

**OFFICIAL APRIL 2012 UPDATE SUBMISSION TO  
THE NATIONAL TELECOMMUNICATIONS AND INFORMATION  
ADMINISTRATION UNDER THE  
STATE BROADBAND DATA AND DEVELOPMENT GRANT PROGRAM  
FOR THE STATE OF IOWA**

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April 1, 2012

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## COVER LETTER

April 1, 2012

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

Dear Ms. Neville:

As the State Broadband Designated Entity, in partnership with the Iowa Economic Development Authority, please accept this submission from Connected Nation on behalf of the state of Iowa's State Broadband Initiative (SBI) Grant Program, known as Connect Iowa.

It is with highest regard that the collective stakeholders of Connect Iowa offer congratulations to the U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) on the one-year anniversary of the release of the National Broadband Map. This extraordinary milestone demonstrates the ongoing intense and joint effort of the NTIA, FCC, state governments, industry, and non-profits like Connected Nation as it continues to serve as a key tool for the American public and policymakers, resulting in smarter investments and targeted state and local broadband policies and programs. We are proud of the role that Connect Iowa has played in creating and maintaining such a powerful tool that has benefitted and surely will continue to benefit not just Iowans, but consumers and businesses nationwide.

These artifacts should be found to be compliant with the April 1, 2012, 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 Iowa: April 1, 2012***

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

#### **SBI Data Transfer Model**

The submission of the broadband dataset for April 1, 2012, is contained within the SBI Data Transfer Model as released on the Grantee Workspace on January 17, 2012. All efforts have been made to comply with formatting, domain, and metadata requirements to include as much information on each provider as possible.

#### **Additional Submission Guidance**

This submission continues to follow the speed technology guidance released by the Program Office on December 22, 2011, to review speed tier codes in correspondence with technology of transmission codes. In the October 2011 submission, descriptions were provided in the methodology paper that offered an explanation for any submitted technology of transmission and speed combinations that were outside of the expected value range. That practice continues in this submission as technology and speed combinations are reviewed and scrutinized; any questionable information supplied by providers is reviewed more in depth with the provider to ensure the information is accurately captured or a proper explanation is provided as to why the speed information should be submitted as supplied even if it falls outside the expected value range.

In addition to the requirements mentioned above, please find this methodology paper to be inclusive of a new section pertaining to industry mergers and acquisitions – specifically this section will detail any and all mergers or acquisitions that have taken place in Iowa, since the October 2011 submission. The intent of this new section is to provide a better understanding of how the broadband provider landscape has changed over time.

This April 2012 semi-annual data update under the State Broadband Initiative Grant Program continues to demonstrate our dedication to implementing the joint purposes of the Recovery Act and the Broadband Data Improvement Act (BDIA) by gathering comprehensive and accurate state-level broadband mapping data, developing state-level broadband maps, aiding in the development and maintenance of the National Broadband Map, and undertaking statewide initiatives for broadband planning.

### ***Broadband Service Availability — Provider Outreach and Verification***

This data update submission under the SBI program includes datasets for approximately 98.02 percent of the Iowa provider community, or 198 of 202 total providers. There are 196 participating providers and 2 additional non-participating providers whose estimated coverage areas have been submitted. Of the 196 participating providers, 55 supplied an update to their network or coverage area(s), while 133 have reported no change. The remaining 8 represent providers who previously supplied data but were non-responsive in the April 2012 update effort; therefore their previous dataset is being put forward as part of this compilation. A complete roster by provider depicting participation status and contact record is contained herein. The 4 providers that are not represented in the attached datasets have refused to participate in the voluntary program or were non-responsive to multiple contact attempts.

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

Connect Iowa has also continued to perform broadband verification activities through several means. In addition to confirmation of service area(s) by each provider, Connect Iowa conducts field validation efforts. To date, 103 (50.99 percent) providers have been validated through field verification activities. Additional details on verification activities are contained within the Field Validation Methodology.

The Connect Iowa website, ([www.connectiowa.org](http://www.connectiowa.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 Iowa website encountered 3,295 unique visits during this reporting period (21,005 total to date for the life of the grant awarded on January 1, 2010). Additionally, this pronounced Web activity netted 16 broadband inquiries over this same reporting period (206 grant inception to date). The website also provides the BroadbandStat application, which allows the consumer to confirm or dispute the coverage represented on the broadband inventory map. These consumer-initiated actions are facilitated through Connect Iowa website and the Connect Iowa interactive mapping tool (BroadbandStat) that offer the citizens the vehicles to provide information regarding availability in their respective service area, either in affirmation or contest of the reported data represented in the Connect Iowa mapping artifacts. Since the initial data collection and release of corresponding maps, feedback in the form of broadband inquiries has allowed Connect Iowa to identify additional areas that are in need of field validation, which is scheduled as soon as possible.

### ***Community Anchor Institutions***

Connect Iowa has established an ongoing mechanism for gathering data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBI NOFA Technical Appendix.

In conjunction with the Iowa Economic Development Authority, outreach was conducted during this data update reporting period by Connect Iowa 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 Iowa website. Connect Iowa worked with members of the Iowa Broadband Advisory Committee to distribute the CAI survey to their contacts to promote the importance of broadband connectivity at anchor institutions and participation in this data collection process. Connect Iowa will continue to build upon these relationships over the coming months and utilize its contacts throughout the state to collect data and raise awareness of this project.

From our work in Iowa, 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 Iowa 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 Iowa 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 Iowa, as well as the United States and its territories through contribution to the National Broadband Map. We look forward to the continuing work ahead.

Respectfully submitted,

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

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

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## **DATA ACQUISITION: IOWA COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY**

In this fifth reporting period of the SBI, Connect Iowa, working in close coordination with the state of Iowa, has established an ongoing mechanism for gathering data on the location and broadband connectivity of Community Anchor Institutions (CAI), in accordance with the data requirements of the SBI NOFA Technical Appendix. During this reporting period Connect Iowa has continued to focus efforts on conducting outreach and raising awareness of this important project.

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

Connect Iowa continues to utilize a customized online survey hosted through SurveyMonkey, with a landing page on the Connect Iowa 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. Connect Iowa 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/RRZ9KHC>.

Connect Iowa 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 Iowa 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 Iowa works with the Iowa Association of Regional Councils to identify existing relationships that can support CAI outreach.

Connect Iowa 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. Connect Iowa is also taking advantage of pre-existing relationships with organizations and agencies that participate on the Connect Iowa Advisory Committee.

The greatest challenge with collecting CAI data continues to be educating the CAI about the Connect Iowa project as well as self-awareness of their own CAI connectivity (specifically upload and download speeds). Connect Iowa will continue to research key CAI organizations and agency contacts in an effort to raise awareness of this project among CAI. When applicable, the Iowa Association of Regional Councils (IARC) will continue to be briefed on the current CAI data and provided information so they can assist with outreach and promotion within the state. The local data will be very helpful to IARC representatives as they create local teams and need help identifying CAI representation.



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	1851	1851	1851	119	119	121
Libraries	552	552	552	312	398	232
Healthcare	143	143	143	40	40	39
Public Safety	1175	1175	1174	72	64	65
Higher Ed Institutions	77	77	77	30	30	30
Other Government	706	706	706	320	265	299
Other Non-Government	4	4	3	3	4	4
Total	4508	4508	4506	896	920	790

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

## **SBI DATA SUBMISSION METHODOLOGY**

The submission of the broadband dataset for April 1, 2012, is contained within the SBI Data Transfer Model and additional components as released on the Grantee Workspace on January 17, 2012. Connected Nation (CN) has reviewed all literature that relates to the release and use of this data transfer model and recognizes that it does not replace or dictate how data is stored, processed, or displayed for the state, as it is meant primarily as a means to transfer the broadband data from all states and territories and populate the National Broadband Map in a seamless fashion. Guidance from the Technical Mapping Guide, as released on the Grantee Workspace on March 24, 2011, was also followed to ensure the completeness and validity of the submission through completion steps and checklists, completing the DataPackage spreadsheet, uploading broadband datasets into the Data Transfer Model, and checking the dataset using the SBDD\_CheckSubmission receipt process.

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

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*Inventory of Deliverables, Connect Iowa: April 1, 2012*

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Appendix A: 4	BB_Service_CAInstitutions	Community Anchor Institutions-Listing.

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

Connected Nation has continued outreach to satellite providers on their availability, technology, and speed information, but granular coverage is not yet available. Submitted within the wireless feature class are the satellite companies providing service to Iowa 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 is underway at CN as well to be able to create more granular satellite coverage based on satellite equipment positioning and geographic inputs.

## MERGERS AND ACQUISITIONS

Throughout the course of the SBI program, CN has maintained a repository of electronic records related to its provider outreach activities. Recently, due to the high volume of mergers and acquisitions (M&A) within the provider community, CN elected to create a listing of M&A activities for this mapping cycle as a way of supplementing the Provider Changes and Corrections section of this document. M&A activities for this state are listed below with a brief description and date as obtained through public records or provider disclosure.

- **CenturyLink Merged With Qwest**  
On April 1, 2011, CenturyLink, Inc. (NYSE: CTL) and Qwest Communications completed their merger, creating the nation's third largest telecommunications company. The combined companies will deliver a broader range of communications services to consumers and small businesses throughout its 37-state service area and to business, wholesale, and government customers nationwide via its 190,000 route mile fiber network.
- **Circle Computer Resources Acquired Cramer IT**  
Circle Computer Resources of Cedar Rapids acquired Cramer IT, a small business computer networking and high-speed Internet service business in Iowa City.
- **La Motte Telephone Company, Inc. Acquired Andrew Telephone Company**  
In a 214 Application dated September 19, 2011, the Wireline Competition Bureau approved the application of Andrew Telephone Company, Inc. and LaMotte Telephone Company, Incorporated to transfer control of Andrew to LaMotte.
- **Level 3 Acquired Global Crossing**  
The Global Crossing website confirmed that Level 3 and Global Crossing joined forces under the brand name Level 3 on October 4, 2011.
- **Windstream Acquired PAETEC**  
The News section of the Windstream website dated December 1, 2011, announced that it had completed the acquisition of PAETEC Holding Corp. in a transaction valued at approximately \$2.3 billion.
- **Zayo Acquired 360networks**  
On December 2, 2011, the Zayo website announced that it had completed its transaction to purchase 360networks. The resulting company is one of the largest bandwidth infrastructure companies in North America with an estimated annualized pro forma revenue of \$393 million.

## **IOWA 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 System (CORES);
- validating provider submitted data (for example: latitude/longitude) using a handheld Garmin eTrex Summit GPS unit or GPS enabled software such as Microsoft Streets and Trips;
- locating physical wire-line attributes (such as 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 state 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 Iowa on the following providers: Algona Municipal Utilities; Ambercomm; AT&T, Inc.; Aventure Communications; Ayrshire Farmers Mutual Telephone Company; Brooklyn Mutual Telecommunications Cooperative; Cable ONE, Inc.; Cedar Falls Utilities; Central Scott Telephone; CenturyLink (formerly Qwest Corporation); Chat Mobility; Circle Computer Resources (also d.b.a. Cramer IT); Citizens Mutual Telephone Cooperative; Clarence Telephone Company; CML Telephone Cooperative Association of Meriden, Iowa; Colo Telephone Company; Community Cable Television Agency of O'Brien County; Complete Communications Services; Cooperative Telephone Exchange; Cornbelt Telephone; CoxCom Inc.; Cumberland Telephone; Danville Mutual Telephone Company; East Buchanan Telephone Cooperative; Ellsworth Cooperative Telephone Association; Evertex Enterprises; Farmers & Merchants Mutual Telephone Company; Farmers Cooperative Telephone Company-Dysart; Farmers Mutual Cooperative Telephone Company-Harlan; Farmers Mutual Telephone Company-Jessup; Farmers Mutual Telephone of Stanton; Farmers Telephone Company-Essex (also d.b.a. Heartland Net); Fenton Co-Op Telephone Company; FiberComm L.C.; Frontier Communications Corporation; Goldfield Access Network; Grand Mound Cooperative; Grand River Mutual Telephone Cooperative; Grundy Center Municipal Utilities; Harlan Municipality Utilities; Hubbard Cooperative Telephone Association and Cable; Huxley Communications Cooperative; I-35 Telephone Company; ImOn Communications; Internet Consulting Services LLC; Internet Solvers, Inc.; Jefferson Telephone Company; Kalona Cooperative Telephone Company; KDSC, Inc.; KeyOn Communications (d.b.a. Dynamic Broadband); LaPorte City Telephone Company; Laurens Municipal Communications Utility; Lenox Municipal Utilities; Logannet; Lone Rock Cooperative Telephone Company; Long Lines; Mahaska Communications Group; Marne Elkhorn Telephone; MCC Iowa LLC (d.b.a. Mediacom Iowa LLC); Mediapolis Telephone Company; MidIowa Net; Milford Cable TV, Inc.; Minburn Communications; Minerva Valley Telephone Cablevision, Inc.; Muscatine Power & Water (d.b.a. Machlink); Mutual Telephone Company; Mutual Telephone Company of Morning Sun Iowa; NetConx; Nexgen Integrated Communications, LLC; Northern Iowa Telephone Company; Northwest Telephone Company; Ogden Telephone Company; Panora Communications Cooperative; Partner Communications Cooperative; Prairie iNet; Premier Communications; Radcliffe Telephone Company; RingTel Communications; River Valley

Telecommunications Coop; Royal Telephone Company; RuralWaves Wireless Internet; Sac County Mutual Telephone; Sharon Telephone Company; SpeedNet LLC (d.b.a. Speed Connect); Spencer Municipal Utilities; Sprint Nextel Corporation; Sully Telephone Association; Superior Telephone Cooperative; Terril Telephone Cooperative; T-Mobil USA, Inc.; Traer Municipal Utilities; USA Communications (d.b.a. Farmers Mutual Telephone Cooperative-Shellsburg; Van Buren Telephone Company, Inc.; Verizon Communications, Inc.; Villisca Farmers Telephone Company; Walnut Telephone Company; Webster-Calhoun-Cooper Telephone Association; Wellman Cooperative Telephone Association; West Iowa Telephone Company; West Liberty Telephone Company (also d.b.a. Cloudburst 9 LLC and Liberty Communications); Western Iowa Telephone Association; Windstream (also d.b.a. Iowa Telecom Services); Woolstock Mutual Telephone; and WTC Communications, Inc.

From program initiation through this reporting period, CN has completed in-the-field validation testing against 103 companies (out of a universe of 202 viable providers) totaling 50.99 percent within the state of Iowa. 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. 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.

### **Alpine Communications, LC**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider representative indicated that 12 Mbps service is available to customers.

### **BEVCOMM**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 15 Mbps service; screenshot below.

Surf the Internet at speeds from 1Mb to 15Mb/second. All plans allow for multiple users at the same location, business or residential. Stop wasting time waiting for web sites and files to download and see the benefits of BEVCOMM High Speed Internet today!

### **Cascade Communications Company**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 12 Mbps service; screenshot below.

