

Georgia Broadband Mapping

Data Submission Methodology Report

October 1, 2013



1935 Jamboree Drive
Colorado Springs, CO 80920



47 Trinity Avenue S.W.
Atlanta, GA 30334-3404

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1 Introduction

This report is submitted along with the seventh data submission for the Georgia Broadband Mapping Project. This submission includes all data collected so far per the requirements of the National Telecommunications and Information Administration (NTIA) State Broadband Data and Development Grant Program (Docket No. 0660-ZA29) Notice of Funds Availability (NOFA) and Clarifications to it. Specifically, it includes broadband data collected from broadband providers and Community Anchor Institutions data compiled from various sources for the State of Georgia. The State of Georgia has retained The Sanborn Map Company (Sanborn), supported by Applied Geographics Inc. (AppGeo) to support the Georgia Technology Authority (GTA) with respect to the Mapping Grant for the State of Georgia for Year 2013 and 2014.

This document provides an overview of the Team's progress, processes, assumptions, challenges and improvements needed for each dataset. Section 2 of this document explains overall project status at the time of this submission. This is followed by detailed description of the processes of data collection, data processing, and data validation. We had included with the previous submission report a section on detailed data processing which we have removed for this submission. NTIA can refer to the previous report for that information. The report also discusses changes to the data model for this submission. The final section provides a list of providers that fall in various categories of participation.

2 Overall Project Status

Sanborn updated the list of providers and internal provider portals, contact loggers, etc. before sending out letters to the provider. Letters to providers were sent on July 3rd, 2013.

In this submission, the following high level statistics represent the degree of participation and data updates from existing broadband providers and newly added providers. The breakdown of these providers in different categories is summarized below and detailed lists are provided in the last section of this report (Section 4).

Provider - Data Status - Submission 8	Count
Total Providers Researched/Contacted	230
Non-providers	53
Resellers	21
Total Valid Providers (total participating + non-cooperative but valid providers)	107
Non Responsive Providers	1
Non-cooperative Providers (refused participation)	22
Number of DBAs Represented in Data	92
Number of Providers that Supplied Updates (including new provider)	43
Number of Providers – Confirmed No Updates	26
Number of Providers – No updates and no confirmation	17

2.1 DATA COLLECTION

This section details data collection related to NTIA deliverables which include broadband data and community anchor institution data.

2.1.1 Broadband Data

Sanborn update the Provider Portal and other internal tracking databases with the S7 data. The Sanborn team then followed up by making calls to all providers identified (including participating providers, those who have refused participation, resellers, and newly identified providers). Sanborn began with the FCC Form 477 Broadband Data Filers from June 30, 2012, as submitted in filings made or revised as of February 26, 2013. We have a total of 88 executed NDAs for the State of Georgia.

According to both our research and lists provided to use by NTIA, there was the potential for Georgia to have up to 230 broadband providers. The breakdown of

these providers in different categories is summarized below and detailed lists are provided in the last section of this report (Section 2.6).

Of these:

- 53 companies stated that they do not provide any type of broadband service in Georgia. Many of these are either national carriers without a Georgia presence, or they file 477 reports because they provide VOIP or Video Teleconference services (but not broadband).
- 45 company names turned out to be a DBA or legal holding names for another firm that is listed in another category. So these duplicates were dropped from our list.
- 21 companies are resellers and are not considered part of this program. Note that this number is much higher than previous report because of changes in this category in discussions with NTIA.
- 23 companies may be broadband providers, but either they indicated they are not willing to provide data, or were completely unresponsive to multiple attempts at contacting them.
- 26 broadband providers informed us that there were no changes to their service area so for these providers we downloaded the data that had been submitted as part of the last submission, reprocessed the data, performed validation on it, and we are resubmitting this data:
- 43 broadband providers submitted either entirely new or partially new datasets for this submission.
- 1 provider submitted Linear Middle Mile data that is not being submitted to NTIA

A total of two new providers have been added to this submission:

- Kennedy Cablevision
- City Cartersville DBA Fibercom

All changes and corrections in provider data are documented in the Change and Correction Document submitted with this submission.

