

OFFICIAL APRIL 2012 UPDATE SUBMISSION TO
THE NATIONAL TELECOMMUNICATIONS AND INFORMATION
ADMINISTRATION UNDER THE
STATE BROADBAND INITIATIVE GRANT PROGRAM FOR THE
STATE OF SOUTH CAROLINA



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, Connected Nation, in cooperation with South Carolina's broadband provider community and state-based partners, is pleased to present this submittal of the state of South Carolina's State Broadband Initiative (SBI) Grant Program, known as Connect South Carolina.

It is with highest regard that the collective stakeholders of Connect South Carolina 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 South Carolina has played in creating and maintaining such a powerful tool that has benefitted and surely will continue to benefit not just South Carolinians 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 South Carolina: 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 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 South Carolina 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 South Carolina, 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 91.67 percent of the South Carolina provider community, or 44 of 48 total providers. Of the 44 participating providers, 22 supplied an update to their network or coverage area(s), while 20 have reported no change. The remaining 2 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. Of the 4 providers that are not represented in the attached datasets, 2 have refused to participate in the voluntary program or were non-responsive to multiple contact attempts, and 2 providers are currently in some form of progress toward data submission but were not able to submit coverage areas at the time of this submission.

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

Connect South Carolina has also continued to perform broadband verification activities through several means. In addition to confirmation of service area(s) by each provider, Connect South Carolina conducts field validation efforts. To date, 28 (58.33 percent) providers have been validated through field verification activities. Additional details on verification activities are contained within the Field Validation Methodology.

The Connect South Carolina website, (www.connectsc.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 South Carolina website encountered 3,446 unique visits during this reporting period (13,368 total to date for the life of the grant awarded on December 20, 2009). Additionally, this pronounced Web activity netted 16 broadband inquiries over this same reporting period (113 grant inception to date). The website also provides the BroadbandStat application, which allows the consumer to confirm or dispute the coverage represented on the broadband inventory map. These consumer-initiated actions are facilitated through the Connect South Carolina website and the Connect South Carolina 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 South Carolina mapping artifacts. Since the initial data collection and release of corresponding maps, feedback in the form of broadband inquiries has allowed Connect South Carolina to identify additional areas that are in need of field validation, which is scheduled as soon as possible.

Community Anchor Institutions

Connect South Carolina 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.

Outreach was conducted during this data update reporting period by Connect South Carolina to continue identification of existing, centralized sources for CAI connectivity data. Connect South Carolina continues to work extensively with the South Carolina Division of State Information Technology to secure robust data for K-12 schools and libraries that subscribe to services provided through their state-managed broadband connectivity contract in addition to other institutions on their MetroE and MPLS connections. Additionally, outreach was coordinated to distribute a CAI survey to institutions throughout the state through multiple methods including a customized online survey available on the Connect South Carolina website. During this reporting period Connect South Carolina continued to develop relationships with statewide associations such as State Library of South Carolina to promote the importance of broadband connectivity at anchor institutions and participation in this data collection process. Connect South Carolina will continue to build upon these new relationships over the coming months and utilize its contacts throughout the state to collect data and raise awareness of this project.

During this reporting period a Connect South Carolina CAI newsletter was distributed to the South Carolina schools, libraries, healthcare, public safety, and government institutions to assist with outreach and highlight the innovations taking place at libraries within the state. From our work in South Carolina, 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 South Carolina 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 South Carolina 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 South Carolina, 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', written in a cursive style.

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

DATA ACQUISITION: SOUTH CAROLINA COMMUNITY ANCHOR INSTITUTIONS METHODOLOGY

In this fifth reporting period of the SBI, Connect South Carolina, working in close coordination with the state of South Carolina, 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 South Carolina has continued to focus efforts on conducting outreach and raising awareness of this important project.

Connect South Carolina 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 South Carolina through ESRI ArcGIS software.

Connect South Carolina continues to utilize a customized online survey hosted through SurveyMonkey, with a landing page on the Connect South Carolina 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 South Carolina 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/RJH5DMW>.

Connect South Carolina 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 South Carolina continues to identify key CAI contacts in an effort to distribute and promote the online survey and raise awareness of the importance of CAI broadband connectivity.

Connect South Carolina has an ongoing mission to educate CAI throughout the state on the importance of participating in the project. Participation by these institutions will raise awareness about the importance of broadband connectivity and the need to report the requested data for inclusion on the National Broadband Map. During this reporting period Connect South Carolina continued to develop relationships with statewide associations such as State Library of South Carolina to promote the importance of broadband connectivity at anchor institutions and participation in this data collection process. Moreover, Connect South Carolina continues to work extensively with the South Carolina Division of State Information Technology to secure robust data for K-12 schools.

