

Application to DHCD Submitted through CAMS

City of Virginia Beach - Housing

City of Virginia Beach Broadband Expansion-Pungo-2022

Application ID: 86509132021144855
Application Status: Pending
Program Name: Virginia Telecommunications Initiative 2022
Organization Name: City of Virginia Beach - Housing
Organization Address: 2401 Courthouse Drive
Virginia Beach, VA 23456-9021
Profile Manager Name: Pamela Shine
Profile Manager Phone: (757) 621-4819
Profile Manager Email: pshine@vb.gov.com

Project Name: City of Virginia Beach Broadband Expansion-Pungo-2022
Project Contact Name: Debra Bryan
Project Contact Phone: (757) 385-4242
Project Contact Email: dbryan@vb.gov.com
Project Location: 2401 Courthouse Drive
Virginia Beach, VA 23456-9001
Project Service Area: Virginia Beach City

Total Requested Amount: \$181,136.00
Required Annual Audit Status: Accepted

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Budget Information:

Cost/Activity Category	DHCD Request	Other Funding	Total
Telecommunications	\$181,136.00	\$0.00	\$181,136.00
Construction Related Soft Costs	\$181,136.00	\$0.00	\$181,136.00
Total:	\$181,136.00	\$0.00	\$181,136.00

Budget Narrative:

Questions and Responses:

1. Project Description and Need

Describe why and how the project area(s) was selected. Describe the proposed geographic area including specific boundaries of the project area (e.g. street names, local and regional boundaries, etc.). Attach a copy of the map of your project area(s). Label map: Attachment 1 – Project Area Map.

Answer:

The 15 homes selected for this project are the outliers. They are the remaining few homes that don't have access because of their physical location and proximity to the existing Cox network. These homeowners would bear a significant cost to take on this initiative themselves.

2. List existing providers in the proposed project area and the speeds offered. Please do not include satellite. Describe your outreach efforts to identify existing providers and how this information was compiled with source(s).

Answer:

Currently, there are only two (2) residential service providers in all of Virginia Beach - Verizon and Cox.

3. Describe if any areas near the project have received funding from federal grant programs, including but not limited to Connect America Funds II (CAF II), ACAM, ReConnect, Community Connect, and Rural Digital Opportunity Funds (RDOF). If there have been federal funds awarded near the project area(s), provide a map showing these areas, verifying the proposed project area does not conflict with these areas. Do not include areas awarded to satellite broadband providers. Label Map: Attachment 2 – Documentation on Federal Funding Area.

Answer:

Not applicable.

4. Describe if any blocks awarded in Rural Digital Opportunity Fund (RDOF), excluding those awarded to satellite internet service providers, are included in the VATI application area. If RDOF areas awarded to terrestrial internet service providers are included in the VATI application, provide a map of these areas and include information on number of passings in RDOF awarded areas within the VATI application area, and Census Block Group ID number for each block group in the project area. Label Attachment: Attachment 3 – RDOF Awarded Areas Form in VATI Area

Answer:

Not applicable.

5. Overlap: To be eligible for VATI, applicants must demonstrate that the proposed project area(s) is unserved. An unserved area is defined as an area with speeds below 25/3 mbps and with less than 25% service overlap within the project area for wireless projects and 10% for wireline projects. Describe any anticipated service overlap with current providers within the project area. Provide a detailed explanation as to how you determined the percentage overlap. Label Attachment: Attachment 4 – Documentation Unserved Area VATI Criteria.

Answer:

No overlap/no wireline providers exist in the area.

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6. Total Passings: Provide the number of total serviceable units in the project area. Applicants are encouraged to prioritize areas lacking 10 Megabits per second download and 1 Megabits per second upload speeds, as they will receive priority in application scoring. For projects with more than one service area, each service area must have delineated passing information. Label Attachment: Attachment 5 – Passings Form.
- Of the total number of VATI passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area. (Up to 10 points for businesses and community anchor institutions)
 - If applicable, of the total number of RDOF passings, provide the number of residential, business, non-residential, and community anchors in the proposed project area.
 - If applicable, provide the number of passings that will require special construction costs, defined as a one-time fee above normal service connection fees required to provide broadband access to a premise. Describe the methodology used for these projections.
 - If applicable, provide the number of passings included in the application that will receive broadband access because special construction costs have been budgeted in the VATI application. Describe the methodology used for determining which passings with special construction costs were budgeted in the application.
 - Provide the number of passings in the project area that have 10/1 mbps or less. Describe the methodology used for these projections. (up to 15 points)

Answer:

Dominion Power is actively working on a strategic undergrounding project in the region. This project could potentially impact how our engineers design network expansion plans, which in turn could alter our costs significantly. If Cox needs to attach to utility poles owned by Dominion (for aerial construction) but Dominion has decided to underground lines in an area where we're looking to expand, our build plans could be impacted; instead of being able to attach to a pole that has since been removed, we will need to plan an underground build which significantly alters the cost of the project. Since the Dominion project is ongoing, determination of aerial or underground could change over the course of the VATI judging and award process; these changes will not be known until a full walk-out of the project is complete, which will not take place until the project funding is awarded and there is an agreement in place to move forward with the project build.

7. **For wireless projects only:** Please explain the ownership of the proposed wireless infrastructure. Please describe if the private co-applicant will own or lease the radio mast, tower, or other vertical structure onto which the wireless infrastructure will be installed.

Answer:

Not applicable.

8. Speeds: Describe the internet service offerings, including download and upload speeds, to be provided after completion of the proposed project. Detail whether that speed is based on dedicated or shared bandwidth, and detail the technology that will be used. This description can be illustrated by a map or schematic diagram, as appropriate. List the private co-applicant's tiered price structure for all speed offerings in the proposed project area, including the lowest tiered speed offering at or above 25/3 mbps. (up to 10 points)

Answer:

The proposed project and construction will be incorporated into the existing hybrid fiber-coax (HFC) network owned and operated by Cox Communications; it will be capable of providing residential and home-based business customers with download speeds of up to 940 Mbps and upload speeds of up to 35 Mbps through the Docsis 3.1 platform.

Cox provides internet speeds ranging from 25Mbps/1Mbps to up to 940 Mbps/35Mbps. Cox continues to offer a 25Mbps/1Mbps service tier as a low-cost option, ideal for up to three devices and light web surfing, email, and social networking; this is an economical solution for customers who don't want to pay for higher speeds they don't need and won't use.

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All Cox internet plans come with access to more than three million WiFi hotspots nationwide.

(**if the build passes businesses that are unserved...)The build will also allow our commercial services team, Cox Business, to extend their services to any unserved businesses along the network expansion route, giving them access to the suite of business services available, including broadband speeds up to 100 gbps.

Residential pricing structure:

Package

Speed (up to)

Rack Rate (monthly)

New Customer Promo (monthly)

Starter 25

25/1 Mbps

\$44.99

\$29.99

Connect2Compete*

50/3 Mbps

\$9.95

N/A

Straight Up Internet

25/3 Mbps

\$50.00

N/A

Essential 50

50/3 Mbps

\$65.99

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\$39.99

Preferred 150

150/10 Mbps

\$83.99

\$59.99

Ultimate 500

500/10 Mbps

\$99.99

\$79.99

Gigablast

940/35Mbps

\$119.99

\$99.99

*for qualifying families

Prices include monthly charges and applicable discounts. Promotional pricing may differ depending on the customer's decision to bundle services and expiration of/changes to promotional pricing. One-time charges, activation fees and monthly equipment fees may apply.

Business/Commercial Internet Pricing Structure:

* For Cox Business Internet 100 and 200 levels, there is also a month-to-month option; this option increases the cost by \$15 per month.

Cox Business also offers customized enterprise internet solutions, dedicated fiber, HFC internet and managed WiFi solutions to meet individual needs of businesses. With symmetrical speeds of up to 10+ Gbps, there are solutions to support any size business. In response to the increase of residents shifting to a work-from-home model, Cox Business launched an enterprise-grade work-at-home connectivity solution which would be available to residents benefiting from this last mile extension. This is a separate internet connection that would go directly to the employee's home and will have the capability to provide remote staff with company-provided services, including broadband, WiFi, McAfee endpoint security and MalBlock to help ensure staff members have the same options for connectivity they would have if they were working in the office.