In general, the submission 8 processes followed the same basic approach that was used in previous submissions made for Georgia. This document provides further details on the following topics:

1. Submission 8 Processing Assumptions
2. Reference Data Creation
3. Processing of New Provider Data
4. Quality Control Checks
5. Improved Validation Techniques
6. NTIA Quality Control Scripts
7. NTIA Submission Data Model Schema Changes

Based on NTIA feedback and information provided in NTIA webinar sessions, the submission 8 data processing workflow is created with the following assumptions to meet NTIA submission requirements.

1. All census blocks and road segments are mapped based on 2010 census data set.
2. Due to our NDA restrictions, address points and last mile points are not being submitted to NTIA.
3. Terrestrial Mobile Wireless and Terrestrial Fixed Wireless (licensed and unlicensed) were again treated as wireless coverage and were delivered as a shape. In cases where a provider served the same spectrum with different speeds, overlapping areas were removed and the higher speed was assigned. The exception to this rule is where a provider is using the same spectrum, but delivering different underlying technologies such as 3G, 4G, or 4G LTE. In this case a continuous polygon is being created that represents the area that is offered for both 3G and 4G even if these polygons overlap.
4. If a cable based wireline provider can provide both DOCSIS 2.0 and DOCSIS 3.0 service to the same area, the block or road was listed only once, with a technology code of 40.
5. Most providers were only willing to indicate on a general level if they serviced business, residential or both. Not many providers broke down their type of service by block. . If the provider stated they only serve business to business customers we fill in the “category of end user” with code 2, or if they told us specifically that they serve only residential, we used code 1. Where companies did not confirm their end user codes we attempted to verify by reference to their online marketing and any company-specific sources available; where we couldn’t verify we entered 5 as a default.
6. The submission 8 Provider data model is currently based on the NTIA June 27 2013 data model.
7. If provided, Franchise Area was captured during the ingest process, and kept for use during the validation process. These areas are not being submitted to NTIA.
8. All Provider data and Community Anchor Institutions (CAI) locations were clipped to the state’s boundary.
9. Where providers told us to reuse data from the previous submission or did not respond to our data request, we are resubmitting data that was submitted in S7.
10. This submission is being made based on the NTIA data model as of June, 2013 provided by NTIA on the SBDD site.

2.1.2 Community Anchor Institutions Data

In this submission, Georgia is supplying a substantially increased and improved CAI dataset. Sanborn has worked to incorporate NTIA feedback which has resulted in more schools (particularly private schools) into this data. Furthermore, GTA was able to obtain better connectivity and speed information for schools across the State and those are provided with this submission.

2.2 DATA PROCESSING

We started with the following base data:

Census Blocks:

For Submission 8, Census 2010 data was utilized. The data was set up as follows:

- Block size (AREA) is calculated combining the 2010 land area (ALAND) and water area (AWATER).
- AREA is converted from square meters to square miles to calculate square mileage (SMI).
- If the SMI of a block is less than or equal to 2, then the less than or equal to 2 square mile indicator (LE2SMI) is set to true.
- In addition, we looked at the water area in comparison to the total block area, and if the block was 100% water, it was excluded from our reference data.

Road Segments:

2010 Tiger Line IDs (TLID) were used for data processing for this submission. The data was set up as follows:

- The GT2SMI (Greater Than 2 Square Mile) indicator is set to True when:
- The 2010 road segment is completely within a block that is NOT less than 2 square miles
- Only minimum and maximum address ranges and a single zip code for each road segment is maintained.

All data received went through the following processing steps:

Triage: All new data was quickly reviewed to understand what was received, and in what format. We also made sure we had all the required components for NTIA's data model, such as their FRN and advertised speed information. We also screened for any known issues that we might have seen before (such as Excel 2003 spreadsheets that cut off at 32k rows.)

Ingest: At this time the data is actually brought into our systems. Each provider is set up with a unique file geodatabase to store their information. Record counts of what was received is logged so that we can validate we did not drop anything in processing.

