

Georgia Broadband Mapping

Data Submission Methodology Report

October 1, 2014



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1 Introduction

This report is submitted along with the tenth 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 the overall project status at the time of this submission. This is followed by a description of each of the processes for data collection, data processing, and data validation. The methodology report with Submission Seven included a detailed section for data processing which we removed for this submission. NTIA can refer back to Submission Seven's report for that information if so desired. This report also discusses any changes to the data model for the 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 3, 2014.

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 10	Count
Total Providers Researched/Contacted	240
Non-providers	57
Resellers	25
Total Valid Providers (total participating + non-cooperative but valid providers)	109
Non Responsive Providers	0
Non-cooperative Providers (refused participation)	25
Number of DBAs Represented in Data	49
Number of Providers that Supplied Updates (including new provider)	34
Number of Providers – Confirmed No Updates	28
Number of Providers – No updates and no confirmation	21

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 updated the Provider Portal and other internal tracking databases with the Submission 9 data. The Sanborn team then followed up by making calls to all providers identified (including participating providers, those who previously refused participation, resellers, and newly identified providers). Sanborn began with the FCC Form 477 Filers, State Level, as of June 30, 2013 (as submitted in filings made or revised as of January 9, 2014). We have a total of 89 executed NDAs for the State of Georgia.

According to both our research and lists provided to us by NTIA, there was a potential for Georgia to have up to 240 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 4).

Of these:

- 57 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).
- 49 company names turned out to be a DBA or legal holding names for another firm that is listed in another category.
- 25 companies are resellers and are not considered part of this program.
- 25 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.
- 49 broadband providers informed us that there were no changes to their service area or did not respond to our data request. For these providers we downloaded the data that had been submitted as part of the last submission that we believe is still valid, reprocessed the data, performed validation on it, for final inclusion in this submission.
- 34 broadband providers submitted either entirely new or partially new datasets for this submission.

A total of four new providers were found for this submission:

- Telrite Corp
- 365 Wireless LLC
- Tower Cloud
- Global Connection Inc. of America

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

In general, the submission 10 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 10 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 10 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. In this submission, we continue to mark Megapath as a primarily business provider even though they submitted blocks with residential service. This decision was made in discussions with Georgia and the provider was informed about it.
6. The submission 10 Provider data model is currently based on the NTIA May 22, 2014 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 the data that was last submitted from that provider. In comparison to previous submissions, we had a slightly higher percentage of providers who did not provide updated data and we are adding that list of providers in addition to the list of non-responders, resellers, and non-providers at the end of the document.
10. This submission is being made based on the NTIA data model as of May 22, 2014 provided by NTIA.
11. In submission 10, we had a few providers who significantly reduced their service area. These reductions were seen in areas that were previously served by CenturyLink, Comcast, Citizens and Pineland Telephone Co. which are also noted in the Change and Correction document. Sanborn contacted these companies several times to confirm that such reductions were valid and all companies confirmed it.

2.1.2 Community Anchor Institutions Data

For this submission, Georgia is supplying a substantially increased and improved CAI dataset. During the submission, the State of Georgia engaged with Georgia Regional Commission offices to provide better CAI broadband subscription data. We received updates from 8 out of 12 Georgia Regional Commission Offices.

Prior to requesting updates from the Regional Commissions, we created a table that was distributed to all the commissions to record and provide these updates. This table provided the data as submitted in the prior submission and corresponding "update" fields. We conducted two instructional web meetings on how the Regional Commissions would use this table to provide the appropriate edits in Submission 10.

Updates were provided from the following Regional Commissions with much more information than what was required to be submitted to NTIA (i.e. phone, contact, etc.) With this in mind we queried out only the edits that are reflected in the NTIA submittal and those are noted in the table below:

Regional Commissions	Approx. # of Records Updated
Coastal	70
Heart	128
MGRC	260
Northeast	176
Northwest	371
RVRC	125
SGRC	125
3Rivers	372

Regional Commission updates further enhanced the existing data on technology, broadband service and whether the service was publicly available. The Commissions identified locations that were closed or no longer in business. The Commissions also took the opportunity to provide new locations to be added to the data along with the respective broadband information. In many locations the anchor names were changed. The Commissions provided new addresses for facilities that moved locations, and for those, the records were re-geocoded.