**ZOOM WARP SPEED**  
Up to 1 Mbps Upload/12 Mbps Download  
For just \$64.95/month\*

**Central Scott Telephone Company, Inc.**

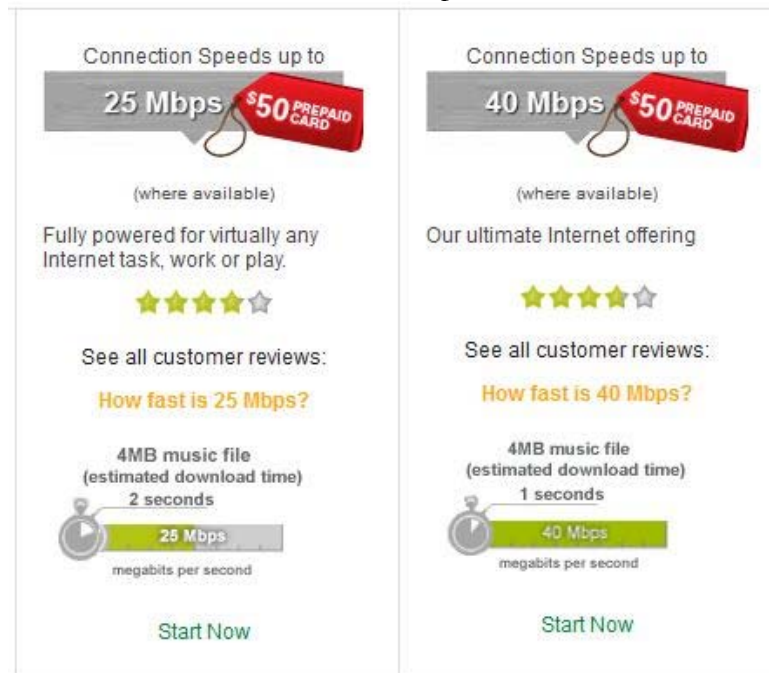
Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 20 Mbps service; screenshot below.

**CenturyLink**

Issue: DSL platform with maximum advertised download speed in tiers 7 and 8, higher than expected value range for the technology.

Resolution: Provider website advertises 25 and 40 Mbps service; screenshot below.

**Farmers Mutual Telephone Company – Nora Springs**

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

Resolution: Confirmation from provider could not be obtained prior to submission; outreach will continue to obtain explanation or correction for October 2012 submission.

**Farmers Mutual Telephone Company of Stanton, Iowa**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 10 mbps service; screenshot below.

**10 Mb and customer speeds are also available. Call for details!**



**KeyOn Communications, Inc.**

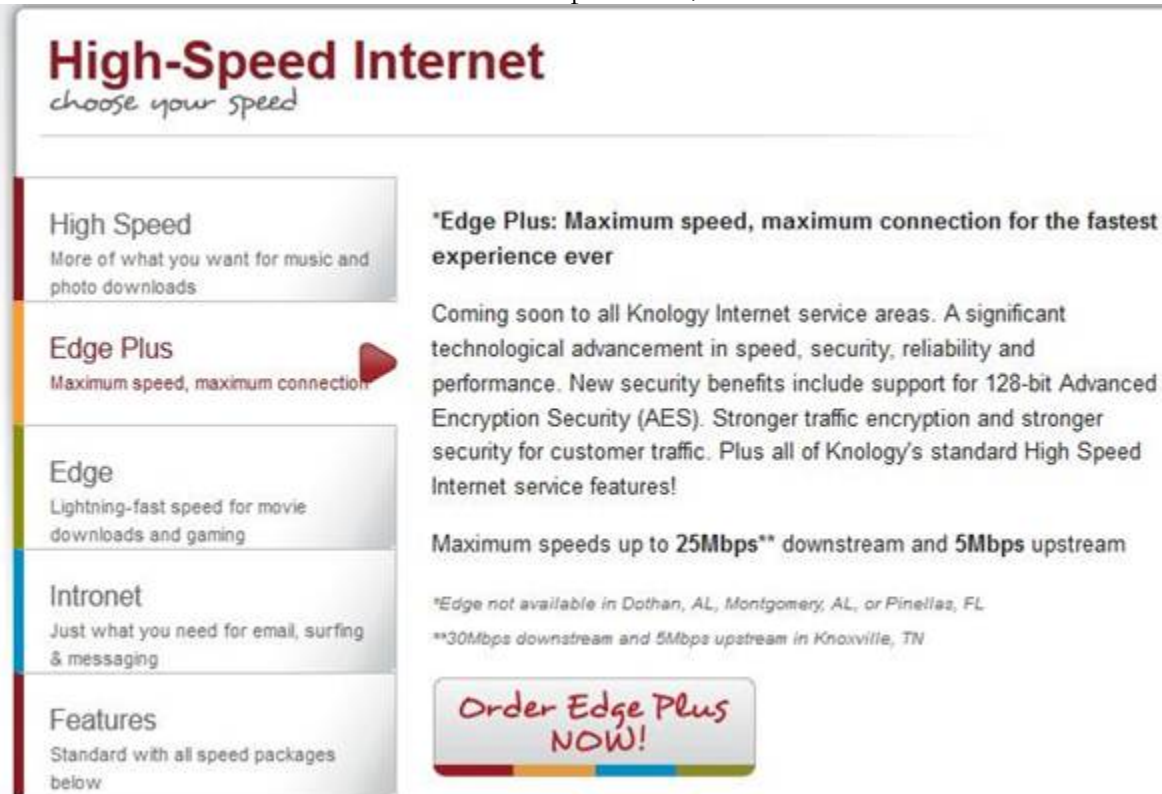
Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Confirmation from provider could not be obtained prior to submission; additional research yielded a potential upcoming sale of the company.

**Knology of the Plains, Inc.**

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

Resolution: Provider website advertises 25 Mbps service; screenshot below.



The screenshot shows the Knology High-Speed Internet website. The main heading is "High-Speed Internet" with the tagline "choose your speed". On the left, there is a vertical menu with five options: "High Speed" (More of what you want for music and photo downloads), "Edge Plus" (Maximum speed, maximum connection), "Edge" (Lightning-fast speed for movie downloads and gaming), "Intronet" (Just what you need for email, surfing & messaging), and "Features" (Standard with all speed packages below). The "Edge Plus" option is highlighted with a red play button icon. To the right of the menu, there is a section for "Edge Plus" with the text: "\*Edge Plus: Maximum speed, maximum connection for the fastest experience ever". Below this, it says "Coming soon to all Knology Internet service areas. A significant technological advancement in speed, security, reliability and performance. New security benefits include support for 128-bit Advanced Encryption Security (AES). Stronger traffic encryption and stronger security for customer traffic. Plus all of Knology's standard High Speed Internet service features!". Further down, it states "Maximum speeds up to 25Mbps\*\* downstream and 5Mbps upstream". Below this, there are two footnotes: "\*Edge not available in Dothan, AL, Montgomery, AL, or Pinellas, FL" and "\*\*30Mbps downstream and 5Mbps upstream in Knoxville, TN". At the bottom right, there is a red button that says "Order Edge Plus NOW!".

**Northern Iowa Telephone Company**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 15 Mbps service; screenshot below.

Download	128K	3 Meg	8 Meg	15 Meg
Upload	128K	384K	512K	1 meg
Static IP	\$10.00	\$10.00	\$10.00	\$10.00
Filtering	\$2.00	\$2.00	\$2.00	\$2.00

**Preston Telephone Company**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider representative confirmed 10 Mbps service is available and it will be updating its website soon to advertise it.

**River Valley Telecommunications Coop**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider representative confirmed that tier 7 service is available, but it is in the process of updating its website to reflect the upgraded speeds.

**Terril Telephone Cooperative**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Confirmed with provider that tier 7 service is available, but website has not yet been updated.

**T-Mobile USA, Inc.**

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

Resolution: Provider website confirms that download speeds greater than tier 6 are available; screenshot below.

T-Mobile customers with 4G phones are already experiencing data speeds that are comparable to or faster than the speed of a home broadband network. And with recent improvements to our 4G network-doubling our theoretical download speeds-we're giving our customers enhanced 4G data speeds. We've seen average download speeds on our HSPA+ 42 Mbps-capable data stick approaching 10 Mbps with peak speeds of 27 Mbps, and download speeds approaching 8 Mbps with peak speeds of 20 Mbps on our upcoming HSPA+ 42 Mbps-capable smartphones.

**West Iowa Telephone Company**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 20 Mbps service; screenshot below.

**RURAL AREAS**

	Breeze	Zip	Whiz	WOW	Crusin'	Bazinga
Download Speeds Up To	128 kbps	1.5MB	3MB	5MB	10MB	20MB
Upload Speeds Up To	64 kbps	768 kbps	1.5MB	2.5MB	2.5MB	2.5MB



**Windstream Communications**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 12 Mbps service; screenshot below.

See which of our speeds matches your online activities. Choose the right Internet speed (WATCH VIDEO)	3 Mbps (Basic Use)	6 Mbps (Most Popular)	12 Mbps (Fastest Option)
E-mail friends	X	X	X
Browse the Internet	X	X	X
Bank online	X	X	X
Shop for deals	X	X	X
Download music	X	X	X
Connect with friends on Facebook and Twitter	X	X	X
Use wireless home networking	X	X	X
Download large files		X	X
Stream video		X	X
Watch TV shows online			X
Play online games			X

**WTC Communications Inc.**

Issue: DSL platform with maximum advertised download speed in tier 7, higher than expected value range for the technology.

Resolution: Provider website advertises 10 Mbps service; screenshot below.

**Here are our new Internet speeds and pricing:**

Download	Upload	Price
<b>1 Mbps</b>	<b>512K</b>	<b>34.95</b>
<b>5 Mbps</b>	<b>1 Mbps</b>	<b>49.95</b>
<b>7 Mbps</b>	<b>1 Mbps</b>	<b>64.95</b>
<b>10 Mbps</b>	<b>2 Mbps</b>	<b>79.95</b>

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## DATA SUBMISSION AND COVERAGE ESTIMATION OF NON-PARTICIPATING PROVIDER

### InternetSolver, Inc.

As part of its ongoing broadband mapping efforts, CN has developed a series of processes with the goal of submitting mapping data to NTIA for every known and qualifying broadband provider, regardless of whether the provider has chosen to support and participate in the SBI mapping initiative.

The following narrative provides detail regarding the recent data collection activities related to Internet Solver, Inc., a DSL provider, located in Urbandale, Iowa, with service areas in Dallas and Polk Counties. The narrative will include information regarding how and where CN obtained publicly available data.

#### **April 2012 Submission Commentary**

Connected Nation created this coverage estimation document during the October 2011 submission period as a result of the ongoing non-participatory status of the provider. In addition to the 3 instances of e-mail and/or telephone communication during the October 2011 submission period (as previously reported), CN made 4 additional attempts to contact the provider during this mapping cycle.

CN closely monitored the provider's website to identify any changes in the coverage area or maximum advertised speeds but did not locate evidence of any recent changes. To that end, CN is resubmitting this coverage estimation narrative, substantially in its original format, and will continue to monitor the provider's website as well as ensure ongoing outreach until either the expiration of the SBI grant or until such time as the provider voluntarily contributes data.

#### **The Issue**

Internet Solver, Inc. has indicated its unwillingness to participate in the Iowa 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 information obtained from a spokesperson of the provider as well as research information and, as time progressed, enriched the file with information obtained through the public domain. For example, CN reviewed the provider's website, [www.internetsolver.com](http://www.internetsolver.com), to determine the residential service plans (**Exhibit A**) and the service area (**Exhibit B**) of the provider's network. A search for a Federal Registration Number ("FRN") on the FCC **CO**mmission **RE**gistration System ("CORES") system yielded an FRN of 0015518053 (**Exhibit C**) with contact information relative to the owner of the company.

## Exhibit A: Service Plans

### INTERNET SOLVER PREMIER DSL INTERNET ACCESS

Premier DSL coverage is provided by installing our own DSL equipment in the telephone office that services your home or business. This allows us to offer speeds and capabilities that no one else does.

You can use our [online qualification system](#) to instantly see which services are available to you!

The Premier service includes all of the benefits of the Standard service, plus additional benefits.

- Unsurpassed Speed and Coverage
- No telephone service required
- Free Installation
- Free Technical Support
- Effective Spam Filtering
- Free Modem Rental
- 30-Day Satisfaction Guarantee

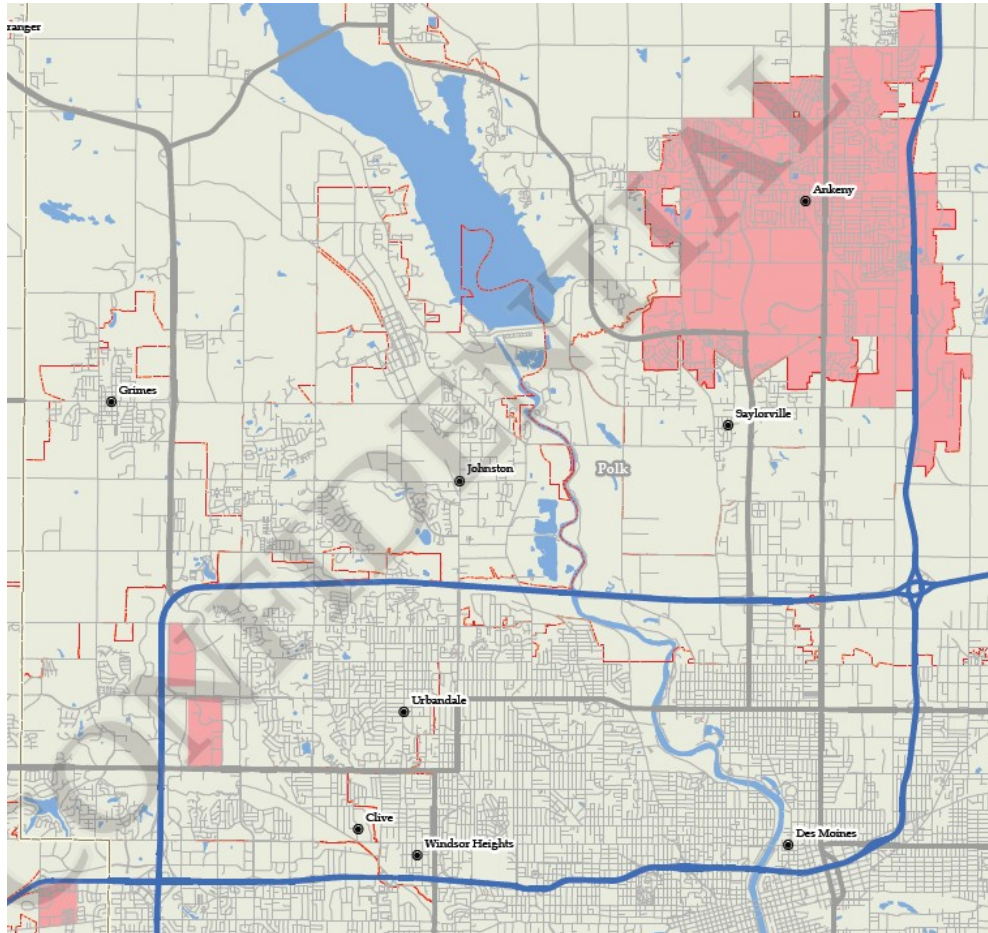
Due to the nature of the advanced technology used to deliver these services, the coverage area is different than the Standard DSL service. All of our DSL services include free onsite installation for one computer. This is a \$99 value for free!

The pricing reflects a 1-year contract term with automatic payment from a credit card or checking account.

Home DSL Service		
This service includes an email account, free modem rental, spam filtering, technical support, and free installation.		Per Month
Speed	16-24 Meg	\$100.00
	11-15 Meg	\$90.00
	8-10 Meg	\$80.00
	5-7 Meg	\$60.00
	3 Meg	\$45.00
	1.5 Meg	\$40.00
	256 K	\$30.00
Business DSL Service		
This service includes a static IP address, free modem rental, technical support, and free installation.		Per Month
Speed	16-24 Meg	\$110.00
	11-15 Meg	\$100.00
	8-10 Meg	\$90.00
	5-7 Meg	\$80.00
	3 Meg	\$55.00
	1.5 Meg	\$50.00
	256 K	\$35.00

Internet Solver offers three types of DSL service to meet the differing needs of our clients.

