

Oregon Broadband Mapping Project Methodology

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OVERVIEW

This report provides details on the State Broadband Initiative (SBI), implemented by the State of Oregon Broadband Mapping project. The data presented is a snap shot of Internet Service Providers' (ISPs) broadband coverage prior to December 31st, 2013. The data was collected and processed during the winter of 2014 by the Oregon Broadband Mapping Project and submitted to the NTIA in accordance with the SBI grant requirements on April 1st, 2014.

The report also includes information on **Data Gathering**, **Data Integration**, **Data Validation** and **Verification**, and **Quality Control**. The objective of this report is to support varying levels of technical and program knowledge, while providing comprehensive detail.

SUBMISSION SUMMARY

PROVIDER DETAILS

PROVIDER PARTICIPATION

- Provider Participation Statistics Summary

Summary	Count
Total Providers Researched/Contacted	475
Total Valid Broadband Providers	123
Non-Responsive Providers	10
Non-Cooperative Providers	7
Number of Providers - Supplied Updates for this Submission	53
Number of Providers - Confirmed No Updates	52
Will Provide Data	1

*Does not include ISPs Identified as resellers

- New Providers since Last Data Submission (0)
- Existing Providers – No Updates, confirmed (52)
 - Alyrica Networks, Inc.
 - Beaver Creek Telephone Company
 - Bendbroadband
 - Blue Mountain Cable
 - Cable ONE
 - Cal-Ore Communications Inc.
 - City of Cascade-Locks
 - Clear Creek Mutual Telephone Company
 - CoastCom, Inc.
 - Communications Access Cooperative Holding Enterprise
 - Community Broadband





- Comspan Communications, Inc.
 - Cricket Communications, Inc.
 - DC Wireless
 - Eagle Telephone System, Inc.
 - Eastern Oregon Telecom
 - EasyStreet Online
 - Elgin TV Association
 - Fibersphere
 - FireServe
 - Gervais Telephone Company
 - Helixtel.Com
 - Hunter Communications Inc
 - Integra Telecom
 - J&N Cable System, Inc.
 - LS Networks
 - Monitor Cooperative Telephone Company
 - Monroe Telephone
 - Mount Angel Telephone Company
 - Nehalem Telecommunications Inc.
 - North-State Telephone Co.
 - OneWave Networks
 - ORCA Communications
 - Oregon-Idaho Utilities, Inc.
 - OregonFAST.Net
 - PEAK Internet
 - Pendleton Fiber Company
 - Pioneer Telephone Cooperative
 - PocketiNet Communications Inc.
 - Qualitylife Intergovernmental Agency
 - Reliance Connects (Trans-Cascade Telephone)
 - Rural Technology Group
 - SandyNet
 - SawNet
 - SCS Communications
 - Skycasters
 - Snake River PCS
 - SpeedyQuick Networks
 - Starband Communications, Inc.
 - Stephouse Networks
 - Wallowa Valley Networks
 - Webformix Company
- Non-Responsive Providers (10)
 - Air Speed LLC
 - Axxis Communication
 - EarthLike Business
 - EONI.com
 - Freewire Broadband LLC
 - HughesNet





- M2 MachMedia
 - Nextnet Ventures, LLC
 - Quantum Communications
 - Safelink Internet Services
- Non-Cooperative Providers (7)
 - BendTel
 - Cogent Communications Group
 - Croisan Creek Broadband
 - ExchangeNet
 - Meritel Group, Inc
 - NextGen Internet Systems, Inc.
 - Qnect.Net
- Other Provider Changes

Name Changes

Infinity Internet changed DBA name to EasyStreet Online

Acquisitions and merges

Sprint merged Clearwire into the Sprint brand. Clear were removed from the database

Infostructure acquired RIO Networks, closed during the summer of 2013

Gorge Networks acquired Johnson Network in the fall of 2013. Johnson Network was identified as a valid ISP just prior to the acquisition and so was never mapped as an individual ISP.

Middle Mile Only

AT&T Corp
Helixtel

Reseller

XO Communications (TT-20 & 30)

Additional Information

ViaSat Communications – Informed Oregon that they had reached full capacity in some parts of the state and could not supply any new subscribers.

Pioneer Telephone Cooperative - Company are not satisfied with the project specifications as they feel the technology of transmission does not accurately reflect their services.

Comcast – Possible over representation of service area. The company has not responded to requests to clarify their service offerings in areas where public input indicates that they do not provide service as defined under the terms of the SBI grant. Area of concern is an area east of Salem, Oregon.





Charter Communications, Inc. - There is a possibility of over representation of service area. The company has not responded to requests to clarify their service offerings in areas where public input indicates that they do not provide service as defined under the terms of the SBI grant. Area of concern is an area east of Grants Pass, Oregon.

- Providers researched and identified as non-broadband providers can be viewed within the table at the end of this document.

- Providers Included by DBA**

Air Speed LLC	Fibersphere	Qnect.Net
Alyrica Networks, Inc.	FireServe	Qualitylife Intergovernmental Agency
Applegate Broadband LLC	Freewire Broadband LLC	Quantum Communications
Ashland Fiber Network	Frontier Communications Northwest Inc.	Reliance Connects (Cascade Utilities)
AT&T Corp	Frontier Communications Of Oregon	Reliance Connects (Trans-Cascade Telephone)
AT&T Mobility LLC	Gervais Telephone Company	Roome Telecommunications Inc.
Axxis Communications	Gorge Networks	MTE Communications
Beaver Creek Telephone Company	Helixtel.Com	Rural Technology Group
BendBroadband	HughesNet	Safelink Internet Services
BendTel	Hunter Communications Inc	SandyNet
Blue Mountain Cable	InfoStructure	SawNet
Cable ONE	Integra Telecom	SCIO Mutual Telephone
Cal-Ore Communications Inc.	Ispeed Wireless	SCS Communications
Canby Telcom	J & N Cable Systems, Inc.	Silver Star Telecom
Cascade Networks, Inc.	Level 3 Communications, LLC	Siuslawbroadband
Cavenet	LS Networks	Skycasters
CenturyLink	M2 MachMedia	Snake River PCS
Charter Communications Inc.	MegaPath Corporation	SpeedyQuick Networks
City Of Cascade-Locks	Meritel Group, Inc	Sprint
Clear Creek Mutual Telephone Company	MINet	St Paul Telephone
CoastCom, Inc	Molalla Communications Company	Starband Communications, Inc.
Cogent Communications Group	Monitor Cooperative Telephone Company	Stayton Cooperative Telephone Company
Coltontel	Monroe Telephone	Stephouse Networks
Comcast	Mount Angel Telephone Company	T-Mobile
Communications Access Cooperative Holding Enterprise	Nehalem Telecommunications Inc.	TDS Telecom