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Network Design: Provide a description of the network system design used to deliver broadband service from the network's primary internet point(s) of presence to end users, including the network components that already exist and the ones that would be added by the proposed project. Provide a detailed explanation of how this information was determined with sources. Provide information on how capacity for scalability, or expansion, of how the network can adapt to future needs. If using a technology with shared bandwidth, describe how the equipment will handle capacity during peak intervals. For wireless projects, provide a propagation map for the proposed project area with a clearly defined legend for scale of map. Label Map: Attachment 6 – Propagation Map Wireless Project.

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Map not applicable.

Cox's highly redundant and resilient network is managed around the clock by a full staff of nationwide network professionals that can holistically monitor and manage the Cox network both physically from network operations centers and 100 percent virtually, if needed. Their forward-thinking network management and service assurance philosophy means they have software-enabled and virtualized significant portions of their network to proactively and reactively solve any temporary customer and network issues in a timely and efficient manner.

Cox operates a high-speed, national fiber optic backbone comprised of tens of thousands of fiber miles. The backbone is self-healing through strategic deployment of core infrastructure components. Multiple diverse connections help ensure backbone locations are not isolated in the event of an outage and that they maintain ample capacity to handle peak traffic periods. Their experience includes keeping customers online and connected during wildfires, mudslides, severe weather events and numerous other natural disasters.

Through the video franchise with Virginia Beach, Cox Communications has built and maintained a hybrid fiber-coax (HFC) network in the City for decades for distribution of the company's services (voice, video, data, security, business services) to its subscribers. The technology connects our subscribers to one of the company's 21 critical facilities located in Virginia. These critical facilities contain the company's core network hardware and connections to the internet and public switched telephone network. All network hardware and network connections in our critical facilities have at least two layers of redundancy.

Hybrid fiber coaxial (HFC) networks send signals from the Cox's critical facilities to the communities we service through fiber optic cables. At the local community, a box called an optical node translates the signal from a light beam to radio frequency (RF) and sends it over coaxial cable lines for distribution to our residential and business subscribers. The fiberoptic backbone feeding the communities we service provide adequate bandwidth to allow for timely future expansion and new bandwidth-intensive services. Cox trains and employs engineers and technicians to ensure we maintain a 99.999% network reliability. Again, the network and hubsite are monitored both locally and nationally 24 hours a day and 365 days a year.

The company constantly monitors its network and upgrades accordingly in order to meet subscriber demand. Typical surges in broadband traffic occur in the evenings, on weekends and on holidays. In light of the recent COVID crisis and the number of individuals working from home and students connecting virtually for their education, Cox implemented their processes for peak use to respond appropriately to meet the demand from this shift in usage. They've also successfully virtualized their network operations by executing long-term business continuity strategies, implementing new leading-edge collaboration and predictive analytic tools, providing full functionality mobile workstations and equipping their network operations teams with robust tools to work remotely.

10. Explain how the proposed project achieves universal broadband coverage for the locality or fits into a larger plan to achieve universal broadband coverage for the locality. If applicable, explain the remaining areas of need in the locality and a brief description of the plan to achieve universal broadband coverage. (up to 50 points)

Answer:

The 15 homes selected for this project are the outliers. They are the remaining few homes that don't have access because of their physical location and proximity to the existing Cox network. These homeowners would bear a significant cost to take on this initiative themselves.

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11. Project Readiness

Describe the current state of project development, including but not limited to: planning, preliminary engineering, identifying easements/permits, status of MOU or MOA, and final design. Prepare a detailed project timeline or construction schedule, identifying specific tasks, staff, contractor(s) responsible, collection of data, etc., and estimated start and completion dates. Applicants must include Memorandums of Understanding (MOUs) or Memorandums of Agreement (MOAs) between applicants (drafts are allowable). Label Attachments: Attachment 7 – Timeline/Project Management Plan; Attachment 8 – MOU/MOA between Applicant/Co-Applicant; (up to 20 points)

Answer:

The plan demonstrates a commitment to reach the 2022 completion date with a steady and phased-in process to include: creating project account, performing field survey for construction, completing Dominion Power pole application process, designing project, securing VDOT permits and private property easements, ordering project materials, setting power supply units, performing aerial and underground construction, activating the network, and releasing the addresses. Cox Communications personnel overseeing the planning and construction phases have thoroughly reviewed the project management plan and timeline to confirm that all resources are available to complete the project by the required time frame.

12. Has the applicant or co-applicant received any VATI grants? If so, provide a list of these grants, with a detailed summary of the status of each.

Answer:

Cox is familiar with the VATI grant process, having worked with localities for each VATI grant cycle since the inception of the program. Cox was part of one of the first VATI awards made in 2016, successfully partnering with Gloucester County to bring last mile broadband service to more than 100 homes and businesses in a previously unserved area of the County. Cox is currently in the planning phase of a 2021-awarded VATI grant project in Chesapeake; we are on track to have customers connected within the 12-month deadline for project completion.

13. Matching funds: Complete the funding sources table indicating the cash match and in-kind resources from the applicant, co-applicant, and any other partners investing in the proposed project (VATI funding cannot exceed 80 percent of total project cost). In-kind resources include, but are not limited to: grant management, acquisition of rights of way or easements, waiving permit fees, force account labor, etc. Please note that a minimum 20% match is required to be eligible for VATI, the private sector provider must provide 10% of the required match. If the private co-applicant cash match is below 10% of total project cost, applicants must provide financial details demonstrating appropriate private investment. Label Attachments: Attachment 9 - Funding Sources Table; Attachment 10 – Documentation of Match Funding

Answer:

Cox contribution \$12,640 (plus all ongoing operation, maintenance and upgrades for the life of the network)

One-time City contribution of \$32,644

One-time VATI request of \$181,136

14. Leverage: Describe any leverage being provided by the applicant, co-applicant, and partner(s) in support of the proposed project. (up to 10 points)

Answer:

All partner contributions.

- 15.

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Marketing: Describe the broadband adoption plan.

a. Explain how you plan to promote customer take rate, including marketing activities, outreach plan, and other actions to reach the identified serviceable units within the project area. Provide the anticipated take rate and describe the basis for the estimate. (up to 10 points)

b. Describe any digital literacy efforts to ensure residents and businesses in the proposed project area sufficiently utilize broadband. Please list any partnering organizations for digital literacy, such as the local library or cooperative extension office.

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Cox has been serving Virginia Beach for more than 40 years with local employees servicing homes and businesses throughout the region. The Cox brand is well-recognized as a local technology leader and a company that is committed to the communities it serves. Cox actively promotes its products and services in Virginia Beach through a multi-faceted, multi-million dollar marketing campaign that includes both direct and indirect sales, outdoor billboards, digital advertising, social media presence, and television commercials. This build will benefit from all national and local advertising investments by Cox Communications.

In addition to traditional marketing, Cox is also a strong supporter of local business and nonprofits through sponsorships at large venues and events that attract attendees from all across the region; these partnerships are negotiated annual and have included the Virginia Beach Amphitheater, ODU Football, Virginia Tech Football, the Patriotic Festival and Something in the Water.

On September 8, 2021, Cox announced a collaboration with Malcolm Mitchell, Super Bowl champion and Share the Magic Foundation founder, to narrow the learning gap in diverse, low-income neighborhoods through its Connect2Compete program. The new partnership builds upon Cox Communications' continued commitment to ensuring low-income, K-12 students are positioned for the future through technology. Cox also partners with Boys & Girls Clubs of America, where the company has provided Innovation Labs as a place for kids and teens to access the internet and grow digital literacy skills after school.

