

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



October 1, 2013

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October 1, 2013

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:

Please accept this submission from Connected Nation on behalf of the state of Ohio's State Broadband Initiative (SBI) Grant Program, known as Connect Ohio.

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 Ohio 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 October 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 Ohio: October 1, 2013

<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	n/a DataPackage.xlsx	Accuracy and Verification Report 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 April 2013 SBI data submission for the Connect Ohio program. Specifically, these new requirements are:

SBI Data Transfer Model

The submission of the broadband dataset for October 1, 2013, is contained within the SBI Data Transfer Model as provided to SBI Grantees on June 26, 2013. 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 July 8, 2013, the program office released an “unknown broadband speeds” report on school and library Community Anchor Institutions (CAI), identifying the percentage of those CAI types that are missing subscribed download speed data or the federal ID code (CAI ID). The distributed list generated much excitement and support from staff as well as state leaders committed to improving CAI numbers universally. This October 2013 submission has seen an increase in the number of federal ID codes reported.

In collecting broadband service area datasets for inclusion on the National Broadband Map, this October 2013 submission includes business/commercial broadband service areas in addition to the residential datasets that have been collected for the SBI program. Following guidance from the program office, the end user category appropriately delineates the differences in residential service area, business service areas, and combination residential/business service areas. Further, all contacted providers were asked if they provide broadband services to business customer within their existing coverage areas and, if so, this information was noted.

This submission also includes information regarding the data and coverage estimation of a non-participating provider. While Connect Ohio 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 Ohio is essential in being able to portray a more accurate depiction of the current broadband landscape.

This October 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 97.67 percent of the Ohio provider community, or 126 of 129 total providers. There are 122 participating providers and 4 additional non-participating providers whose estimated coverage areas have been submitted. Of the 122 participating providers, 33 supplied an update to their network or coverage area(s), while 56 have reported no change. The remaining 33 represent providers who previously supplied data but were non-responsive in the October 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. The 3 providers that are not represented in the attached datasets were non-responsive to multiple contact attempts.

New to this October 2013 submission is reporting on the number of business/commercial providers included in the broadband datasets. Of the 126 residential providers represented in the above section, 16 are providers that do not distinguish between serving primarily residential or primarily non-residential users (end user category 5). Five business-only providers (end user category 2) are also included in this submission.

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

Connect Ohio has also continued to perform broadband verification activities through several means. In addition to confirmation of service area(s) by each provider, Connect Ohio conducts field validation efforts. To date, 111 (85.38 percent) providers have been validated through field verification activities. Additional details on verification activities are contained within the Field Validation Methodology.

The Connect Ohio website (www.connectohio.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 Ohio website encountered 18,123 unique visits during this reporting period (188,876 total to date for the life of the grant awarded on December 20, 2009). Additionally, this pronounced Web activity netted 22 broadband inquiries over this same reporting period (1,767 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 Ohio website and the Connect Ohio 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 Ohio mapping artifacts. Since the initial data collection and release of corresponding maps, feedback in the form of broadband inquiries has allowed Connect Ohio to identify additional areas that are in need of field validation, which is scheduled as soon as possible.

Community Anchor Institutions

Connect Ohio remains committed to gathering data regarding the location and broadband connectivity of Community Anchor Institutions in accordance with the data requirements of the SBI NOFA Technical Appendix. The increased CAI data collection can be directly attributed to the “unknown broadband speeds” report received from the NTIA earlier this year. Multiple agencies and leaders have taken the opportunity to recommit to CAI data collection, reiterating the importance of a relationship-oriented approach with state-level agencies and organizations that generates more responses than local outreach.

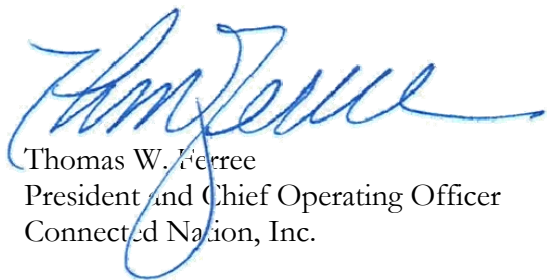
In conjunction with the Ohio Office for Information Technology, outreach was conducted during this data update reporting period by Connect Ohio to continue identification of existing, centralized sources for CAI connectivity data. Additionally, outreach was coordinated to distribute the CAI survey to institutions throughout the state through multiple methods including a customized online survey available on the Connect Ohio website. Building on the success of past campaigns to generate excitement about CAI outreach, research, and mapping, there have been two campaigns conducted since the previous NTIA data submission: Digital Learning (May 2013) and Education (August 2013). Connect Ohio has strengthened existing relationships with statewide associations 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 Ohio will continue to expand on these relationships over the coming months and utilize its contacts throughout the state to collect data and raise awareness of this project.

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

Respectfully submitted,

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

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

OHIO COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY

Connect Ohio remains committed to working with Ohio to gather data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBI NOFA Technical Appendix. This commitment was further strengthened by the encouragement of NTIA to improve data numbers specifically in the K-12 school and library sectors. This encouragement translated very well with the state client as well as K-12 school and library points of contact. The impact will be seen in this submission as well as the upcoming April 2014 submission.

In addition to the encouragement from NTIA, Connect Ohio continues to promote sector-specific campaigns every quarter. Information received from these campaign outreaches is processed and compiled with all currently collected CAI data. Physical address information continues to be augmented through manual sourcing and geocoded by Connect Ohio through Esri ArcGIS software.

Connect Ohio continues to utilize a customized online survey hosted through SurveyMonkey, with a landing page on the Connect Ohio 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 Ohio 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/R3RLVNG>

In addition to the survey, Connect Ohio has developed a number of new relationships with statewide associations, such as Stephen Hedges, Director, Ohio Public Library Information Network, 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 Ohio 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 Ohio 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 April 2013 submission, the sector-specific approach included two month-long campaigns: Digital Literacy (May 2013) and Education (September 2013). During these campaigns, Connect Ohio committed to engage key stakeholders to educate them about the importance of our CAI data gathering efforts, distribute survey requests to sector representatives to gather CAI information, and provide campaign-specific education through communications and webinar resources. Continued

outreach to and survey of schools, libraries, hospitals, local law enforcement, and fire stations helps build awareness and establishes a centralized database of key connectivity data for planning.

Connect Ohio 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 Ohio 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 Ohio works with the Ohio Office of Information Technology to identify existing relationships that can support CAI outreach.

Connect Ohio 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 Ohio project as well as self-awareness of their own broadband connectivity (specifically upload and download speeds). Connect Ohio will continue to research key CAI organizations and agency contacts in an effort to raise awareness of this project among CAI. When applicable, the Ohio Office of Information Technology 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	9,197	9,197	9,180	3,484	2,497	2,458
Libraries	811	811	810	729	601	411
Healthcare	1,457	1,457	1,457	5	5	5
Public Safety	3,723	3,723	3,705	544	546	546
Higher Ed Institutions	960	960	959	17	13	12
Other Government	951	951	941	305	299	299
Other Non-Government	4,205	4,205	4,204	33	21	17
Total	21,304	21,304	21,256	5,117	3,982	3,748

Additionally, efforts were made to increase the number of CAI IDs, or federal ID codes, submitted for K-12 school and library records. The K-12 schools now have 45.38% of the CAI IDs accounted for in the records, an increase of 1,708 since the April 2013 submission. Library records now have 97.41% of the CAI IDs accounted for in the records, an increase of 139 since the April 2013 submission; additional work will be completed prior to the April 2014 submission to further increase the number of CAI IDs submitted as well as continue refining the number of duplicate and incomplete school records.

During the coming months, CAI data collection will be supported by regular reporting to the Connect Ohio team. The CAI data is proving an invaluable resource to all components of the Connect Ohio effort. The data identifies potential local champions, sector trends, and opportunities for improvement as well as opportunities to educate CAI not familiar with their current connectivity.

SBI DATA SUBMISSION METHODOLOGY

The submission of the broadband dataset for October 1, 2013, is contained within the SBI Data Transfer Model and additional components as provided to SBI Grantees on June 26, 2013.

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 Ohio.

Inventory of Deliverables, Connect Ohio: October 1, 2013

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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_CAIstitutions	Community Anchor Institutions-Listing.