Community Broadband	NextGen Internet Systems, Inc.	Tnet Broadband
Comspan Communications, Inc.	Nextnet Ventures, LLC	TW Telecom Of Oregon LLC
Cottage Grove Wifi	North-State Telephone Co.	U.S. Cellular
Country Vision Cable Inc.	OneWave Networks	Unwiredwest Internet
Crestview Cable Communications	OnlineNW	Upward Access
Cricket Communications, Inc.	ORCA Communications	Verizon Wireless
Croisan Creek Broadband	Oregon-Idaho Utilities, Inc.	Viasat Communications
Datavision Communications	Oregon Telephone Corporation	Wallowa Valley Networks
DC Wireless	OregonFAST.Net	Warm Springs Telecom
Douglas Fast Net	Outreach Internet	Wave Broadband
Eagle Telephone System, Inc.	PEAK Internet	Webformix Company
EarthLink Business	Pendleton Fiber Company	Whiz To Coho, Inc.
Eastern Oregon Telecom	People's Telephone Company	Wtechlink
EasyStreet Online	Pine Telephone Systems, Inc.	Yellowknife Wireless Company, LLC
Elgin TV Association	Pioneer Telephone Cooperative	Zayo Group LLC
EONI.Com	PocketiNet Communications Inc	
ExchangeNet	Prinetime Internet Solutions	

SERVICE CHANGES

- Coverage Footprint Reductions/Map Refinement
 - CenturyLink (TT-10)
 - Douglas Fast Net (TT-10)
 - InfoStructure (TT-20)
 - Reliance Connects – Cascade Utilities (TT-10)
 - TW Telecom of Oregon LLC (TT-50)
 - Verizon Wireless (TT-80)
 - Zayo Group LLC (TT-50)
- Technology Changes/Additions –
 - Cavenet (TT-70)
 - Coltontel (TT-50)
 - Cottage Grove Wifi (TT-70)
 - Ispeed Wireless (TT-70)
 - Ispeed Wireless (TT-71)
 - MTE Communications (TT-70)
 - Oregon Telephone Corporation (TT-71)
 - Outreach Internet (TT-71)
 - Pine Telephone Systems, Inc. (TT-71)
 - Reliance Connects- Cascade Utilities (TT-71)





- SpeedyQuick Networks (TT-70)
- St Paul Telephone (TT-50)
- Yellowknife Wireless Company, LLC (TT-70)

- Coverage Footprint Expansion –
 - AT&T Mobility LLC (TT-80)
 - Canby Telcom (TT-10)
 - Canby Telcom (TT-50)
 - Cascade Networks, Inc. (TT-50)
 - CenturyLink (TT-50)
 - Douglas Fast Net (TT-50)
 - Douglas Fast Net (TT-70)
 - Gorge Networks (TT-70)
 - InfoStructure (TT-10)
 - InfoStructure (TT-30)
 - MegaPath Corporation (TT-10)
 - Molalla Communications Company (TT-50)
 - OnlineNW (TT-50)
 - Oregon Telephone Corporation (TT-50)
 - Pine Telephone Systems, Inc. (TT-70)
 - PrineTIME Internet Solutions (TT-70)
 - Sprint (TT-80)
 - Stayton Cooperative Telephone Company (TT-50)
 - TDS TELECOM (TT-10)
 - T-Mobile (TT-80)
 - TW Telecom Of Oregon LLC (TT-30)
 - U.S. Cellular (TT-80)
 - UnwiredWest Internet (TT-70)
 - Whiz To Coho, Inc. (TT-70)





COMMUNITY ANCHOR INSTITUTION (CAI) DETAILS

OVERALL STATISTICS

Community Anchor Institution - Categories	Overall Count	Broadband Subscriber	Trans Tech	Subscribed Speed Down	Subscribed Speed Up
Category 1 - School K through 12	1721	1194	1141	1221	1221
Category 2 - Library	220	211	211	206	204
Category 3 - Medical/Healthcare	394	155	152	150	149
Category 4 - Public Safety	1049	142	102	62	62
Category 5 - Universities/Colleges	80	45	45	44	44
Category 6 - Other: Government	250	51	234	43	43
Category 7 - Other: Non-Government	150	14	13	11	11
Total	3864	1812	1898	1737	1734

Total CAI records: 3864

Broadband Service - Yes	1812	47%
Broadband Service - Unknown	2052	53%

Broadband Service - Yes

Unknown Technology Type	137	8%	Y to BB service but no to TT
Unknown Download & Upload Speed	115	6%	Y to BB service but unknown D & U speeds
Download & Upload Speed	1694	93%	Y to BB service and Y to D & U speeds
Download & No Upload	3	.02%	Y to BB service and Y to download but unknown upload

*Libraries with CAIID	98%
*Schools (Private & Public) with CAIID	71%
CAI with CAIID (Cat. 1, 2, & 5)	99%

* Schools and library percentages represent CAIID that correspond with NTIA specifications.





CAI CHANGES

CAI ID Values

As directed by the NTIA for CAI categories 1 (K-12) and 2 (libraries) a national unique identifier has been assigned where ever such information is available.

- **Libraries IDs**

The library identifier code is based on a combination of FSCSKEY and FSCSEQ fields from data available at the following link <https://harvester.census.gov/imls/data/pls/index.asp>. The aforementioned link is a dataset hosted by the Institute of Museum and Library Services

- **Schools IDs**

CAI identifier for K-12 schools is based on the identifier assigned by the National Center for Education Statistics (NCES). Not all institutions are in the NCES database; in such cases alternative identifiers have been used as described below:

If an institution is identified by a record in the Oregon Department of Education school database, that value was used. The attribute is an integer.

If an institution is not identified by a record in the Oregon Department of Education school database, an internal value was assigned. This value is a combination of CAI- and *, where * is an integer value. An example value is CAI-0001.

Additional Notes

- School K-12 data has been further verified and edited to show a more comprehensive and accurate list of private and public institutions.
- Enhanced CAI locations by correcting address inconsistencies and removing duplicates. These changes were completed through internet research and CAI outreach.
- Researching category 1 (K-12) connectivity information has proven to be a greater challenge than anticipated and has resulted in instances where only partial information is available such as capturing information on connectivity speeds, but not the technology of transmission or the providing ISP.