Cox has several resources for families and businesses in support of digital literacy and maximizing broadband capabilities, addressing the ongoing needs throughout the pandemic. In addition to being an early signee of the FCC's Keep America Connected pledge at the onset of the pandemic in 2020, several digital equity efforts by Cox have recently been put into place:

- Cox [announced its participation in the FCC's Emergency Connectivity Fund](#) to deliver internet services to students, educational staff and library patrons who would otherwise lack a sufficient connection to the internet for remote learning and remote library services. For more information on the FCC's ECF program, visit cox.com/ecf.
- Cox is a participant in the FCC's [Emergency Broadband Benefit](#) program which provides temporary financial assistance for internet service. Eligible families may qualify to receive up to \$50 off their monthly bill based on their current internet service and equipment rental, or up to \$75 if they live in a tribal area. Cox Connect2Compete customers are eligible for this benefit. For more information on the FCC's EBB program, visit cox.com/ebb.
- [Cox announced that the temporary connection speed increase for Connect2Compete](#), prompted by the COVID-19 pandemic, would become the new standard speed for Connect2Compete internet service. The connection speed was bolstered from 25 Mbps to 50 Mbps.
- Last year, Cox suspended late fees and extended payment relief offerings for customers in the Connect2Compete program who expressed an inability to pay due to pandemic hardships.
- [The Digital Academy](#) is the digital literacy arm of Cox's Connect2Compete program designed to connect families, educators, community leaders and students with free access to tips, educational videos and tutorials to ensure safe and effective online behavior. This platform is continuously updated with fresh and relevant information.
- Cox [added the MyFuture platform](#) from the Boys and Girls Clubs of America recently to the Digital Academy. My Future empowers kids and teens to learn new skills, share accomplishments and earn recognition via gamification in a safe and fun online environment.

Cox also has a [YouTube page](#) with product how-to videos supporting digital literacy, troubleshooting and teaching users how to get the most out of their services. Cox also employs a technical support care team available 24/7 to help customers navigate their Cox technology in their homes.

For business customers, CoxBlue.com provides endless resources for small and medium sized businesses – everything from blog posts on small business trends to how to reopen your business after a shutdown.

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16. Project Management: Identify key individuals who will be responsible for the management of the project and provide a brief description of their role and responsibilities for the project. Present this information in table format. Provide a brief description of the applicant and co applicant's history and experience with managing grants and constructing broadband communication facilities. Please attach any letters of support from stakeholders. If the applicant is not a locality(s) in which the project will occur, please provide a letter of support from that locality. Attachment 11 – Letters of Support.

Answer:

Cox Communications Project Manager: Robin Parker, Planning & Construction Manager

Cox Communications Government/Virginia Beach Liaison: Sarah Buck, Public Affairs Sr. Manager

The City of Virginia Beach is working with Cox Communications, a privately-held, nationally recognized provider of broadband, digital cable television and other telecommunications services. With 125,000 miles of network infrastructure nationwide, Cox Communications is the third largest telecommunications corporation in the United States, serving more than 6 million homes and businesses. Our culture values customer satisfaction, diversity, environmental responsibility, and employee well-being. Our employees are positive ambassadors for Cox; they share our natural commitment to the customer experience. Cox also takes great pride in utilizing SWaM subcontractors where possible to complete construction projects. We maintain our own Supplier Diversity Program to make a good faith effort to utilize small, women- and/or minority-owned business subcontractors and suppliers. Furthermore, our engineering, construction, and planning leaders bring decades of experience to the project team, ensuring the most effective and economic service delivery for this broadband expansion project.

Cox and the City of Virginia Beach entered into their first cable television franchise agreement several decades ago. Since that time the city and Cox have experienced a collaborative and mutually beneficial working relationship.

Cox Communications provides broadband connectivity to the entire City of Virginia Beach through its fiber-based network. However, there are homes in the more rural area of the City that still lack connectivity because of the proximity of the home to Cox's existing network. This grant opportunity presents a viable means and solution to expand services where it would otherwise be financially unfeasible for both Cox and the homeowner.

Cox is familiar with the VATI grant process, being part of one of the first VATI awards made in 2016. Cox successfully partnered with Gloucester County to bring last mile service to more than 100 homes and businesses in a previously unserved area of the County.

Additionally, Cox partnered with several localities including New Kent County, James City County, Stafford County, and Roanoke County to identify and complete broadband expansion projects using funds allocated from the CARES Act.

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17. Project Budget and Cost Appropriateness

Budget: Applicants must provide a detailed budget that outlines how the grant funds will be utilized, including an itemization of equipment, construction costs, and a justification of proposed expenses. If designating more than one service area in a single application, each service area must have delineated budget information. For wireless projects, please include delineated budget information by each tower. Expenses should be substantiated by clear cost estimates. Include copies of vendor quotes or documented cost estimates supporting the proposed budget. Label Attachments: Attachment 12 – Derivation of Costs; Attachment 13 - Documentation of Supporting Cost Estimates. (up to 10 points)

Answer:

Not applicable.

18. The cost benefit index is comprised of state cost per unit passed. Individual cost benefit scores are calculated and averaged together to create a point scale for a composite score. Provide the following:

a. Total VATI funding request

b. Number of serviceable units
(up to 125 points)

Answer:

One-time VATI request of \$181,136

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19. Commonwealth Priorities (Up to 40 points)

Additional points will be awarded to proposed projects that reflect Commonwealth priorities. If applicable, describe the following:

- a. Businesses, community anchors, or other passings in the proposed project area that will have a significant impact on the locality or region because of access to broadband.
- b. Unique partnerships involved in the proposed project. Examples include electric utilities, universities, and federal/state agencies.
- c. Digital equity efforts to ensure low to moderate income households in the proposed project area will have affordable access to speeds at or above 25/3 mbps.

Answer:

The Cox Connect2Compete program launched in Virginia in 2013. To date, more than 10,000 families in Virginia are benefiting from the program by having access to an in-home 50/3 mbps broadband connection. Families with a student in k-12 that participate in government assistance programs like Head Start, NSLP, WIC, LIHEAP, SNAP, TANF or who live in government housing qualify for this service option.

Last year, our teams worked with Virginia Beach City Public Schools to set up a payment program to support student families who were in need of financial assistance to afford an in-home internet connection. Cox manages a secure process that credits accounts using VBCPS funding; qualifying customers will receive a bill that reflects a zero balance due for internet through this program.

In addition to Connect2Compete, Cox offers a variety of options for connectivity including a pay-as-you-go option called Straight Up internet which is 25/3 [mbps](#) in-home internet with wifi for \$50 per month. This option does not require a contract, credit check or deposit. A modem and all fees are included in the \$50 per month pricing.

Cox is also a participating provider in the Emergency Broadband Benefit program as it aligns with our long-standing commitment to narrowing the digital divide. We raised our hand without hesitation to help administer the government's program and deliver whatever financial relief is available – for however long – in order to help our customers during this challenging time. Additionally, Cox is working with local schools and libraries to help provide internet service through the FCC's Emergency Connectivity Fund (ECF) program. Cox's ECF offering will equip customers with internet service with speeds of 50/3 mbps and a wifi modem. Again, we immediately raised our hand to participate in this federal program to help connect families afford an in-home connection.

In response to the COVID crisis in early 2020, Cox put several programs in place to help support residential and business customers respond to the pandemic and its uncertainty. Plans included offering a low-income internet tier with no annual contract and offering two months of free internet to new Connect2Compete customers. Cox was also able to set up a program to help third-party organizations (i.e., localities, non-profits) and businesses help pay for connectivity for families or employees in response to the pandemic.

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20. Additional Information

Provide the two most recent Form 477 submitted to the FCC, or equivalent, as well as point, polygon, and, for wireless providers, RSSI shapefiles for the project area **in .zip file form**. With attachments 17 through 20, attach any other information that the applicant desires to include. Applicants are limited to four additional attachments.