The provider data collected by CN on behalf of the state of Ohio have been formatted per the given specifications and uploaded into the appropriate feature classes of the SBI Data Transfer Model. Wireline availability is contained within census blocks and road segments, wireless availability is contained as polygons of coverage areas, and middle-mile connections and Community Anchor Institutions are contained as point data. All speed data is contained at the census block, road segment, or wireless polygon level of availability. All efforts have been made to comply with formatting, domain, and metadata requirements to include as much information as possible.

In collecting broadband service area datasets for inclusion on the National Broadband Map, this October 2013 submission includes business/commercial broadband service areas in addition to the residential datasets that have been collected for the SBI program. Following guidance from the program office, the end user category appropriately delineates the differences in residential service area, business service areas, and combination residential/business service areas.

Connected Nation has continued outreach to satellite providers on their availability, technology, and speed information, but granular coverage is not yet available. Submitted within the wireless feature class are the satellite companies providing service to Ohio 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; more granular satellite service areas should appear in the April 2014 submission.

OHIO 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 Ohio on the following providers: 1 Touch Technology; Amplex Internet; Armstrong Utilities; Arthur Mutual Telephone; AT&T Inc.; Avolve; Ayersville Telephone Company; Bascom Mutual Telephone (d.b.a. BrightNet Bascom); Bellaire Television Cable Company Inc.; Benton Ridge Telephone (d.b.a. W.A.T.C.H. TV); Blue Sky Wireless; Broadband Networks (also d.b.a. Omnicity); Bryan Municipal utilities; Buckeye Cablevision Inc.; Buckland Telephone; Cable Coop Inc.; CenturyLink; Cequel Communications; Champaign Telephone Company (d.b.a. CTC); Cincinnati Bell Telephone Company LLC; Cincinnati Communications; CityNet Fiber; City of Dover; City of Wadsworth; Clearwire Corporation; Cogent Communications, Inc.; Comcast; Conneaut Telephone Company; ConnectLink; Country Connections LLC; Coyote Wireless; CueBand; Dark Horse Wireless; Databit Solutions; Doylestown Communications; DuplexCom of Ohio LLC; Eagle Communications (d.b.a. Safe-T.net); East Cleveland Cable TV and Communications, LLC; FairPoint Communications (d.b.a. Germantown Independent Telephone, Columbus Grove Telephone, and Orwell Telephone); Falcon 1; Farmers Mutual telephone Company (d.b.a. Bright.Net North); Firewire Internet; Fort Jennings Telephone Company; Frontier Communications (d.b.a. Citizen's Communications); Fruend Enterprises Inc. (d.b.a. Access Ohio Valley); Glandorf Telephone Company Inc.; GLW Broadband; GMN Wireless; Hometown Cable Company (also d.b.a. g Wireless); Hocking Internet Technologies Ltd.; Horizon Telecom; Imagine Networks; Intelliwave LLC; J-B Nets LLC; Jefferson County Cable TV Inc.; Jenco Wireless; Kalida Telephone Company Inc.; King Office Supply; Leap; Level 3 Communications; Level 3 Communications, LLC; LightSpeed Technologies; Mango Bay; Massillon Cable TV Inc.; McClure Telephone Company; Mechom; Mediacomm Indiana LLC; MegaPath Inc.; MetaLINK; Middle Point Home Telephone Company; Mikulski Communications LLC; Mobilecomm (d.b.a. Heavenwire); Nelsonville Cable Television; New Era Broadband LLC; New Knoxville Telephone (acquired KeyOn Communications Inc.); NexGen Access; North Coast Wireless Communications; NorthWest Net Inc.; nTelos (d.b.a. Ohio Fibernet); Nova Telephone Company; OneCommunity; Ottoville Mutual Telephone Company; R.A.A. Services; Redbird Internet Services; Sherwood Mutual Telephone Association; Reliable Wireless; RTEC Communications, Inc.; S. Bryer Cable Television; Slane Telecom (d.b.a. Celerity Networks); Southern Ohio Communication Services Inc.; Sprint Nextel; StratusWave; Suddenlink; Sycamore Telephone; TDS Telecommunications Corp.; Telephone Service Company; Time Warner Cable Access (d.b.a. Insight Communications of Central Ohio LLC); TW Telecom of Ohio, LLC; T-Mobile; UData Net; Vaughnsville Telephone Company; Verizon Communications; Wabash Mutual

Telephone Company; WaveLinc Communications; Wide Open West Finance LLC; Wilkshire Wireless; Windstream (f.k.a. PAETEC Communications, Inc., Cavalier Telephone, and Talk America, Inc.); XO Communications LLC; Your Digital Partner; and Zayo Group LLC (also d.b.a. First Communications).

In addition to the field verification tests that have been conducted, Connected Nation has also conducted work in the field to collect information for the non-participating provider, Reliable Wireless Solutions, which, by nature of the methodology required for this collection, is also included in the above list.

From program initiation through this reporting period, CN has completed in-the-field validation testing against 111 companies (out of a universe of 130 viable providers) totaling 85.38 percent within the state of Ohio. This percentage also considers the non-participating provider records submitted to NTIA as may be contained herein (see “Data Submission and Coverage Estimation of Non-Participating Provider” below).

CN has also continued to review provider datasets for accurate speed information, platform listings, and other intricacies that may fall outside of the standard SBI Data Transfer Model parameters, as included with the submission materials provided to grantees on June 26, 2013. 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.

Cequel Communications

Issue: Technology of transmission code 40 with maximum advertised download speed in tiers 5, 6, 7, and 8, lower than expected value range for the technology.

Resolution: Provider representative confirmed that DOCSIS 3.0 is indeed in use, but speeds have not been turned up higher yet.

Massillon Cable TV, Inc.

Issue: Technology of transmission code 40 with maximum advertised download speed in tier 7, lower than expected value range for the technology.

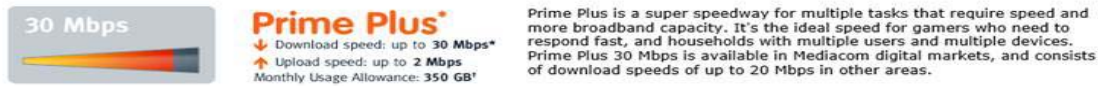
Resolution: Provider website confirms use of DOCSIS 3.0 with the lower speeds.

- DOCSIS 3.0 High-Speed Data- Maximize your online experience with download speeds up to 10 Mbps, upload speeds up to 1.5 Mbps and 3 email addresses included for only \$159.95/month.

Mediacom Indiana LLC

Issue: Technology of transmission code 40 with maximum advertised download speed in tier 8, lower than expected value range for the technology.

Resolution: Provider website advertises 30 Mbps download service; screenshot below.

**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 a full report on the estimated broadband service territory for the provider in this state that has either been non-responsive or that has refused to participate in the SBI mapping initiative as of October 2013. This coverage estimation report is for a non-participating provider 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 October 2013 SBI submission.

Bellaire Television Cable Company

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

Firewire Internet (Giga-Data)

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

GLW Broadband

The coverage estimation for GLW Broadband was not updated from the previous submission in April 2013. The full white paper containing the most recent coverage estimation for this provider can be found within the October 2012 submission to NTIA.

Reliable Wireless Solutions

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. However, if approval is not received from a provider in time for the submission, but CN believes the new/updated service area to be accurate, then the coverage will be submitted to NTIA without final provider approval with a note regarding the situation made in the provider log.

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

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

Estimates derived from provider-validated data indicate that approximately 1.26 percent of Ohio households do not have terrestrial fixed broadband service available, and approximately 0.70 percent of Ohio households have neither mobile nor fixed broadband service available.

Within rural areas of the state, results derived from provider-validated data indicate that approximately 2.53 percent of rural Ohio households do not have terrestrial fixed broadband service available, and approximately 1.40 percent of rural Ohio 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 Ohio 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 18,996 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 Ohio project has received a total of 22 inquiries (1,767 grant inception to date). As more inquiries are submitted to Connect Ohio, 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 Ohio project launched My ConnectView on April 2, 2012, and has received 1,661 visits this reporting period; to date the interactive mapping application has received 16,945 visits.

SPEED TEST METHODOLOGY

The 1,743 speed tests that are represented in the Connect Ohio Speed Test Report during this reporting period (16,990 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 Ohio 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 Ohio 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 Ohio 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 Ohio.