PROCESS REVIEW

1. Provider Outreach and Data Collection

Data is collected from identified broadband ISPs via a process of e-mail notifications and telephone interactions designed to achieve the maximum number of positive responses. ISPs can supply data and/or updates in a number formats via the following communication channels: mail, e-mail, and web applications (provider portal and file upload tool).

2. Data Ingestion and Processing

Acquired data enter a recursive multi-stage editing, validation and verification process until all parties are satisfied that the data is a good representation of both the ISP service area and level of service. Automated scripts run nightly that capture updates posted by an ISP and publish completed updates to the provider portal web application for further provider review.

3. Reporting

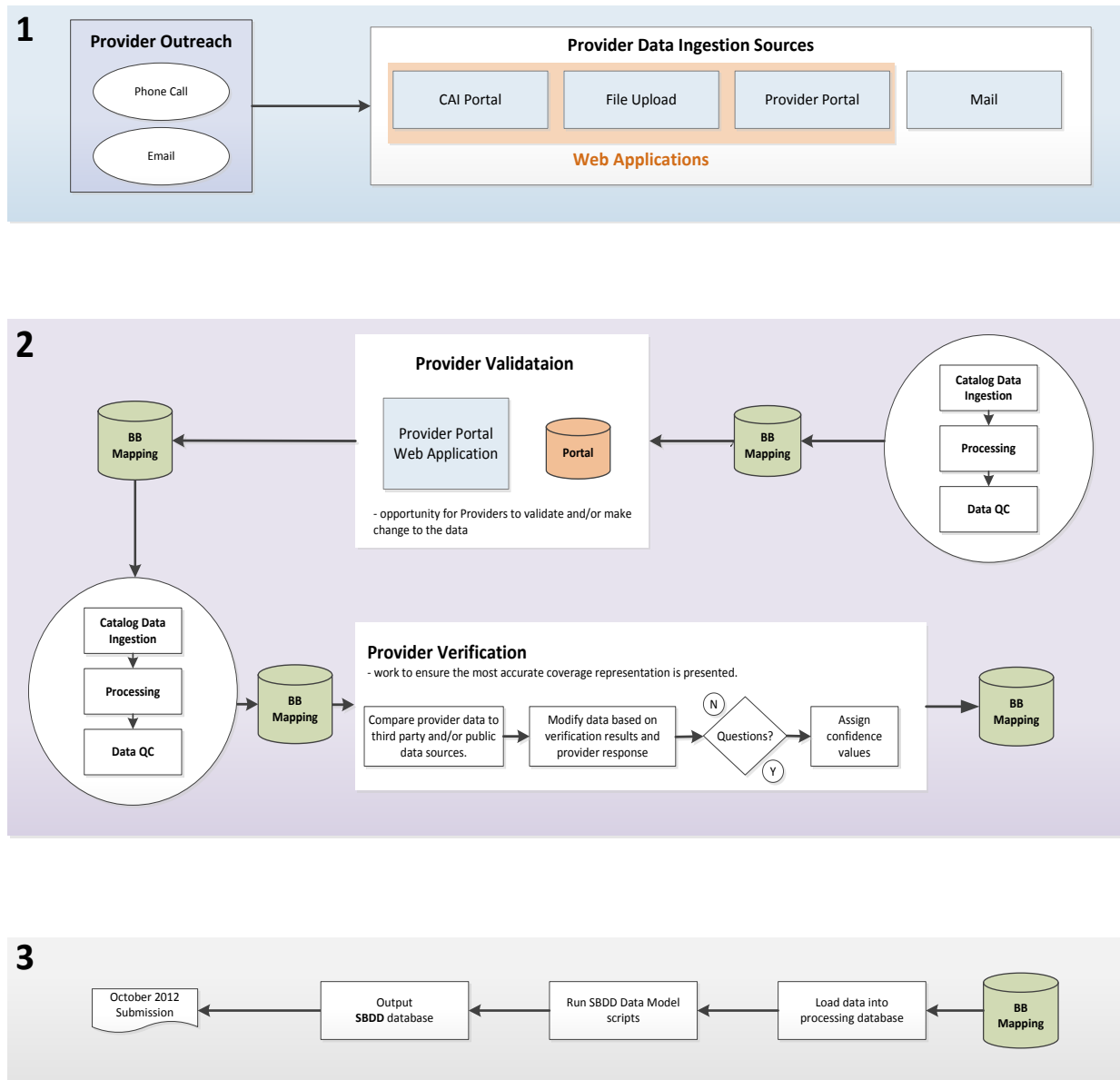
At the close of each data collection period all ISP and CAI data is passed through a set of automated processes that parse the geospatial data into the format required for NTIA submission, flag potential data errors and generate associate tabular reports. The final outputs are combined into a single archive file for submission via the Broadband State Data Management Tool hosted by the FCC.

* Process Review Diagram, sections reference below numbered diagram (pg.12)





* Process Review Diagram, sections reference above numbered paragraphs (pg.11):





PROCESS SUMMARY

DATA GATHERING

BROADBAND SERVICE AREAS, MIDDLE MILE AGGREGATION POINTS AND BROADBAND SERVICE OVERVIEW

The collection of Broadband Service Areas, Middle Mile Aggregation Points and Broadband Service Overview information is handled through the following Provider Outreach Process:

- Build and maintain an inventory of Broadband providers through currently known providers and research.
- The inventory and everyday interaction with providers is tracked using the Provider Catalog (PCat). Below are some examples of the web application.

PCat Hello, ihardin!

Tasks DBAs Sources Settings Reports

My Tasks						
Source Name	DBA Name	Received	Status			
Unassigned Tasks						
Source Name	DBA Name	Received	Status			
All Open Tasks						
Source Name	DBA Name	Received	Status	Assigned To		
All Tasks						
Source Name	DBA Name	Received	Status	Assigned To	Completed	
OR_ProviderPortal_5399_20130320.shp	Frontier Communications Northwest Inc.	03/20/2013	Completed	alake	03/20/2013	
OR_ProviderPortal_710_20130320.shp	CenturyLink	03/20/2013	Completed	ihardin	03/20/2013	
OR_ProviderPortal_710_20130319.shp	CenturyLink	03/19/2013	Completed	ihardin	03/19/2013	
frontiercommnw\OR_DSLAM_Last_Mile_FC_NW_-_Dec_2012_rev.xls	Frontier Communications Northwest Inc.	03/19/2013	Completed	alake	03/19/2013	
	Frontier					





PCat Hello, ihardin!