## Exhibit B: Service Area



## Exhibit C: Federal Registration Number

Registration Detail	
FRN:	0015518053
Registration Date:	09/19/2006 11:28:00 AM
Last Updated:	09/19/2006 12:02:00 PM
Business Name:	Internet Solver, Inc.
Business Type:	Private Sector , Corporation
Contact Organization:	Internet Solver, Inc.
Contact Position:	President
Contact Name:	Mr David J Weis
Contact Address:	1129 42nd Street Des Moines, IA 50311 United States
Contact Email:	djweis@internetsolver.com
ContactPhone:	(515) 224-9229
ContactFax:	(515) 224-0829

### Preliminary Identification of Provider's Coverage Area



Connected Nation extracted the Internet Solver, Inc. extended service area map (**Exhibit D**) from the provider's website and the information obtained from the provider in a telephone conversation indicating it provides broadband DSL service within the city limits of Ankeny, Iowa.

### Exhibit D: Provider's Extended Service Area

#### INTERNET SOLVER EXTENDED AREA DSL INTERNET ACCESS

Internet Solver was the first Internet Provider in the state to install remote DSL equipment. The area inside the red lines on the map to the right and below are the areas we can provide our Extended Area DSL Service. We have other expansions coming soon and will also take requests for future service areas. With the advanced equipment used to provide our Premier DSL service and the area covered with the Extended Area DSL, we have the largest DSL coverage area in central Iowa.

We are currently working with other commercial and residential property owners to bring the most cost effective Internet access to their tenants. If you are a property owner that would like a competitive edge getting and retaining tenants, please [contact us](#).

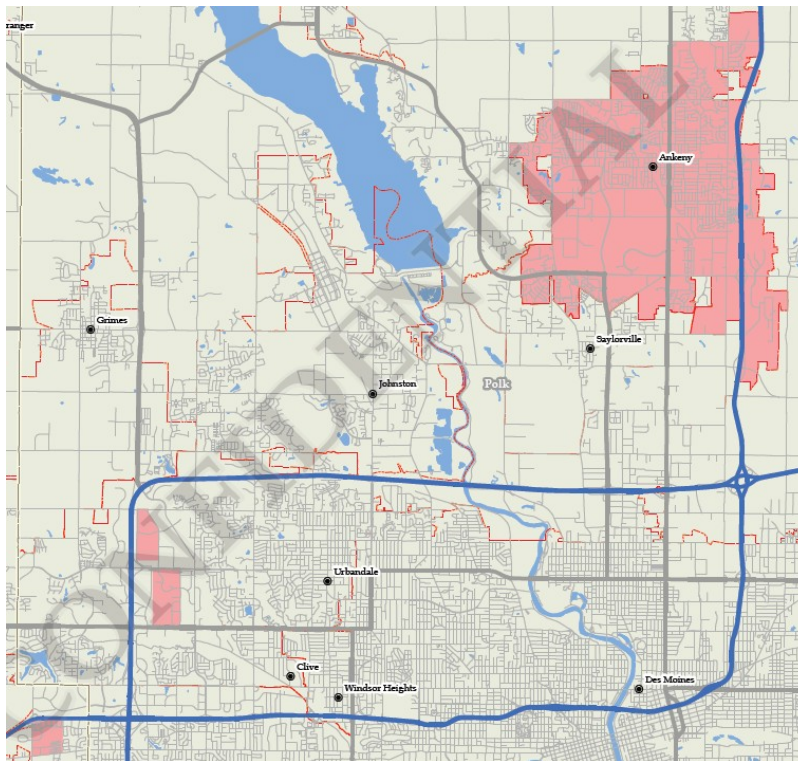
Extended Area DSL Service		Service Agreement		
This service is available in select areas. It includes web hosting space, email accounts, priority support, and can include free installation.		3-Year	2-Year	1-Year
Speed	1.5 Meg	\$100.00	\$125.00	\$150.00
Installation		\$0.00	\$150.00	\$150.00



### **Background Results and Submission for April 2012**

From the information obtained from a spokesperson for Internet Solver, Inc. and its website, the staff of Connected Nation created a composite coverage map (**Exhibit E**) that was presented to the provider for approval on August 15, 2011. We received an e-mail from the spokesperson on August 22, 2011, stating they are not interested in participating. E-mail notification was sent to the provider advising the information will be submitted to Connect Iowa and the NTIA broadband mapping project for processing if there are no discrepancies of the estimated coverage received from the provider within a 48-hour period. Despite that aforementioned call-to-action and the 4 additional contact attempts during this mapping cycle, the provider continues to be non-responsive.

### **Exhibit E: Internet Solver, Inc. Composite Coverage**



## RuralWaves, LLC

As part of its ongoing broadband mapping efforts, Connected Nation 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 RuralWaves, LLC (RW) a wireless Internet service provider (WISP), located in Correctionville, Iowa with a service area around Galva, Holstein, Schaller, Early, Correctionville, Washta, Battle Creek, and Anthony, Iowa. 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 continued trying to obtain the participation of the provider with 13 instances of communication via telephone and e-mail sessions since February 9, 2010, through January, 30, 2012. Only one communication reply was received from a company representative on August 5, 2012, with a response of electing not to participate. Additionally, a CN staff member visited the RW office on February 9, 2012, to discuss the broadband mapping project in person with RW; however, staff was not available to discuss the project.

### **The Issue**

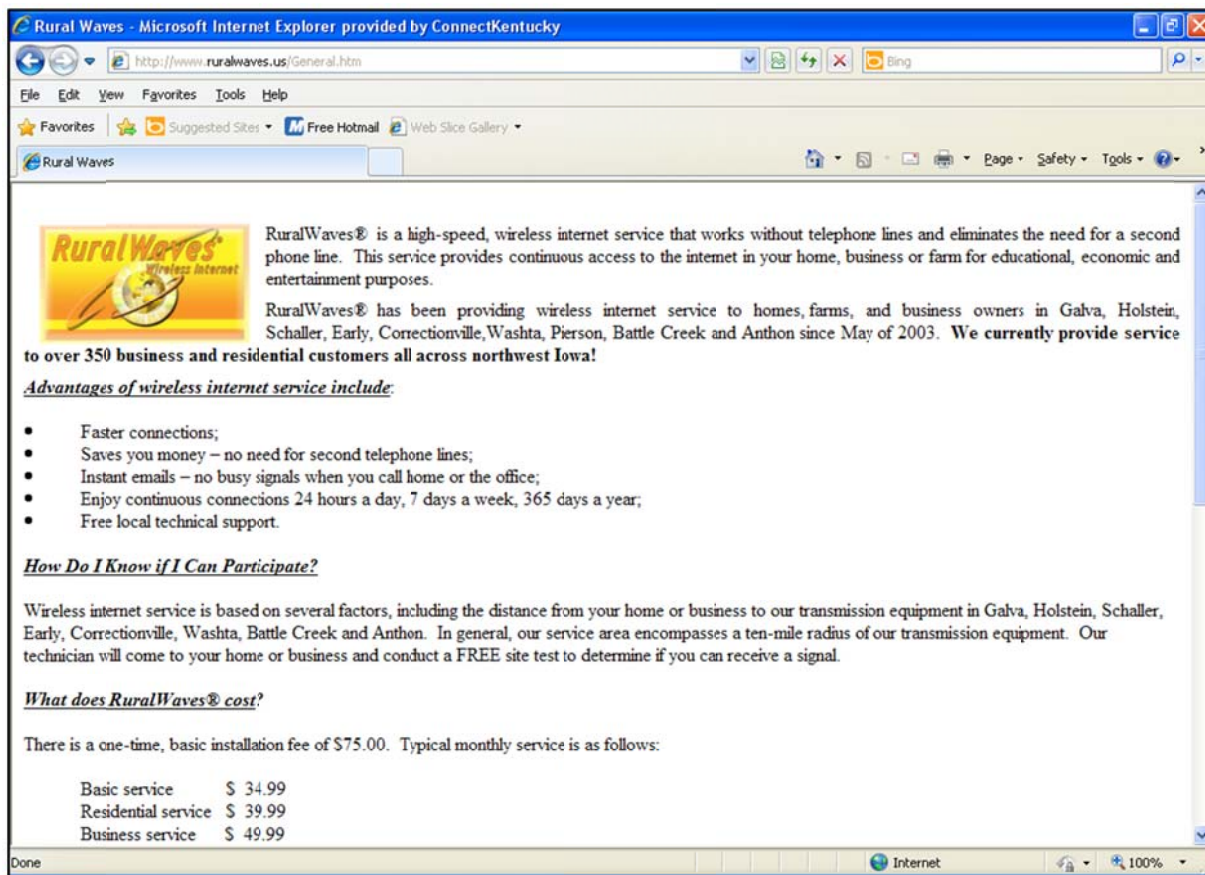
RW by its lack of responsiveness since February 9, 2010, has predicated its unwillingness to participate in the Connect Iowa broadband mapping initiative.

### **Identification of Provider's Service Plans, Service Area, Legal Name, d.b.a., FRN, and Licensing**

CN began building a file based on research information and, as time progressed, enriched the file with information obtained through the public domain. For example, CN reviewed the provider's website ([www.ruralwaves.us](http://www.ruralwaves.us)) and called the RW office to determine the residential service plans (**Exhibit A**) as 1 Mbps download x 256 kbps upload of the providers' service area (**Exhibit B**). A search for a Federal Registration Number ("FRN") on the FCC COmmission REgistration System ("CORES") system yielded an FRN of 0016095986 (**Exhibit C**) with contact information relative to the owner of the company. Also, to support field validation of access points, the FRN was referenced against the FCC Universal Licensing System (ULS) to identify any spectrum authorizations that may be held by the provider that could supplement the dataset of estimated coverage by isolating and identifying active wireless access points for the service area. This process yielded license WQKB927 (**Exhibit D**), Radio Service: NN-3650-3700MHZ with 0 unique locations.

## Exhibit A: Service Plans

CLIENT CITY	ISP	TEST DATE	SERVER	DOWNLO	UPLOAD	LATENCY	ZIP CODE	LOCATION	COUNTY	ADDRESS	CITY
Correctionville	Long Lines Internet	5/18/2010 08:54:17 CDT	Chicago	1422	495	30	51004	Work	Woodbury	301 E Main St	Anthon
Correctionville	Qwest Communications	5/3/2010 14:38:38 CDT	Chicago	535	240	57	51016	Work	woodbury	312 driftwood street	correctionville
Schaller	netINS	5/18/2010 14:32:44 CDT	Chicago	539	498	26	51020	Work	ida	116 S. Main St.	Galva
Schaller	netINS	5/17/2010 10:16:04 CDT	Chicago	1988	525	30	51338	Work	Clay	202 N. Main St.	Everly
Washta	Qwest Communications	4/23/2010 17:31:40 CDT	Chicago	538	241	61	51016	Home	Woodbury	1488 Lenox Ave	Correctionville
Washta	Qwest Communications	5/12/2010 20:52:12 CDT	Chicago	534	79	89	51048	Home	cherokee	231 650th	pierson



Rural Waves - Microsoft Internet Explorer provided by ConnectKentucky

http://www.ruralwaves.us/General.htm

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Rural Waves

**RuralWaves®** is a high-speed, wireless internet service that works without telephone lines and eliminates the need for a second phone line. This service provides continuous access to the internet in your home, business or farm for educational, economic and entertainment purposes.

RuralWaves® has been providing wireless internet service to homes, farms, and business owners in Galva, Holstein, Schaller, Early, Correctionville, Washta, Pierson, Battle Creek and Anthon since May of 2003. **We currently provide service to over 350 business and residential customers all across northwest Iowa!**

Advantages of wireless internet service include:

- Faster connections;
- Saves you money – no need for second telephone lines;
- Instant emails – no busy signals when you call home or the office;
- Enjoy continuous connections 24 hours a day, 7 days a week, 365 days a year;
- Free local technical support.

How Do I Know if I Can Participate?

Wireless internet service is based on several factors, including the distance from your home or business to our transmission equipment in Galva, Holstein, Schaller, Early, Correctionville, Washta, Battle Creek and Anthon. In general, our service area encompasses a ten-mile radius of our transmission equipment. Our technician will come to your home or business and conduct a FREE site test to determine if you can receive a signal.

What does RuralWaves® cost?

There is a one-time, basic installation fee of \$75.00. Typical monthly service is as follows:

Basic service	\$ 34.99
Residential service	\$ 39.99
Business service	\$ 49.99

Done Internet 100%



## Exhibit B: Service Area



## Exhibit C: Federal Registration Number

https://fcrs.fcc.gov/cores Federal Comm... Bing

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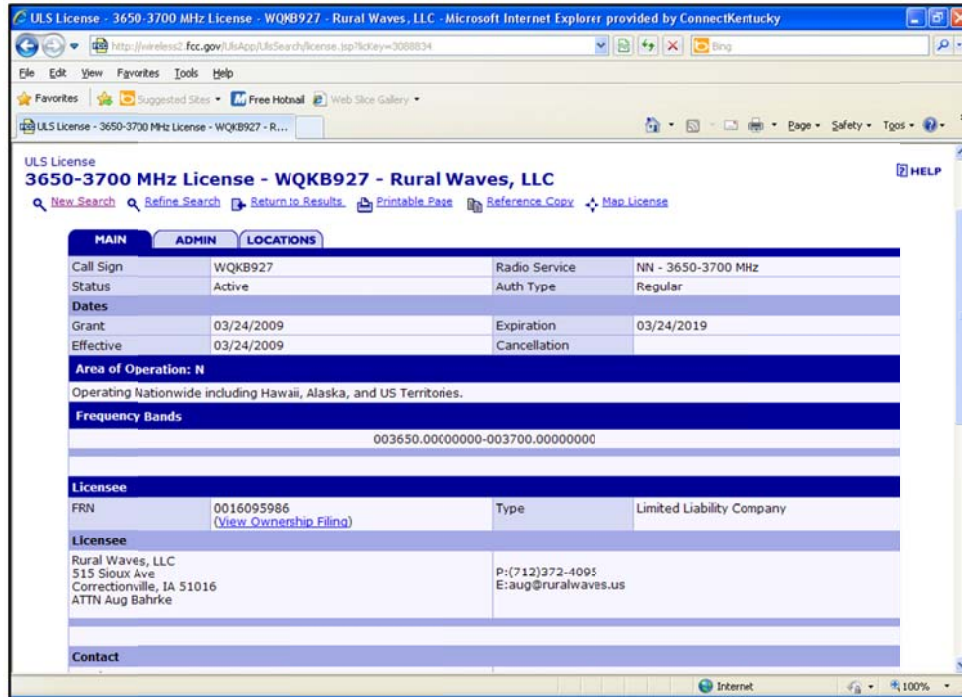
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Registration System

Close Window

Registration Detail	
FRN:	0016095986
Registration Date:	02/12/2007 12:36:00 PM
Last Updated:	
Business Name:	RuralWaves Wireless Internet
Business Type:	Private Sector , Limited Liability Corporation
Contact Organization:	Rural Waves, LLC
Contact Position:	Manager
Contact Name:	August L. Bahrke
Contact Address:	515 Sioux Ave Correctionville, IA 51016 United States
Contact Email:	aug@ruralwaves.us
ContactPhone:	(712) 372-4095
ContactFax:	(712) 372-4098

## Exhibit D: WQKB927 License Reference



ULS License - 3650-3700 MHz License - WQKB927 - Rural Waves, LLC - Microsoft Internet Explorer provided by ConnectKentucky

http://wireless2.fcc.gov/ULSApp/ULSSearch/license.jsp?lickey=3068834

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ULS License - 3650-3700 MHz License - WQKB927 - R...