PROVIDERS DEEMED NON-VIABLE

The following list of companies represents the remainder of the broadband provider universe that was originally identified as complete for outreach to begin for the State Broadband Initiative. These providers are not included in the Data Package for the October 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 that have not provided sufficient mapping information, etc.

	Company Name	URL	Comments
1	21Globe, Inc.	www.21globe.com/is/access/	Does not offer broadband services; not a broadband provider. Website works but not updated since December 2012.
2	650Net	www.650net.net/	Website references emergency food and power items.
3	A 007 Access	www.a007.com/	General reseller of Quest DSL and mobile wireless; DSL does not qualify as the max advertised speed is 768 kbps x 128 kbps.
4	AAA Internet Service	http://aaainter.net/dsl	Dial-up service with nonfacilities-based DSL.
5	Aaccess Network Communications	www.aaccess.net/	Not a broadband provider; installs and maintains WiFi systems.
6	ACC-NET	www.acc-net.com/	This company is no longer an active provider or in business.
7	ACERX.NET	http://acerx.net/	Nonfacilities-based reseller of national and regional broadband companies with cable, DSL, and mobile wireless applications.
8	Adelphia	n/a	No longer in business; assets liquidated.
9	Airespring, Inc.	www.airespring.com	General reseller of VOIP, long distance and data circuits (non-residential).

10	Airewaves Broadband, LLC	www.airewaves.com	Airewaves website is an audio-based web service and domain is listed as for sale.
11	Airmail247.com	www.airmail247.com	Business mailing list search site; not a broadband provider.
12	Alphalink Technologies	www.alink.com/index.htm	This company is a nonfacilities-based reseller.
13	American Broadband & Telecommunications	www.ambt.net	This company is a nonfacilities-based reseller.
14	Antioch Wireless Broadband	www.antiochwirelessbroadband.com/	Resells DSL and cellular service in Antioch, IL only.
15	Arrowheadnet.com	www.arrowheadnet.com/	Domain registration and web hosting company.
16	bargainisp.net	www.bargainisp.net/	Generic web directory site; company does not offer broadband.
17	Beonline	www.beol.net	This company is a nonfacilities-based reseller.
18	Bonzai Pipeline, Inc.	www.bonzaipipeline.net	This company is no longer in business.
19	BreezeWave Broadband	www.breezewave.com	This company is no longer in business.
20	Bright Choice	www.brightchoice.com	Bright Choice was acquired by Omnicity.
21	Broadband National	www.broadbandnational.com	Nonfacilities-based reseller of national and regional broadband companies offering residential/business cable and DSL services.
22	Broadview Networks Holdings, Inc.	www.broadviewnet.com	Wholesale reseller of partners' communication products and services; company is nonfacilities-based.
23	BullsEye Telecom, Inc.	www.bullseyetelecom.com	Integrated suite of telecommunications services for businesses and general reseller of backhaul.
24	Byesville.Net	www.byesville.net	This company is no longer in business.

25	Cable One	n/a	Inactive; non-state provider.
26	CAC MediaNet, Inc.	n/a	No longer in business; acquired by First Step (Michigan general reseller of DSL).
27	Camino-Net Internet Services	www.camino-net.com	Website is redirected to http://www.mytechproservices.com/ offering ancillary (not broadband) services.
28	CanNet Internet Services	www.cannet.com	Offers dial-up and B2B services, webhosting, etc.
29	Canton Cable	n/a	Acquired by Comcast.
30	CCIS.net	www.ccis.net	Now owned by Beacon Technologies; offers dial-up and is general reseller of DSL in Pennsylvania.
31	Celito Communications	www.celito.net/	Offers dial-up and wireless in North Carolina.
32	CIMCO Communications, Inc.	www.cimco.net	This company is a nonfacilities-based reseller.
33	Clear Sky Communications	www.clearskycommunications.com/	This company is a general reseller of and an installation company for satellite services.
34	Cleartouch.Com	n/a	This company is no longer in business.
35	CloverNet	n/a	Script coding application company.
36	Coax-Net	www.coax.net	This company is a nonfacilities-based reseller.
37	Cobridge Communications, LLC	www.cobridge.net/communications	This company was acquired in Ohio by Time Warner.
38	Cognisurf	www.calling-plans.com	Dial-up internet provider.
39	Columbus Cable	n/a	Possibly acquired by Comcast; OSS service branch.
40	Combined Technologies Inc.	www.ctipack.com	This company is no longer in business.
41	Communication Options, Inc.	www.coi.net	Provides B2B and residential dial-up.

42	config.com Internet	www.config.com	Nonfacilities-based reseller; provided limited data but not enough for creation of coverage area or identification of services.
43	CoreComm Wireless	n/a	This company is no longer in business.
44	CueBand	http://www.cueband.com/	This company was acquired by Ripflo.
45	Dacor Internet Services	www.dacor.net/	This company is a nonfacilities-based reseller.
46	Data-Tel of Illinois, Inc.	www.data-telinc.net/	This company is a nonfacilities-based reseller.
47	Davis Voice and Data	n/a	Cellular reseller only; does not operate a broadband network.
48	Dayton Digital Networks	www.daytondigital.net	No longer offers broadband services.
49	Deltaforce	www.deltaforce.net	Dial-up and webhosting services only.
50	deluxehost.com	deluxe-host.com	Company delivers web hosting services.
51	Devlin Express	www.devlinex.com	This company is a nonfacilities-based reseller.
52	DGUI	www.dgui.com/	No longer in business; domain name for sale.
53	DHB Networks, Ltd.	www.dhbnetworks.com	This company is no longer in business.
54	Dial National	www.dialnational.com/	Inactive URL; out of business.
55	Dialer.net	www.dialer.net/internet_access/United_States.html	England-based, international pay-as-you-go mobile wireless and hot spot reseller.
56	DigitalBridge Communications Corp.	n/a	Non-state provider; serves Idaho, Indiana, Montana, South Dakota, Virginia, and Wyoming.
57	DSL @ Interlync	www.interlync.com	General reseller of Covad and for this mapping cycle they have been non-responsive.

58	DTS-NET.COM	www.dts-net.com/	Web-hosting and non-facilities based reseller.
59	DuplexCom of Ohio, LLC	http://www.dcowireless.com	This company is no longer in business.
60	Duvall Wireless	www.duvallwireless.net	This company is no longer in business.
61	East Allen High Speed Internet, LLC	n/a	Non-state provider; serves Allen County, Indiana.
62	East Palestine Internet, Inc.	www.epiinternet.com/	Company appears to have gone out of business; phone is disconnected and Inactive URL.
63	Enventis Telecom Inc.	n/a	Non-state general reseller.
64	Erielink LLC	www.erialink.com	No longer in business.
65	ETI - Connecting Your World	www.cyberenet.net/	General reseller of DSL services from infrastructure owned by Verizon, AT&T, and Covad.
66	EZnet Ohio	www.2.ezo.net/iserv.htm	Provides dial-up service .
67	FairPoint Broadband	www.fairpoint.com	Non-state provider.
68	Fast Dependable Access	www.fda.net	Inactive URL; company appears to have gone out of business.
69	g wireless, Inc.	http://www.g-wireless.net	Acquired by another company.
70	Galaxywave Internet	www.galaxywave.net/	Phone number was disconnected.
71	Global Crossing Telecommunications, Inc.	n/a	Acquired by another company.
72	GO Concepts	n/a	This company is a nonfacilities-based reseller.
73	Great American Broadband, Inc.	www.oibw.net	Non-state provider; serves Indiana.