Tasks DBAs Sources Settings Reports

Acmetech OR (DBA ID: 6362) Active

<http://www.calvin-and-hobbes.org/>

Parent Provider:

Provider Type: Broadband provider as described in the NOFA

DBA Details

155 Cottage St	User name: acmetech_or	TransTechs
Salem, OR 97301	Password: acme66tech	10 Asymmetric xDSL
Have Ever Participated: False	Portal Trained: True	20 Symmetric xDSL
Do Not Contact: False	Awarded Grant: False	FRN Numbers +
NDA: False	NDA Signed:	
NDA Required: False	NDA Exchanged:	
Business Only: False		
Origin:		
Notes: This is our testing account		
Created 12/18/2012 by		

Contacts

Contact Log

Confidence [+](#)

0413 Delivery [+](#)

1012 Delivery [+](#)

Sources [+](#)

- Update provider material that describes the data requirements and logistics for data transfer.
- Update Non-Disclosure Agreement (NDA) for use in the project, where applicable.
- Maintain multiple protocols for the provider to submit data, including Secure File Upload Protocol when desired.
- Conduct one-on-one informational discussions with each provider to communicate the following:
 - Requirements of this project;
 - Broadband data required to support the product data model;
 - Submission protocols available;
 - Capability to validate how the supplied data is aggregated.
- Download/receive provider data.
- Establish a repeatable process with provider. Maintain provider communication, transaction and data handling records throughout the project (dates contacted, data received, etc.).

COMMUNITY ANCHOR INSTITUTION (CAI)

The collection of CAI information is handled through the following CAI Collection Process:

- Collect and maintain inventory of CAIs through currently known CAIs, data mining, and research.
- Maintain web-based CAI portal for institutions to add or confirm attribution, location and enter broadband-specific information.
- Upload web-based data to Core Database for standardization.
- Perform internal cleansing, such as removing duplicate records, identifying gaps in broadband attribution and verifying category.
- Geocode CAI locations.
- Translate Core Database data to deliverable-ready format.
- Continue engagement with non-responsive institutions.
- Communicate with Oregon State departments to acquire CAI data.





DATA INTEGRATION PROCESS

The data integration and processing mechanisms currently used allow for multiple types of inputs and result in a standardized output that meets the NTIA deliverable requirements. This flexible process supports data model changes and project-requested enhancements.

- Receive inputs from providers via submission protocols; upload into Sourcing Database and catalog with provider information.
- Review provider-supplied data for completeness and for potential discrepancies that require resolution prior to processing and flag as necessary.
- Categorize input into data-type category (addresses, block lists, paper maps, etc.).
- Standardize input based on data type within BB Mapping Database.
- Create Compact Polygons (CP)—(internal methodology for generating area-based feature for coverage in BB Mapping Database).
- Apply broadband attribution to CP; apply metadata to CP.
- Perform quality analysis of the CP against the source supplied to identify any completeness or accuracy issues.
- Post data to the provider portal web application for provider review and validation.
- Request additional information from the provider if elements of coverage are missing or contain discrepancies. This is a second manual quality check to ensure data is complete.
 - o Process coverage area to build the required NTIA data model layers.

With the deployment of the Provider Portal, the data collection and later validation process was streamlined allowing both activities to occur within a secure web application. The majority of the providers used this methodology as it supplies them with more visibility into how their data is being represented and gives them knowledge and ownership of their coverage representation. Below are some bullet points and supporting screen shots on how the portal is used.

- Each provider is assigned credentials with a strong password to ensure security measures are taken into consideration

Login

Username

Password

Login

- Collection and confirmation of contact, as well as the company's DBA Name and FRN accuracy

Contact and Provider Information

Please enter contact information and change provider information if incorrect:

Contact name: * Kristin Rousseau

Contact E-mail: * kris.rousseau@broadmap.com

Contact Phone: * 603-448-4475

Doing Business As (DBA) Name: * acmetech

FCC Registration Number (FRN): * 2222222

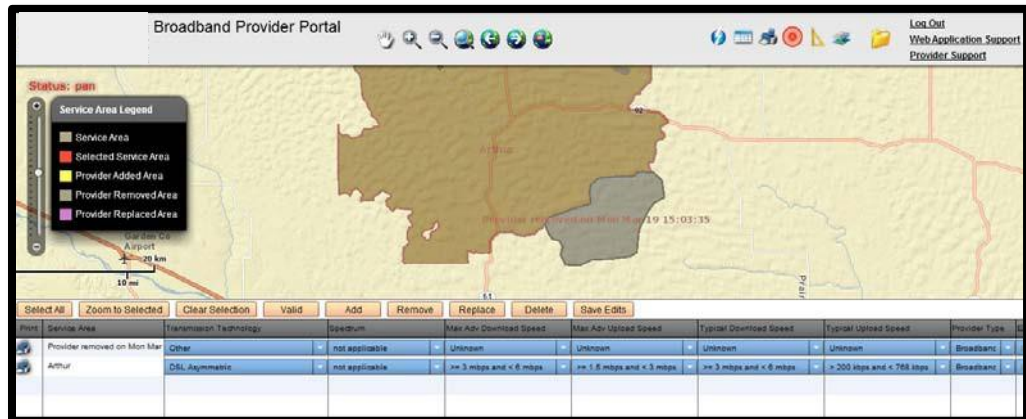
Please note the following:

- Contact info will only be stored when a record is saved
- Provider info will be applied to all service areas

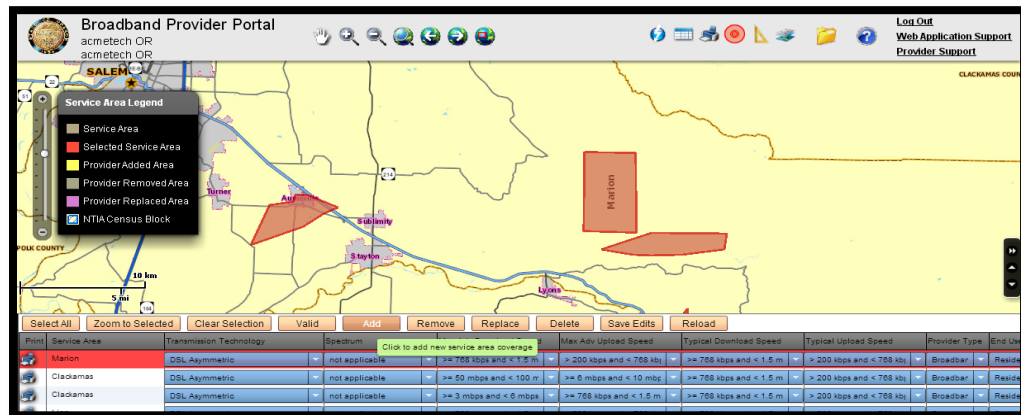




- Capability to review and request changes to the coverage footprint



- The provider can Add/Remove portions, or all, of the footprint requesting that their footprint be increased or refined.