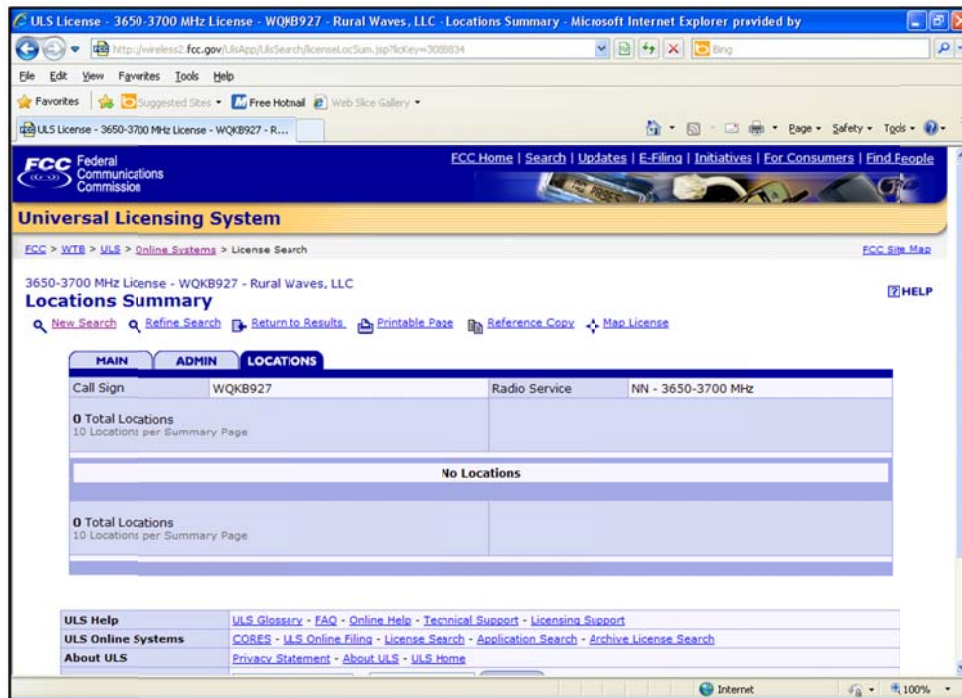
ULS License  
3650-3700 MHz License - WQKB927 - Rural Waves, LLC

[New Search](#) [Refine Search](#) [Return to Results](#) [Printable Page](#) [Reference Copy](#) [Map License](#)

**MAIN ADMIN LOCATIONS**

Call Sign	WQKB927	Radio Service	NN - 3650-3700 MHz
Status	Active	Auth Type	Regular
<b>Dates</b>			
Grant	03/24/2009	Expiration	03/24/2019
Effective	03/24/2009	Cancellation	
<b>Area of Operation: N</b>			
Operating Nationwide including Hawaii, Alaska, and US Territories.			
<b>Frequency Bands</b>			
003650.0000000-003700.0000000			
<b>Licensee</b>			
FRN	0016095986 ( <a href="#">View Ownership Filing</a> )	Type	Limited Liability Company
<b>Licensee</b>			
Rural Waves, LLC 515 Sioux Ave Corringtonville, IA 51016 ATTN Aug Bahrke		P:(712)372-4095 E:aug@ruralwaves.us	
<b>Contact</b>			

Internet 100%



ULS License - 3650-3700 MHz License - WQKB927 - Rural Waves, LLC - Microsoft Internet Explorer provided by

http://wireless2.fcc.gov/ULSApp/ULSSearch/licenseLocSum.jsp?lickey=3068834

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

**Universal Licensing System**

FCC > WTR > ULS > Online Systems > License Search [FCC Site Map](#)

3650-3700 MHz License - WQKB927 - Rural Waves, LLC

**Locations Summary**

[New Search](#) [Refine Search](#) [Return to Results](#) [Printable Page](#) [Reference Copy](#) [Map License](#)

**MAIN ADMIN LOCATIONS**

Call Sign	WQKB927	Radio Service	NN - 3650-3700 MHz
<b>0 Total Locations</b> 10 Locations per Summary Page			
<b>No Locations</b>			
<b>0 Total Locations</b> 10 Locations per Summary Page			

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**ULS Online Systems** [CORES](#) [ULS Online Filing](#) [License Search](#) [Application Search](#) [Archive License Search](#)

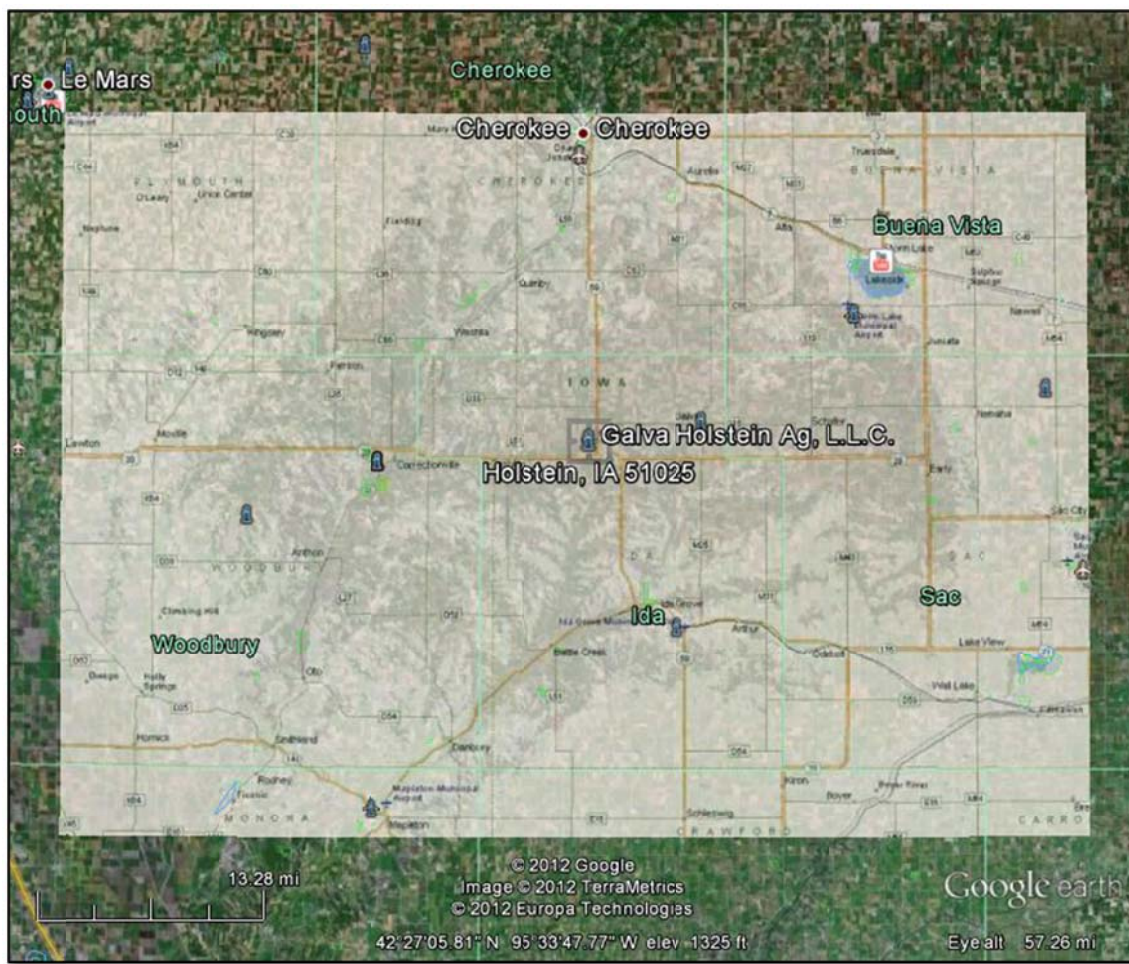
**About ULS** [Privacy Statement](#) [About ULS](#) [ULS Home](#)

Internet 100%

### Preliminary Identification of Provider's Coverage Area

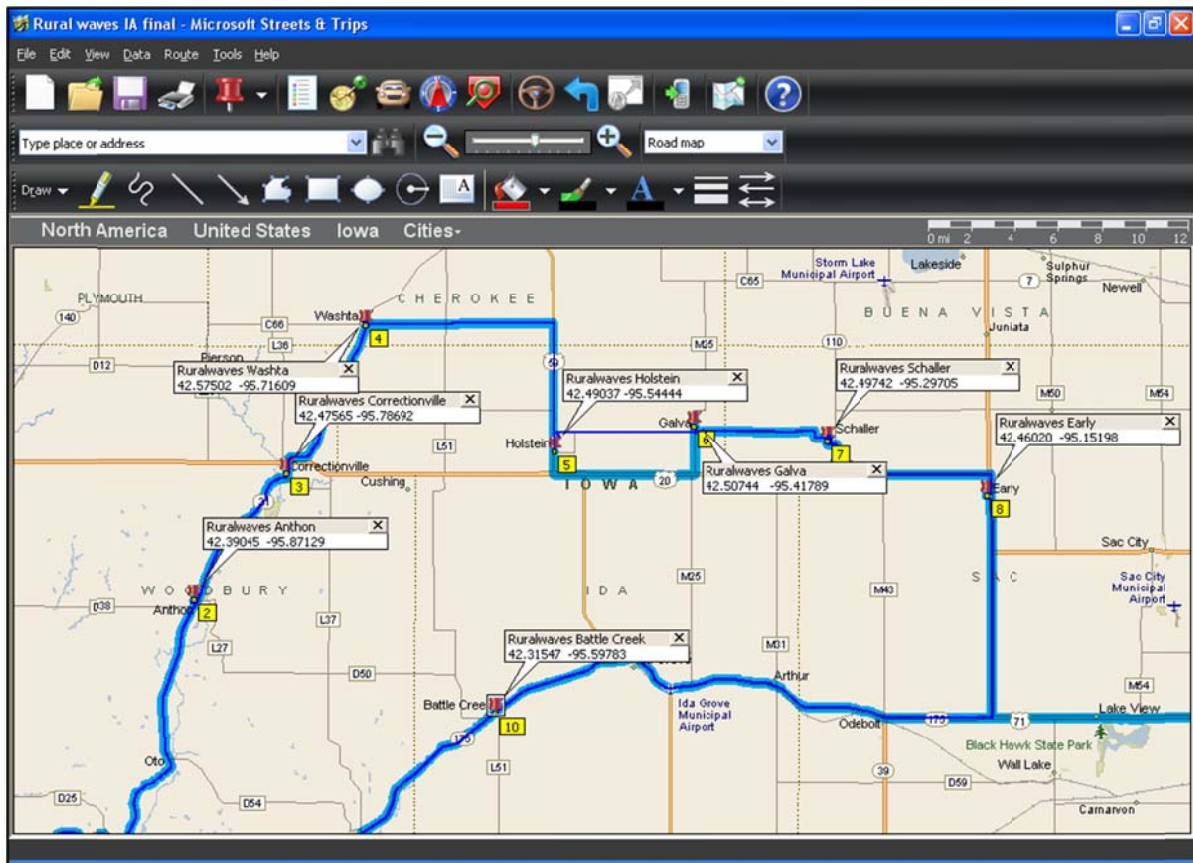
CN extracted the RW service area map directly from the provider's website. Information from that website was utilized to create a Google Earth image overlay (**Exhibit E**). The image overlay was positioned to match the Google Earth base map's roadways, county boundaries, and water bodies. The degree of accuracy of the image overlay was maintained at less than .5 mile (2640 ft.) to establish a minimum search criteria of a given wireless access point. The provider's service area depiction is represented by the wireless propagation model as shown in **Exhibit B**. Using the Google Earth overlay each location was examined via an aerial zoom and street level observation to identify possible wireless access point structures at the center points of the studies. The location's center coordinates were inputted into Google Earth and examined utilizing the zoom option of the aerial imagery. A portion of the transmitting locations structures were identified. This process provided a means of establishing coordinates for 10 validation points to identify structures with operational equipment. All 10 locations were entered into the Microsoft *Streets & Trips* mapping application (**Exhibit F**) to develop a route for the validation process.

**Exhibit E: Google Earth: Provider's Service Area Image Overlay**





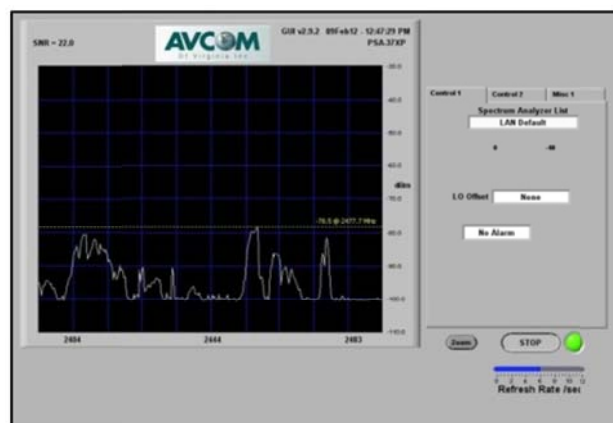
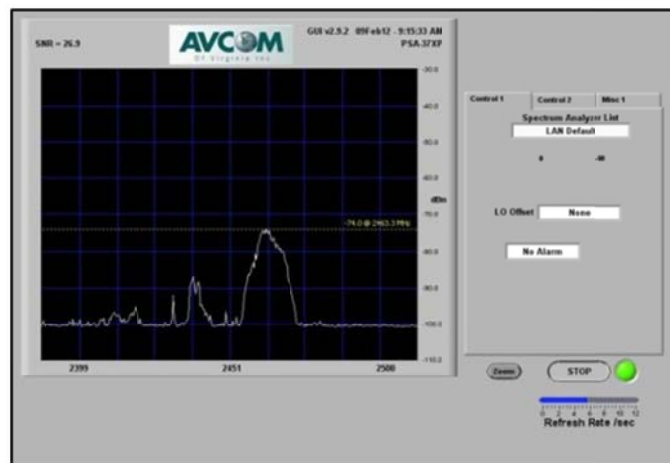
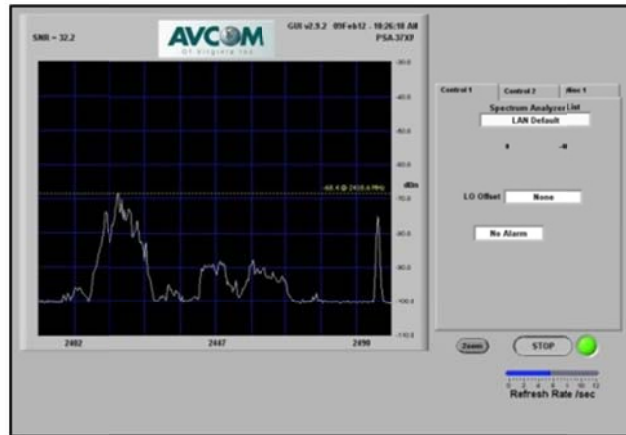
## Exhibit F: Validation Points for AP Structures



### Testing Techniques

CN staff developed a data collection and site validation route based on information derived from the Google Earth image overlay and data obtained from RW's publicly available coverage on its website. The CN wireless engineer was equipped with an AVCOM PSA-37XP analyzer with RF detection from 1 MHz to 6 GHz and an array of antennas tuned specifically for the 900 MHz, 2.4 GHz, 3.65 GHz, and 5 GHz frequency bands (**Exhibit G**). Each validation point was scrutinized for 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 G: Field Data for Rural Waves, LLC Office/Hub Location's