The greatest challenge with collecting CAI data continues to be educating the CAI about the Connect South Carolina project as well as self-awareness of their own CAI connectivity (specifically upload and download speeds). Connect South Carolina will continue to research key CAI organizations and agency contacts in an effort to raise awareness of this project among CAI.

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	1765	1765	1764	1099	1098	1098
Libraries	230	230	230	185	184	184
Healthcare	296	296	296	199	200	200
Public Safety	834	834	829	333	330	329
Higher Ed Institutions	198	198	196	139	137	137
Other Government	930	930	921	850	850	850
Other Non-Government	95	95	95	84	84	84
Total	4348	4348	4331	2889	2883	2882

During the coming months, CAI data collection will be supported by regular reporting to the Connect South Carolina team. The CAI data is proving an invaluable resource to all components of the Connect South Carolina 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 South Carolina.

Inventory of Deliverables, Connect South Carolina: April 1, 2012

NOFA Requirement
Appendix A: 1(a)(i)

Data Transfer Model
BB_Service_CensusBlock

Data Description
Broadband Service Availability of
Facilities-Based Providers in Census

Appendix A: 1(a)(ii)	BB_Service_RoadSegment	Blocks of No Greater Than Two Square Miles in Area. Broadband Service Availability of Facilities-Based Providers by Road Segment in Census Blocks Larger in Area Than Two Square Miles.
Appendix A: 1(b)	BB_Service_Wireless	Broadband Service Availability of Wireless Services Not Provided to a Specific Address.
Appendix A: 3(b)	BB_ConnectionPoint_MiddleMile	Broadband Service Infrastructure Middle-Mile and Backbone Interconnection Points.
Appendix A: 4	BB_Service_CAInstitutions	Community Anchor Institutions-Listing.

The provider data collected by CN on behalf of the state of South Carolina 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 South Carolina 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.

- **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.

SOUTH CAROLINA 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 South Carolina on the following providers: AT&T, Inc.; Atlantic Broadband; CenturyLink; Charter Communications; Chester Telephone Company; Clearwire Corporation; Electronics Service Company of Hamlet LLC; Family View Cable; Farmers Telephone Company Cooperative, Inc. (d.b.a. FTC Communications); Frontier Communications of the Carolinas; Harron Communications; Home Telephone Company, Inc.; NTInet, Inc.; Palmetto Rural Telephone (d.b.a. Low Country); Pee Dee Online; Pee Dee Net; PRT Communications; Rock Hill Telephone (d.b.a. Comporium; PBT Communications); Sandhill Telephone Cooperative; Sky Runner; Southern Coastal Cable LLC; Sprint Nextel Corporation; Time Warner Cable, Inc.; T-Mobile; tw telecom; US Cellular; Verizon South; and Windstream.

From program initiation through this reporting period, CN has completed in-the-field validation testing against 28 companies (out of a universe of 48 viable providers) totaling 58.33 percent within the state of South Carolina.

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.

AT&T Inc.

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

Resolution: Provider website advertises 24 Mbps service; screenshot below.

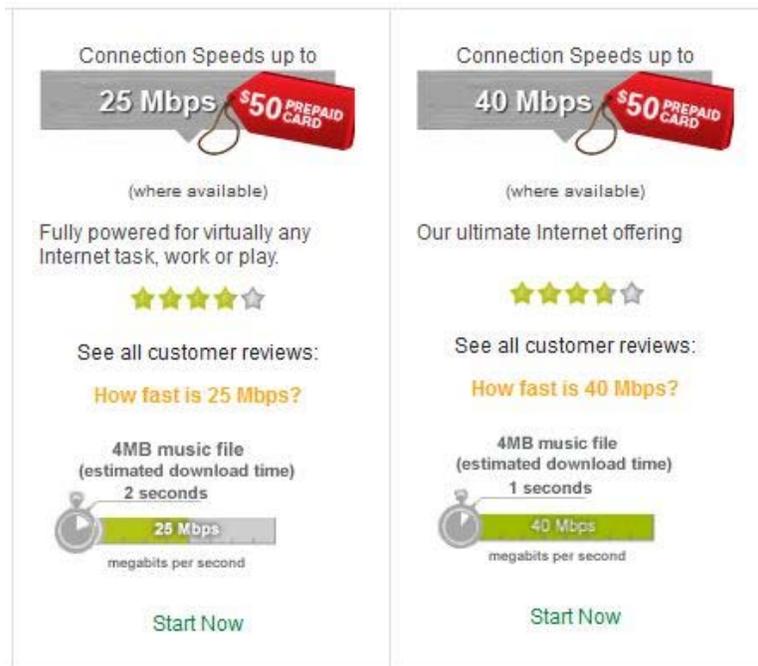
Compare Internet Packages

	Pro	Elite	Max	Max Plus	Max Turbo
Standard Monthly Rate	\$38*	\$43*	\$48*	\$53*	\$63*
Downstream Speed	Up to 3 Mbps	Up to 6 Mbps	Up to 12 Mbps	Up to 18 Mbps	Up to 24 Mbps

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.