- Middle Mile and Average Weight Nominal Speed (AWNS) collection and validation

Broadband Provider Portal

Status: Click to select pushpin

Service Area Legend

- Service Area
- Selected Service Area
- Provider Added Area
- Provider Removed Area
- Provider Replaced Area

Middle Mile Information Editor

Ownership: Back-haul Capacity: Back-haul Type: Elevation (feet): State Location: Location Valid:

Service Area	Transmission Technology	Bandwidth	Max Adv Download Speed	Max Adv Upload Speed	Typical Download Speed
Arthur	DSL Asymmetric	not applicable	are 3 mbps and < 6 mbps	are 1.5 mbps and < 3 mbps	are 3 mbps and < 6 mbps

Display Information

Display Middle-Mile information by hovering over the Middle-Mile location with the cursor.

Edit Information

Edit Middle-Mile information by clicking on the Middle-Mile location.

Validate Information

Add Middle-Mile location on map:

Select Find Address or Pushpin Location

☐ Find Address ☐ Pushpin Location

AWNS

AWNS Settings for 'DSL Symmetric' in Arthur County

Change the advertised download speeds and/or change the number of subscribers and click 'Calculate AWNS'

Advertised Download kbps #1: # of Subscribers:

Advertised Download kbps #2: # of Subscribers:

Advertised Download kbps #3: # of Subscribers:

Advertised Download kbps #4: # of Subscribers:

Advertised Download kbps #5: # of Subscribers:

AWNS in kbps:

- File upload functionality to support providers that would prefer a shape file, spreadsheet, PDF, KMZ/KML file be used to reflect changes for the data round



Broadband File Upload Log In

Username:

Password:

Please enter your login information

- Once the provider has reviewed and/or completed changes to their coverage, middle mile and AWNS, they may validate by selecting the validate field for each feature.



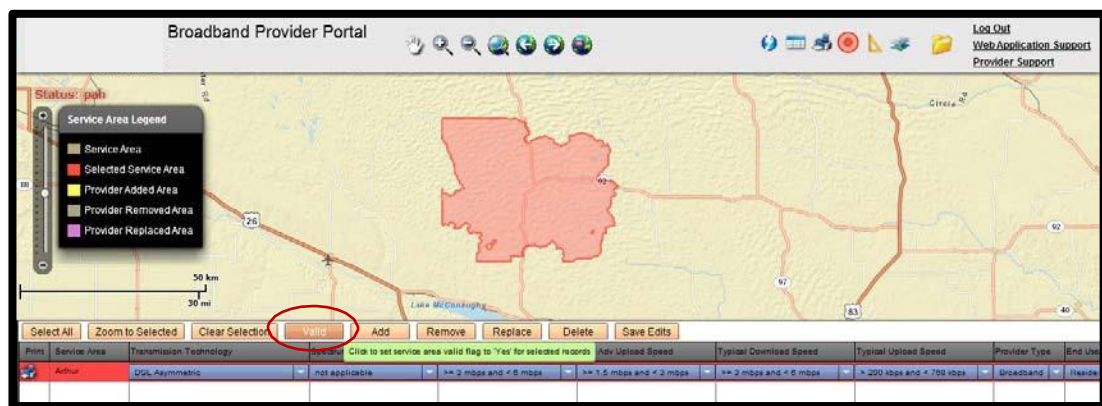


DATA VALIDATION AND VERIFICATION

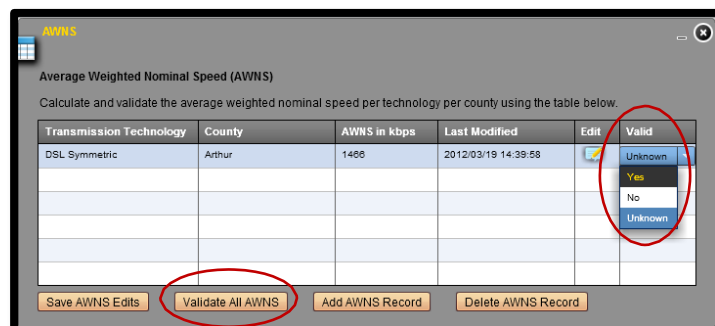
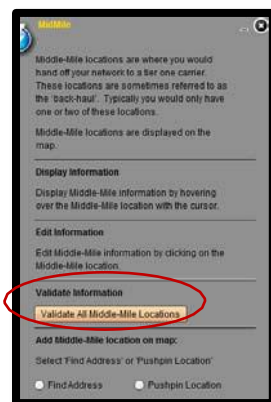
Following the creation of the product, process steps within Data Validation and Verification occur. To ensure the data collected and processed is as accurate and comprehensive as possible, provider validation and internal verification activities are employed. After the initial mapping of providers' coverage areas and serviceability claims, additional reviews are performed using the methods described in the subsections below in order of action (**Broadband Provider Validation, Third-Party Data Verification, Public Verification, and Confidence Values**).

Validation examples are as follows:

- Coverage validation can be done on one record/footprint at a time or by selecting multiple footprints and selecting the 'Valid' button.



- Middle Mile & AWNS Validation



All validation results are tracked internally through the Validation Table, which is used to improve the overall **Confidence Value** of each provider.





THIRD-PARTY DATA VERIFICATION

The coverage is visually and programmatically compared against third-party data as new or updated coverage area information is received and ingested from providers. All anomalies identified during this analysis are reviewed with the providers. Whenever possible this process takes place before the report submission date. We work with the individual providers to address any outstanding issues. Providers that do not cooperate in this process are assigned a lower confidence value that reflects data quality issues and provider engagement.