Georgia was able to receive a one week extension from NTIA so additional CAI updates could be made based on NTIA's feedback from E-rate submissions. Sanborn worked with GTA to do a quality review after finalizing the updates noted above from the Regional Commission offices and then obtained data from UGA/ITOS which comprised of a complete list of schools by NCES ID. This feature class provided information on which schools were actually fiber fed though it does not distinguish between internet and wide area network connectivity. Additionally, the feature class was used to update addresses, NCES ID's and missing schools. ***Please note; some duplicate entries of facilities may exist. This is to identify where redundant or multiple transmission technologies are provided at a single location.***

Our CAI data continues to contain administrative buildings for schools but they do not have CAIDs associated with them. Most of these are valid locations such as Board of Education locations that do not have a NCES ID. We also cleaned up some duplicate locations from the updates received by Regional Commissions during our internal processing and QC.

In addition, the NTIA CAI data model does not contain a place for us to track which CAIs were updated. However, we are tracking this information in our production database should NTIA be interested in knowing what was updated or added.

2.2 DATA PROCESSING

Submission 10 processes followed the same basic approach that was used in Submissions 7-9. We started with the following base data:

Census Blocks:

For Submission 10, 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 ID (TLID) was 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. In this submission, we created a better geocoding routine for addresses missing zip codes.
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 2 square miles, 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, we select the maximum 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 posted to a customized web-mapping tool that we refer to as our Provider Portal. All providers were notified once their data was available on the site, and given a specified period for review of the data and to respond. In the 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 continued to use our enhancements to this tool that provided the ability to highlight changes between submission 9 and submission 10. 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. We also review statewide data with clients to see changes in service areas, technologies, speeds, etc. across the state to make sure it aligns with their local knowledge and expectations.

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.

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.

CAI Data: CAI data is reviewed and is discussed further above in section 2.1.2.

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 since then.

2.4 DATA VALIDATION

1. Sanborn has continued to perform the same validation on the data as in the previous three submissions (details are in previous reports and a summarized version is provided below). 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. This submission, there was a lot of back and forth with providers because some of the providers were making large changes. We checked with every provider to confirm that those large changes were not an error.
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 no FCC speed test data was available for validation. Therefore we could not use this data.

- b. We also incorporated any feedback we received through the interactive map – this included feedback such as incorrect speeds, incorrect boundaries, missing provider or areas of no service, etc.
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. All providers who provided changes to their data were reviewed by GTA and inquiries were opened on these data submissions after GTA's review. These inquiries were resolved as best as possible through conversations with the providers. In some cases, providers were non-responsive. We continued to address most of the major issues that came up from the previous submission in this submission. Please refer to the changes and correction document to review updates made by providers.
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.). We make additional calls to providers who have issues.
6. As with previous submissions, we did a significant amount of data validation at the statewide level and used change maps to see if there were any significant anomalies in the data. Georgia Technical Authority helped by reviewing the data at the statewide aggregation.

3 Submission 10: NTIA Data Model Schema Changes

The latest data model released was released in May 22, 2014 and was the same as the previous data model. There were no changes in the data model to the best of our knowledge.

4 UNIVERSE OF CONTACTED PROVIDERS/NON-PROVIDERS

We have contacted a total of 240 providers in GA of which 4 providers were contacted for the first time.

We have identified 109 potential providers, of which 84 are participating in this submission to date and 25 have refused to participate. A list of the non-responders, resellers, non-providers, providers with updates and providers who did not update their data this submission is provided at the end of the document. All of these potential broadband providers were contacted. Even if some

providers were identified as non-providers or resellers in previous submissions, we continue sending out data request letters to these providers in case their status had changed.

4.1 Non-providers

57 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).