Primary Population Center Covered by Service (city, county etc.)	Transmission Location (water tank, tower, silo, rooftop or other structure)	Decimal Degree Conversion (automatically converted here if you completed columns K, L and M)	Decimal Degree Conversion (automatically converted here if you completed columns O, P and Q)	Is the Transmit Antenna Omni-Directional?	Transmit Frequency (MHz)	Polarity (V or H)	Antenna Elevation (feet above ground)
Anthon	Wattertower	42.390450	-95.871290	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	70
Correctionville	Elevator	42.475650	-95.786920	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	120
Washta	Elevator	42.575020	-95.716090	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	140
Holsiein	Elevator	42.490370	-95.544440	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	200
Gala	Elevator	42.507440	-95.417890	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	180
Schaller	Tower	42.497420	-95.297050	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	110
Early	Elevator	42.460200	-95.151980	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	150
Battle Creek	Elevator	42.315470	-95.597830	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	2400	<input type="checkbox"/> V <input checked="" type="checkbox"/> H	180



### **Results and Submission for April 2012**

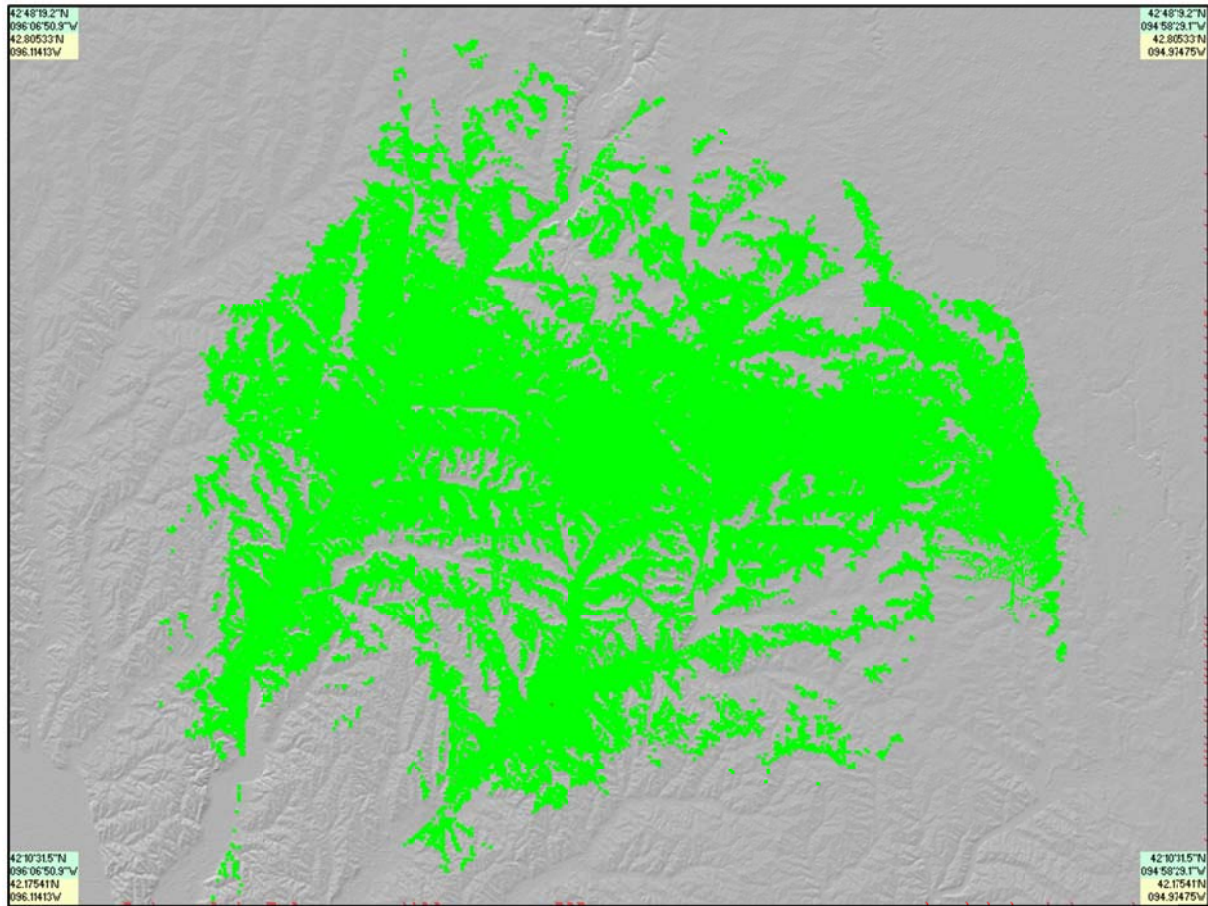
Of the 10 locations visited during the coverage estimation and validation point route, 8 access points were identified and relative information was logged into the RW field validation notes file (**Exhibit H**). The field and the publicly available data were transferred to the CN Provider Information file. A composite propagation study was completed based on the field data (**Exhibit I**). Both documents were forwarded to RW as courtesy copies, and the provider was advised that the estimated coverage information will be submitted to Connect Iowa and the NTIA unless the provider notified CN, within 48 hours, of discrepancies of the estimated coverage. The provider did not respond to CN and, as of this date, CN believes the information to be an accurate estimation of the service area of Rural Waves, LLC.

### **Exhibit H: Field Validation Notes**

Test City	Test State	Test County	Location Description	Engineer	(N) Lat Decimal	(-)(W) Long Decimal	Peak Freq	Peak Sig Strength	Spectrum Analyzer	Notes
Anthon	IA	Woodbury	Watertower	John Determan	42.390450	-95.871290	2463	-74	Avcom PSA-37XP	On small water tower on hill low foliage
Correctionville	IA	Woodbury	Elevator	John Determan	42.475650	-95.786920	2454	-76	Avcom PSA-37XP	On elevator low foliage
Washta	IA	Cherokee	Elevator	John Determan	42.575020	-95.716090	2433	-79	Avcom PSA-37XP	On elevator low foliage
Holstein	IA	Ida	Elevator	John Determan	42.490370	-95.544440	2418	-64	Avcom PSA-37XP	On elevator low foliage 900 Also
Galva	IA	Ida	Elevator	John Determan	42.507440	-95.417890	2406	-77	Avcom PSA-37XP	On elevator low foliage Comtrend also
Schaller	IA	Sac	Tower	John Determan	42.497420	-95.297050	2460	-79	Avcom PSA-37XP	By school on small tower
Early	IA	Sac	Elevator	John Determan	42.460200	-95.151980	2454	-74	Avcom PSA-37XP	On elevator Low foliage
Battle Creek	IA	Ida	Elevator	John Determan	42.315470	-95.597830	2477	-78	Avcom PSA-37XP	On elevator Low foliage



## Exhibit I: RuralWaves Composite Coverage



### ACCURACY AND VERIFICATION: PROVIDER VALIDATION METHODOLOGY

Broadband providers maintain their service area data in many different formats, all in varying levels of complexity and granularity. In order to ensure that the data required by the NTIA is standardized across all providers and that it is as accurate as possible, CN translates and formats the data that providers are able to supply into a GIS shapefile and produces maps for the provider to review. The resulting map(s) and review process allow for providers to see their service area in a geographic format – for some providers, this is the first time they have seen maps of their broadband service area. Having the mapped service area allows providers to quickly identify any issues that appear in the data representation, whether the issue is in the data translation into a GIS format or from the original data collection and submission. Often data is provided from various sources and through the review and revision process, local engineers who operate the networks and work in the field are able to ensure that the tabular data that has been submitted is accurate and represents the real-world network extent. Any issues in how the service area is represented on the map(s) are remedied by CN, whether they are additions, removal of service, or any other revisions. Revised maps of service area representations are sent to the provider for review and approval; CN will revise data and return



maps as many times as necessary until the provider is in agreement that the map represents their service area as accurately as possible. Once the review process has been completed and final approval of the data is provided, the data is deemed ready for NTIA submission.

Once the data collection has been aggregated at a statewide level, static maps of statewide and county-level availability are produced and made publicly available. In addition, consumers can visit the interactive online tool, BroadbandStat, to create customized views of broadband service areas and analyze corresponding demographic information. Leveraging broadband service data on various platforms allows for public users, providers, and other stakeholders to review, scrutinize, and provide feedback on the represented data. This feedback becomes a validation method in itself as consumers submit inquiries to 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, NPP 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 2.30 percent of Iowa households do not have terrestrial fixed broadband service available, and approximately 0.02 percent<sup>1</sup> of Iowa households have neither mobile nor fixed broadband service available.<sup>2</sup>

Within rural areas of the state, results derived from provider-validated data indicate that approximately 3.89 percent of rural Iowa households do not have terrestrial fixed broadband service available, and approximately 0.03 percent<sup>3</sup> of rural Iowa households have neither mobile nor fixed

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

<sup>2</sup> 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.

<sup>3</sup> See footnote 1.

broadband service available.<sup>4</sup> Please note that the availability estimates presented are based on Census 2010 household information.

## **WIRELESS METHODOLOGY**

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

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

1. The name of the structure.
2. Whether the transmitting device is operational or proposed.
3. The maximum advertised downstream speed, the maximum advertised upstream speed.
4. The typical downstream speed, the typical upstream speed (peak periods for both).
5. The frequency range of spectrum being used (as prescribed by NTIA). In the case of NPP documents, 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.
6. The primary population center(s) being served (for geopolitical boundary reference).
7. The physical address of the transmit site (in the event latitude/longitude is unavailable from the provider this allows a quick reference point for geocoding).
8. Latitude in either Degrees, Minutes, and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83).
9. Longitude in either Degrees, Minutes and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83).
10. Antenna pattern (e.g. omni-directional, 180°, 120°, 90°, etc.).
11. Azimuth of antenna (e.g. 360° with magnetic declination if known).
12. Approximate transmit radius (in feet, miles, or kilometers).
13. Polarity of transmit antenna (Vertical or Horizontal).
14. Transmit antenna gain (in dBi).
15. Line loss (applicable only to providers using coax, heliax, waveguide or other forms of cabling – excludes power-over-Ethernet devices).
16. Mechanical and/or Electrical beam tilt (if applicable).
17. Equipment Manufacturer (allows easy cross-reference against manufacturer's specification sheet).
18. Power output of the transmitting device (if unknown, FCC standards or manufacturer specifications are applied).
19. AMSL at base of tower site.

---

<sup>4</sup> See footnote 2.

20. Antenna centerline AGL (height of antenna above ground level measured at the centerline of the actual antenna).
21. Foliage factors (Evergreens/Deciduous and percent of ground cover).
22. Ground Clutter (primarily used in rural areas to account for foliage and in metropolitan areas to account for types and heights of buildings if known).
23. Average gain of receive antenna.
24. Receive antenna is estimated at height above average terrain (HAAT) of 6.2 meters/20 feet.
25. Federal Registration Numbers (if applicable) which may allow opportunities to cross-reference and/or obtain additional data from the FCC's ULS and the **CO**mmission **RE**gistration System.

Propagation modeling combines scientific data and empirical mathematical formulation for the characterization of radio wave propagation as a function of frequency, distance, and other conditions. Propagation software(s) typically use the Irregular Terrain Model (also known as Longley-Rice) of radio propagation for frequencies between 20 MHz and 20 GHz. This model is based on electromagnetic theory and statistical analyses of the combination of terrain features and radio measurements, then predicting the median attenuation of a radio signal as a function of distance and the variability of the signal in time and in space. For metropolitan areas, the software can typically be adjusted to use the Okumura-Hata model which accounts for predicting the behavior of cellular transmissions in areas where buildings are the primary obstructions. The resulting product from either model depicts a graphical illustration of the theoretical propagation characteristics of a selected frequency range based on defined variables (receiver sensitivity of the home/mobile device, foliage factor, and digital elevation terrain input).

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

## **BROADBAND INQUIRIES METHODOLOGY**

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

BBIs are submitted frequently by consumers via the Connect Iowa 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 requested by the consumer. Many BBIs can be resolved through desktop research; however, if a BBI requires research in the field, the assigned ETS team member conducts such research when performing field validations in the area of the inquiry, or at other such time as is practical and appropriate. GIS and ETS team members respond to and conclude BBIs via telephone contact and/or e-mail communication.

The broadband inquiry process has been implemented in each of the CN state programs with successful results. Altogether CN has received over 18,000 broadband inquiries since 2007, allowing the state programs to evaluate each inquiry for broadband demand and data verification. These inquiries are continuously examined against current broadband availability, updated every six months, to determine if previously unserved households have been expanded to and can now receive broadband at their residence. This database of broadband inquiries has also allowed the 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 Iowa project has received a total of 16 inquiries (206 grant inception to date). As more inquiries are submitted to Connect Iowa, a more thorough validation of the broadband landscape can be performed, while also allowing providers to see which areas have a high demand for broadband adoption.

## **BROADBANDSTAT METHODOLOGY**

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

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

New functionality in BroadbandStat allows the consumer to provide feedback on the broadband data displayed on the interactive map. Through the collection of this feedback, a visual demand for broadband is presented. This visualization allows the 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 Iowa project launched BroadbandStat on June 18, 2010, and has received a total of 6,434 visits to date, of which 616 occurred this reporting period.

## **SPEED TEST METHODOLOGY**

The 441 speed tests that are represented in the Connect Iowa Speed Test Report during this reporting period (4,671 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 Iowa 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 Iowa 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 Iowa with the information on where broadband services are available. Second, unlike theoretical speed information which was received through the data collection process, the use of speed tests provide real-world information on the speeds that currently exist within the state of Iowa.

## PROVIDERS DEEMED NON-VIABLE

The following list of companies represents the remainder of the broadband provider universe that was originally identified as complete for outreach to begin for the State Broadband Initiative. These providers are not included in the Data Package for the April 2012 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, etc.