74	Hubwest Protected Networks LLC	www.hubwest.com	Dial-up and web hosting only.
75	iDigi Wireless	www.digi.com	Inactive URL; no longer in business.
77	IMGISP.NET	www.imgisp.net/	Domain name is for sale.
78	Incredible Networks	www.incredible-networks.com	Incredible Networks is an independent network engineering services business based in Adelaide Australia.
79	Inercom Communications Inc.	www.inercom.com	Inactive URL; out of business.
80	Interactiveinfo.com Inc.	www.rocketbroadband.com	Offers cable television services in NY only.
81	In-Touch Software	www.intouchsoftware.co.uk	Software development company.
82	iRadical	n/a	Could not locate any information on company.
83	ISPartner.net	n/a	Could not locate any information on company.
84	KAS Cable TV	www.kascable.com	This company is a nonfacilities-based reseller.
85	KeyOn Communications, Inc.	www.keyon.com	This company was acquired by New Knoxville Telephone Company.
86	LARIAT.NET	www.lariat.net/	Offers fixed wireless services in Wyoming only.
87	LCSisp.com	www.lcsisp.com/index.cfm	Website no longer in service.
88	Lek.net Internet Services, Inc.	www.lek.net	General reseller of AT&T DLS and offers dial-up and computer repair.
89	LightEdge Solutions, Inc.	www.lightedge.com	IT consulting; LightEdge does not provide residential service in any state.
90	Lightyear Network Solutions, LLC	www.lightyear.net	Nonfacilities-based general reseller.

91	LinkAmerica.Net	www.linkamerica.net/	Inactive URL; out of business.
92	Linked Communications	http://www.linked-llc.com/	Acquired by Reliable Wireless Solutions.
93	Magnum Cable	n/a	Inactive URL; out of business.
94	MainBoard	www.mainboard.cc/internet.htm	Website no longer in service.
95	Maine Cable and Wireless	www.mainecableandwireless.com	Could not locate any information on company. Redirects to a "coming soon" website for Maine Culinary Workshop.
96	Marcin Company	n/a	No longer in business; phone and website are both inactive.
97	Metropolitan Telecommunications Holding Company	n/a	MetTel provides facilities-based and resold services (certified CLEC in some states); the company provides a variety of voice, including wireless, and data services to commercial customers.
98	Millenicom Inc.	www.millenicom.com	Reseller of 3G and 4G mobile wireless services.
99	Nanomega.Com	www.nanomega.com	Website is listed on Go-Daddy as for sale.
100	NCO Wireless	www.ncowifi.com	Acquired by NexGen Access.
101	NetAccess, Inc.	www.nas.net/	Canadian based ISP; does not offer service in U.S.
102	NetSpeed Online	www.netspeed-online.net	Website no longer in service.
103	New Edge Network, Inc.	www.newedgenetworks.com	Acquired by EarthLink.
104	Northwest ISP	www.northwestisp.com/	Inactive URL; out of business.
105	nTelos, Inc.	n/a	Non-state provider; offers mobile wireless cards in West Virginia.

106	NuVox, Inc.	www.nuvox.com	Acquired by Windstream.
107	OffWorld1	n/a	Inactive URL; no longer in business.
108	Omnicity	www.omnicity.net	Acquired by Broadband Networks Co.
109	ONEcom Wireless	n/a	Inactive URL; no longer in business.
110	Open Range Communications, Inc.	http://www.openrangecomm.com/	No longer in business.
111	Overarch Broadband	n/a	Offers services in Idaho only.
112	Pacific Internet Exchange	www.pie.us/	Website is for sale.
113	PAETEC Communications, Inc.	http://www.paetec.com/	Acquired by another company.
114	Paknet Limited	n/a	Subsidiary of Pakistan Telephone Company; no services offered in the U.S.
115	Pattersonville Telephone Company	n/a	Does not offer broadband service.
116	Planet Online	www.planetonline.net/	Offers website hosting services.
117	Practical Support, Ltd.	http://www.practicalsupport.com/	Offers service, but below broadband threshold.
118	PremoWeb	www.premoweb.com/about_us/contact_us.html	Website no longer in service.
119	Reliance Globalcom Services, Inc.	www.relianceglobalcom.com	California-based company; non-state provider.
120	Renaissance Networks	www.renaissancenetworks.com/	IT support company based in New Mexico.
121	Simply Dialup A Metrogeek Company	www.simplydialup.com/	Dial-up services and general reseller of DSL, satellite and cable modem.

122	Siscom Internet Service	www.siscom.net/index.html	This company is a nonfacilities-based reseller.
123	SkyLAN	n/a	This company is not a broadband provider.
124	Skymax Broadband, Inc.	http://www.skymaxbroadband.com/	No longer in business.
125	Sling Broadband	n/a	Non-state provider; WISP in Florida.
126	Solavei, LLC	http://www.solavei.com/	General reseller.
127	Supernova Systems, Inc.	home.onlyinternet.net/	Company acquired by Great American Broadband.
128	Surferz.Net	www.surferz.net/	Website manager and developer.
129	T1 Shopper	www.t1shopper.com/	Search engine for general reseller.
130	TelNet Worldwide, Inc.	n/a	Does not offer broadband service.
131	The Iserv Company, LLC	www.iserv.net	This company is a nonfacilities-based reseller.
132	The T1 Company	www.t1company.com	Offers B2B services.
133	Total Access Networks, Inc.	n/a	Website no longer in service.
134	TSISP.NET	www.tsisp.net	Website no longer in service.
135	U.S. Wireless Online, Inc.	n/a	Non-state provider; acquired by Caviar and offers service in Florida only.
136	University Corporation for Advanced Internet Development	n/a	Currently ineligible under the parameters and guidance of the SBI grant program.
137	Untangled Technology, LLC	n/a	Company Acquired by Lightspeed Technologies.

138	UNUM Telecommunications, Inc.	www.utinet.net/	Inactive URL; out of business.
139	WCNet	www.wcnet.org/rates/hispeed/	This company is a nonfacilities-based reseller.
140	Wcoil	www.wcoil.com	Despite numerous outreach efforts, this company remains nonresponsive; accordingly, we are uncertain of the types of services offered.
141	WilTel Communications, LLC	www.level3.com	Acquired by Level 3.
142	WireFire Internet	www.wirefire.com	Acquired by FiberNet.
143	Wireless Intranet	http://www.wirelessintra.net/	Inactive and no longer in business.
144	Wireless Roanoke, Inc.	www.wirelessroanoke.com/	Inactive URL; out of business.
145	wisbin	www.wisbin.com/	Reseller of DSL Internet service in Wisconsin.
146	www.AmericanAngel.us	www.americanangel.us/	Website no longer in service.
147	YEEZOO.NET	www.yeyzoo.net/	Provider appears to no longer be in business.
148	YLISP (Your Local ISP)	www.itsyournet.com	Redirects to https://www.securepaynet.net - website indicates for sale.
149	YourT1Wifi.com	yourt1wifi.com/	Offers wireless service in Idaho only.
150	Zito Media Communications, II, LLC	n/a	Zito Media does not yet offer broadband service in Ohio.
151	ZOOM Internet Services, LLC	n/a	Michigan-based dial-up provider and web hosting company.

APPENDIX A: BROADBAND PROVIDER LOG



Broadband Provider Log

Complete	176
Non-Responsive/Refused	3
In Progress	3
Reseller Providing Data	0
Count of Datasets by Status	182
Total Unique Providers Represented	129

Provider Name	Platform	Status	NDA Execution Date	Notes
Amplex Internet	Fixed Wireless	Data Added to Statewide Inventory	3/26/2010	[AUG-30-13 Amanda Bentley] Change: Provider added additional towers and expanded coverage area.
Armstrong Utilities, Inc.	Cable	Data Added to Statewide Inventory	3/11/2010	[AUG-19-13 Amanda Bentley] Change: Provider expanded service area but also changed over some existing area from cable to FTTH.
Armstrong Utilities, Inc.	Fiber	Data Added to Statewide Inventory	3/11/2010	[AUG-15-13 Amanda Bentley] Change: Provider submitted data for new platform (FTTH).
AT&T Inc.	DSL	Data Added to Statewide Inventory	12/16/2009	[AUG-27-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
AT&T Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	[AUG-22-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Block Communications, Inc.	Fiber	Data Added to Statewide Inventory	2/8/2010	[JUL-16-13 Amanda Bentley] Change: Provider submitted data for new platform (FTTH).
Block Communications, Inc.	Cable	Data Added to Statewide Inventory	2/8/2010	[JUN-25-13 Amanda Bentley] Change and Correction: Provider revised service area by removing some areas and expanding others; provider also upgraded download speed from tier 9 to tier 10.
CenturyLink	DSL	Data Added to Statewide Inventory	12/4/2009	[AUG-14-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Cequel Communications	Cable	Data Added to Statewide Inventory	12/15/2009	[AUG-14-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Cincinnati Bell Telephone Company LLC	DSL	Data Added to Statewide Inventory	3/16/2010	[AUG-26-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Cincinnati Bell Telephone Company LLC	Fiber	Data Added to Statewide Inventory	3/16/2010	[AUG-26-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Comcast Cable Communications, LLC	Cable	Data Added to Statewide Inventory	12/7/2009	[JUL-30-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Frontier Communications Corporation	DSL	Data Added to Statewide Inventory	1/22/2010	[AUG-29-13 Amanda Bentley] Change: Some DSLAMs removed.
JB-Nets, LLC	Fixed Wireless	Data Added to Statewide Inventory	4/5/2010	[AUG-29-13 Amanda Bentley] Change: Provider added additional towers and expanded coverage area.
Leap Wireless International, Inc.	Mobile Wireless	Data Added to Statewide Inventory	4/6/2010	[AUG-14-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Mediacom Indiana LLC	Cable	Data Added to Statewide Inventory	1/12/2010	[SEP-09-13 Amanda Bentley] Change: Provider has upgraded network to DOCSIS 3.0; no changes in speed information or coverage area.
MetaLINK Technologies, Inc.	Fixed Wireless	Data Added to Statewide Inventory	3/22/2010	[AUG-27-13 Amanda Bentley] Change: Provider added new tower sites while removing others.