Label Additional Attachments as:

- a. Attachment 14 – Two most recent Form 477 submitted to the FCC or equivalent
- b. Attachment 15 - Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area
- c. Attachment 16 - For wireless applicants: shapefiles, in .zip file form, indicating RSSI projections in the application area
- d. Attachment 17 – XXXXXXXX
- e. Attachment 18 – XXXXXXXX
- f. Attachment 19 – XXXXXXXX
- g. Attachment 20 – XXXXXXXX

Answer:

Submitted as attachments.

Attachments:

Map(s) of project area, including proposed infrastructure

Attachment1ProjectAreaMaps914202160427.pdf

Timeline/Project Management Plan

Attachment7Timeline914202161017.pdf

MOU/MOA between applicant/co-applicant (can be in draft form)

Attachment8MOUbetweenCoxandVirginiaBeachDRAFT913202142041.pdf

Funding Sources Table (Use template provided)

Attachment9FundingSources914202162632.pdf

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Letters of Support

Attachment11HenleySupport914202161459.pdf

Two most recent Form 477 submitted to the FCC or equivalent

Attachment14TwoMostRecent477FormsSubmittedtotheFCC913202142345.pdf

Point and Polygon shapefiles, in.zip file form, showing proposed passings and project area

virginiabeachvati1914202161530.zip

Attachment 1 - Project Area Map



337 PRINCESS ANNE RD.
2300' UG / \$37,400.00

Attachment 1 - Project Area Map



1748 PRINCESS ANNE RD
500' UG / \$8,200.00

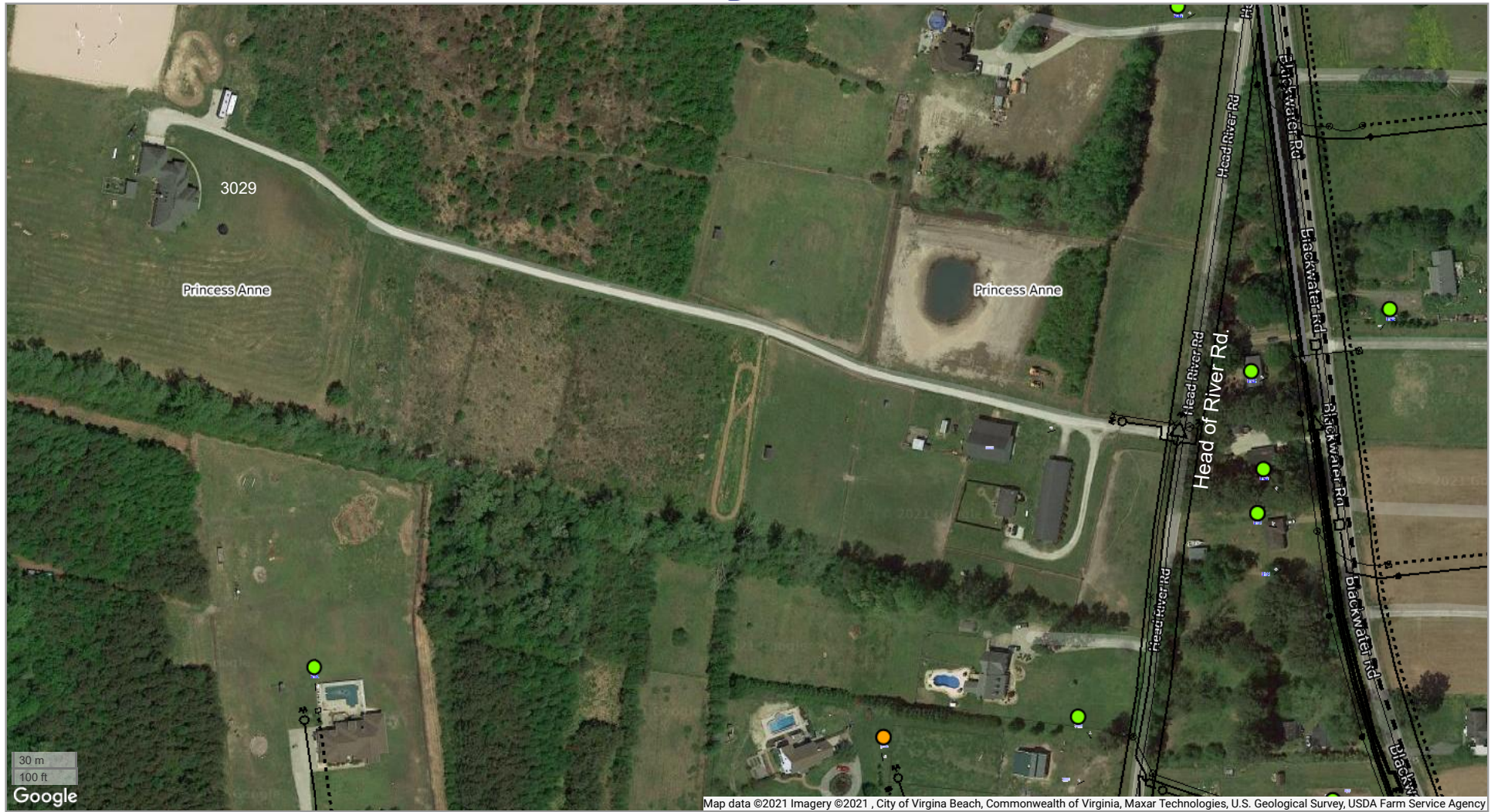
Attachment 1 - Project Area Map



2164, 2165, 2177 PUNGO FERRY RD.

3500' UG / \$57,000.00

Attachment 1 - Project Area Map



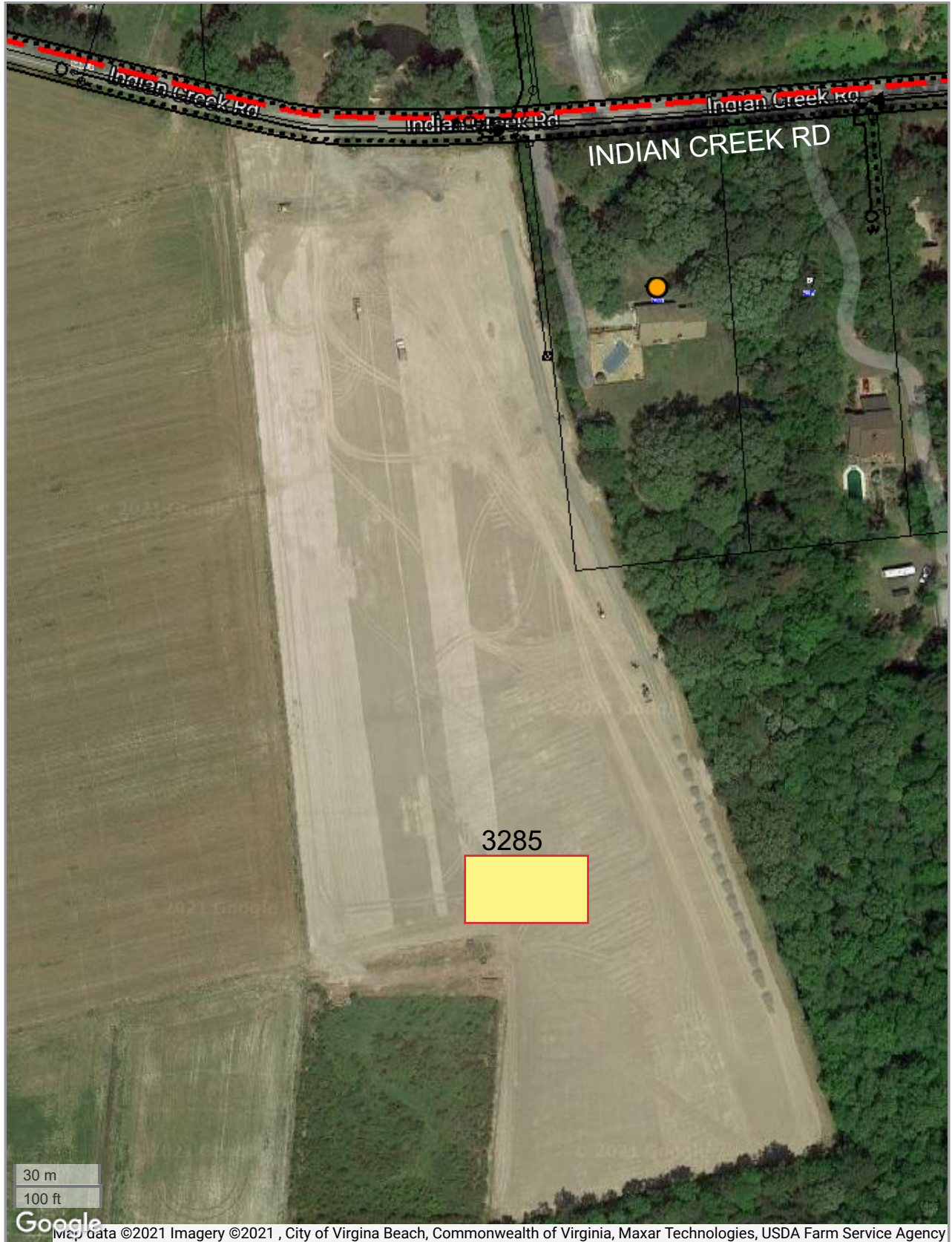
3029 Head of River Rd
1600' Aerial / \$17,000.00