3 rd Party Source Name	Source Type	Verification Type
GeoTel	Fiber Routes and LitBuildings	Used to verify TT: Fiber to End User (50)
Pitney Bowes (PBBI)	Exchange Info Plus (Central Office Locations)	Exchange datasets are used to verify the following Transmission Technologies (TT): Asymmetric xDSL (10), Symmetric xDSL (20), Other Copper Wireline (30), and Optical Carrier/Fiber to the End User (50).
Media Prints	Cable Boundaries	Used to verify the following TT: Cable Modem—DOCSIS 3.0 (40) and Cable Modem—Other (41)
Mosaik Solutions	Wireless Coverage Patterns (EVDO, GPRS, WISP, HSPA)	Used to verify the following TT: Terrestrial Fixed Wireless—Unlicensed (70), Terrestrial Fixed Wireless—Licensed (71) and Terrestrial Mobile Wireless (80)
Ookla	Speed test data points: Android, iOS, Stnet	Used to verify TT: Asymmetric xDSL (10), Symmetric xDSL (20), Other Copper Wireline (30), and Optical Carrier/Fiber to the End User (50). Terrestrial Fixed Wireless—Unlicensed (70), Terrestrial Fixed Wireless—Licensed (71) and Terrestrial Mobile Wireless (80)
Comsearch	Wireless Spectrum Holdings and Tower Data	Used to verify the following TT: Terrestrial Fixed Wireless—Unlicensed (70), Terrestrial Fixed Wireless—Licensed (71) and Terrestrial Mobile Wireless (80)





PUBLIC VERIFICATION – CROWD SOURCING

Oregon Broadband Map

Public Feedback and speed test data

Since last data submission, we have improved the public website - interactive map to collect more detailed feedback on the represented broadband coverage areas. The feedback is also displayed on the map itself, which we're currently using as discussion points with providers during the outreach phases of each data submission. The data collected can be seen at the following path:

Hyperlink: <http://broadband.oregon.gov/StateMap/index.html>

FCC Speed test data:

Speed test results for Oregon submitted by individuals via the FCC browser and mobile based tools have been included in the verification process for this submission for supporting provider service area claims and bandwidth benchmarking.

CONFIDENCE VALUES

All verification, validation and manual quality review results are tracked by provider/technology type and stored and maintained, within a customer management system. Each Internet Service Provider is assigned a Confidence Value (CV), expressed as a percentage between 0 and 100. The CV reflects the overall confidence in the data displayed on the statewide broadband map.

The CV value is based on factors such as:

- Data quality and completeness;
- Alignment with commercially available reference materials and public feedback captured via the Feedback and Speed Test tools embedded in the Oregon Broadband Map;
- Data currency; and,
- Provider engagement with the Broadband Mapping project.





PCat Tasks DBAs Sources Settings Reports Hello, ihardni

Confidence for Acmetech OR

Points
TT: 10 Asymmetric xDSL Delivery: 0413

Dates
Peer Review Date: mm / dd / yyyy
Provider Validation Date: mm / dd / yyyy
3rd Party Verification Date: mm / dd / yyyy

Points
Geometry: 0 Represents the common geometry of the specified technology. 1 Point
Attribution: 0 Attribution is complete and matches specified technology. 1 Point
3rd Party: 0 3rd party verification review supports provider's footprint; discrepancies are minimal. 1 Point per dataset (Maximum 2)
Validation: 0 Provider validated their coverage via portal or otherwise. 1 Point
Peer Review: 0 Peer review was completed and agrees with provider's coverage. 1 Point
Crowd Sourcing: 0 Results from the following do not show significant discrepancies and/or supports (agrees) with coverage and attribution. Website, Speed Test Results, Feedback, anecdotal sources. 1 Point per dataset (Maximum 2)
NTIA Guidelines: 0 Technology and attribution satisfies NTIA guidelines. Example: Technology/Speed tier table, doesn't come up in the Submission Receipt as an error. 1 Point
Currency: 0 Data, validation, and verification activities are current within a timeline of 2 data submissions, or 1 year. 2 points if participated in current submission, 1 point if participated in previous submission, 0 points if have not participated within the previous year. Sliding scale 0-2
Engagement: 0 A measure of how engaged the provider is in the project. 1 point for responding to communications, 2 points for actively participating and submitting data in a timely manner (not at the last minute), 3 points for significant work on ensuring update accuracy. Sliding scale 0-3.

Notes:

In addition to the continued efforts on provider validation, 3rd party verification and the release of the public interactive map with feedback collection functionality, the providers will be supplied their current CV assessment in advance of the next data gathering event so each can identify the various ways their participation efforts can improve their CV rankings.

QUALITY CONTROL

Following collection, processing and analysis of the provider and CAI data, the product is checked manually and algorithmically against the NTIA data model. Some of the items included within these checks are:

- Format correctness;
- Table and field structure;
- Valid values, including default values, where applicable;
- Geographic extent and topology errors.

Prior to data submission, another quality control script supplied by NTIA is run. This script, SBDD_CheckSubmission.py, creates a text output form that is required to be submitted along with the final deliverable. All data must pass submission check unless otherwise specified by NTIA.





PROVIDERS RESEARCHED

This list represents all providers researched during the entire history of the program.