Mobilcomm	Fixed Wireless	Data Added to Statewide Inventory	2/16/2012	[AUG-27-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Ottoville Mutual Telephone Company	Fiber	Data Added to Statewide Inventory	12/22/2009	[JUL-25-13 Amanda Bentley] Change: Provider upgraded entire network from DSL to FTTH and speed tier upgraded to 7/3.
Ripflo Network, LLC	Fixed Wireless	Data Added to Statewide Inventory		[AUG-20-13 Amanda Bentley] Change: CueBand has been acquired by Ripflo; coverage has not changed but owner/operator name did. Previous CueBand coverage is now being reported as Ripflo.
Rowe Wireless Networks, LLC	Fixed Wireless	Data Added to Statewide Inventory		[AUG-20-13 Amanda Bentley] Change: New fixed wireless provider identified; first time participant.
Smart Networks, LLC	Fixed Wireless	Data Added to Statewide Inventory		[AUG-29-13 Amanda Bentley] Change: New fixed wireless provider identified; first time participant.
Sprint Nextel Corporation	Mobile Wireless	Data Added to Statewide Inventory	1/14/2010	[JUL-31-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
T-Mobile USA, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/8/2010	[AUG-22-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
TDS Telecommunications Corporation	DSL	Data Added to Statewide Inventory	1/27/2010	[JUL-29-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Time Warner Cable Inc.	Cable	Data Added to Statewide Inventory	12/21/2009	[AUG-22-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Verizon Communications, Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/14/2009	[JUL-29-13 Amanda Bentley] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for October 2013 submission.
Wabash Mutual Telephone Company	Fiber	Data Added to Statewide Inventory	3/30/2010	[JUL-30-13 Amanda Bentley] Change: Expanded service area.
Com Net, Inc.	Backhaul	Backhaul Provider Only Processing Complete		
Level 3 Communications, LLC	Backhaul	Backhaul Provider Only Processing Complete	12/14/2009	
MegaPath Corporation	Backhaul	Backhaul Provider Only Processing Complete	2/15/2010	
T-Mobile USA, Inc.	Backhaul	Backhaul Provider Only Processing Complete	1/8/2010	
TDS Telecommunications Corporation	Backhaul	Backhaul Provider Only Processing Complete	1/27/2010	
Country Connections LLC	Fixed Wireless	Speed Only Update; Data Processing Complete	2/15/2010	[AUG-27-13 Amanda Bentley] Change: Provider upgraded speed tiers from 5/4 to 5/5.
CoxCom Inc.	Cable	Speed Only Update; Data Processing Complete	1/29/2010	[AUG-06-13 Amanda Bentley] Change: Provider upgraded speed tiers from 9/5 to 10/7.
Farmers Mutual Telephone Company	Fixed Wireless	Speed Only Update; Data Processing Complete	12/22/2009	[JUL-19-13 Amanda Bentley] Change: Provider upgraded download speed to speed tier 5 for all towers.
New Era Broadband, LLC	Fixed Wireless	Speed Only Update; Data Processing Complete	7/12/2010	[JUN-24-13 Amanda Bentley] Change: Provider upgraded download speed tier from 4 to 5.
Sherwood Mutual Telephone Association	DSL	Speed Only Update; Data Processing Complete	3/25/2010	[JUN-10-13 Amanda Bentley] Change: Provider upgraded speed tiers from 5/2 to 7/3.
Bellaire Television Cable Co. Inc.	Cable	No Update-Estimated Coverage Submitted for Non-Participating Provider		
Firewire Internet	Fixed Wireless	No Update-Estimated Coverage Submitted for Non-Participating Provider		
GLW Broadband	Cable	No Update-Estimated Coverage Submitted for Non-Participating Provider		
Reliable Wireless Solutions	Fixed Wireless	Estimated Coverage Submitted for Non-Participating Provider		[SEPT-06-13 Amanda Bentley] Correction: Estimated coverage submitted for non-participating provider that has previously been in service.
5G Mesh	Fixed Wireless	Approval for Update Not Received – Data Still Submitted		[AUG-27-13 Amanda Bentley] Change: Provider expanded service area.
1 Touch Technology Solutions, LLC	Fixed Wireless	No Update to Provide		
Advanced Computer Connections	Fixed Wireless	No Update to Provide	10/15/2012	
Arthur Mutual Telephone Company	DSL	No Update to Provide	12/22/2009	
AT&T Inc.	Backhaul	No Update to Provide	12/16/2009	
Ayersville Telephone Company	DSL	No Update to Provide	3/22/2010	
Bascom Mutual Telephone Company	Backhaul	No Update to Provide	3/22/2010	
Bascom Mutual Telephone Company	Fixed Wireless	No Update to Provide	3/22/2010	
Benton Ridge Telephone Company	DSL	No Update to Provide	4/13/2010	
Benton Ridge Telephone Company	Fixed Wireless	No Update to Provide	4/13/2010	
Bryan Municipal Utilities	Cable	No Update to Provide		
Bryan Municipal Utilities	Fiber	No Update to Provide		
Buckland Telephone Co.	Fiber	No Update to Provide	4/10/2010	