Connection Speeds up to
25 Mbps **\$50 PREPAID CARD**

(where available)

Fully powered for virtually any Internet task, work or play.

★★★★☆

See all customer reviews:

How fast is 25 Mbps?

4MB music file (estimated download time)
2 seconds

25 Mbps
megabits per second

[Start Now](#)

Connection Speeds up to
40 Mbps **\$50 PREPAID CARD**

(where available)

Our ultimate Internet offering

★★★★☆

See all customer reviews:

How fast is 40 Mbps?

4MB music file (estimated download time)
1 seconds

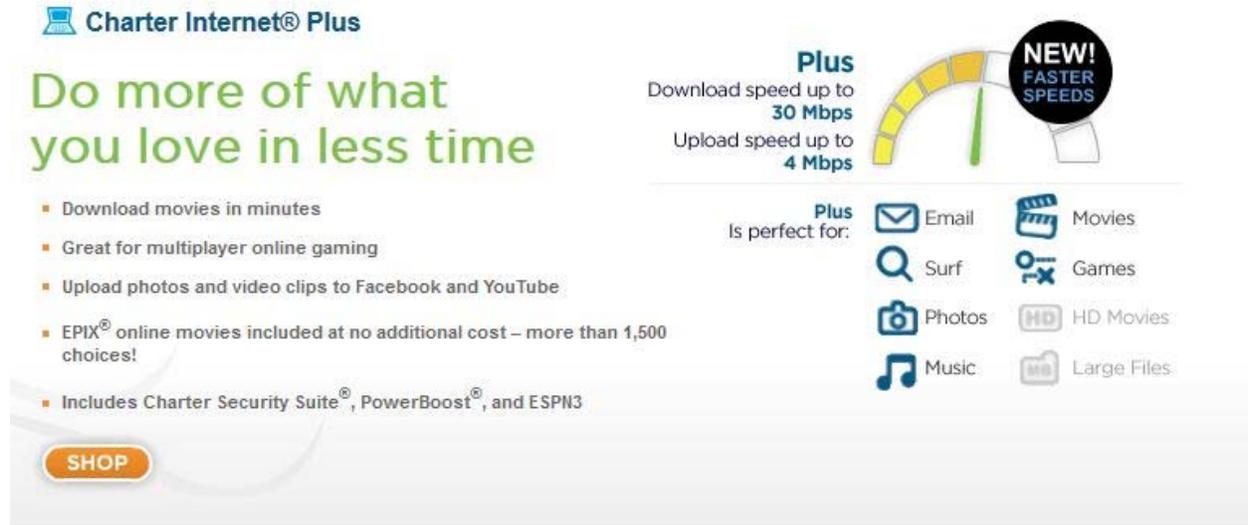
40 Mbps
megabits per second

[Start Now](#)

Charter Communications, Inc.

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

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



Chester 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.



Comcast Cable Communications, LLC

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

Resolution: Confirmed use of DOCSIS 3.0 with speed tier 7. Speeds are kept lower currently to be backwards compatible.

Farmers Telephone Cooperative, Inc.

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

Resolution: Provider website advertises 15.1 Mbps service; screenshot below.

Residential Services

<p>1.5 Mbps down / 512 Kbps up \$19.95/mo.* 5 Free E-mail Accounts</p>	<p>4.0 Mbps down / 1.0 Mbps up \$39.95/mo. 10 Free E-mail Account</p>	<p>6.0 Mbps down / 1.0 Mbps up \$44.95/mo. 10 Free E-mail Account</p>	<p>15.1 Mbps down / 1.0 Mbps up \$54.95/mo. 10 Free E-mail Account</p>
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Hargray Communications Group, 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.

Add Hargray High-Speed Internet service for the very best in fast, reliable connections to the World Wide Web.

Choose the Speed That's Right for You	
3Mbps	3Mbps downstream/Up to 1Mbps upstream
5Mbps	5Mbps downstream/Up to 1Mbps upstream
10Mbps	10Mbps downstream/Up to 1Mbps upstream

Home 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 that tier 7 speeds are indeed available.