1-800-Reconex Inc	France Telecom Corporate Solutions, Llc	Outdoor Das - American Tower Corp
360 Networks (Usa) Inc.	Freedomstarr Communications Inc	Outreach Internet
800 Response Information Services Llc	Freewire Broadband LLC	Pac-West Telecomm, Inc.
Abovenet Communications Inc.	Frontier Communications Northwest Inc.	Pacific-South Telecom Inc
Access One Inc	Frontier Communications Of Oregon	Pacific Northwest Telco, Inc.
Access Point Inc	Frontier Telenet	Pacific West
Access2go	Gci Communication Corp	PacInfo Internet Solutions
Accessline Communications Corporation	Gervais Telephone Company	Paetec Communications, Inc.
Acn Communication Services Inc	Global Capacity Group Inc	Para-Tech satellite
Advanced Tel Inc	Global Connection Inc. Of America	PEAK Internet
Advanced Telcom Inc	Global Crossing Local Services Inc	Peerless Network Of Oregon, Llc
Advantage Telecommunications Corp	Global Crossing North American Networks Inc	Pelzer Communications Corporation
Affinity Network Inc	Global Crossing Telecommunications Inc	Pendleton Fiber Company
Affordable Voice Communications Inc	Global Crossing Telemanagement Inc	People's Telephone Company
Afn, Inc.	Global Tel*Link Corp	Pic Professional Services
Agm Telecom Corporation	Globalcom Inc	Pine Telephone Systems, Inc.
Air Speed LLC	Globalstar Usa Llc	Pioneer Telephone Cooperative
Airespring Inc	Go Solo Technologies Inc	Png Telecommunications Inc
Airnex Communications Inc	Gold Line Telemanagement Inc	PocketiNet Communications Inc
Alliance Global Networks Llc	Goose Lake Computing	Portland Internetworks
Alliance Group Services Inc	Gorge Networks	Portland State University
Alyrica Networks, Inc.	Granite Telecommunications	Preferred Connections Inc. Nw
America Net Llc	Group Six Communications Llc	Preferred Long Distance Inc
American Phone Services Corp	Gtc Telecom Corp	Prime Time Ventures Llc
American Telecommunications Systems, Inc.	Harbor Communications Llc	Primus Telecommunications Inc
Americom Technologies Inc	Harney ESD	Prinetime Internet Solutions
Amerivision Communications Inc	Helixtel.Com	Priority One Telecommunication, Inc.
Andiamo Telecom Llc	Hickorytech/Eventis Telecom	Priorityone Telecommunications Inc
Applegate Broadband LLC	Horizon Telecom Inc	Public Communications Services Inc
Applewood Communications Corporation	HughesNet	Pulse Telecom Llc
Ashland Fiber Network	Hunter Communications Inc	Qnect.Net
Associated Cooperative Telecommunications Inc	Hypercube Telecom Llc	Qualitylife Intergovernmental Agency
Associated Network Partners Inc	Ibasis	Quantum Communications
AT&T Corp	Ibasis Retail Inc	Quantumshift Communications Inc
AT&T Mobility LLC	Ibfa Acquisition Company Llc	Quasar Communications Corporation
Atc Outdoor Das Llc	Idt America Corp	Qwest Corporation
Atl Communications Inc	Indigenous Telephone Inc	Qwest Ld Corp
Atx Licensing Inc	Inetworks Group Inc	Radix Networks





Axis Communications	Infinity Wireless	Reduced Rate Long Distance Llc
Bandwidth.Com Clec Llc	InfoStructure	Reliance Connects (Cascade Utilities)
Bcn Telecom Inc	Infotelecom Llc	Reliance Connects (Trans-Cascade Telephone)
Beaver Creek Telephone Company	Inland Development Corporation	Reliance Globalcom Ltd. - Reliance Communications
Bellsouth Long Distance Inc	Inmark Inc	Reliant Communications Inc
BendBroadband	Inmate Calling Solutions, Llc	Ridley Telephone Co Llc
BendTel	Inmate Communications Corp	Rio Networks
Betterworld Telecom Llc	Integra Telecom	Roome Telecommunications Inc.
Bg Enterprises Inc	Integrated Services Inc A Nevada Corporation	Rrv Enterprises Inc
Bigredwire.Com Inc	Intelepoint Llc	Rural Services Company; DbA Ulatilla Electric Cooperative
Blue Mountain Cable	Inteltrac Inc	Rural Technology Group
Bluebird Wireless Broadband Services Llc	Intellicall Operator Services Inc	Safelink Internet Services
Broadband Dynamics Llc	Intelligent Community Services Inc	Sage Telecom, Inc.
Broadcore	Intlepoint, Llc	Salem Hospital Regiona Health Center
Broadstripe Llc	Intrado Communications Inc	SandyNet
Broadview Networks Inc	Ipc Network Services Inc	SawNet
Broadwing Communications Llc	Isomedia	Sbc Long Distance Llc
Bt Communications Sales Llc	Ispeed Wireless	SCIO Mutual Telephone
Budget Call Long Distance Inc	J & N Cable Systems, Inc.	SCS Communications
Budget Prepay Inc	J Irwin Community Informatics Consulting	Shared Communications Inc
Buehner Fry Inc	Johnson Network	Silv Communication Inc
Bullseye Telecom Inc	Kansas Independent Telecommunications Llc	Silver Star Telecom
Business Discount Plan Inc	Kddi America Inc	Siuslawbroadband
Business Network Long Distance Inc	Kruse - Mercantile Professional Suites	Skycasters
Business Telecom Inc	Lane Telecommunications Services, Inc.	Smartrak Incorporated
Cable ONE	Lcr Telecommunications Llc	Snake River PCS
Cal-Ore Communications Inc.	Ldmi Telecommunications Inc	Snet America Inc
California Oregon Broadcasting Inc	Leap Wireless (Cricket Communications)	Snip Link Llc
Call Plan Usa Inc	Legacy Long Distance International Inc	Spacenet, Inc.
Canby Telcom	Legent Communications Corp	SpeedyQuick Networks
Cascade Networks, Inc.	Level 3 Communications, LLC	Springfield Utility Board
Cause Based Commerce Inc., - DbA The Sienna Group	Lewis & Clark College	Sprint
Cavenet	Light Tower	Sprint Communications Co Lp
Cbeyond Communications Llc	Lightyear Network Solutions Llc	St Paul Telephone
Cci Network Services Llc	Lincoln County	Starband Communications, Inc.
Centel Communications Inc	Long Distance Charges Inc	Startec Global Operating Company
Central Telecom Long Distance Inc	Long Distance Consolidated Billing Co	Stayton Cooperative Telephone Company
Central Telephone Inc	Lotel Inc	Stelera Wireless
CenturyLink	Ls Networks	Stephouse Networks