	Company Name	URL	Comments
1	21Globe, Inc.	n/a	This company is not a broadband provider
2	360networks	<a href="http://www.360networks.com/">http://www.360networks.com/</a>	Acquired by another company
3	650Net	n/a	This company is not a broadband provider
4	A 007 Access	n/a	This company is a nonfacilities-based reseller
5	AAA Internet Service	n/a	This company is no longer in business
6	Aaccess Network Communications	n/a	This company is not a broadband provider
7	Access Media 3, Inc.	n/a	This company has no service offerings in Iowa
8	Access123.net	n/a	This company is not a broadband provider
9	ACERX.NET	n/a	This company is not a broadband provider
10	Affinity Wireless Solutions, LLC	n/a	This company was acquired by KeyOn Communications



11	Airespring, Inc.	<a href="http://www.airespring.com/">http://www.airespring.com/</a>	This company is a nonfacilities-based reseller
12	Airewaves Broadband, LLC	n/a	This company is no longer in business
13	AirNet	n/a	This company is no longer in business
14	American Relay	n/a	This company is not a broadband provider
15	Arrowheadnet.com	n/a	This company is not a broadband provider
16	Bannon Communications	n/a	This company is not a broadband provider
17	bargainisp.net	n/a	This company is not a broadband provider
18	Barnes City Cooperative Telephone Company	n/a	This company is not a broadband provider
19	Bel-Net Network Services	n/a	This company is no longer in business
20	Broadband National	<a href="http://www.broadbandnational.com/">http://www.broadbandnational.com/</a>	This company is not a broadband provider
21	BTC	n/a	This company was acquired by Western Iowa Networks
22	Cable Television	n/a	This company is no longer in business
23	Calhoun County Electric Co-Op	n/a	This company is not a broadband provider
24	Camino-Net Internet Services	n/a	This company is not a broadband provider
25	Cannon Valley Telecom, Inc.	n/a	This company does business in MN
26	Celito Communications	n/a	This company has no service offerings in Iowa
27	cFree Wireless Network	n/a	This company is no longer in business
28	CFY-CyberNet	n/a	This company is doing business as Cedar Falls Utilities
29	City of Brookings Telephone Fund	<a href="http://www.swiftel.net/">http://www.swiftel.net/</a>	This company is a nonfacilities-based reseller of Sprint
30	Clartouch.Com	n/a	This company is no longer in business
31	Com Link	n/a	This company is no longer in business
32	CommSpeed Iowa, L.L.C.	n/a	This company was acquired by SpeedNet, LLC
33	Community Internet Service	n/a	This company is no longer in business
34	Covad Communications	n/a	This company has no service offerings in Iowa

35	CyberStorm Wireless	n/a	This company is no longer in business
36	Deltaforce	n/a	This company is not a broadband provider
37	deluxehost.com	n/a	This company is not a broadband provider
38	DGUI	n/a	This company is no longer in business
39	Dial National	n/a	This company is no longer in business
40	Dialer.net	n/a	This company is not a broadband provider
41	Digital Telecommunications, Inc.	n/a	This company is no longer in business
42	DSL @ Interlync	<a href="http://www.interlync.com/">http://www.interlync.com/</a>	This company is a nonfacilities-based reseller
43	DTS-NET.COM	n/a	This company is a nonfacilities-based reseller
44	Dura Cable	n/a	This company is not a broadband provider
45	Farmers Telephone Company - Batavia	<a href="http://www.bataviatelephone.com">http://www.bataviatelephone.com</a>	This company offers service but it is below the FCC definition of broadband
46	Fast Dependable Access	n/a	This company is no longer in business
47	Forbin Wireless	<a href="http://www.forbin.net/">http://www.forbin.net/</a>	This company offers service but it is below the FCC definition of broadband
48	fyreSTORM Wireless	n/a	This company is no longer in business
49	Global Crossing Telecommunications, Inc.	<a href="http://www.globalcrossing.com/">http://www.globalcrossing.com/</a>	Acquired by another company
50	Great Lakes Communication Corp.	<a href="http://www.glccom.com/">http://www.glccom.com/</a>	This company offers service but it is below the FCC definition of broadband
51	Hubwest	n/a	This company is not a broadband provider
52	Hubwest Protected Networks LLC	n/a	This company is not a broadband provider
53	I Spot ACCESS	n/a	This company is not a broadband provider
54	Imbris, Inc.	n/a	This company is no longer in business
55	IMGISP.NET	n/a	This company is not a broadband provider
56	Incredible Networks	n/a	This company is no longer in business
57	Indianola Municipal Utilities	n/a	This company is not a broadband provider
58	Inercom Communications Inc.	n/a	This company is no longer in business
59	Interactiveinfo.com Inc.	n/a	This company does business in New York and has no service offerings in Iowa
60	Inter-County Cable Company	n/a	This company is doing business as Brooklyn Mutual Telecommunications Cooperative



61	Interlink LC	n/a	This company is no longer in business
62	Internet Solver	<a href="http://www.internet-solver.com">http://www.internet-solver.com</a>	Coverage created from data found on provider website
63	Iowa Cable and Telecommunications Association	n/a	This company is not a broadband provider
64	Iowa City Telecommunications	n/a	This company is not a broadband provider
65	IowaOne.net	n/a	This company is no longer in business
66	IPNS	n/a	This company does business in Oregon and has no service offerings in Iowa
67	iRadical	n/a	No information found for this company
68	i-rule.net	n/a	This company is no longer in business
69	ISPartner.net	n/a	No information found for this company
70	Jenco Speed Web	n/a	This company offers fixed wireless in Ohio and has no service offerings in Iowa
71	LCSisp.com	n/a	This company is not a broadband provider
72	LightEdge Solutions, Inc.	n/a	This company is not a broadband provider
73	Lightyear Network Solutions, LLC	<a href="http://lightyear.net/">http://lightyear.net/</a>	This company is a nonfacilities-based reseller
74	Local Link	n/a	This company has no service offerings in Iowa
75	Longview Communications	n/a	This company has no service offerings in Iowa
76	MainBoard	n/a	This company has no service offerings in Iowa
77	Maine Cable and Wireless	n/a	No information found for this company
78	Manilla Telephone Company	n/a	This company was acquired by Farmers Mutual Telephone Cooperative of Harlan, IA
79	Maple Leaf Networks	n/a	This company has no service offerings in Iowa
80	Marcin Company	n/a	No information found for this company
81	Marshall Economic Development Impact Committee	n/a	This company is not a broadband provider
82	Metropolitan Telecommunications Holding Company	n/a	This company is a nonfacilities-based reseller
83	MFW Cable	n/a	This company is not a broadband provider

84	Millenicom Inc.	<a href="http://www.millenicom.com/">http://www.millenicom.com/</a>	This company is a nonfacilities-based reseller
85	Nanomega.Com	n/a	This company is no longer in business
86	NetAccess, Inc.	n/a	This company is not a broadband provider
87	NetSpeed Online	n/a	This company is no longer in business
88	New Century Telecommunications	n/a	This company is not a broadband provider
89	New Edge Network, Inc.	n/a	This company is a nonfacilities-based reseller
90	Northwest Internet Services	n/a	This company has no service offerings in Iowa
91	Northwest ISP	n/a	This company is no longer in business
92	One Communications Corporation	n/a	This company has no service offerings in Iowa
93	Oneota Net	<a href="http://www.oneota.net/wirelessdsl.shtml">http://www.oneota.net/wirelessdsl.shtml</a>	This company offers service but it is below the FCC definition of broadband
94	OpenCom, Inc.	n/a	This company is a nonfacilities-based reseller
95	OrbitCom, Inc.	n/a	This company is a nonfacilities-based reseller
96	Overarch Broadband	n/a	This company has no service offerings in Iowa
97	Pacific Internet Exchange	n/a	This company is a nonfacilities-based reseller
98	PAETEC Communications, Inc.	<a href="http://www.paetec.com/">http://www.paetec.com/</a>	Acquired by another company
99	Prairie Communication	n/a	This company is no longer in business
100	Prairie Fire Internet	n/a	This company is no longer in business
101	PremoWeb	n/a	This company is not a broadband provider
102	Professional Computer Solutions	<a href="http://www.pcsia.net">http://www.pcsia.net</a>	This company offers service but it is below the FCC definition of broadband
103	Quad-Cities Online Broadband Plus	n/a	This company is not a broadband provider
104	RACOM	n/a	This company is not a broadband provider
105	Rankin Communication Systems	n/a	This company is not a broadband provider
106	RockRapids.net	n/a	This company is not a broadband provider
107	S & S Wireless Internet	n/a	This company is no longer in business

108	Siebring-Kruss Wireless	n/a	This company is no longer in business
109	Simply Dialup A Metrogeek Company	n/a	This company is not a broadband provider
110	SIRIS	n/a	This company is not a broadband provider
111	Sling Broadband	n/a	This company has no service offerings in Iowa
112	Sparkplug Central, Inc.	n/a	This company was acquired by Airband Communications
113	Speakeasy DSL	n/a	This company is a backhaul provider and a general reseller of DSL; part of a 2010 merger between Covad, Megapath, and Speakeasy
114	State Wireless	n/a	This company is not a broadband provider
115	Support Corps of America	n/a	This company is no longer in business
116	Surferz.Net	n/a	This company is not a broadband provider
117	T1 Shopper	<a href="http://www.t1shopper.com/">http://www.t1shopper.com/</a>	This company is not a broadband provider
118	Total Access Networks, Inc.	n/a	This company is not a broadband provider
119	TRX, Inc.	n/a	This company is not a broadband provider
120	TSISP.NET	n/a	This company is no longer in business
121	Twin Rivers Valley	n/a	This company is no longer in business
122	United Western Net	n/a	This company is no longer in business
123	UNUM Telecommunications, Inc.	n/a	This company is no longer in business
124	VPM Global Internet Services, Inc.	n/a	This company is a nonfacilities-based reseller
125	WiTel Communications, LLC	n/a	This company was acquired by Level 3 Communications
126	Wireless Roanoke, Inc.	n/a	This company is no longer in business
127	wisbin	n/a	This company is not a broadband provider
128	WispAir	n/a	This company is no longer in business

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129	www.AmericanAngel.us	n/a	This company is no longer in business
130	YEEZOO.NET	n/a	This company is no longer in business
131	YLISP ( Your Local ISP)	n/a	This company is not a broadband provider
132	YourT1Wifi.com	n/a	This company has no service offerings in Iowa



## Broadband Provider Log

Complete	351
Non-Responsive/Refused	6
In Progress	5
Count of Datasets by Status	362
Total Unique Providers Represented	202

Provider Name	Platform	Status	NDA Execution Date	Notes
Ace Telephone Association	DSL	Data Added to Statewide Inventory	3/8/2010	[JAN-17-12 Matthew Brunt] Change: Provider expanded DSL service area.
Alliance Communications Cooperative, Inc.	DSL	Data Added to Statewide Inventory	1/28/2010	[JAN-03-12 Matthew Brunt] Change: Provider converted portions of DSL service area over to fiber.
Alliance Communications Cooperative, Inc.	Fiber	Data Added to Statewide Inventory	1/28/2010	[JAN-05-12 Matthew Brunt] Change: Provider expanded fiber service area.
AT&T Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	[FEB-24-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Atkins Telephone Company	DSL	Data Added to Statewide Inventory	5/14/2010	[FEB-16-12 Matthew Brunt] Change: Provider upgraded a small portion of their DSL infrastructure over to fiber.
Atkins Telephone Company	Fiber	Data Added to Statewide Inventory	5/14/2010	[FEB-16-12 Matthew Brunt] Change: Provider expanded fiber service area.
Baldwin Nashville Telephone Company, Inc.	Fiber	Data Added to Statewide Inventory	2/3/2010	[JAN-25-12 Matthew Brunt] Change: Provider expanded fiber service area.
Board of Water Electric & Communication Trustees of the City of Muscatine	Fixed Wireless	Data Added to Statewide Inventory	5/14/2010	[FEB-10-12 Matthew Brunt] Change: Initial fixed wireless submission for this provider.
Cable ONE Inc.	Cable	Data Added to Statewide Inventory	12/7/2009	[FEB-10-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
CenturyLink	DSL	Data Added to Statewide Inventory	12/4/2009	[FEB-13-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Chat Mobility	Mobile Wireless	Data Added to Statewide Inventory	1/19/2010	[JAN-25-12 Matthew Brunt] Change: Provider activated additional towers, but service area and speeds did not change.
Citizens Mutual Telephone Cooperative	Fiber	Data Added to Statewide Inventory	2/26/2010	[FEB-08-12 Matthew Brunt] Change: Provider expanded fiber service area.
CML Telephone Cooperative Association of Meriden, Iowa	Fiber	Data Added to Statewide Inventory	1/25/2010	[JAN-17-12 Matthew Brunt] Change: Provider expanded fiber service area.
Community Digital Wireless, LLC	Fixed Wireless	Data Added to Statewide Inventory	5/6/2010	[FEB-10-12 Matthew Brunt] Change: Provider added three additional wireless towers.
Coon Creek Telecommunications Corp.	DSL	Data Added to Statewide Inventory	2/9/2012	[FEB-16-12 Matthew Brunt] Change: Provider submitted initial data for the April 2012 submission.
Cooperative Telephone Exchange	Fiber	Data Added to Statewide Inventory	2/2/2010	[JAN-06-12 Matthew Brunt] Change: Provider infrastructure upgraded to offer speed tier 7 download speeds.
Corn Belt Telephone Company	Fixed Wireless	Data Added to Statewide Inventory	2/15/2010	[FEB-16-12 Matthew Brunt] Change: Provider expanded fixed wireless service area.
Dumont Telephone Company	Fiber	Data Added to Statewide Inventory	2/25/2010	[JAN-12-12 Matthew Brunt] Change: Provider expanded fiber service area.
Farmers Mutual Cooperative Telephone Company - Harlan	DSL	Data Added to Statewide Inventory	2/5/2010	[FEB-20-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Farmers Mutual Cooperative Telephone Company - Harlan	Fiber	Data Added to Statewide Inventory	2/5/2010	[FEB-20-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Farmers Mutual Telephone Company - Jesup	Fiber	Data Added to Statewide Inventory	4/20/2010	[MAR-01-12 Matthew Brunt] Change: Provider now offers fiber broadband to portions of their service area.
Farmers Mutual Telephone Company - Nora Springs	Fiber	Data Added to Statewide Inventory	1/26/2010	[DEC-14-11 Matthew Brunt] Change: Provider expanded fiber service area and can now offer speed tier 10 download speeds.
Farmers Telephone Company-Essex	Fixed Wireless	Data Added to Statewide Inventory	1/27/2010	[JAN-18-12 Matthew Brunt] Change: Provider expanded coverage area by adding a wireless tower.
Grand Mound Cooperative Telephone Association	Fiber	Data Added to Statewide Inventory		[FEB-16-12 Matthew Brunt] Change: Provider expanded fiber service area.
Grand River Mutual Telephone Corporation	Fiber	Data Added to Statewide Inventory	2/5/2010	[FEB-17-12 Matthew Brunt] Change: Provider upgraded portions of their infrastructure to fiber.
HickoryTech Corporation	DSL	Data Added to Statewide Inventory	2/2/2010	[FEB-16-12 Matthew Brunt] Change: Provider upgraded their infrastructure and can now offer tier 6 download speeds in portions of their DSL service area.
I-35 Telephone Company	DSL	Data Added to Statewide Inventory	2/2/2010	[FEB-17-12 Matthew Brunt] Change: DSL coverage decreased due to areas being converted over to fiber.
I-35 Telephone Company	Fiber	Data Added to Statewide Inventory	2/2/2010	[FEB-17-12 Matthew Brunt] Change: Provider expanded fiber service area.
I-35 Telephone Company	Fixed Wireless	Data Added to Statewide Inventory	2/2/2010	[FEB-17-12 Matthew Brunt] Change: Provider expanded fixed wireless service area.
Jefferson Telephone Company	DSL	Data Added to Statewide Inventory	1/22/2010	[JAN-23-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now provide tier 3 upload speeds.
Jefferson Telephone Company	Fiber	Data Added to Statewide Inventory	1/22/2010	[JAN-23-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now provide tier 3 upload speeds.