Data Processing: This is where the data goes through a number of ETL routines to convert the raw proprietary information into a format similar to the NTIA format. The exact routine utilized depends on how the data is received:

1. When a wireline provider submits a service boundary, we select all the blocks and roads that are within and cross that shape.
2. If a wireline provider submits a customer address list, the points are geocoded, and then the appropriate block or road segment is selected.
3. If a wireline provider submits block and road information using Census data, we make sure everything is formatted to the appropriate specifications
4. If the wireline provider submits any type of road or line data that does not directly correlate to the TIGER data set, we convert the lines to TIGER by selecting the road centroid and spatially selecting the closed segment in our data set. If the road is in a block less than 2sqmi, then the block is selected. Some manual cleanup is also applied to make sure we do not accidentally drop any road segments that should have been processed.
5. Wireless provider data is formatted to ensure that there are no overlapping polygons with the same technology type unless the provider is offering different speeds such as 3G and 4G over the same area. In addition the data is cropped to the state boundary.
6. After each round of processing, we make sure that we only keep unique records. A unique record is defined as having a one of a kind combination of FRN, Block/Road ID, and technology type. If there are multiple records with different speeds, but all else is equal, then we select the maximum of the advertised speeds.

QC Review: All data is then sent to a different analyst to perform a thorough quality control review on the processed data set. Record counts are compared to what was submitted. The QC staff also makes sure the ETL scripts and routines populated all of the right fields.

QC Change Detection Review: Data is then sent to another team for a second Quality Control Review. In this step the data is not only double checked against what was originally submitted, but it is also brought up inside standardized MXD templates that allow us to make sure our results make sense. This step involves comparing the new data set with prior submissions, developing change maps, and looking for any possible technology or speed anomalies. At this stage we also begin our validation process. This includes looking at the provider data in comparison to things such as speed test results, franchise boundaries, siting information, and feedback from the planning surveys.

Provider Review: Processed data is all posted to a customized web application we refer to as our Provider Portal. All providers were notified once their data was available in the site, and given a specified period for review of the data and respond. In this site, providers can log on and visually see their processed data in a map format. It also allows them to overlay their raw data (boundaries or addresses provide in any format) to help them validate that we did indeed process things correctly. In this submission we enhanced this tool by adding the ability to highlight changes between submission 7 and submission 8. The provider portal also has a suite of markup tools that will allow the providers to edit

their data, including adding or removing service areas, and making changes to the data attributes.

Comment Processing: All comments and feedback received from the provider portal, is then reviewed and applied to the processed data set. This updated data set goes back through our QA and QC processes, and if time allows, back out to the Provider Portal, for the provider to review and sign off on.

Data Append: After all of the individual data sets are processed and approved, we run an append process which merges all of the individual provider data sets into one geodatabase. This is also the point where our team will do any final transformations to get our working data model into the latest NTIA publishing format.

Submission Comparison Check: An application was written that compares this submission to the previous submission. We review any variations and assure that the changes found can be documented as being requested by the provider.

Final QA/QC: A series of quality checks are run on the final appended data sets to ensure it is ready for submission to NTIA. We also run the latest version of the NTIA receipt tool at this time. If any issues are flagged as failing they are reviewed and corrected. All warnings are also reviewed and either corrected or documented in the attached document which explains that we have validated this data and it should be accepted. Any last issues are corrected, and the data is sent to the state for their review.

Submission to NTIA

Deliver to NTIA and Publish to Web Applications: A copy of the Append File Geodatabase is generated to be used in the provider portal web-based application. When verification feedback is received, the individual provider geodatabases are updated. After verification is complete, the Append process, including QA steps, is executed again and then submitted to NTIA.

2.3 DETAILED DATA PROCESSING

Detailed data processing information was provided in the methodology report submitted with Submission 7. There have been no major changes to our methodology in this area.

2.4 DATA VALIDATION

Sanborn has validated data using the following steps:

1. QC of the data at various steps – this includes when data is received (triage), when it is processed through the various processing steps discussed above, etc.
2. Spatial checks against public and commercial datasets