Chambers Cable	Lssi Data Corporation	Sterling Communications
Charter Communications Inc.	M2 MachMedia	Sti Prepaid Llc
Cimco Communications Inc (Comcast)	Main Street Telephone Co	Sungard Network Solutions Inc
Cincinnati Bell Any Distance Inc	Malheur Home Telephone Co	T-Mobile
City Of Cascade-Locks	Master Call Communications	Talk America Inc
City Of Eugene	Matrix Telecom Inc	Tcast Communications Inc
City Of Klamath Falls	Mcgraw Communications Inc	Tcg Joint Venture Holdings Inc
City Of Portland	Mci Communications Services Inc	Tds Long Distance Corp
Clear Creek Mutual Telephone Company	Mcimetro Access Transmission Services Llc	TDS Telecom
Clear World Communication Corporation	Mcleodusa Telecommunications Services Inc	Technology Services Inc
Clearly Networks	Md Communications	Tel West Communications Llc
Closecall America Inc	MegaPath Corporation	Telco Partners Inc
Coast International Inc	Meritel Group, Inc	Telecare, Inc.
CoastCom, Inc	Metropolitan Telecommunications Of Oregon - DbA Mettel	Telecom Management - DbA Pioneer Ld
Cogent Communications Group	Midcolumbia.Net	Teleconnect Long Distance Services & Systems Co
Coinet	Midvale Telephone Exchange Inc	Telenational Communications Inc
Coltontel	Millenicom	Telequality Communications Inc
Columbia Broadband Inc	MINet	Telmex Usa Llc
Comcast	Miracle Communications	Telrite Corporation
Comcast Business Communications Llc	Mitel Netsolutions, Inc.	Teltrust Corporation
Comcast Phone Of Oregon Llc	Mobilitie Llc	Threshold Communications Inc
Commpartners Llc	Molalla Communications Company	Tillamook Lightwave
Communications Access Cooperative Holding Enterprise	Momentum Telecom Inc	Time Warner Cable Llc
Communications Network Billing Inc	Monitor Cooperative Telephone Company	Tnet Broadband
Community Broadband	Monroe Area Communications	Ton Services Inc
Comspan Communications, Inc.	Monroe Telephone	Total Call International Inc
Comtech21, Llc	Mount Angel Telephone Company	Total Holdings Inc
Comtel Telcom Assets Lp	MTE Communications	Touchtone Communications Inc
Consumer Telcom Inc	Multiline Long Distance Inc	Trans National Communications International Inc
Convergia Inc	My Tel Co Inc	Transpac Telecom Inc
Cooperative Communications Inc	National Access Long Distance Inc	Transunion Teledata Llc
Corban Technologies, Inc.	National Brands, Inc.	Tri-M Communications - DbA Tcm Communications
Cordia Communications Corp	National Directory Assistance Llc	Tribal One Broadband Technologies
Core Digital Services	Nationalcomtel	Tti National Inc
Cottage Grove	Nationwide Long Distance Service Inc	TW Telecom Of Oregon LLC
Country Vision Cable Inc.	Navigator	U S Telecom Long Distance Inc
Covad Communications Company	Necc Telecom	U.S. Cellular
Covista	Nehalem Telecommunications Inc.	Ucn Inc





Covista Inc	Net One International Inc	Uni-Tel Communications Group Inc
Crestview Cable Communications	Net Talk.Com Inc	United American Technology Inc
Cricket Communications, Inc.	Netlojix Telecom Inc	United Communications Inc
Croisan Creek Broadband	Network Billing Systems Llc	United Telecom Inc
Ctc Communications Corp	Network Communications International Corp	Unwiredwest Internet
Cti Long Distance Inc	Network Enhanced Technologies Inc	Upward Access
Custom Teleconnect Inc	Network Operator Services	Utility Telephone Inc
Cypress Communications Operating Company Llc	Network Service Billing Inc	Value-Added Communications, Inc.
Dabney/Strawn Llc	Network Us Inc	Vanco Direct Usa Llc
Datavision Communications	Networkip Llc	Vanco Us Llc
DC Wireless	Neutral Tandem-Oregon Llc	Verizon Business Global Llc DbA Verizon Business
Dct Telecom Group, Inc.	New Century Telecom Inc	Verizon Enterprise Solutions Llc
Ddd Calling Inc	New Edge Networks	Verizon Long Distance Llc
Deltacom Inc	New Horizons Communications Corp	Verizon Select Services Inc
Deltel Inc	Newpath Networks Llc	Verizon Wireless
Digizip.Com Inc	NextGen Internet Systems, Inc.	Vertex SSX Corporation
Direct Communications Long Distance Inc	Nextlink Wireless Inc	Viasat Communications
Direct Link Of Oregon, Inc	Nextnet Ventures, LLC	Vidafon Inc
DISH	Nexus Communications Inc DbA Nexus-Tsi	Voicecom Telecommunications Llc
Douglas Fast Net	Nexustel Llc	Wallowa Valley Networks
Dslnet Communications, Llc	Nitel	Warm Springs Telecom
Eagle Telephone System, Inc.	Nobel Creek Communications	Wave Broadband
Eaglecap.Net Llc	NobelTel, Llc	WCS Wireless License Subsidiary LLC (NextWave Wireless Inc.)
EarthLink Business	Noble Creek Communications	Webformix Company
Eastern Oregon Telecom	Norlight, Inc.	Western Independent Networks Inc
Easton Telecom Services Llc	Norstar Telecommunications Llc	Whiz To Coho, Inc.
Electric Lightwave Llc	North-State Telephone Co.	Wholesale Carrier Services Inc
Elgin TV Association	North County Communications Corporation Of Oregon	Wildblue Communications, Inc.
Etopia Communications, Llc	Northstar Telecom Inc	Willamette University
Encompass Communications Llc	Northwest Open Access Network	Wiltel Communications Llc
Enhanced Communications Group Llc	Nos Communications Inc	Windstream Communications Inc
Enhanced Communications Network	Nosva Limited Partnership	Windwave Technologies, Inc.
Entrix Telecom Inc	Ols Inc	Winfield Wireless ISP
EONI.Com	One Economy	Wired Or Wireless Inc
Ernest Communications Inc	Onesuite Corp	Working Assets Funding Service Inc
Eschelon Telecom Of Oregon Inc	OneWave Networks	World Communications Inc
Evercom Systems, Inc.	OnlineNW	Worldnet Communication Services Inc
ExchangeNet	Operator Service Co	Wtechlink





Extenet Systems	Opex Communications Inc	Wtechlink Inc
Ezwireless	Orbitcom	X2comm Inc
Fiber South Consortium	ORCA Communications	X5 PDX, LLC
Fiberlink Llc	Oregon-Idaho Utilities, Inc.	XO Communications Services, Inc. (Affiliated Entity)
Fibersphere	Oregon Govworks	Yellowknife Wireless Company, LLC
FireServe	Oregon Health Network	Yestel Usa Inc
First Choice Technology Inc	Oregon Municipal Isp Coalition	Ymax Communications Corp
First Communications Llc	Oregon Telecom Inc	Zayo Group LLC
Flatel Inc	Oregon Telephone Corporation	Zeus Telecommunications Llc
Forestel,Llc	OregonFAST.Net	