Kalona Cooperative Telephone Company	Fiber	Data Added to Statewide Inventory	1/20/2010	[FEB-16-12 Matthew Brunt] Change: Provider upgraded their infrastructure and can now provide tier 5 upload speeds.
Kalona Cooperative Telephone Company	DSL	Data Added to Statewide Inventory	1/20/2010	[MAR-19-12 Matthew Brunt] Correction: Provider speeds changed from tier 4 download to tier 3 download.
Leap Wireless International, Inc.	Mobile Wireless	Data Added to Statewide Inventory	4/6/2010	[FEB-16-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
LISCO Wireless	Fiber	Data Added to Statewide Inventory	1/28/2010	[JAN-11-12 Matthew Brunt] Change: Provider expanded fiber service area.
Long Lines	Cable	Data Added to Statewide Inventory	5/4/2010	[JAN-17-12 Matthew Brunt] Change: Provider infrastructure upgraded to offer speed tier 9 download speeds.
Massena Telephone Company	DSL	Data Added to Statewide Inventory	6/18/2010	[FEB-17-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Midwest Broadband LLC	Fixed Wireless	Data Added to Statewide Inventory	7/6/2010	[FEB-24-12 Matthew Brunt] Change: Provider expanded wireless service area.
Mutual Telephone Company	Fiber	Data Added to Statewide Inventory	1/25/2010	[FEB-08-12 Matthew Brunt] Change: Provider converted entire DSL service area to fiber.
Mutual Telephone Company of Morning Sun, Iowa	DSL	Data Added to Statewide Inventory	5/5/2010	[FEB-21-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now provide speed tier 6 download and speed tier 4 upload.
Mutual Telephone Company of Morning Sun, Iowa	DSL	Data Added to Statewide Inventory	5/5/2010	[JAN-25-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now provide speed tier 6 download and speed tier 4 upload.
Mutual Telephone Company of Morning Sun, Iowa	Fixed Wireless	Data Added to Statewide Inventory	5/5/2010	[FEB-10-12 Matthew Brunt] Change: First time reporting fixed wireless coverage for this provider.
North English Cooperative Telephone Company	DSL	Data Added to Statewide Inventory	5/12/2010	[JAN-17-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now offer speed tier 6 download speeds and tier 3 upload speeds.
Northeast Iowa Telephone Company	DSL	Data Added to Statewide Inventory	4/13/2010	[FEB-17-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Northeast Iowa Telephone Company	Fiber	Data Added to Statewide Inventory	4/13/2010	[FEB-17-12 Matthew Brunt] Change: Provider converted portions of their service area to fiber.
Northeast Iowa Telephone Company	Fixed Wireless	Data Added to Statewide Inventory	4/13/2010	[FEB-17-12 Matthew Brunt] Change: Provider expanded their fixed wireless service area.
Northwest Telephone Cooperative Association	DSL	Data Added to Statewide Inventory	2/17/2010	[JAN-06-12 Matthew Brunt] Change: Provider infrastructure upgraded to offer speed tier 6 download speeds.
Osage Municipal Communications Utility	Cable	Data Added to Statewide Inventory	5/18/2010	[JAN-17-12 Matthew Brunt] Change: Provider infrastructure upgraded to offer speed tier 7 download speeds.
Panora Communications Cooperative	Fiber	Data Added to Statewide Inventory	1/29/2010	[FEB-16-12 Matthew Brunt] Change: Provider expanded fiber service area.
Partner Communications Cooperative	DSL	Data Added to Statewide Inventory	5/15/2010	[FEB-07-12 Matthew Brunt] Change: Provider converted portions of their DSL service area strictly to fiber. DSL footprint decreased.
Premier Communications	Fiber	Data Added to Statewide Inventory	1/25/2010	[FEB-08-12 Matthew Brunt] Change: Provider upgraded portions of their DSL service area to fiber.
Preston Telephone Company	DSL	Data Added to Statewide Inventory	2/5/2010	[JAN-17-12 Matthew Brunt] Change: Provider infrastructure upgraded to offer speed tier 7 download speeds.
South Slope Cooperative Telephone Company	Fiber	Data Added to Statewide Inventory	2/2/2010	[JAN-20-12 Matthew Brunt] Change: Provider expanded fiber service area.
SpeedNet, LLC	Fixed Wireless	Data Added to Statewide Inventory		[FEB-21-12 Matthew Brunt] Change: Provider expanded fixed wireless service area, and can now provide tier 6 download speeds.
Sprint Nextel Corporation	Mobile Wireless	Data Added to Statewide Inventory	1/14/2010	[MAR-01-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
T-Mobile USA, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/8/2010	[FEB-14-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Terril Telephone Cooperative	DSL	Data Added to Statewide Inventory	2/12/2010	[FEB-07-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now offer tier 7 download speeds and tier 5 upload speeds.
USA Communications	Fiber	Data Added to Statewide Inventory	1/27/2010	[JAN-09-12 Matthew Brunt] Change: Fiber coverage area expanded and speeds upgraded to 6 Meg download/4 Meg Upload.
Verizon Communications, Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/14/2009	[FEB-16-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
ViaSat, Inc.	Satellite	Data Added to Statewide Inventory	1/8/2010	[FEB-16-12 Matthew Brunt] Changes: Provider can now offer tier 5 download and tier 3 upload speeds to portions of their service area.
Wellman Cooperative Telephone Association	Fiber	Data Added to Statewide Inventory	5/19/2010	[FEB-17-12 Matthew Brunt] Change: Provider now offers fiber service throughout exchange.
West Iowa Telephone Company	Fiber	Data Added to Statewide Inventory	1/27/2010	[FEB-20-12 Matthew Brunt] Change: Provider submitted initial fiber data for the April 2012 submission.
West Liberty Telephone Company	Fiber	Data Added to Statewide Inventory	1/25/2010	[JAN-06-12 Matthew Brunt] Change: Provider expanded fiber coverage area.
West Liberty Telephone Company	Fixed Wireless	Data Added to Statewide Inventory	1/25/2010	[JAN-06-12 Matthew Brunt] Change: Provider infrastructure upgraded to offer speed tier 5 download speeds.
WTC Communications, Inc.	DSL	Data Added to Statewide Inventory	3/22/2010	[FEB-07-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now offer speed tier 7 download speeds.



Mediacom Iowa, LLC	Backhaul	Backhaul Provider Only Processing Complete	1/12/2010	
Sprint Nextel Corporation	Backhaul	Backhaul Provider Only Processing Complete	1/14/2010	
Zayo Group, LLC	Backhaul	Backhaul Provider Only Processing Complete		
Internet Solver, Inc.	DSL	No Update-Estimated Coverage Submitted for Non-Participating		
RuralWaves Wireless Internet	Fixed Wireless	Estimated Coverage Submitted for Non-Participating Provider		
Ace Telephone Association	Backhaul	No Update to Provide	3/8/2010	
Algona Municipal Utilities	Cable	No Update to Provide	2/9/2010	
Algona Municipal Utilities	Fiber	No Update to Provide	2/9/2010	
Alliance Communications Cooperative, Inc.	Backhaul	No Update to Provide	1/28/2010	
Alpine Communications, LC	DSL	No Update to Provide	2/24/2010	
Alpine Communications, LC	Fiber	No Update to Provide	2/24/2010	
Alta Municipal Utilities	Cable	No Update to Provide	5/18/2010	
Andrew Telephone Company	DSL	No Update to Provide	1/19/2010	
Arcadia Telephone Cooperative	DSL	No Update to Provide	5/6/2010	
AT&T Inc.	Backhaul	No Update to Provide	12/16/2009	
Aventure Communications	Backhaul	No Update to Provide	4/8/2010	
Aventure Communications	Fixed Wireless	No Update to Provide	4/8/2010	
Ayrshire Farmers Mutual Telephone Company	Fixed Wireless	No Update to Provide	2/17/2010	
Ayrshire Farmers Mutual Telephone Company	DSL	No Update to Provide	2/17/2010	
Baldwin Nashville Telephone Company, Inc.	DSL	No Update to Provide	2/3/2010	
Bellevue Municipal Utilities	Fiber	No Update to Provide	5/20/2010	
Bernard Telephone Company, Inc.	DSL	No Update to Provide	5/19/2010	
Bernard Telephone Company, Inc.	Fiber	No Update to Provide	5/19/2010	
Bernard Telephone Company, Inc.	Fixed Wireless	No Update to Provide	5/19/2010	
Bernard Telephone Company, Inc.	Backhaul	No Update to Provide	5/19/2010	
BEVCOMM	DSL	No Update to Provide	6/16/2010	
BitWind Communications, LLC	Fixed Wireless	No Update to Provide		
Board of Water Electric & Communication Trustees of the City of Muscatine	Fiber	No Update to Provide	5/14/2010	
Board of Water Electric & Communication Trustees of the City of Muscatine	DSL	No Update to Provide	5/14/2010	
Board of Water Electric & Communication Trustees of the City of Muscatine	Cable	No Update to Provide	5/14/2010	
Brooklyn Mutual Telecommunications Cooperative	DSL	No Update to Provide	4/21/2010	
Butler-Bremer Communications	Fiber	No Update to Provide	4/20/2010	
Butler-Bremer Communications	DSL	No Update to Provide	4/20/2010	
Butler-Bremer Communications	Cable	No Update to Provide	4/20/2010	
Cascade Communications Company	Fiber	No Update to Provide	1/23/2010	
Cascade Communications Company	DSL	No Update to Provide	1/23/2010	
Casey Mutual Telephone Company	DSL	No Update to Provide	5/3/2010	
Casey Mutual Telephone Company	Backhaul	No Update to Provide	5/3/2010	
Cedar Falls Utilities	Fiber	No Update to Provide	6/16/2010	
Cedar Falls Utilities	Cable	No Update to Provide	6/16/2010	
Center Junction Telephone Company	DSL	No Update to Provide	3/12/2010	
Central Scott Telephone Company, Inc.	Fixed Wireless	No Update to Provide	4/22/2010	
Central Scott Telephone Company, Inc.	DSL	No Update to Provide	4/22/2010	
CenturyLink	Backhaul	No Update to Provide	12/4/2009	
Circle Computer Resources	Fixed Wireless	No Update to Provide	7/6/2010	
Citizens Mutual Telephone Cooperative	DSL	No Update to Provide	2/26/2010	
City of Hawarden	Cable	No Update to Provide	5/20/2010	
Clear Lake Independent Telephone Company	Fiber	No Update to Provide	5/6/2020	
Clear Lake Independent Telephone Company	DSL	No Update to Provide	5/6/2020	
Colo Telephone Company	Fiber	No Update to Provide	1/28/2010	
Comelec Services, Inc.	Fixed Wireless	No Update to Provide	5/7/2010	
Communications 1 Network, Inc.	Fiber	No Update to Provide	4/14/2010	
Community Cable Television Agency of O'Brien County	Fixed Wireless	No Update to Provide	5/5/2010	
Community Cable Television Agency of O'Brien County	Cable	No Update to Provide	5/5/2010	
Complete Communication Services	Fiber	No Update to Provide	6/17/2010	
Complete Communication Services	Cable	No Update to Provide	6/17/2010	
Coon Rapids Municipal Utilities	Cable	No Update to Provide	4/22/2010	
Coon Valley Co-op Telephone Association, Inc.	Fixed Wireless	No Update to Provide		
Coon Valley Co-op Telephone Association, Inc.	DSL	No Update to Provide		
Cooperative Telephone Company	Fixed Wireless	No Update to Provide	2/2/2010	
Cooperative Telephone Company	DSL	No Update to Provide	2/2/2010	
Cooperative Telephone Exchange	Backhaul	No Update to Provide	2/2/2010	
Corn Belt Telephone Company	DSL	No Update to Provide	2/15/2010	
Corn Belt Telephone Company	Fiber	No Update to Provide	2/15/2010	
CoxCom Inc.	Cable	No Update to Provide	1/29/2010	
Cumberland Telephone Company	Fixed Wireless	No Update to Provide	4/27/2010	
Cumberland Telephone Company	DSL	No Update to Provide	4/27/2010	
Danville Mutual Telephone Company	DSL	No Update to Provide		
DISH Network Corporation	Satellite	No Update to Provide	1/27/2010	
Dixon Telephone Company	Cable	No Update to Provide	5/5/2010	
Dumont Telephone Company	DSL	No Update to Provide	2/25/2010	
Dunkerton Telephone Cooperative	DSL	No Update to Provide	4/15/2010	
East Buchanan Telephone Cooperative	DSL	No Update to Provide	4/30/2010	
East Buchanan Telephone Cooperative	Fixed Wireless	No Update to Provide	4/30/2010	
Eastlight, LLC	Fixed Wireless	No Update to Provide		
Ellsworth Cooperative Telephone Association	DSL	No Update to Provide	1/25/2010	
Evertex Enterprises	Fixed Wireless	No Update to Provide	2/3/2010	
Evertex Enterprises	Cable	No Update to Provide	2/3/2010	
Evertex Enterprises	Fiber	No Update to Provide	2/3/2010	
F&B Communications, Inc.	Fixed Wireless	No Update to Provide	2/19/2010	
F&B Communications, Inc.	DSL	No Update to Provide	2/19/2010	
Farmers & Merchants Mutual Telephone Company	Fixed Wireless	No Update to Provide	5/7/2010	
Farmers & Merchants Mutual Telephone Company	Fiber	No Update to Provide	5/7/2010	
Farmers Cooperative Telephone Company-Dysart	DSL	No Update to Provide	3/12/2010	[MAR-19-12 Matthew Brunt] Correction: Provider corrected speeds to be tier 5 download and tier 3 upload.
Farmers Mutual Cooperative Telephone Company -	Fixed Wireless	No Update to Provide	2/5/2010	
Farmers Mutual Cooperative Telephone Company -	Cable	No Update to Provide	2/5/2010	
Farmers Mutual Cooperative Telephone Company-	Fiber	No Update to Provide	5/21/2010	
Farmers Mutual Telephone Company - Jesup	DSL	No Update to Provide	4/20/2010	
Farmers Mutual Telephone Company - Nora Springs	Fixed Wireless	No Update to Provide	1/26/2010	
Farmers Mutual Telephone Company - Nora Springs	Cable	No Update to Provide	1/26/2010	
Farmers Mutual Telephone Company - Nora Springs	DSL	No Update to Provide	1/26/2010	
Farmers Mutual Telephone Company of Stanton, Iowa	Backhaul	No Update to Provide	4/9/2010	
Farmers Mutual Telephone Company of Stanton, Iowa	DSL	No Update to Provide	4/9/2010	
Farmers Mutual Telephone Company of Stanton, Iowa	Cable	No Update to Provide	4/9/2010	
Farmers Mutual Telephone Company of Stanton, Iowa	DSL	No Update to Provide	4/9/2010	