Cable Co-op, Inc.	Cable	No Update to Provide	4/9/2010
CenturyLink	Backhaul	No Update to Provide	12/4/2009
CenturyLink	Backhaul	No Update to Provide	12/4/2009
Champaign Telephone Company	DSL	No Update to Provide	
Champaign Telephone Company	Fiber	No Update to Provide	
Champaign Telephone Company	Fixed Wireless	No Update to Provide	
Cincinnati Bell Telephone Company LLC	Cable	No Update to Provide	3/16/2010
Cincinnati Bell Telephone Company LLC	Mobile Wireless	No Update to Provide	3/16/2010
City of Wadsworth	Cable	No Update to Provide	7/19/2010
Citynet, LLC	Backhaul	No Update to Provide	4/5/2010
Clearwire Corporation	Fixed Wireless	No Update to Provide	3/3/2010
Clearwire Corporation	Mobile Wireless	No Update to Provide	3/3/2010
Cogent Communications, Inc.	Backhaul	No Update to Provide	
Conneaut Telephone Company	Cable	No Update to Provide	12/22/2009
Conneaut Telephone Company	DSL	No Update to Provide	12/22/2009
ConnectLink, Inc.	Backhaul	No Update to Provide	3/15/2010
CoxCom Inc.	Backhaul	No Update to Provide	1/29/2010
DataBit Solutions Corp	Fixed Wireless	No Update to Provide	
Doylestown Telephone Company	Cable	No Update to Provide	4/14/2010
Doylestown Telephone Company	DSL	No Update to Provide	4/14/2010
Doylestown Telephone Company	Fiber	No Update to Provide	4/14/2010
Eagle Communications, LLC	Fixed Wireless	No Update to Provide	
Erie County Cablevision, Inc.	Cable	No Update to Provide	2/8/2010
Farmers Mutual Telephone Company	DSL	No Update to Provide	12/22/2009
Fort Jennings Telephone Company	DSL	No Update to Provide	4/2/2010
Fort Jennings Telephone Company	Fiber	No Update to Provide	4/2/2010
Freund Enterprises Inc.	Backhaul	No Update to Provide	3/2/2010
Freund Enterprises Inc.	Fixed Wireless	No Update to Provide	3/2/2010
Frontier Communications Corporation	Backhaul	No Update to Provide	1/22/2010
Gateway Telecom LLC	Fixed Wireless	No Update to Provide	3/22/2010
Glandorf Telephone Company, Inc.	Cable	No Update to Provide	3/9/2010
Glandorf Telephone Company, Inc.	DSL	No Update to Provide	3/9/2010
Hocking Internet Technologies, Ltd	Fixed Wireless	No Update to Provide	8/12/2010
Hometown Cable Company	Fiber	No Update to Provide	4/15/2010
Hometown Cable Company	Fixed Wireless	No Update to Provide	4/15/2010
Horizon Telcom, Inc.	DSL	No Update to Provide	3/27/2010
Horizon Telcom, Inc.	Fiber	No Update to Provide	3/27/2010
Hughes Network Systems, LLC	Satellite	No Update to Provide	2/5/2010
Imagine Networks, LLC	Fixed Wireless	No Update to Provide	7/13/2011
Intelliwave, LLC	Fixed Wireless	No Update to Provide	
Jefferson County Cable TV, Inc.	Cable	No Update to Provide	2/1/2010
Kalida Telephone Company, Inc.	DSL	No Update to Provide	3/8/2010
Mango Bay Internet	Fixed Wireless	No Update to Provide	2/23/2010
McClure Telephone Company	DSL	No Update to Provide	4/5/2010
McClure Telephone Company	Fiber	No Update to Provide	4/5/2010
Minford Telephone Company	DSL	No Update to Provide	3/3/2010
New Knoxville Telephone Company	Backhaul	No Update to Provide	3/12/2010
New Knoxville Telephone Company	Cable	No Update to Provide	3/12/2010
New Knoxville Telephone Company	DSL	No Update to Provide	3/12/2010
New Knoxville Telephone Company	Fiber	No Update to Provide	3/12/2010
New Knoxville Telephone Company	Fixed Wireless	No Update to Provide	3/12/2010
NexGenAccess Inc.	Fixed Wireless	No Update to Provide	4/16/2010
North West Net, Inc.	Fixed Wireless	No Update to Provide	4/6/2010
Ottoville Mutual Telephone Company	Backhaul	No Update to Provide	12/22/2009
Redbird Internet Services	Fixed Wireless	No Update to Provide	3/22/2010
S. Bryer Cable TV Corp.	Cable	No Update to Provide	11/8/2011
Skycasters	Satellite	No Update to Provide	10/16/2012
Slane Telecom	Fixed Wireless	No Update to Provide	4/9/2010
Southern Ohio Communication Services, Inc.	Fixed Wireless	No Update to Provide	4/20/2010
Spacenet, Inc.	Satellite	No Update to Provide	
Sprint Nextel Corporation	Backhaul	No Update to Provide	1/14/2010
Telephone Service Company	Cable	No Update to Provide	4/6/2010
Telephone Service Company	DSL	No Update to Provide	4/6/2010
Telephone Service Company	Fiber	No Update to Provide	4/6/2010
The City of Dover	Backhaul	No Update to Provide	4/9/2010
tw telecom of ohio, llc	Backhaul	No Update to Provide	4/21/2010
UDATAnet	Fixed Wireless	No Update to Provide	
US Signal Company, LLC	Backhaul	No Update to Provide	6/17/2010
Vaughnsville Telephone Company, Inc	DSL	No Update to Provide	12/22/2009
Verizon Communications, Inc.	Backhaul	No Update to Provide	12/14/2009
ViaSat, Inc.	Satellite	No Update to Provide	1/8/2010
Wabash Mutual Telephone Company	DSL	No Update to Provide	3/30/2010
Wabash Mutual Telephone Company	Fixed Wireless	No Update to Provide	3/30/2010
Waldron Communication Company	Backhaul	No Update to Provide	3/19/2010
Waldron Communication Company	Fixed Wireless	No Update to Provide	3/19/2010
Woodsfield Municipal Cable	Cable	No Update to Provide	
XO Communications, LLC	Backhaul	No Update to Provide	2/12/2010
YES Learning and Computer Center Inc	Backhaul	No Update to Provide	4/24/2010
Zayo Group, LLC	Backhaul	No Update to Provide	
Avolve, Inc.	Fixed Wireless	No Update Provided – Use Last Submission Data	2/17/2011
Bascom Mutual Telephone Company	Fiber	No Update Provided – Use Last Submission Data	3/22/2010
Blu Sky Wireless	Fixed Wireless	No Update Provided – Use Last Submission Data	2/24/2010
Broadband Networks	Fixed Wireless	No Update Provided – Use Last Submission Data	

Cincinnati Communications, LLC	BPL	No Update Provided – Use Last Submission Data	1/6/2011	
Cincinnati Communications, LLC	Fiber	No Update Provided – Use Last Submission Data	1/6/2011	
Cincinnati Communications, LLC	Backhaul	No Update Provided – Use Last Submission Data	1/6/2011	
Coyote Wireless Broadband LLC	Fixed Wireless	No Update Provided – Use Last Submission Data	4/19/2010	
D&P Communications, Inc.	Fixed Wireless	No Update Provided – Use Last Submission Data		
Dark Horse Networks, LLC	Fixed Wireless	No Update Provided – Use Last Submission Data	3/15/2010	
East Cleveland Cable TV and Communications, LLC	Cable	No Update Provided – Use Last Submission Data	4/13/2010	
FairPoint Communications	DSL	No Update Provided – Use Last Submission Data	12/22/2009	
FairPoint Communications	Cable	No Update Provided – Use Last Submission Data	12/22/2009	
First Communications, LLC	Backhaul	No Update Provided – Use Last Submission Data	8/13/2012	
GMN Wireless Broadband	Fixed Wireless	No Update Provided – Use Last Submission Data	3/15/2010	
Jenco Speed Web	Fixed Wireless	No Update Provided – Use Last Submission Data	4/28/2010	
King Office Service, Inc.	Fixed Wireless	No Update Provided – Use Last Submission Data	4/9/2010	
LightSpeed Technologies	Fixed Wireless	No Update Provided – Use Last Submission Data	2/9/2010	
Massillon Cable TV, Inc.	Cable	No Update Provided – Use Last Submission Data	2/9/2010	
Mechcom Dot Net	Fixed Wireless	No Update Provided – Use Last Submission Data	4/22/2010	
Middle Point Home Telephone Company	DSL	No Update Provided – Use Last Submission Data	1/19/2010	
Mikulski Communications LLC	Fixed Wireless	No Update Provided – Use Last Submission Data	4/13/2010	
Nelsonville TV Cable, Inc.	Cable	No Update Provided – Use Last Submission Data	4/7/2010	
Nelsonville TV Cable, Inc.	Fiber	No Update Provided – Use Last Submission Data	4/7/2010	
North Coast Wireless Communications	Fixed Wireless	No Update Provided – Use Last Submission Data	4/14/2010	
Nova Telephone Company	DSL	No Update Provided – Use Last Submission Data	4/5/2010	
nTelos, Inc.	DSL	No Update Provided – Use Last Submission Data		
OneCommunity	Fixed Wireless	No Update Provided – Use Last Submission Data	4/14/2010	
OneCommunity	Backhaul	No Update Provided – Use Last Submission Data	4/14/2010	
RAA Services	Fixed Wireless	No Update Provided – Use Last Submission Data	3/12/2010	
Ridgeville Telephone Company	DSL	No Update Provided – Use Last Submission Data	3/12/2010	
RTEC Communications, Inc.	Cable	No Update Provided – Use Last Submission Data	4/13/2010	
RTEC Communications, Inc.	Fiber	No Update Provided – Use Last Submission Data	4/13/2010	
SAA bright.net, Inc.	Fixed Wireless	No Update Provided – Use Last Submission Data	3/23/2010	
Sycamore Telephone Company	DSL	No Update Provided – Use Last Submission Data	12/22/2009	
Sycamore Telephone Company	Backhaul	No Update Provided – Use Last Submission Data	12/22/2009	
Wavelinc Communications	Fixed Wireless	No Update Provided – Use Last Submission Data		
WideOpenWest Finance, LLC	Cable	No Update Provided – Use Last Submission Data		
Wilkshire Communications, Inc.	Fixed Wireless	No Update Provided – Use Last Submission Data	3/16/2010	
Windstream Communications	DSL	No Update Provided – Use Last Submission Data	1/28/2010	
Windstream Communications	Backhaul	No Update Provided – Use Last Submission Data	1/28/2010	
Your Digital Partner	Fixed Wireless	No Update Provided – Use Last Submission Data	6/28/2010	
Windstream Communications	DSL	Solicited Initial Data	1/28/2010	
Windstream Communications	DSL	Solicited Initial Data	1/28/2010	
Windstream Communications	Backhaul	Solicited Initial Data	1/28/2010	
FiberTower Corporation	Backhaul	Non-Responsive to Multiple Attempts		In addition to multiple contact attempts made during previous mapping submission periods, 4 contact attempts were made this period.
New Albany Net	Fiber	Non-Responsive to Multiple Attempts		In addition to multiple contact attempts made during previous mapping submission periods, 4 contacts were made or attempted this period.
Reliance Globalcom Services, Inc.	Backhaul	Non-Responsive to Multiple Attempts		In addition to multiple contact attempts made during previous mapping submission periods, 4 contact attempts were made this period.