Pee Dee Online Consulting

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

Resolution: Provider representative confirmed that 10 Mbps service is available and advertised locally, but not advertised on the website.

Piedmont Rural Telephone Cooperative, 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.



Rock Hill Telephone Company (Comporium)

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

Resolution: Provider representative confirmed that DOCSIS 3.0 is in use across entire service area, even with lower speeds; it is just now transitioning to higher speeds after the completion of its rebuild.

TDS Telecommunications Corporation

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 15 and 25 Mbps service; screenshot below.

25Mbps High-Speed Internet



▶ Check availability to see pricing information!

This speed makes it easy to handle simultaneous connections from multiple devices in the home. You can stream video, download large files, play online games, etc. all at the same time.

Check Availability ▶

15Mbps High-Speed Internet



▶ Check availability to see pricing information!

Serious Internet speed for serious Web surfers. Great for video watchers, gamers, and those who work from home but don't care for the new meaning of whoosh.

Check Availability ▶

5Mbps High-Speed Internet



▶ Check availability to see pricing information!

5Mbps Broadband Internet makes everything you do online faster and easier. Enjoy a fast high-speed connection, and quicker uploads and downloads.

Check Availability ▶

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 advertises 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.

Windstream Communications

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

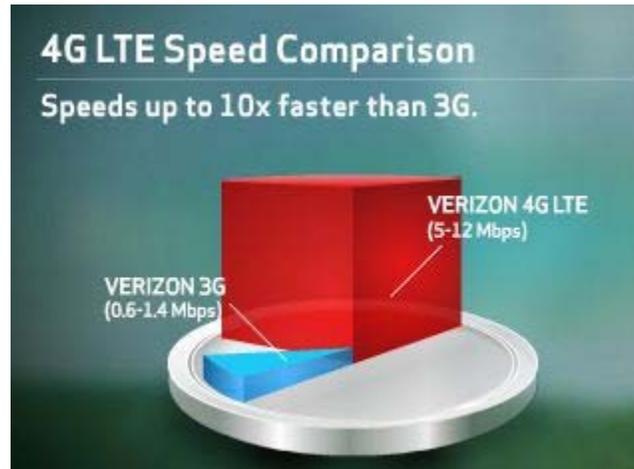
Resolution: Provider website advertises 12 Mbps service; screenshot below.

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

Verizon South Inc.

Issue: Mobile wireless 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.

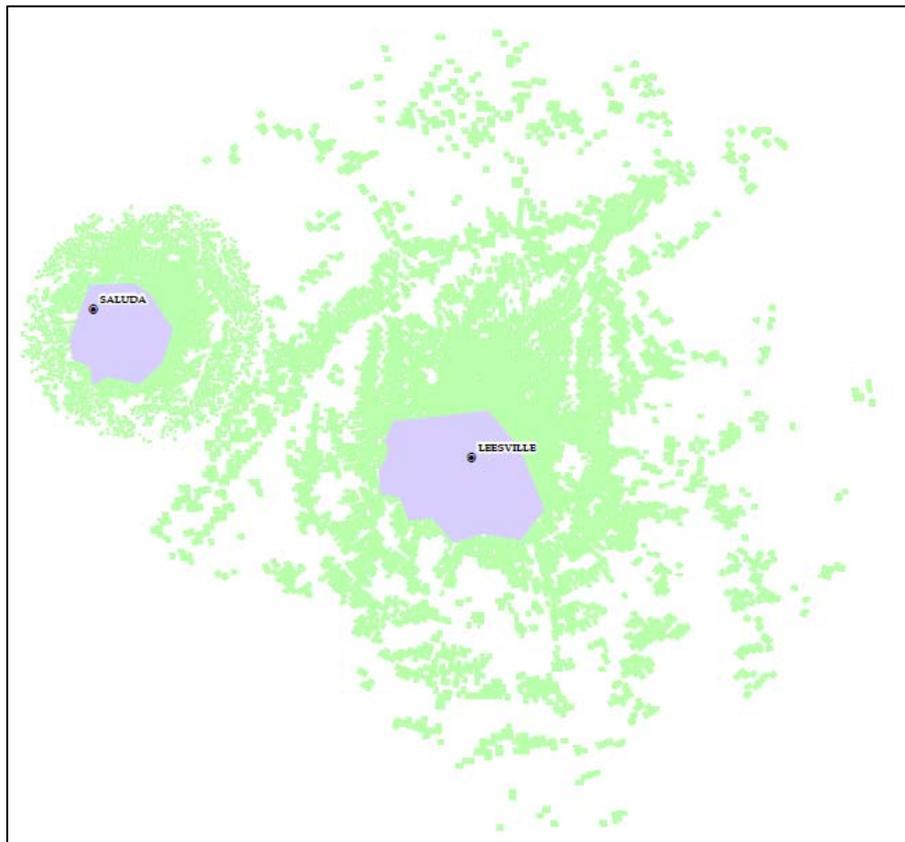


As requested of SBI grantees through e-mail correspondence on February 22, 2012, CN has also reviewed the fixed wireless coverage of providers in the state that NTIA has recognized as “having an unusual shape” that does not appear to be propagated service. Descriptions on the data collection and methodology used for each provider are supplied below.