Farmers Telephone Company-Essex	DSL	No Update to Provide	1/27/2010	
FiberComm L.C.	DSL	No Update to Provide	2/15/2010	
FiberComm L.C.	Fixed Wireless	No Update to Provide	2/15/2010	
FiberComm L.C.	Backhaul	No Update to Provide	2/15/2010	
Fibernet Communications, LLC	Backhaul	No Update to Provide	3/9/2010	
Frontier Communications Corporation	Backhaul	No Update to Provide	1/22/2010	
Frontier Communications Corporation	DSL	No Update to Provide	1/22/2010	
Goldfield Access Network, L.C.	DSL	No Update to Provide	1/22/2010	
Goldfield Access Network, L.C.	DSL	No Update to Provide	1/22/2010	
Grand Mound Cooperative Telephone Association	Fixed Wireless	No Update to Provide		
Grand Mound Cooperative Telephone Association	DSL	No Update to Provide		
Grand River Mutual Telephone Corporation	Fixed Wireless	No Update to Provide	2/5/2010	
Grand River Mutual Telephone Corporation	DSL	No Update to Provide	2/5/2010	
Grand River Mutual Telephone Corporation	DSL	No Update to Provide	2/5/2010	
Griswold Cooperative Telephone Company	DSL	No Update to Provide	4/21/2010	
Grundy Center Municipal Utilities	Fixed Wireless	No Update to Provide		
Grundy Center Municipal Utilities	Cable	No Update to Provide		
Harlan Municipal Utilities	Cable	No Update to Provide	5/5/2010	
Harmony Telephone Company	Fiber	No Update to Provide	1/12/2010	
Hawkeye Telephone Company	DSL	No Update to Provide	2/12/2010	
Heart of Iowa Communications Cooperative	DSL	No Update to Provide	1/7/2010	
Heart of Iowa Communications Cooperative	Fiber	No Update to Provide	1/7/2010	
Heart of Iowa Communications Cooperative	Backhaul	No Update to Provide	1/7/2010	
Hospers Telephone Exchange, Inc.	Cable	No Update to Provide	1/11/2010	
Hospers Telephone Exchange, Inc.	DSL	No Update to Provide	1/11/2010	
Hubbard Cooperative Telephone Association and Cable	DSL	No Update to Provide	5/14/2010	
Hughes Network Systems, LLC	Satellite	No Update to Provide	2/5/2010	
Huxley Communications Cooperative	Backhaul	No Update to Provide	1/25/2010	
Huxley Communications Cooperative	DSL	No Update to Provide	1/25/2010	
Huxley Communications Cooperative	Fiber	No Update to Provide	1/25/2010	
IAMO Telephone Company	Fixed Wireless	No Update to Provide	1/25/2010	
IAMO Telephone Company	DSL	No Update to Provide	1/25/2010	
ImOn Communications, LLC	Cable	No Update to Provide	2/8/2012	
Independence Telecommunications Utility	Cable	No Update to Provide	4/9/2010	
Iowa Connect, Inc.	Fixed Wireless	No Update to Provide	5/12/2010	
Iowa Network Services	Backhaul	No Update to Provide	3/5/2010	
KDSC, Inc.	Fixed Wireless	No Update to Provide	5/18/2010	
Keystone Farmers Cooperative Telephone Company	DSL	No Update to Provide	4/12/2010	
Kilduff Telephone Company	DSL	No Update to Provide		
Knology of the Plains, Inc.	Cable	No Update to Provide	7/13/2011	
La Motte Telephone Company, Inc.	Fixed Wireless	No Update to Provide	2/16/2010	
La Motte Telephone Company, Inc.	DSL	No Update to Provide	2/16/2010	
La Porte City Telephone Co	DSL	No Update to Provide	2/22/2010	
Laurens Municipal Communications Utility	Cable	No Update to Provide	6/2/2010	
Lehigh Valley Cooperative Telephone Association	Fiber	No Update to Provide	4/16/2010	
Lenox Municipal Utilities	Cable	No Update to Provide	4/20/2010	
LISCO Wireless	DSL	No Update to Provide	1/28/2010	
LISCO Wireless	Backhaul	No Update to Provide	1/28/2010	
Loganet	Fixed Wireless	No Update to Provide		
Lone Rock Cooperative Telephone Company	DSL	No Update to Provide	2/15/2010	
Long Lines	DSL	No Update to Provide	5/4/2010	
Long Lines	Backhaul	No Update to Provide	5/4/2010	
Long Lines	Backhaul	No Update to Provide	5/4/2010	
Long Lines	Backhaul	No Update to Provide	5/4/2010	
Long Lines	Backhaul	No Update to Provide	5/4/2010	
Long Lines	Backhaul	No Update to Provide	5/4/2010	
Long Lines	Backhaul	No Update to Provide	5/4/2010	
Lost Nation-Elwood Telephone Company	Fiber	No Update to Provide	4/13/2010	
Lynville Telephone Company, Inc.	DSL	No Update to Provide		
Mabel Cooperative Telephone Company	DSL	No Update to Provide	4/8/2010	
Mahaska Communication Group	Fixed Wireless	No Update to Provide	5/10/2010	
Mahaska Communication Group	Fiber	No Update to Provide	5/10/2010	
Manning Municipal Communication & Television System	Fixed Wireless	No Update to Provide	4/22/2010	
Manning Municipal Communication & Television System	Cable	No Update to Provide	4/22/2010	
Marne & Elk Horn Telephone Company	DSL	No Update to Provide	2/11/2010	
Marne & Elk Horn Telephone Company	Fixed Wireless	No Update to Provide	2/11/2010	
Marne & Elk Horn Telephone Company	Backhaul	No Update to Provide	2/11/2010	
Martelle Cooperative Telephone Association	Cable	No Update to Provide	5/5/2010	
Martelle Cooperative Telephone Association	DSL	No Update to Provide	5/5/2010	
Massena Telephone Company	Backhaul	No Update to Provide	6/18/2010	
Mediacom Iowa, LLC	Cable	No Update to Provide	1/12/2010	
Mediapolis Telephone Company	DSL	No Update to Provide	4/14/2010	
Mid Iowa Net	DSL	No Update to Provide		
Mid Iowa Net	Fixed Wireless	No Update to Provide		
Miles Cooperative Telephone Association	DSL	No Update to Provide	5/17/2010	
Milford Cable TV Inc.	Cable	No Update to Provide	4/21/2010	
Minburn Communications	Fiber	No Update to Provide	4/7/2010	
Minburn Communications	DSL	No Update to Provide	4/7/2010	
Minburn Communications	Fiber	No Update to Provide	4/7/2010	
Minburn Communications	DSL	No Update to Provide	4/7/2010	
Minerva Valley Telephone Cablevision, Inc.	DSL	No Update to Provide	4/7/2010	
Modern Cooperative Telephone Company Inc.	DSL	No Update to Provide		
Monarc Technologies	Fiber	No Update to Provide	2/16/2011	
NetConX, Inc.	Fixed Wireless	No Update to Provide	4/6/2010	
New Ulm Telecom, Inc.	DSL	No Update to Provide	3/10/2010	
Nexgen Integrated Communications, LLC	Fiber	No Update to Provide		
Nexgen Integrated Communications, LLC	DSL	No Update to Provide		[MAR-19-12 Ashley Littell] Correction: Revised coverage to download speed tier 5 after additional outreach to provider to confirm speeds.
Northeast Iowa Telephone Company	Backhaul	No Update to Provide	4/13/2010	
Northern Iowa Telephone Company	DSL	No Update to Provide	1/25/2010	
Northwest Telephone Cooperative Association	Fixed Wireless	No Update to Provide	2/17/2010	
Northwest Telephone Cooperative Association	Backhaul	No Update to Provide	2/17/2010	
Ogden Telephone Company	DSL	No Update to Provide	3/17/2010	
Ogden Telephone Company	Backhaul	No Update to Provide	3/17/2010	
Olin Telephone Company, Inc.	DSL	No Update to Provide	2/23/2010	
Onslow Cooperative Telephone Association	DSL	No Update to Provide	2/3/2010	
Oran Mutual Telephone Company	DSL	No Update to Provide	2/8/2010	
Osage Municipal Communications Utility	Fixed Wireless	No Update to Provide	5/18/2010	
Palmer Mutual Telephone Company	DSL	No Update to Provide	1/21/2010	
Palo Cooperative Telephone Association	DSL	No Update to Provide	5/19/2010	
Panora Communications Cooperative	Cable	No Update to Provide	1/29/2010	
Panora Communications Cooperative	Cable	No Update to Provide	1/29/2010	
Panora Communications Cooperative	Fixed Wireless	No Update to Provide	1/29/2010	

Panora Communications Cooperative	Fixed Wireless	No Update to Provide	1/29/2010	
Panora Communications Cooperative	Fiber	No Update to Provide	1/29/2010	
Partner Communications Cooperative	Cable	No Update to Provide	5/15/2010	
Partner Communications Cooperative	Fiber	No Update to Provide	5/15/2010	
Prairieburg Telephone Company, Inc	Fixed Wireless	No Update to Provide	3/25/2010	
Prairieburg Telephone Company, Inc	DSL	No Update to Provide	3/25/2010	
Premier Communications	Cable	No Update to Provide	1/25/2010	
Radcliffe Telephone Company, Inc.	Fiber	No Update to Provide	4/26/2010	
Radcliffe Telephone Company, Inc.	Backhaul	No Update to Provide	4/26/2010	
Readlyn Telephone Company	Fiber	No Update to Provide	2/23/2010	
Readlyn Telephone Company	DSL	No Update to Provide	2/23/2010	
Reasnor Telephone Company, LLC	DSL	No Update to Provide		
RingTel Communications	DSL	No Update to Provide	2/17/2010	
River Valley Telecommunications Coop	Fixed Wireless	No Update to Provide	3/23/2010	
River Valley Telecommunications Coop	DSL	No Update to Provide	3/23/2010	
River Valley Telecommunications Coop	Fiber	No Update to Provide	3/23/2010	
Rockwell Cooperative Telephone Association	DSL	No Update to Provide	5/12/2010	
Rockwell Cooperative Telephone Association	Fiber	No Update to Provide	5/12/2010	
Rockwell Cooperative Telephone Association	Backhaul	No Update to Provide	5/12/2010	
Royal Telephone Company	Fiber	No Update to Provide	2/12/2010	
Sac County Mutual Telephone Co.	DSL	No Update to Provide	2/15/2010	
Sac County Mutual Telephone Co.	Backhaul	No Update to Provide	2/15/2010	
Scranton Telephone Company	DSL	No Update to Provide	2/1/2010	
Scranton Telephone Company	Backhaul	No Update to Provide	2/1/2010	
Searsboro Telephone Company	DSL	No Update to Provide		
Sharon Telephone Company	Backhaul	No Update to Provide	5/20/2010	
Sharon Telephone Company	DSL	No Update to Provide	5/20/2010	
Sharon Telephone Company	Fiber	No Update to Provide	5/20/2010	
Sharon Telephone Company	Fixed Wireless	No Update to Provide	5/20/2010	
Sioux Valley Wireless	Fixed Wireless	No Update to Provide	6/7/2010	
South Slope Cooperative Telephone Company	DSL	No Update to Provide	2/2/2010	
Spencer Municipal Utilities	Cable	No Update to Provide	2/18/2010	
Spencer Municipal Utilities	Fiber	No Update to Provide	2/18/2010	
Spencer Municipal Utilities	Backhaul	No Update to Provide	2/18/2010	
Spring Grove Cooperative Telephone Co	Fiber	No Update to Provide		
Springville Cooperative Telephone Association, Inc.	DSL	No Update to Provide	2/15/2010	
Sully Telephone Association Inc	Fiber	No Update to Provide	4/28/2010	
Sully Telephone Association Inc	DSL	No Update to Provide	4/28/2010	
Superior Telephone Cooperative	DSL	No Update to Provide	5/24/2010	
Swisher Telephone Company	Fiber	No Update to Provide	2/2/2010	
Templeton Telephone Company	DSL	No Update to Provide	3/12/2010	
Templeton Telephone Company	Backhaul	No Update to Provide	3/12/2010	
Titonka Telephone Company	Backhaul	No Update to Provide	5/4/2010	
Titonka Telephone Company	DSL	No Update to Provide	5/4/2010	
Traer Municipal Utilities	Fixed Wireless	No Update to Provide	4/14/2010	
United States Cellular Corporation	Mobile Wireless	No Update to Provide	2/15/2011	
USA Communications	DSL	No Update to Provide	1/27/2010	
USA Communications	Cable	No Update to Provide	1/27/2010	
Van Buren Telephone Co Inc	DSL	No Update to Provide	1/26/2010	
Van Horne Cooperative Telephone Company	DSL	No Update to Provide	5/18/2010	
Van Horne Cooperative Telephone Company	Fiber	No Update to Provide	5/18/2010	
Van Horne Cooperative Telephone Company	Backhaul	No Update to Provide	5/18/2010	
Walnut Telephone Company	DSL	No Update to Provide	4/14/2010	
Walnut Telephone Company	Cable	No Update to Provide	4/14/2010	
Walnut Telephone Company	Fiber	No Update to Provide	4/14/2010	
Walnut Telephone Company	Fixed Wireless	No Update to Provide	4/14/2010	
Walnut Telephone Company	Backhaul	No Update to Provide	4/14/2010	
Webb-Dickens Telephone Corporation	Fiber	No Update to Provide	1/25/2010	
Webster-Calhoun Cooperative Telephone Association	Fiber	No Update to Provide	5/21/2010	
Wellman Cooperative Telephone Association	Fixed Wireless	No Update to Provide	5/19/2010	
Wellman Cooperative Telephone Association	DSL	No Update to Provide	5/19/2010	
West Iowa Telephone Company	Cable	No Update to Provide	1/27/2010	
West Iowa Telephone Company	DSL	No Update to Provide	1/27/2010	
West Liberty Telephone Company	DSL	No Update to Provide	1/25/2010	
West Liberty Telephone Company	Backhaul	No Update to Provide	1/25/2010	
Western Iowa Networks	Fixed Wireless	No Update to Provide	2/22/2010	
Western Iowa Networks	DSL	No Update to Provide	2/22/2010	
Western Iowa Networks	Fiber	No Update to Provide	2/22/2010	
Western Iowa Telephone Association	DSL	No Update to Provide	4/22/2010	
Windstream Communications	DSL	No Update to Provide		
Winnebago Cooperative Telecom Association	Fixed Wireless	No Update to Provide	1/22/2010	
Winnebago Cooperative Telecom Association	DSL	No Update to Provide	1/22/2010	
Winnebago Cooperative Telecom Association	Fiber	No Update to Provide	1/22/2010	
Winnebago Cooperative Telecom Association	Backhaul	No Update to Provide	1/22/2010	
Woolstock Mutual Telephone	DSL	No Update to Provide	5/19/2010	
Woolstock Mutual Telephone	Fixed Wireless	No Update to Provide	5/19/2010	
WTC Communications, Inc.	Fixed Wireless	No Update to Provide	3/22/2010	
				[MAR-19-12 Matthew Brunt] Correction: Provider corrected speeds to be tier 3 download and technology of transmission code was changed to 41.
WTC Communications, Inc.	Cable	No Update to Provide	3/22/2010	
Wyoming Mutual Telephone Company	DSL	No Update to Provide	2/19/2010	
		No Update Provided - Use Last Submission Data		
Clarence Telephone Company, Inc.	Fiber	No Update Provided - Use Last Submission Data		
		No Update Provided - Use Last Submission Data		
Cogent Communications, Inc.	Backhaul	No Update Provided - Use Last Submission Data		
		No Update Provided - Use Last Submission Data		
Fenton Co-Op Telephone Company	DSL	No Update Provided - Use Last Submission Data	4/16/2010	
		No Update Provided - Use Last Submission Data		
Internet Consulting Services, LLC	Fixed Wireless	No Update Provided - Use Last Submission Data	5/19/2010	
		No Update Provided - Use Last Submission Data		
Kalnet	Fixed Wireless	No Update Provided - Use Last Submission Data	5/21/2010	
		No Update Provided - Use Last Submission Data		
KeyOn Communications, Inc.	DSL	No Update Provided - Use Last Submission Data	10/15/2009	
		No Update Provided - Use Last Submission Data		
KeyOn Communications, Inc.	Fixed Wireless	No Update Provided - Use Last Submission Data	10/15/2009	
		No Update Provided - Use Last Submission Data		
KeyOn Communications, Inc.	Fixed Wireless	No Update Provided - Use Last Submission Data	10/15/2009	
		No Update Provided - Use Last Submission Data		
Level 3 Communications, LLC	Backhaul	No Update Provided - Use Last Submission Data	12/14/2009	
		No Update Provided - Use Last Submission Data		
Prairie iNet	Fixed Wireless	No Update Provided - Use Last Submission Data	3/16/2010	
		No Update Provided - Use Last Submission Data		
Knology of the Plains, Inc.	Backhaul	Solicited Initial Data	7/13/2011	

ImOn Communications, LLC	Fiber	Other	2/8/2012	[FEB-09-12 Matthew Brunt] Correction: Provider stated that the previously sent fiber coverage was proposed fiber coverage, not active fiber coverage.
ImOn Communications, LLC	Backhaul	Other	2/8/2012	[FEB-09-12 Matthew Brunt] Provider stated that they do not provide backhaul to anyone other than themselves.
Mutual Telephone Company	DSL	Other	1/25/2010	[FEB-08-12 Layne Wagner] Received an email from a company representative stating they no longer offer DSL service. All broadband has been converted to FTTH.
Windstream Communications	DSL	Other		[FEB-01-12 Wes Kerr] Company representative notified us that they do not have the ability at this time to provide data for the acquired company.
Netconnect	Fixed Wireless	Refused to Participate		[JAN-13-12 Layne Wagner] A company representative declined to participate.
Amberwave Communications	Fixed Wireless	Non-Responsive to Multiple Attempts		In addition to numerous contact attempts made during past mapping submission periods, 6 additional contact attempts were made this period.