Attachment 1 - Project Area Map



3181 HUNGARIAN RD.
500' UG / \$8,950.00

Attachment 1 - Project Area Map



3285 INDIAN CREEK RD
1100' UG / \$15,124.00

Attachment 1 - Project Area Map



3525 LANDSTOWN RD
2100' UG / \$34,200.00

Attachment 1 - Project Area Map

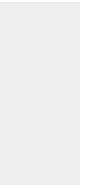


5065, 6220, 6225, 6228, 6320 KNOTTS ISLAND RD.
6000' Aerial / \$64,800.00

Attachment 1 - Project Area Map



5457 FITZTOWN RD.
650 UG / \$9,800.00



2022 Virginia Telecommunication Initiative (VATI) Passing Form

Type of Passings	Total Number of Passings in the Project Area ¹	Passings in the Project Area, without Special Construction Costs Required ²	Passings with Special Construction Costs budgeted in the Application ³	Number of Passings with Speeds at 10/1 or below in Project Area ⁴
Residential	15	0	0	0
Businesses (non-home based)	0	0	0	0
Businesses (home-based)	0	0	0	0
Community Anchors	0	0	0	0
Non-residential	0	0	0	0
Total	15	0	0	0

Note: The Total Number of Passings **MUST** be equal to the Residential, Business (non-home based), Non-residential and Community Anchors sum.

Note: Do not include passings in RDOF awarded areas that were awarded to the co-applicant; these passings should be included in the RDOF Passings Form. Passings included in this application in RDOF awarded areas that were not awarded to the co-applicant, unless successfully challenged, are considered unserved and should be counted as passings in this form.

¹The total number of structures in the project area that can receive service. See definition of passing below for more detail.

²The number of structures in the project area that will not require special construction costs to provide service to. These passings fall within the broadband provider's standard service connection drop length and do not require nonstandard equipment or any additional fees above normal service connection fees required to provide broadband access to a premise.

³The number of structures in the project area with all construction costs budgeted in the application. These passings will not require any additional special construction costs beyond those budgeted for in the VATI application.

⁴The number of structures in the project area that do not have access to internet at speeds of at least 10 mbps download and 1mbps upload.

Definitions

Passing – any structure that can receive service. Multi-unit structures may be counted as more than 1 passing, provided individual connections and account are planned at that structure.

Business – An organization or entity that provides goods or services in order to generate profit. Businesses based in residential homes can count if they are a registered business (BPOL, LLC, etc.).

Community Anchor - schools, libraries, medical and health care providers, public safety entities, community colleges and other institutions of higher education, and other community support organizations and agencies that provide outreach, access, equipment, and support services to facilitate greater use of broadband service by vulnerable populations, including low-income, unemployed, and the aged.

Non-Residential Passing – places of worship, federal, state, or local facilities or other potential customers that are neither a residence, business or a community anchor as defined above.

**CITY OF VIRGINIA BEACH, VIRGINIA
AND
COX COMMUNICATIONS HAMPTON ROADS, LLC
MEMORANDUM OF AGREEMENT
FOR
VIRGINIA TELECOMMUNICATIONS INITIATIVE (VATI) GRANT PARTNERSHIP**

THIS MEMORANDUM OF AGREEMENT (this “Agreement”) is made this _____ day of _____, 2021, by and between the City of Virginia Beach, Virginia, a municipal corporation that is a political subdivision of the Commonwealth of Virginia (hereinafter “City”) and Cox Communications Hampton Roads, LLC, a Virginia Limited Liability Company (hereinafter “Cox”).

WHEREAS, The goal of this Memorandum of Agreement is to set forth the undertakings of the parties as it relates to partnering on the submission of a Virginia Telecommunications Initiative (VATI) Grant with the goal of obtaining funds to support the extension of existing Cox network to reach unserved residents of Virginia Beach, Virginia.

NOW THEREFORE, for and in consideration of the mutual promises, covenants, and warranties, the receipt and sufficiency of which are hereby acknowledged, the parties, intending to be legally bound, hereby agree as follows:

REPRESENTATIONS, WARRANTIES AND COVENANTS OF THE CITY

In addition to the covenants in other sections of this Agreement, the CITY represents, warrants and covenants as follows:

Organization, Authorization and Validity. The City of Virginia Beach, Virginia, a municipal corporation that is a political subdivision of the Commonwealth of Virginia validly existing under the laws of the Commonwealth and has duly authorized, executed and delivered this Agreement. The Agreement is a valid, legal and binding agreement.

Authority. The CITY has all requisite authority to execute and deliver and perform its obligations under this Agreement and is not a party to any indenture, contract or other agreement or arrangement, the performance of which by the CITY would prevent or materially and adversely affect the CITY’s ability to perform the terms of this Agreement.

The CITY will contribute the cost of [TO BE DETERMINED] for the project.

The CITY will act as the project manager in relation to the DHCD VATI Grant process.

REPRESENTATIONS, WARRANTIES AND COVENANTS OF COX

In addition to the covenants in other sections of this Agreement, Cox represents, warrants and covenants for itself as follows:

Organization, Authorization and Validity. Cox is a duly organized Virginia Limited Liability Company validly existing under the laws of the Commonwealth and has duly authorized, executed and delivered this Agreement. The Agreement is a valid, legal and binding agreement.

Authority. The Cox has all requisite authority to execute and deliver and perform its obligations under this Agreement and is not a party to any indenture, contract or other agreement or arrangement, the performance of which by it would prevent or materially and adversely affect its individual performance under this Agreement.

Approval to be listed as a co-applicant for the 2022 VATI Grant.

Application support providing the following to Virginia Beach by [DATE]:

Proposed network maps

Details to complete the derivation of costs and budget worksheets

Project management plan including scope of work and timelines

Information on service speeds and associated rates

The two most recent 477 FCC filing summary documents

Marketing tactics information

Other items upon request, as able, based on the ability of Cox to do so keeping in mind customer privacy and company interests

Dedicated company resources to gather the aforementioned information.

Funding to support a portion of the overall budget to help meet the 20% minimum contribution requirement from an ISP, locality or the combination of the two.

Confirmation that all projects included in this proposal can be and will be completed within the 12-18 month timeframe as required by the VATI 2022 guidelines.

MUTUAL REPRESENTATIONS, WARRANTIES AND COVENANTS OF THE PARTIES

In addition to the covenants in other sections of this Agreement, the parties represents, warrants and covenants as follows:

Both parties will work together to, to the best of their ability, provide information to successfully meet the requirements as outlined in the VATI 2022 guidelines and evaluation criteria.

Both parties understand the deadline for submission is September 14, 2021 by 11:59 p.m. through the online CAMS process. The City of Virginia Beach, as the Applicant, agrees to transfer all data to the online application prior to the deadline.