**APPENDIX B: NON-PARTICIPATING PROVIDER
RELIABLE WIRELESS SOLUTIONS**

RELIABLE WIRELESS SOLUTIONS

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 State Broadband Initiative (SBI) program.

The following narrative provides detail regarding the recent data collection and coverage estimation activities related to Reliable Wireless Solutions, an Ohio fixed wireless Internet service provider (WISP), with service areas in and around Shelby County, Darke County, Auglaize County, and Mercer County. The narrative will include information regarding how and where CN obtained publicly available data and the on-the-ground validation techniques that support the underlying data.

Background

CN staff members have attempted to obtain participation from since the April 2010 data submission. In November 13, 2012, CN staff members were notified by the previous owner of Linked Communications, LLC that Reliable Wireless Solutions had purchased the Linked Communications assets. After CN staff members conducted outreach to Reliable Wireless Solutions the request for participation was responded to with the provider refusing to participate in the mapping initiative. On May 7, 2013, two members of the CN Engineering & Technical Services team were sent into the field to independently gather the data.

The Issue

Reliable Wireless Solutions, by its direct response in April of 2013, has refused to participate in the Connect Ohio 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, prior to conducting in-field spectrum testing. Despite the fact that Reliable Wireless Solutions displays a base map containing pin points of possible site locations on its website (**Exhibit A**), the provider refused to offer any data that could be used for the construction of a complete dataset for submission to NTIA. All publicly available data sources, such as maximum advertised speeds, (**Exhibit B**) or searches for federal registration numbers (**Exhibit C**) were combined with the data gathered in the field in order to develop and present this coverage estimation document to the NTIA.

A search for a Federal Registration Number (FRN) on the FCC **CO**mmission **RE**gistration **S**ystem (CORES) system yielded "no match" (**Exhibit C**). Additionally, the FCC Universal Licensing System (ULS) was searched to determine if the provider was the authorization holder of any spectrum; this search also yielded "no match" (**Exhibit D**).

Exhibit A: Service Area as Depicted May 7, 2013

Residential Internet Services

Speeds up to 3M Download / 768K Upload

Business Internet Services

Speeds up to 5M Download / 1M Upload



Google

Reliable Office Support: www.reliable.us

Web Store: www.reliable.us

Total Central Managed Email Security Service: www.reliable.us

Reliable's Total Central Managed Email Security Service is a managed email security service.

Why Choose Reliable Wireless Solutions?

It's Local!
Never get an automated attendant. A live person will answer your call.

It's Fast!
Much Faster than Dial up and comparable to a cable modem.

It's Convenient.
No Need to Tie up Your Phone Line or Require a Second Line.

It's Easy.
Always on Connection - no waiting to dial up or log in!

No Busy Signals or disconnections
Log on immediately and stay on as long as you'd like!

No Obligation!
If you can't get our signal during the site survey, we won't charge you a penny.

We own the equipment!
If it goes bad, we replace it free of charge*.

* Covers normal wear-and-tear. Fees may be assessed if equipment failure results from misuse

Covering Most Parts Of...

- Shelby County
- Auglaize County
- Darke County
- Mercer County



Exhibit B: Public Data Sources

Residential Internet Services

Basic Internet Service

- \$26.99 per month
- 512K Download / 128K Upload

Standard Internet Service

- \$32.99 per month
- 768K Download / 256k Upload

Dedicated Internet Service

- \$39.99 per month
- 1M Download / 256K Upload

Premium Internet Service

- \$44.99 per month
- 2M Download / 512K Upload

Ultimate Internet Service

- \$49.99 per month
- 3M Download / 768K Upload

Business Internet Services

Dynamic Service

- \$79.99 per month
- 2M Download / 512K Upload
- DHCP IP Address

Ultra Service

- \$99.99 per month
- 5M Download / 1M Upload
- Includes 1 Static IP Address
- \$20 each additional Static IP

Contact Us

Feel free to use the form to the right to have a Reliable Wireless Representative contact you or use the contact information below...

937-295-2266

sales@reliable-wireless.com

Basic Installation \$199.99

Includes antenna mounting, up to 150' Cat 5e installation into the home and connection to the first computer, router or switch. Additional wiring, equipment and programming will be done on a time and material basis.

NO CONTRACT REQUIRED! All Internet service is Month to Month.

Custom Packages

- Point to Point Connections
- VPN Networks
- Faster Connection Speeds Available

Exhibit C: Federal Registration Number

The screenshot shows the FCC Registration Search Public Information page. At the top, there is a navigation bar with links: FCC Home, Search, Updates, E-Filing, Initiatives, For Consumers, and Find People. Below this is a banner for "AMERICA THE BEAUTIFUL". The main heading is "FCC Registration". Below the heading, there is a breadcrumb trail: FCC > FCC Registration. The page title is "Search Public Information". A link "Return to FCC Registration Home" is provided. A central message box states: "No matches were found! Try refining your search by adding a wildcard character (*). Also see Advanced Search Tips and Tricks." Below this message is a "REFINE SEARCH" button. At the bottom, there is a "Customer Service" section with links: Frequently Asked Questions, Forms Requiring an FRN, Privacy Statement, and FCC Home Page. It also provides the FRN Help Line: 877-480-3201 (Mon.-Fri. 8 a.m.-6 p.m. ET) and mentions that the FRN Help desk has a dedicated staff of customer service representatives standing by to answer questions or concerns. It also notes that users can email the FRN Help desk with their questions and concerns.

FCC Home | Search | Updates | E-Filing | Initiatives | For Consumers | Find People

AMERICA THE BEAUTIFUL

FCC Registration

FCC > FCC Registration

Search Public Information

[Return to FCC Registration Home](#)

No matches were found!
Try refining your search by adding a [wildcard character \(*\)](#).
Also see [Advanced Search Tips and Tricks](#).

[REFINE SEARCH](#)

Customer Service

Frequently Asked Questions	Forms Requiring an FRN	Privacy Statement	FCC Home Page
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FRN Help Line: 877-480-3201 (Mon.-Fri. 8 a.m.-6 p.m. ET)

The FRN Help desk has a dedicated staff of customer service representatives standing by to answer your questions or concerns.
You can also [email the FRN Help desk](#) with your questions and concerns.