PBT Communications, Inc.

Background: This provider offers fixed wireless service to a small geographic region only. Prior to this submission, the boundaries of the coverage area were provided and translated to a GIS format. Model propagations were not submitted.

Resolution: Fixed wireless propagations were created based on equipment parameters, then were clipped to the geographic boundaries in order to more accurately portray provider's fixed wireless service area. While the wireless signal extends beyond the boundaries presented, the company does not provide service to households outside these areas; screenshot below.



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.

Estimates derived from provider-validated data indicate that approximately 3.25 percent of South Carolina households do not have terrestrial fixed broadband service available, and approximately 0.21 percent¹ of South Carolina households have neither mobile nor fixed broadband service available.²

Within rural areas of the state, results derived from provider-validated data indicate that approximately 4.16 percent of rural South Carolina households do not have terrestrial fixed broadband service available, and approximately 0.28 percent³ of rural South Carolina households

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

² Due to the nature of the SBI data collection methodology as defined by the NTIA and based on both census block geographic units and street segment data, the estimates of broadband availability derived from provider-validated data may include an overstatement of the actual number of households with broadband availability. Under the census block-based data collection method, a provider will typically report broadband availability for an entire census block whether its network is present across the whole or only a subset of that census block. This potential overestimation at the census block level can be amplified as the data is aggregated across the entire state.

³ See footnote 1.

have neither mobile nor fixed broadband service available.⁴ 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).
6. The primary population center(s) being served (for geopolitical boundary reference).
7. The physical address of the transmit site (in the event latitude/longitude is unavailable from the provider this allows a quick reference point for geocoding).
8. Latitude in either Degrees, Minutes, and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83).
9. Longitude in either Degrees, Minutes and Seconds and/or in Decimal Degrees (typically received as NAD 27 or NAD 83).
10. Antenna pattern (e.g. omni-directional, 180°, 120°, 90°, etc.).
11. Azimuth of antenna (e.g. 360° with magnetic declination if known).
12. Approximate transmit radius (in feet, miles, or kilometers).
13. Polarity of transmit antenna (Vertical or Horizontal).
14. Transmit antenna gain (in dBi).
15. Line loss (applicable only to providers using coax, heliax, waveguide or other forms of cabling – excludes power-over-Ethernet devices).
16. Mechanical and/or Electrical beam tilt (if applicable).
17. Equipment Manufacturer (allows easy cross-reference against manufacturer's specification sheet).
18. Power output of the transmitting device (if unknown, FCC standards or manufacturer specifications are applied).
19. AMSL at base of tower site.
20. Antenna centerline AGL (height of antenna above ground level measured at the centerline of the actual antenna).

⁴ See footnote 2.

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

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

After converting propagation models into a geospatial format, additional processing is completed to remove the small pixels representing service present in the resulting dataset. These areas are initially created based on the parameters entered in the software from the provider equipment information, the underlying data parameters of elevation, 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 South Carolina 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 South Carolina project has received a total of 16 inquiries (113 grant inception to date). As more inquiries are submitted to Connect South Carolina, 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 South Carolina project launched BroadbandStat on May 21, 2010, and has received a total of 6,381 visits to date, of which 1,192 occurred this reporting period.

SPEED TEST METHODOLOGY

The 34 speed tests that are represented in the Connect South Carolina Speed Test Report during this reporting period (455 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 South Carolina 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 South Carolina 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 South Carolina 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 South Carolina.

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	ACSinc.net	www.acsinc.net	This company does not provide residential Internet service.
2	Aerolina Wireless Networks	www.aerolina.com	This company provides commercial services only.
3	Airespring, Inc.	www.airespring.com	This company is a nonfacilities-based reseller.
4	Broadview Networks Holdings, Inc.	www.broadviewnet.com	Nonfacilities-based reseller to businesses.
5	Conterra Ultra Broadband Holdings	www.conterra.com	National wireless and wireline backhaul provider.
6	County of Oconee	www.oconeefocus.com	BIP recipient whose funding promotes the construction of a fiber optic broadband network in the county.
7	Genesis Telecommunications	www.genesistelcom.com	Dial-up services in Greenwood only.