Term of Agreement. (a) The term of this Agreement shall be for two (2) years, with three (2) one (1) year renewal options upon the written agreement of the parties.

Termination. The CITY may terminate the contract for cause or for convenience after giving thirty (30) days' notice in writing to Cox. The written notice shall state whether the termination is for convenience or cause. The notice shall be delivered by a commercial courier service or mailed certified with return receipt requested to the address listed herein.

Voluntary Termination. The parties may additionally voluntarily terminate the contract giving sixty (60) days' notice in writing to the other party. The notice shall be delivered by a commercial courier service or mailed certified with return receipt requested to the address listed herein.

Compliance With Applicable Law. Cox shall at all times during the term of this Agreement, including any renewal period, comply with all applicable federal, state, and local laws, Agreements, and regulations. Expressly reserved to the CITY is the right to adopt, in addition to the provisions of this Agreement and existing laws, such additional Agreements and regulations as are necessary for the lawful exercise of its police power for the benefit and safety of the public.

Payment of Fees. The CITY shall pay all amounts (fees, costs, expenses, compensation, and taxes) allowed by the Virginia Beach City Code, Virginia Beach Zoning Agreement and the Code of Virginia, 1950.

Liability of CITY and Indemnification. The CITY, its officials, employees, agents, and attorneys, shall not be responsible for any liability of the Cox, any affiliated person or any other person, arising out of or in connection with the installation, maintenance, upgrade, repair or removal of facilities.

The CITY and its officials, employees, agents, and attorneys shall have no liability to the Cox, any affiliated Person or any other Person for any special, incidental, consequential or

other damages as a result of the exercise of any right of the CITY pursuant to this Agreement or applicable law, including, without limitation, the rights of the CITY to approve or disapprove the grant, termination, amendment, renewal or transfer of the Franchise, or to otherwise modify all of any part of this Agreement or the Franchise.

To the extent permitted by law, Cox agrees to indemnify, defend and hold harmless the CITY, its officers, employees and agents from and against all claims, demands, losses, damages, liabilities, fines, and penalties, and all costs and expenses incurred in connection therewith, including, without limitation, reasonable attorney's fees and costs of defense (collectively, the losses), arising out of any breach by Cox of the terms and conditions of this Agreement, except to the extent proximately caused by the gross negligence or willful misconduct of the CITY, its officers, employees and agents. In addition, to the extent permitted by law, Cox shall protect, indemnify, and hold harmless the CITY, its officers, agents, and employees, from any and all demands for fees, claims, suits, actions, causes of action, or judgments based on the alleged infringement or violation of any patent, invention, article, arrangement, or other apparatus that may be used in the performance of any work or activity arising out of the use of any fiber optic cabling facilities except to the extent proximately caused by the gross negligence or willful misconduct of the CITY, its officers, employees or agents.

General Provisions.

(a)*Authority.* Cox warrants and represents that it has obtained all necessary and appropriate authority and approval from all applicable federal and state agencies or authorities, and upon request by the CITY will provide evidence of such authority.

(b)*Other remedies.* Nothing in this Agreement shall be construed as waiving or limiting any rights or remedies that the CITY or Cox may have, at law or in equity, for enforcement of this Agreement.

(c)*Severability.* If any section, subsection, sentence, clause, phrase, or other portion of this Agreement, or its application to any person, is, for any reason, declared invalid, in whole or in part by any court or agency of competent jurisdiction, said decision shall not affect the validity of the remaining portions hereof.

(d)*Nonenforcement.* Neither party shall be excused from complying with any of the provisions of this Agreement by any failure of the other party, upon any one or more occasions, to insist upon strict performance of this Agreement or to seek the other party's compliance with any one or more of such terms or conditions of this Agreement.

(e)*Conflicts of law.* If there is a conflict between the provisions of this Agreement and any law, whether federal, state, or CITY, including all future laws and Agreements, the law and conflicting Agreement provision will, to the extent reasonably possible, be construed so as to be consistent with each other and if such construction is not reasonably possible, the conflicting provision of this Agreement shall be deemed superseded by such law and have no effect, notwithstanding the contract clause of the United States Constitution.

(f) *Change of law.* Notwithstanding anything in this Agreement, if any federal, state, or local laws or regulations (including, but not limited to, those issued by the Federal Communications Commission or its successor agency) and any binding judicial interpretations thereof (collectively, "Laws") that govern any aspect of the rights or obligations of the parties under this Agreement shall change after the Effective Date and such change (a) declares this Agreement invalid, in whole or in part, or (b) requires the Cox either to (i) perform any act that is inconsistent with any provision of this Agreement or (ii) cease performing any act required by any provision of this Agreement, including any obligations with respect to compensation or other

financial obligations pursuant to this Agreement, or (c) alters the CITY's jurisdiction or rights related to this Franchise or similar franchises, then either the CITY or the Cox shall promptly notify the other of such fact.

Upon receipt of such notification, the parties, acting in good faith, shall determine whether such declaration or requirement has a material and adverse effect on this Agreement. If the parties, acting in good faith, determine that such declaration or requirement does not have a material and adverse effect on this Agreement, then the Cox shall comply with such declaration or requirement. If the parties, acting in good faith, determine that such declaration or requirement does have such an effect or that compliance with such declaration or requirement by the Cox would materially frustrate or impede the ability of the Cox, to carry out its obligations pursuant to, and the purposes of, this Agreement, then the Cox and the CITY may enter into good faith negotiations to amend this Agreement. Such materially frustration or impediment of the ability of the Cox shall not include the potential increase in cost or expense to the Cox, nor the choice of location, placement or other requirements of fiber optic cabling facilities. If the parties fail to produce an Agreement which is reasonably acceptable to both the CITY and the Cox, then the CITY or Cox may accelerate the expiration of the Term so that the Term shall expire on a date determined by the CITY and Cox not less than twelve (12) months after such determination.

(g)*Controlling law and venue.* By virtue of entering into this Agreement, Cox agrees and submits itself to the Virginia Beach Circuit Court in the City of Virginia Beach, Virginia or in the United States District Court for the Eastern District of Virginia, Norfolk Division, and further agrees that this Agreement is controlled by the laws of the Commonwealth of Virginia or any applicable federal laws and that all claims, disputes and other matters shall be decided only by such court according to the laws of the Commonwealth of Virginia or any applicable federal laws.

(h)*Captions.* The section captions and headings in this Agreement are for convenience and reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.

(i)*Nondiscrimination.* During the performance of this Agreement, Cox agrees that it will not discriminate against any employee or applicant for employment on the basis of race, religion, color, sex, handicap or national origin. Cox agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. Cox, in all solicitations or advertisements for employees placed by or on behalf of Cox, will state that Cox is an equal opportunity employer. Notices, advertisements and solicitations placed in accordance with federal law, rule or regulation shall be deemed sufficient for the purpose of meeting the requirements herein.

(j)*Entire Agreement.* This Agreement, including all Appendices, embodies the entire understanding and Agreement of the CITY and the Cox with respect to the subject matter hereof and merges and supersedes all prior representations, agreements and understandings, whether oral or written, between the CITY and Cox with respect to the subject matter hereof, including, without limitation, all prior drafts of this Agreement and any Appendix to this Agreement and any and all written or oral statements or representations by any official, employee, agent, attorney, consultant or independent contractor of the CITY or the Cox.

(k)*Delays and Failures Beyond Control of Cox.* Notwithstanding any other provision of this Agreement, the Cox shall not be liable for delay in performance of, or failure to perform, in whole or in part, its obligations pursuant to this Agreement due to strike, war or act of war

(whether an actual declaration of war is made or not), insurrection, riot, act of public enemy, fire, flood or other act of God, or sabotage, where the Cox has exercised all due care in the prevention thereof, to the extent that such causes or other events are beyond the control of the Cox and such delay in performance or failure to perform affects only part of the Cox's capacity to perform, the Cox shall perform to the maximum extent it is able to do so and shall take all steps within its power to correct such cause(s).