- a. If a provider gave us data updates, we verified it using the Pitney Bowes exchange boundaries data. Any wireline providers whose areas fell outside the exchange boundaries were marked up in an issues database and the information about this was relayed to the provider. We will continue improving the data where providers did not respond in the next submission.
3. Speedtest data
 - a. For this submission there were no FCC speed test data for validation. Therefore we could not use this data.
4. GTA provided a huge amount of local and previous knowledge in validating data. Sanborn and GTA continued to use the Online Data Verification Tool for review of the data. Issues identified by Sanborn through the above methods were already available for GTA to review and further feedback from GTA was reported to providers and data corrections were made where possible. Every provider's submission was reviewed by GTA and 48 inquiries were opened on these data submissions after review by GTA. These inquiries were resolved as best as possible through conversations with the providers. In some cases, providers were non-responsive and we tabled some changes for next submissions. We feel that we addressed most major issues that came up from the previous submission in this submission. Some examples of these verification discussions include:
 - a. Zayo Group, LLC. This is a fiber provider and their service was marked as business only. We worked with them to reduce their footprint to lit buildings only for S8 instead of showing all census blocks around their metro lit fiber routes as served.
 - b. Comcast – We removed their services from Calhoun, Randolph and Clay Counties.
 - c. TruVista Cable – We differentiated the gigabit plus fiber services they are able to provide to enterprise level customers from the cable service they provide to homes and small business.
 - d. Elijah Telephone – We confirmed that the independent phone company offers Cable and DSL services throughout their footprint.
 - e. Alltel – We confirmed that they are selling LTE devices and offering service in parts of southeast Georgia even though their website does not yet list 4G systems.
 - f. Public Service Telephone – We identified that Public Service has combined two blocks of spectrum in the 700 MHZ band to offer some of the highest 4G LTE speeds in Georgia.
5. Verification by providers – processed data is uploaded on our Provider Portal for providers to review both the outcome of data processing and any issues that we found in the third-party and GTA validation. Issues pertaining to a particular provider are highlighted and shown in the portal

for those providers only. Issues that are global and cannot be assigned to a particular provider are shown to all providers (e.g. there are no providers in this area, or we tried to get service here and heard x from A provider, y from B provider, etc.).

3 Submission 8: NTIA Submission Data Model Schema Changes

The latest data model released was released in June 2013 and was very similar to the previous data model. One substantive change that was noted was the addition of End User Category to the wireless feature class.

4 UNIVERSE OF CONTACTED PROVIDERS/NON-PROVIDERS

According to both our research and lists provided to use by NTIA, there was the potential for Georgia to have up to 230 broadband providers. Of these:

- 53 companies stated that they do not provide any type of broadband service in Georgia. Many of these are either national carriers without a Georgia presence, or they file 477 reports because they provide VOIP or Video Teleconference services (but not broadband).
- 45 company names turned out to be a DBA or legal holding names for another firm that is listed in another category. So these duplicates were dropped from our list.
- 21 companies are resellers and are not considered part of this program. Note that this number is much higher than previous report because of changes in this category in discussions with NTIA.
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- 43 broadband providers submitted either entirely new or partially new datasets for this submission.
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4.1 Non-providers

53 companies stated that they do not provide any type of broadband service in Georgia. Many of these are either national carriers without a Georgia presence, or they are out of business or have been purchased by other companies or they file 477 reports because they provide VOIP or Video Teleconference services (but not broadband).

- 1 360 Networks
- 2 Airespring, Inc.
- 3 Bluebird Wireless Broadband Services, LLC
- 4 Broadcore, Inc.
- 5 Cbeyond Communications, LLC
- 6 CIMCO Communications, Inc.
- 7 Enventis Telecom Inc.
- 8 LightEdge Solutions, Inc.
- 9 Netlogic, Inc.
- 10 Reliance Globalcom Services, Inc.
- 11 Telovations, Inc.
- 12 WDT World Discount Telecommunications Co., Inc.
- 13 Light Tower Fiber Long Island LLC
- 14 Convergence Technologies, Inc
- 15 EagleNet
- 16 EnerSphere Communications LLC
- 17 eVolve Business Solutions LLC
- 18 FPL FiberNet LLC
- 19 HCE Media, LLC / Ridge Networks
- 20 MainStreet Broadband
- 21 REYNOLDS CABLE TV INC.
- 22 RGW Communications, Inc.
- 23 SkyWay USA
- 24 Stratos Offshore Services Company
- 25 Suburban Cable Inc.
- 26 VectorLink
- 27 American Fiber Network, Inc.
- 28 Bellsouth Long Distance, Inc.
- 29 BroadRiver, Inc. & BroadRiver Communications Corp
- 30 BullsEye Telecom, Inc.
- 31 City of Manchester
- 32 City of Milledgeville
- 33 Harbor Communications
- 34 Lintel, Inc.
- 35 Qwest Communications International, Inc.
- 36 Telefonica USA, Inc.
- 37 Wandering WiFi
- 38 Broadstar, LLC d/b/a PrimeCast
- 39 Smartresort Co., LLC d/b/a/ Beyond Communications
- 40 Coastal Broadband
- 41 City of Augusta
- 42 City of Statesboro
- 43 Verizon Communications d/b/a Verizon Business Glob
- 44 Windjammer Communications LLC
- 45 Shentel Converged Services, Inc.
- 46 CoBank
- 47 Deliberant LLC
- 48 DirecPath
- 49 Tata Communications (America) Inc.

