		In addition to contact attempts made on July 1, 2010 and January 5, 2011, 2 additional attempts were made this period.
Air-Internet, Inc.	Fixed Wireless	Non-Responsive to Multiple Attempts		In addition to contact attempts made on July 1, 2010 and January 5, 2011, 2 additional attempts were made this period.
Ezznet, Inc.	Fixed Wireless	Non-Responsive to Multiple Attempts		5 contact attempts were made between April 17, 2011 and August 8, 2011.