The Cox agrees that in correcting such cause(s), it shall take all reasonable steps to do so in as expeditious a manner as possible. The Cox shall notify the CITY in writing of the occurrence of an event covered by this Section within five (5) business days or a reasonable time period under the circumstances of the date upon which the Cox learns of its occurrence.

(1) *Notices.*

(1) Notices given pursuant to this Agreement shall be in writing and addressed as follows:

To the City:

[CONTACT]

[ADDRESS]

With a courtesy copy to:

[CONTACT]

[ADDRESS]

To COX COMMUNICATIONS HAMPTON ROADS, LLC:

To Cox: Manager, Government and Public Affairs

Attn: Sarah Buck

1341 Crossways Blvd.

Virginia Beach, VA 23320

With an optional courtesy copy to:

Richard Strong

6205-B Peachtree Dunwoody Road NE #16-112

Atlanta, GA 30328

(2) Either party may change the address at which it will receive notices by providing written notice of the change to the other party.

(m) *No Agency.* The Cox shall conduct the work to be performed pursuant to this Agreement as an independent contractor and not as an agent of the CITY.

(n) *Survival.* All representations and warranties contained in this Agreement shall survive the Term. The Cox acknowledges that certain of the obligations to be performed under this Agreement are to be performed after the Franchise terminates or expires.

(o) *Delegation of CITY Rights.* The CITY reserves the right to delegate and re-delegate, from time to time, any of its rights or obligations under this Agreement to any body, organization or official. Upon such delegation or re-delegation, references to "CITY" in this Agreement shall refer to the body, organization or official to whom such delegation or re-delegation has been made.

Upon receipt of such notice by the Cox, the Cox shall be bound by all terms and conditions of the delegation not in conflict with this Agreement. Any such delegation, revocation or re-delegation, no matter how often made, shall not be deemed an amendment to this Agreement or require any consent of the Cox.

(p)*Modifications.* Except as otherwise provided in this Agreement, (including any Appendix to this Agreement), or applicable law, no provision of this Agreement (nor any Appendix to this Agreement), shall be amended or otherwise modified, in whole or in part, except by an instrument, in writing, duly executed by the CITY and the Cox, which amendment shall be authorized on behalf of the CITY through the adoption of an appropriate Agreement, resolution or order by the CITY, as required by applicable law.

(q)*Reservation of Rights.* The CITY reserves the right to adopt or issue such lawful rules, regulations, orders, or other directives governing the Cox's use of the public streets as it shall find necessary or appropriate in the exercise of its police power, and such other orders as the CITY shall find necessary or appropriate pursuant to and in furtherance of the purposes of this Agreement, and the Cox expressly agrees to comply with all such lawful rules, regulations, orders, or other directives. If any such exercise of right materially alters any of the terms or conditions of this Agreement, the parties may, acting in good faith, negotiate such change. No rule, regulation, order or other directive issued pursuant to this Section shall constitute an amendment to this Agreement.

(r)*Reports.* At the reasonable request of the CITY, the Cox shall promptly submit to the CITY such information, as maintained in the ordinary course of business, as the CITY may request and as allowed by federal and state law regarding the Cox's placement and location of equipment in the public streets and payments and collections made by Cox pursuant to this Agreement.

(s)*Books and Records, Right of Inspection.* Throughout the Term, the Cox shall maintain in the CITY, or make available at Cox's location in the CITY or as mutually agreed upon by the CITY and Cox within fifteen (15) business days after receipt of written request, or within the time that is reasonable under the circumstances though not to exceed thirty (30) days, complete and accurate books of account, documents and records, or copies thereof, of the business, ownership, and operations of the Cox with respect to Cox's installation, construction, maintenance, upgrade, repair, relocation and removing of the facilities in the Public streets that may be required under this Agreement, including without limitation, all records, as maintained in the ordinary course of business, adequate to enable the Cox to demonstrate, at all times throughout the Term that it is, and has been, in compliance with each term and condition of this Agreement. The CITY and its designated representatives shall have the right to inspect, examine and audit, during normal business hours and upon sixty (60) days' notice to the Cox, all such documents, records and other information of the Cox required to be maintained.

(t)*Treatment of Proprietary Information.* Access by the CITY to the documents, records or other information covered by this Agreement shall not be denied by the Cox on grounds that such documents, records or information are alleged by the Cox to contain proprietary information, provided that this requirement shall not be deemed to constitute a waiver of the Cox's right to assert that the proprietary information contained in such documents, records or other information, should not be disclosed and to withhold such information upon the agreement of the CITY. In order to determine the validity of such assertion and withholding by the Cox, the CITY agrees to review the alleged proprietary information at the Cox's premises, subject to the terms as reasonably determined by the parties, and, to limit access to the alleged proprietary information to those individuals who require the information in the exercise of the CITY's rights under this Agreement, as reasonably determined by the parties. If the CITY Attorney concurs with the Cox's assertion regarding the proprietary nature of such information, the CITY will not

disclose such information to any Person and will not remove from the Cox's premises the proprietary portion of any document or other tangible thing that contains such proprietary information. If the CITY Attorney does not concur with such assertion, then the Cox shall promptly provide such documents, including the alleged proprietary portion thereof, to the CITY, provided that the Cox shall not be required to provide the proprietary portion thereof if it promptly notifies the CITY of its intentions to challenge the CITY Attorney's decision or during the pendency of any court challenge to such provision. The labeling of documents, records or other information as proprietary shall be the sole responsibility of the Cox.

CITY OF VIRGINIA BEACH, VIRGINIA

City Manager

APPROVED AS TO FORM:

City Attorney

The undersigned hereby agrees to comply with all the terms, requirements and conditions of the above Memorandum of Agreement.

COX COMMUNICATIONS HAMPTON ROADS, LLC

By: _____

Name: _____

Its: _____

Date: _____

State of _____

CITY/City of _____, TO WIT;

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by , ____ of Cox Communications Hampton Roads, LLC. He/she is personally known to me or has produced _____ as evidence of identification.

Notary Public

My commission expires _____ My registration number: _____

Attachment 9 – Funding Sources

VATI FUNDING SOURCES TABLE

Please fill in the chart below with a description of the project funding source (local, federal, state, private, other), the amount from that source, the percentage of total project funding that source represents, and a description of the current status of the funds (pending, secured, etc.).

Source	Amount	%	Status
REQUESTED VATI	\$ 181,136	80	Pending
VIRGINIA BEACH (LOCAL)	\$ 32,644	14.5	SECURED
COX (PRIVATE)	\$ 12,640	5.5	SECURED
	\$		
	\$		
	\$		
	\$		
TOTAL	\$ 226,420	1000 %	

ATTACHMENT 10 – Documentation of Match Funding



Government and Public Affairs
1341 Crossways Blvd.
Chesapeake, VA 23320

August 31, 2021

Ms. Debra Bryan
City Manager's Office
2401 Courthouse Drive
Virginia Beach, VA 23456

Dear Ms. Bryan,

We are pleased to partner with the City of Virginia Beach to apply for grant funding to extend broadband service to the few remaining unserved residents in the City.

The intent of this letter is to confirm our commitment to matching funds for this project and to provide assurance of our financial ability to do so.

Cox Communications is the largest private telecom company in America, proudly serving six million homes and businesses across 18 states. Cox Communications is the largest division of Cox Enterprises, a family-owned, global company founded in 1898 by Governor James M. Cox, that reported \$21B in annual revenues in 2019.

Cox will be providing all the planning, engineering, materials and labor for the installation of the fiber facilities necessary for this project. The cash value of the Cox contribution that is not reimbursed by VATI or other matching funds from the City of Virginia Beach is \$12,640 (plus all ongoing operation, maintenance, and upgrades for the life of the network). Cox is committed to provide this amount of match funding.

Please accept this letter in lieu of a financial statement documenting current assets due to our position as a privately-held company.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sarah Buck'.