- 50 Signal Point Telecommunications Corp.
- 51 Baldwin County
- 52 City of Cordele
- 53 Washington County

4.2 Shell Companies

The following 45 company names turned out to be a DBA or legal holding names for another firm that is listed in another category. So these duplicates were dropped from our list.

- 1 Broadwing Communications, LLC
- 2 Covad Communications Company
- 3 New Cingular Wireless Services, Inc.
- 4 Northland Cable Television, Inc.
- 5 WiTel Communications, LLC
- 6 Habersham Electric Membership Corporation
- 7 Mediastream
- 8 AGL Networks , LLC
- 9 American Fiber Systems, Inc.
- 10 Airimba and Windchannel Communications
- 11 US LEC of Georgia Inc.
- 12 Depot Street Communications, Inc
- 13 Flint Cable TV, Inc.
- 14 DSLnet Communications, LLC
- 15 James Cable LLC
- 16 South GA Governmental Services Authority
- 17 Accucom Telecommunications
- 18 ATC Broadband LLC
- 19 Birch Telecom, inc.
- 20 Blue Ridge Telephone Company
- 21 Board of Water, Light & Sinking Fund Commissioners
- 22 Business Telecom, Inc.
- 23 Camden Telephone & Telegraph Co., Inc.
- 24 Cellco Partnership
- 25 City of Monroe
- 26 City of Tifton
- 27 ComSouth Telenet, Inc.
- 28 DoveTel Communications, LLC
- 29 Dycom Holding, Inc.
- 30 ETC Communications, LLC
- 31 GEORGIA RSA # 8 PARTNERSHIP Limited Partnership d/
- 32 ITC Globe, Inc.
- 33 KLiP, LLC
- 34 Madison River Communications, LLC
- 35 Nelson-Ball Ground Telephone Company
- 36 Northland Cable Properties Seven Limited Partnersh
- 37 Northland Cable Properties, Inc.
- 38 NuVox Communications, Inc.
- 39 Plant Tifnet
- 40 Quincy Telephone Company

- 41 Valley Cable TV, Inc.
- 42 ViaSat Inc.
- 43 Wideopenwest
- 44 JamesCable (Waycross Cable) d/b/a MediaStream
- 45 Waycross

4.3 Resellers

The following 21 companies are resellers and are not considered part of this program.

- 1 Access One, Inc.
- 2 Greenfly Networks, Inc
- 3 Reallinx, Inc.
- 4 CONEXIZ Corporation
- 5 Georgia Business Net
- 6 Net2Atlanta
- 7 Birch Communications, Inc.
- 8 Broadview Networks, Inc.
- 9 Global Crossing North American Networks, Inc.
- 10 Metropolitan Telecommunications of Georgia, Inc.
- 11 New Edge
- 12 Smart Choice Communications, LLC
- 13 Wholesale Carrier Services
- 14 American Telephone Company LLC
- 15 Digital Agent, LLC
- 16 Interglobe Communications, Inc.
- 17 BCN Telecom Inc
- 18 Intelletrace, Inc.
- 19 Network Billing Systems LLC/Fusion
- 20 Network Innovations, Inc.
- 21 Stage 2 Networks, LLC

4.4 Non-Participating or Non-Responsive Providers

23 companies may be broadband providers, but either they indicated they are not willing to provide data, or were completely unresponsive to multiple attempts at contacting them.

- 1 Electric Power Board
- 2 Gosuto Wireless Internet
- 3 Netlink IP Communications
- 4 One Ring Networks
- 5 Parker Fibernet
- 6 The Seimitsu Corporation
- 7 University Corporation for Advanced Internet Dev
- 8 Albany, Water, Gas and Light Commission
- 9 Brightlan LLC
- 10 Georgia Public Web, Inc.
- 11 Wireless Hometown LLC

- 12 SyncGlobal
- 13 Sunesys
- 14 Transbeam Inc.
- 15 Appalachian Broadband Technologies, LLC
- 16 City of Forsyth/ Forsyth CableNet
- 17 Gunby Communications Inc
- 18 City of Covington
- 19 City of Griffin
- 20 City of Calhoun/CALNET
- 21 City of Sandersville
- 22 City of Washington
- 23 UNSi/ was airBand Communications, Inc.