Exhibit D: License Reference

The screenshot shows the FCC Universal Licensing System Search Results page. At the top, there is a navigation bar with links: FCC Home, Search, Updates, E-Filing, Initiatives, For Consumers, and Find People. Below this is a banner for "AMERICA THE BEAUTIFUL". The main heading is "Universal Licensing System". Below the heading, there is a breadcrumb trail: FCC > WTB > ULS > Online Systems > License Search. The page title is "License Search Search Results". A link "New Search" is provided. A link "Refine Search" is provided. A link "Printable Page" is provided. A link "HELP" is provided. A "Specified Search" section shows the search criteria: "Name like Reliable Wireless Solutions". Below this, it states: "No matches found To try again, you can perform a new search or refine your existing search." Below this, there is a table with links: ULS Help, ULS Online Systems, About ULS, and Basic Search. The table contains links to ULS Glossary, FAQ, Online Help, Technical Support, Licensing Support, CORES, ULS Online Filing, License Search, Application Search, Archive License Search, Privacy Statement, About ULS, and ULS Home. Below the table, there is a "Basic Search" section with a dropdown menu for "By Call Sign", a search box, and a "SEARCH" button. At the bottom, there is a footer with the FCC logo, the text "FCC | Wireless | ULS | CORES", the address "Federal Communications Commission, 445 12th Street NW, Washington, DC 20554", and the phone number "Phone: 1-877-480-3201, TTY: 1-717-338-2824". There is also a link "Submit Help Request".

FCC Home | Search | Updates | E-Filing | Initiatives | For Consumers | Find People

AMERICA THE BEAUTIFUL

Universal Licensing System

FCC > WTB > ULS > Online Systems > License Search

License Search Search Results

[New Search](#) [Refine Search](#) [Printable Page](#) [HELP](#)

Specified Search

Name like **Reliable Wireless Solutions**

No matches found To try again, you can perform a [new search](#) or [refine your existing search](#).

ULS Help	ULS Glossary - FAQ - Online Help - Technical Support - Licensing Support
ULS Online Systems	CORES - ULS Online Filing - License Search - Application Search - Archive License Search
About ULS	Privacy Statement - About ULS - ULS Home
Basic Search	By Call Sign <input type="text"/> <input type="button" value="SEARCH"/>

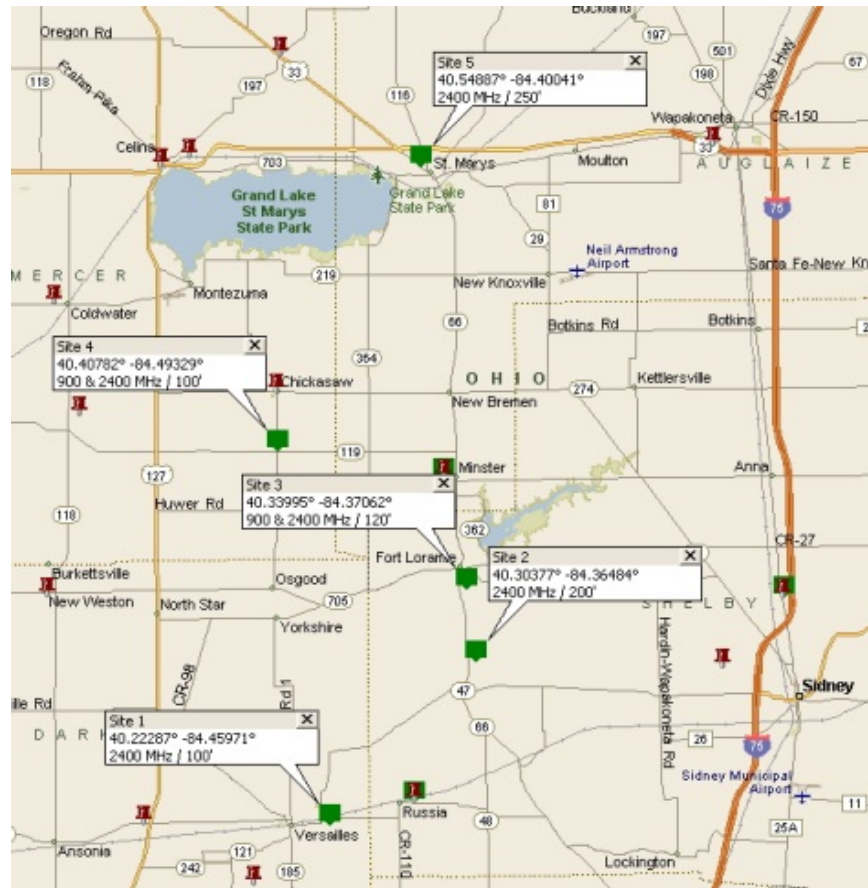
FCC | Wireless | ULS | CORES

Federal Communications Commission
445 12th Street NW
Washington, DC 20554

Phone: 1-877-480-3201
TTY: 1-717-338-2824
[Submit Help Request](#)

Preliminary Identification of Provider's Coverage Area: Five transmit site locations were identified during the course of the field research and these locations were captured in a GPS route using Microsoft *Streets and Trips* (**Exhibit E**).

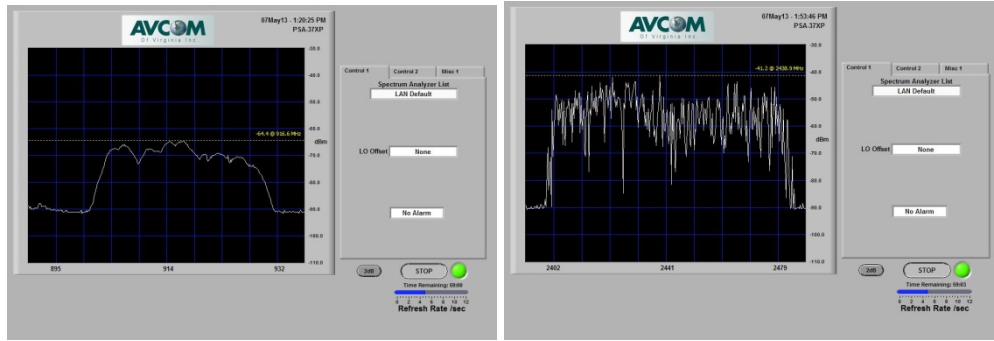
Exhibit E: Validation Points for AP Structures



Testing Techniques

CN staff developed a data collection and site validation route based on information as outlined above. To ensure accuracy of coverage estimates, the CN engineer also included wireless transmit sites of neighboring WISPs to eliminate confusion when a transmit site was located. 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 F**). Each validation point was scrutinized for frequency of operation. A screen image of the operating frequency (or frequencies) was captured; general notes were recorded for each location approximate antenna height, frequency of operation, antenna type (omni or sectored), and photographs were taken of the access points.

Exhibit F: Field Data for Reliable Wireless Fort Loramie Tower Location



Results and Submission for October 2013

After a thorough analysis of the combined 5 locations, 5 access points were identified and relative information was logged into the Reliable Wireless field validation notes file (**Exhibit G**). The CN engineers were able to create a revised composite propagation study based on the information in hand and collected during the field validation (**Exhibit H**).

Exhibit G: Field Validation Notes

Provider	Test Site Info	Coordinates NAD 83 REQUIRED		Test Data		Signal Verification/Spectrum Analyzer				
Provider	Physical Address	(N) Lat Decimal	(-) (W) Long Decimal	Type	Pass or Fail?	Peak Freq	Peak Sig Strength	Spectrum Analyzer	Time	Images
Reliable Wireless	290 Subler Dr, Versailles, OH	40.22287	-84.45971	Signal Verification	Pass	2422	-36	Avcom PSA-37xP	12:33 PM	Yes
Reliable Wireless	7294 SR-66, Fort Loramie, OH	40.30377	-84.36484	Signal Verification	Pass	2454	-37	Avcom PSA-37xP	1:04 PM	Yes
Reliable Wireless	1104 Tower Dr, Fort Loramie, OH	40.33995	-84.37062	Signal Verification	Pass	916	-64	Avcom PSA-37xP	1:20 PM	Yes
Reliable Wireless	1104 Tower Dr, Fort Loramie, OH	40.33995	-84.37062	Signal Verification	Pass	2439	-41	Avcom PSA-37xP	1:53 PM	Yes
Reliable Wireless	2008 SR-716, Maria Stein, OH	40.40782	-84.49329	Signal Verification	Pass	903	-53	Avcom PSA-37xP	2:07 PM	Yes
Reliable Wireless	2008 SR-716, Maria Stein, OH	40.40782	-84.49329	Signal Verification	Pass	2411	-48	Avcom PSA-37xP	2:05 PM	Yes
Reliable Wireless	CR-41A, St Marys, OH	40.55893	-84.39522	Signal Verification	Pass	2416	-43	Avcom PSA-37xP	2:44 PM	Yes

Exhibit H: Revised Composite Propagation Study