8	Global Crossing Telecommunications, Inc.	http://www.globalcrossing.com	Acquired by another company.
9	Hickory Tech Corporation	www.enventis.com	B2B services.
10	Hotwire Communications	www.gethotwired.com	Offers residential service to one multi-dwelling unit.
11	LightEdge Solutions, Inc.	www.lightedge.com	Illinois provider; no service in SC.
12	Lightyear Network Solutions, LLC	www.lightyear.net	Nonfacilities-based reseller.
13	Main Street Wireless	http://www.mainstreetsc.com	Provider may no longer be in business.
14	Metropolitan Telecommunications Holding Company	www.mettel.net	Nonfacilities-based reseller of business services.
15	Navacore.net	www.navacore.net	Dial-up only.
16	Net Doctors	www.netmds.com	This company does not offer high-speed Internet; dial-up only.
17	New Edge Network, Inc.	www.newedgenetworks.com	Acquired by Earthlink. Company does not offer residential service; resells backhaul.
18	Open Range Communications, Inc.	http://www.openrangecomm.com	No longer in business.
19	PAETEC Communications, Inc.	http://www.paetec.com/	Acquired by another company.
20	Personally Complete	www.personallycomplete.com	This company does not provide Internet access.
21	Pine Tree Cablevision	www.ptc-me.net	This company is out of business.
22	PM Broadband	www.pmcsl.com	This company is out of business.
23	Qwest Communications Company, LLC	www.qwest.net	Acquired by CenturyLink.
24	Shentel Converged Services, Inc.	www.shentel.com	This company is a private cable provider serving a few campuses and related MDUs, but not public residences.

25	Smartresort Co, LLC	www.discoverbeyond.com	This provider offers service to select MDUs and HOAs, but not to public communities; non-responsive to multiple attempts.
26	Techcore Consultants II	www.almega.com	This company is no longer in business in South Carolina.
27	TeleSouth Wireless	www.telesouth1.com	The company appears to be out of business.
28	Telovations, Inc.	www.telovations.com	This company does not provide residential Internet services.
29	University Corporation for Advanced Internet Development	www.internet2.edu	This consortium is a BIP/BTOP recipient with no Internet network.
30	WilTel Communications, LLC.	n/a	Acquired by Level3.
31	WP Media	www.wpmedia.com	This company is a consulting firm.



Broadband Provider Log

Complete	100
Non-Responsive/Refused	2
In Progress	5
Count of Datasets by Status	107
Total Unique Providers Represented	48

Provider Name	Platform	Status	NDA Execution Date	Notes
AT&T Inc.	Mobile Wireless	Data Added to Statewide Inventory	12/16/2009	[FEB-22-12 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-14-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Charter Communications, Inc.	Cable	Data Added to Statewide Inventory	12/15/2009	[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.
Chester Telephone Company	Cable	Data Added to Statewide Inventory	1/25/2010	[FEB-08-12 Matthew Brunt] Change: Provider expanded coverage area.
Chester Telephone Company	DSL	Data Added to Statewide Inventory	1/25/2010	[FEB-08-12 Matthew Brunt] Change: Provider expanded coverage area.
Chester Telephone Company	Fiber	Data Added to Statewide Inventory	1/25/2010	[FEB-08-12 Matthew Brunt] Change: Provider expanded coverage area.
Clearwire Corporation	Mobile Wireless	Data Added to Statewide Inventory	3/17/2011	[JAN-27-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission. □ [MAR-12-12 Terry Holmes] Provider supplied additional information on coverage for substantial service sites in October 2011, however requested that CN not submit or publish this coverage since they do not market to these areas.
Comcast Cable Communications, LLC	Cable	Data Added to Statewide Inventory	12/7/2009	[FEB-23-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Electronics Service Company of Hamlet, LLC	Fixed Wireless	Data Added to Statewide Inventory	3/24/2010	[FEB-22-12 Matthew Brunt] Change: Provider expanded fixed wireless service area and can now provide tier 6 download speeds.
Family View CableVision	Cable	Data Added to Statewide Inventory		[FEB-06-12 Matthew Brunt] Change: Provider expanded cable service area.
Farmers Telephone Cooperative, Inc.	DSL	Data Added to Statewide Inventory	1/22/2010	[FEB-07-12 Matthew Brunt] Change: Provider expanded coverage area.
Farmers Telephone Cooperative, Inc.	DSL	Data Added to Statewide Inventory	1/22/2010	[FEB-07-12 Matthew Brunt] Change: Provider expanded coverage area.
Farmers Telephone Cooperative, Inc.	Fiber	Data Added to Statewide Inventory	1/22/2010	[FEB-07-12 Matthew Brunt] Change: Provider expanded coverage area.
Farmers Telephone Cooperative, Inc.	Fiber	Data Added to Statewide Inventory	1/22/2010	[FEB-07-12 Matthew Brunt] Change: Provider started offering fiber coverage in portions of their service area.
Farmers Telephone Cooperative, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/22/2010	[FEB-07-12 Matthew Brunt] Change: Provider expanded coverage area.
Frontier Communications Corporation	DSL	Data Added to Statewide Inventory	1/22/2010	[JAN-26-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Horry Telephone Cooperative, Inc.	Cable	Data Added to Statewide Inventory	1/22/2010	[JAN-26-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Horry Telephone Cooperative, Inc.	DSL	Data Added to Statewide Inventory	1/22/2010	[JAN-26-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Horry Telephone Cooperative, Inc.	Fiber	Data Added to Statewide Inventory	1/22/2010	[JAN-26-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Horry Telephone Cooperative, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/22/2010	[JAN-26-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.