360 Networks
Airespring, Inc.
American Fiber Network, Inc.
Baldwin County
Bellsouth Long Distance, Inc.
Bluebird Wireless Broadband Services, LLC
Broadcore, Inc.
BroadRiver, Inc. & BroadRiver Communications Corp.
Broadstar, LLC d/b/a PrimeCast
BullsEye Telecom, Inc.
CIMCO Communications, Inc.
City of Augusta
City of Cordele
City of Manchester
City of Milledgeville
City of Statesboro
Coastal Broadband
CoBank
Convergence Technologies, Inc.
Deliberant LLC
DirecPath
EagleNet
EnerSphere Communications LLC
Enventis Telecom Inc.
eVolve Business Solutions LLC
FPL FiberNet LLC
Harbor Communications
HCE Media, LLC / Ridge Networks
Light Tower Fiber Long Island LLC
LightEdge Solutions, Inc.
Lintel, Inc.
MainStreet Broadband
Netlink IP Communications
Netlogic, Inc.
Quitman Wireless
Qwest Communications International, Inc.
Reliance Globalcom Services, Inc.
REYNOLDS CABLE TV INC.
RGW Communications, Inc.

Shentel Converged Services, Inc.
Signal Point Telecommunications Corp.
SkyWay USA
Smartresort Co., LLC d/b/a/ Beyond Communications
Stratos Offshore Services Company
Suburban Cable Inc.
Tata Communications (America) Inc.
Telovations, Inc.
Telrite Corp
The Edge Group Inc.
Time Warner/ former Dukenet
VectorLink
Verizon Communications d/b/a Verizon Business Glob
Wandering WiFi
Washington County
Wave2Wave Communications, Inc. & RNK
WDT World Discount Telecommunications Co., Inc.
Windjammer Communications LLC

4.2 Resellers

The following 25 companies are resellers and are not considered part of this program.

Access One, Inc.
American Telephone Company LLC
BCN Telecom Inc.
Birch Communications, Inc.
Broadview Networks, Inc.
Cbeyond Communications, LLC
CONEXIZ Corporation
Digital Agent, LLC
Georgia Business Net
Global Connection Inc. of America
Global Crossing North American Networks, Inc.
Greenfly Networks, Inc.
Intellectrace, Inc.
Interglobe Communications, Inc.
Metropolitan Telecommunications of Georgia, Inc.
Net2Atlanta
Network Billing Systems LLC/Fusion
Network Innovations, Inc.
New Edge
Reallinx, Inc.
Smart Choice Communications, LLC
SoX
Stage 2 Networks, LLC
Telefonica USA, Inc.
Wholesale Carrier Services

4.3 Non-Participating or Non-Responsive Providers

25 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.

365 Wireless LLC
Albany, Water, Gas and Light Commission
Appalachian Broadband Technologies, LLC
Brightlan LLC
City of Covington
City of Forsyth/ Forsyth CableNet
City of Griffin
City of Sandersville
City of Washington
Electric Power Board
Georgia Public Web, Inc.
Gosuto Wireless Internet
Gunby Communications Inc.
Hotwire Communications, Ltd.
One Ring Networks
Parker Fibernet
Rocketcomm WIFI
Sunesys
SyncGlobal
The Seimitsu Corporation
Tower Cloud
Transbeam Inc.
University Corporation for Advanced Internet Dev
UNSi/ was airBand Communications, Inc.
Wireless Hometown LLC

4.4 Providers with Data Updates

A total of 34 Broadband providers submitted either entirely new or partially new datasets for this submission:

AI-CALL, Inc./ATC/Alma
AT&T Mobility LLC
AT&T of Georgia
BCI Broadband/MediaStream/Vyve
Brantley Telephone Company, Inc.
CenturyLink/CenturyTel
Charter Communications
Chickamauga Telephone Corporation
Citizens Telephone Company, Inc.
City of Calhoun/CALNET
City of Dublin
City of LaGrange
Cogent Communications Group
Comcast Corporation
ComSouth