4.5 Providers with No Data Updates

26 broadband providers informed us that there were no changes to their service area so for these providers we downloaded the data that had been submitted as part of the last submission, performed validation on it, and we are resubmitting this data:

- 1 Skycasters
- 2 StarBand Communications, Inc.
- 3 City of Dublin
- 4 Unite Private Networks, LLC
- 5 AL-GA Wireless Broadband, LLC
- 6 ATG Communications, LLC
- 7 Cavalier Telephone LLC or Talk America
- 8 Cox Communications, Inc.
- 9 ELBERTON , City of
- 10 Ellijay Telephone Company
- 11 Fort Valley Utility Commission
- 12 Glenwood Telephone Company
- 13 Hargray of Georgia, Inc.
- 14 Hart Telephone Company
- 15 Mediacom Communications Corp & MCC Georgia LLC
- 16 Plant Telephone Company
- 17 South Georgia Regional Information Technology Auth
- 18 Southeastern Services, Inc.
- 19 Waverly Hall Telephone, LLC
- 20 Windstream Georgia Telephone bought Accucomm Telec
- 21 XO Communications, LLC
- 22 Northland Cable Properties Eight Limited Partnersh
- 23 Planters Rural Telephone Cooperative, Inc.
- 24 Bright House Networks Information Services (Alaba
- 25 Citizens Telephone Company, Inc.
- 26 Public Service Data Wireless

In addition, 17 broadband providers did not respond to us about changes in data and for these providers also we downloaded the data that had been submitted as

part of the last submission, performed validation on it, and we are resubmitting this data

- 1 iWispr LLC
- 2 North Georgia Network Cooperative, Inc
- 3 Dalton Utilities
- 4 Appalachian Valley Fiber Network
- 5 MonroeAccess.net
- 6 Quitman Wireless
- 7 Bulldog Cable Georgia
- 8 Bulloch Telephone Cooperative
- 9 City of Cairo, GA
- 10 FiberLight, LLC
- 11 Kings Bay Communications, Inc.
- 12 NuLink Digital
- 13 Progressive Rural Telephone Co-op., Inc.
- 14 Wilkes Telephone & Electric Company
- 15 Darien Telephone Co., Inc.
- 16 Pembroke Telephone Company, Inc.
- 17 DeltaCom, Inc./EarthLink Business

4.6 Providers with Data Updates

A total of 43 Broadband providers submitted either entirely new or partially new datasets for this submission:

- 1 ComSouth
- 2 Fairpoint/GTC, Inc.
- 3 City of Cartersville/FiberCom
- 4 Charter Communications
- 5 Clearwire
- 6 Level 3 Communications, LLC
- 7 Nextlink Wireless, Inc.
- 8 Viasat/WildBlue Communications, Inc.
- 9 MetroPCS Georgia, LLC
- 10 TruVista
- 11 Kennedy Cablevision Inc.
- 12 Ringgold Telephone Company
- 13 City of LaGrange
- 14 KitePilot Wireless Internet
- 15 Trenton Telephone Company
- 16 Zayo Group, LLC
- 17 AI-CALL, Inc./ATC
- 18 Brantley Telephone Company, Inc.
- 19 Chickamauga Telephone Corporation
- 20 City of Camilla d/b/a South Georgia Gov't Svcs.
- 21 City of Moultrie
- 22 City of Thomasville Utilities
- 23 Cogent Communications Group
- 24 Cricket Comm/Leap Wireless International, Inc.

25	Knology, Inc.
26	MegaPath
27	Plantation Cablevision, Inc.
28	TW Telecom of Georgia L.P.
29	Verizon Wireless
30	Wave2Wave Communications, Inc. & RNK
31	Pineland Telephone Cooperative, Inc.
32	Comcast Corporation
33	Frontier Communications of Georgia, Inc.
34	Hughes Communications/HNS License Sub, LLC
35	TDS Telecomm
36	Sprint Nextel Corporation
37	AT&T Wireless
38	AT&T of Georgia
39	Public Service Telephone Company/Flint Cable
40	Alltel/ Allied Wireless Communications Corp
41	CenturyLink/CenturyTel
42	T-Mobile
43	BCI Broadband/MediaStream