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.
NTInet, Inc	Fixed Wireless	Data Added to Statewide Inventory	2/9/2010	[FEB-20-12 Matthew Brunt] Change: Provider expanded fixed wireless service area.
Pee Dee Online Consulting	Fixed Wireless	Data Added to Statewide Inventory	2/24/2010	[JAN-23-12 Matthew Brunt] Change: Provider expanded fixed wireless service area.
Piedmont Rural Telephone Cooperative, Inc.	Mobile Wireless	Data Added to Statewide Inventory	1/28/2010	[FEB-20-12 Matthew Brunt] Change: Provider added an additional mobile wireless tower.
Piedmont Rural Telephone Cooperative, Inc.	DSL	Data Added to Statewide Inventory	1/28/2010	[FEB-20-12 Matthew Brunt] Change: Provider upgraded infrastructure and can now offer tier 9 maximum advertised download speeds.
Rock Hill Telephone Company	Cable	Data Added to Statewide Inventory	1/25/2010	[MAR-12-12 Matthew Brunt] Change: Carolina Telecom and Catawba Services subsidiary names changed to Rock Hill Telephone.
Rock Hill Telephone Company	Cable	Data Added to Statewide Inventory	1/25/2010	[JAN-03-12 Daryl Coffey] Change: This subsidiary platform was changed from Video Vision to Lancaster Telephone.
Rock Hill Telephone Company	Cable	Data Added to Statewide Inventory	1/25/2010	[JAN-03-12 Daryl Coffey] Change: This subsidiary platform name changed from Palmetto Cable to Fort Mill Telephone.
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.
TDS Telecommunications Corporation	DSL	Data Added to Statewide Inventory	1/27/2010	[FEB-23-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Time Warner Cable LLC	Cable	Data Added to Statewide Inventory	12/21/2009	[FEB-21-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission.
Verizon South 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.
Charter Communications, Inc.	Backhaul	Backhaul Provider Only Processing Complete	12/15/2009	
Conterra Ultra Broadband Holdings	Backhaul	Backhaul Provider Only Processing Complete	11/8/2011	
TDS Telecommunications Corporation	Backhaul	Backhaul Provider Only Processing Complete	1/27/2010	
AT&T Inc.	DSL	Approval for Update Not Received – Data Still Submitted	12/16/2009	[MAR-06-12 Matthew Brunt] Changes and/or Corrections: Possible service expansion or corrections to previous dataset; entirely new dataset provided for April 2012 submission. Dataset not officially approved, but provider representative instructed CN to proceed with using the new dataset for the April 2011 submission.
AT&T Inc.	Backhaul	No Update to Provide	12/16/2009	
Atlantic Broadband, LLC	Cable	No Update to Provide	2/3/2010	
CenturyLink	Backhaul	No Update to Provide	12/4/2009	
Chesnee Telephone Company, Inc.	DSL	No Update to Provide	1/25/2010	
Chesnee Telephone Company, Inc.	Cable	No Update to Provide	1/25/2010	
Chester Telephone Company	Backhaul	No Update to Provide	1/25/2010	
DeltaCom, Inc.	Backhaul	No Update to Provide	2/16/2010	
DISH Network Corporation	Satellite	No Update to Provide	1/27/2010	
Farmers Telephone Cooperative, Inc.	Backhaul	No Update to Provide	1/22/2010	
Farmers Telephone Cooperative, Inc.	Backhaul	No Update to Provide	1/22/2010	
Frontier Communications Corporation	Fiber	No Update to Provide	1/22/2010	
Hargray Communications Group, Inc.	Backhaul	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	Backhaul	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	Backhaul	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	Cable	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	DSL	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	Cable	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	DSL	No Update to Provide	1/25/2010	
Hargray Communications Group, Inc.	Fiber	No Update to Provide	1/25/2010	
Harron Communications LP	Cable	No Update to Provide		
Home Telephone Company, Inc.	Cable	No Update to Provide	1/22/2010	
Home Telephone Company, Inc.	DSL	No Update to Provide	1/22/2010	
Home Telephone Company, Inc.	Fiber	No Update to Provide	1/22/2010	
Home Telephone Company, Inc.	Cable	No Update to Provide	1/22/2010	
Home Telephone Company, Inc.	Fiber	No Update to Provide	1/22/2010	
Home Telephone Company, Inc.	Backhaul	No Update to Provide	1/22/2010	
Home Telephone Company, Inc.	Backhaul	No Update to Provide	1/22/2010	
Horry Telephone Cooperative, Inc.	Backhaul	No Update to Provide	1/22/2010	
Hughes Network Systems, LLC	Satellite	No Update to Provide	2/5/2010	
Knology of South Carolina, Inc.	Cable	No Update to Provide	7/13/2011	
Northland Communications Corp.	Cable	No Update to Provide		
Palmetto Rural Telephone Cooperative, Inc.	DSL	No Update to Provide	1/22/2010	
Palmetto Rural Telephone Cooperative, Inc.	DSL	No Update to Provide	1/22/2010	
Pee Dee Net	Fixed Wireless	No Update to Provide	2/23/2010	