Cricket Comm/Leap Wireless International, Inc.
Darien Telephone Co., Inc.
ELBERTON , City of
Fairpoint/GTC, Inc.
Frontier Communications of Georgia, Inc.
Glenwood Telephone Company
Kings Bay Communications, Inc.
Level 3 Communications, LLC
Mediacom Communications Corp & MCC Georgia LLC
MegaPath
Northland Cable Properties Eight Limited Partnership
Pineland Telephone Cooperative, Inc.
Sprint Corporation
TDS Telecomm
T-Mobile
Trenton Telephone Company
TW Telecom of Georgia L.P.
Verizon Wireless
Windstream Georgia Telephone bought Accucomm Telecom

4.5 Providers with No Data Updates (Provider Confirmed)

27 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:

AL-GA Wireless Broadband, LLC
ATG Communications, LLC
Bright House Networks Information Services (Alaba
Bulldog Cable Georgia
Cavalier Telephone LLC or Talk America
City of Cairo, GA
City of Camilla d/b/a South Georgia Gov't Svcs.
City of Cartersville/FiberCom
City of Moultrie
City of Thomasville Utilities
Cox Communications, Inc.
Dalton Utilities
Ellijay Telephone Company
Hart Telephone Company
Hughes Communications/HNS License Sub, LLC
Kennedy Cablevision Inc.
Knology, Inc.
North Georgia Network Cooperative, Inc.
Plant Telephone Company
Progressive Rural Telephone Co-op., Inc.
Ringgold Telephone Company
Skycasters
South Georgia Regional Information Technology Authority
Southeastern Services, Inc.

TruVista
Unite Private Networks, LLC
Viasat/WildBlue Communications, Inc.
Waverly Hall Telephone, LLC
Wilkes Telephone & Electric Company

4.6 No Updates to Data (Provider Unresponsive)

In addition, 21 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.

Appalachian Valley Fiber Network
Bulloch Telephone Cooperative
DeltaCom, Inc. / EarthLink Business
FiberLight, LLC
Fort Valley Utility Commission
Hargray of Georgia, Inc.
iWispr LLC
KitePilot Wireless Internet
MonroeAccess.net
Nextlink Wireless, Inc.
NuLink Digital
PeachNet
Pembroke Telephone Company, Inc.
Plantation Cablevision, Inc.
Planters Rural Telephone Cooperative,, Inc.
Public Service Data Wireless
Public Service Telephone Company/Flint Cable
StarBand Communications, Inc.
XO Communications, LLC
Zayo Group, LLC

4.7 Shell Companies

The following 49 company names turned out to be a DBA or legal holding names for another firm that is listed in another category.

Accucom Telecommunications
AGL Networks, LLC
Airimba and Windchannel Communications
Alltel/ Allied Wireless Communications Corp
American Fiber Systems, Inc.
ATC Broadband LLC
Birch Telecom, Inc.
Blue Ridge Telephone Company
Board of Water, Light & Sinking Fund Commissioners
Broadwing Communications, LLC
Business Telecom, Inc.
Camden Telephone & Telegraph Co., Inc.
Cellco Partnership

City of Monroe
City of Tifton
Clearwire
ComSouth Telenet, Inc.
Covad Communications Company
Depot Street Communications, Inc.
DoveTel Communications, LLC
DSLnet Communications, LLC
Dycom Holding, Inc.
ETC Communications, LLC
Flint Cable TV, Inc.
GEORGIA RSA # 8 PARTNERSHIP Limited Partnership d/
Habersham Electric Membership Corporation
ITC Globe, Inc.
James Cable LLC
JamesCable (Waycross Cable) d/b/a MediaStream
KLiP, LLC
Madison River Communications, LLC
Mediastream
MetroPCS Georgia, LLC
Nelson-Ball Ground Telephone Company
New Cingular Wireless Services, Inc.
Northland Cable Properties Seven Limited Partnership
Northland Cable Properties, Inc.
Northland Cable Television, Inc.
NuVox Communications, Inc.
Plant Tifnet
Quincy Telephone Company
South GA Governmental Services Authority
US LEC of Georgia Inc.
Valley Cable TV, Inc.
VALLEY TEL CO, LLC
ViaSat Inc.
Waycross
Wideopenwest
WiTel Communications, LLC