Rock Hill Telephone Company	DSL	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Fiber	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	DSL	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Fiber	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	DSL	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Fiber	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Cable	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	DSL	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Fiber	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Mobile Wireless	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Backhaul	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Backhaul	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Backhaul	No Update to Provide	1/25/2010	
Rock Hill Telephone Company	Fixed Wireless	No Update to Provide	1/25/2010	[MAR-15-12 Matthew Brunt] Correction: Provider provides fixed wireless service to a small geographic region only. Fixed wireless propagations were clipped to this geographic area in order to more accurately portray provider's fixed wireless service area.
Sandhill Telephone Coop., Inc.	DSL	No Update to Provide	1/25/2010	
Sandhill Telephone Coop., Inc.	Backhaul	No Update to Provide	1/25/2010	
Skyrunner, Inc.	Fixed Wireless	No Update to Provide		
Southern Coastal Cable, LLC	Cable	No Update to Provide	6/30/2010	
Sprint Nextel Corporation	Backhaul	No Update to Provide	1/14/2010	
tw telecom of south carolina, llc	Backhaul	No Update to Provide	4/26/2010	
United States Cellular Corporation	Mobile Wireless	No Update to Provide	2/15/2011	
ViaSat, Inc.	Satellite	No Update to Provide	1/8/2010	[FEB-16-12 Matthew Brunt] Change: ViaSat has acquired WildBlue and coverage will be represented as ViaSat, Inc. starting with the April 2012 submission.
West Carolina Rural Telephone Cooperative, Inc.	Backhaul	No Update to Provide	1/22/2010	
West Carolina Rural Telephone Cooperative, Inc.	Fiber	No Update to Provide	1/22/2010	
West Carolina Rural Telephone Cooperative, Inc.	DSL	No Update to Provide	1/22/2010	
Windstream Communications	Backhaul	No Update to Provide	1/20/2010	
Windstream Communications	DSL	No Update to Provide	1/20/2010	
ATG Communications, LLC	Backhaul	No Update Provided - Use Last Submission Data	1/14/2010	
Level 3 Communications, LLC	Backhaul	No Update Provided - Use Last Submission Data	12/14/2009	
Aero Networks, LLC	Satellite	Solicited Initial Data	11/22/2010	
Knology of South Carolina, Inc.	Backhaul	Solicited Initial Data	7/13/2011	
Atlantic Tele-Network, Inc.	Mobile Wireless	Initial Conversation		
Verizon South Inc.	Backhaul	Other	12/14/2009	[MAR-06-12 Wes Kerr] A company representative sent a message noting that these sites have been decommissioned and shouldn't be submitted any longer.
Windstream Communications	Backhaul	Other	1/20/2010	[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.
Birch Communications, Inc.	Backhaul	Refused to Participate		[NOV-03-11 Daryl Coffey] A company representative sent an email saying the company "declines to participate."
Countrywide Wireless	Fixed Wireless	Non-Responsive to Multiple Attempts		In addition to numerous contact attempts made during the last mapping period, 6 additional attempts were made this period.