Sarah Buck
Sr. Manager, Public Affairs

Attachment 11-Letter of Support

From: [Barbara Henley](#)
To: [Debra M. Bryan](#)
Subject: Re: Broadband Expansion in Pungo
Date: Wednesday, September 8, 2021 6:48:42 AM
Attachments: [image003.png](#)

Sounds terrific. Looks like it's a mix of Pungo and Blackwater, both very rural. This sounds like a presentation we could make at the Senior Resource Center as soon as you get things pulled together. The folks will be delighted to hear this.

From: Debra M. Bryan <DBryan@vbgov.com>
Sent: Tuesday, September 7, 2021 8:32 PM
To: Barbara Henley <BHenley@vbgov.com>
Subject: Broadband Expansion in Pungo

Mrs. Henley:

I have been working with Cox to find any unserved areas in Pungo that may be eligible for funding through the state's broadband expansion program. Cox has identified the residences on the attached maps as being eligible for the funding. This project would install over 18,250 additional ft. of fiber in Pungo. Not a lot of residences, but due to the fact that the homes are hard-to-reach, it's a start and a move in the right direction.

Below is a list of the residences (depicted on the attached maps) that would have access to high-speed broadband. If more residences were built along the fiber paths in the future, they would have immediate access to the fiber also.

Please let me know if you'd like to discuss, or if you want any additional information. I am still working on this with Cox and the state for the grant, but I wanted to make you aware of this initiative.

VIRGINIA BEACH ADDRESS LIST

337 Princess Anne Road
1748 Princess Anne Rd
2164 pungo ferry rd
2165 pungo ferry rd
2177 pungo ferry rd
3029 head of river rd
3181 hungarian rd
3285 indian creek rd
3525 landstown rd
5065 knotts island rd
6220 knotts island rd
6225 knotts island rd
6228 knotts island rd

6320 knotts island rd
5457 fitztown rd

Best regards,
Debbie

Debra M. Bryan, Esq.

Legislative Affairs Liaison

City Manager's Office

2401 Courthouse Drive | Virginia Beach, VA 23456

Office: 757.385.4242 | Direct: 757.385.8267 | Mobile: 757.375.6630

Email: dbryan@vbgov.com



The information contained in this electronic message may be legally privileged and confidential under applicable law, and is intended only for the use of the individual or entity named above. If you are not the intended recipient of this message, you are hereby notified that any use, distribution, copying or disclosure of this communication is strictly prohibited. If you have received this communication in error, please notify the sender at (757) 385-4242 or by return e-mail to dbryan@vbgov.com, and purge the communication immediately without making any copy or distribution.

Attachment 11 – Letter of Support



Government and Public Affairs
1341 Crossways Blvd.
Chesapeake, VA 23320

August 31, 2021

The Honorable Bobby Dyer
Mayor, City of Virginia Beach
2401 Courthouse Drive
Building 1
Virginia Beach, VA 23456

Dear Mayor Dyer,

Thank you for the opportunity to work with the City on a grant application to extend broadband service to unserved residents in Virginia Beach. Cox is a committed partner to this project, and we appreciate the opportunity to work together to submit a VATI grant application this year in support of residents in Pungo.

Cox has been providing video and telecommunications service in the Commonwealth for more than 40 years and we have continually worked to enhance and expand our network to meet the needs of our customers. Over the past decade, Cox has invested billions of dollars in its Virginia network to bring gigabit service to all Cox residential customers; we've committed \$10B more nationwide over the next five years to continue the work that needs to be done to meet the needs of our customers, which we anticipate will be 10 gigabits in the very near future. These investments and services have significant impact on economic development by increasing opportunities for residents to engage in virtual learning, have access to telehealth options, telework, and allowing more home-based businesses to thrive.

With the demand for broadband connectivity as high as it's ever been, partnering to reach the unserved is of the utmost importance. It's an exciting time and we appreciate the City trusting Cox to deliver the connectivity its residents desire and deserve.

Sincerely,

A handwritten signature in black ink, appearing to read 'Sarah'.

Sarah Buck
Sr. Manager, Public Affairs

Attachment 12 - Derivation of Costs

Project Address/Area	Product Specs.	TOTAL	BALANCE	COX Contribution	Source/Date of Estimate
337 Princess Anne Rd.	Construct approx. 2,300' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$32,683	\$30,683	\$2,000	Cox 9/3/2021
1748 Princess Anne Rd.	Construct approx. 500' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$7,105	\$5,105	\$2,000	Cox 9/3/2021
3029 Head of River Rd.	Construct approx. 1600' of new aerial coaxial network to include electronics @ \$5.43 per ft.	\$8,688	\$6,688	\$2,000	Cox 9/3/2021
3181 Hungarian Rd.	Construct approx. 500' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$7,105	\$5,105	\$2,000	Cox 9/3/2021
3285 Indian Creek Rd.	Construct approx. 1100' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$15,631	\$13,621	\$2,000	Cox 9/3/2021
3525 Landstown Rd.	Construct approx. 2100' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$29,841	\$27,841	\$2,000	Cox 9/3/2021
	Traffic control costs for flaggers and crash truck	\$4,500	\$4,500		Cox 9/3/2021

5457 Fitztown Rd.	Construct approx. 650' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$9,237	\$9,037	\$2,000	Cox 9/3/2021
Pungo Ferry Rd.	Construct approx. 3000' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$42,630	\$39,427	\$3,203	Cox 9/3/2021
	Traffic control costs for flaggers and crash truck	\$4,500	\$4,162	\$338	Cox 9/3/2021
	Design & Engineering	\$360	\$333	\$27	Cox 9/3/2021
Knotts Island Rd.	Construct approx. 3000' of new Aerial coaxial network to include electronics @ \$5.43 per ft.	\$16,290	\$14,494	\$1,796	Cox 9/3/2021
	Construct approx. 3000' of new UG coaxial network to include electronics @ \$14.21 per ft.	\$42,630	\$37,929	\$4,701	Cox 9/3/2021
	Traffic control costs for flaggers and crash truck	\$4,500	\$4,004	\$496	Cox 9/3/2021
	Design & Engineering	\$720	\$641	\$79	Cox 9/3/2021
		\$226,420	\$203,570	\$12,640	

ATTACHMENT 13 – Documentation of Supporting Cost Estimates



Government and Public Affairs
1341 Crossways Blvd.
Chesapeake, VA 23320

August 31, 2021

Ms. Debra Bryan
City Manager's Office
2401 Courthouse Drive
Virginia Beach, VA 23456

Dear Ms. Bryan,

In reviewing the VATI grant application it has come to our attention that documents are required to verify or back up our cost estimates for the chosen project area(s).

As a nationwide company, Cox uses internal employees and corporate contracted resources to complete and perform the proposed works as outlined in this grant application. Cox is able to leverage its scale when it comes to the purchasing of equipment and establishing reasonable contract rates for additional labor as needed. Therefore, we have the benefit of not having to request quotes for individual projects; the costs are standard so we're able to build them into the costs presented in the table provided and are not adjusted based on geographic location, project size, source of funding, or any other factors. Contracted rates are considered proprietary.

It is our hope that this letter will be sufficient in demonstrating to the review board that our company has done its due diligence to negotiate rates that reflect a reasonable use of resources both for the planning and completion of these last mile projects.

Please accept this letter as an explanation for the absence of attached documentation of supporting cost estimates as requested in the 2022 VATI grant application (attachment 13).

Sincerely,

A handwritten signature in black ink, appearing to read 'Sarah Buck'.

Sarah Buck
Sr. Manager, Public Affairs

[Skip to main content](#)[Skip to footer and contact information](#)



(RETAIN FOR YOUR RECORDS) Form 477 Filing Summary

FRN:

0001834696

Data as of:

Jun 30, 2020

Operations:

Non-ILEC

Submission Status:

Original - Submitted

Last Updated:

Aug 24, 2020 09:38:26

Filer Identification

Section	Question	Response
Filer Information	Company Name	Cox Communications
	Holding Company Name	Cox Communications, Inc.
	SAC ID	279011, 439003, 549017
	499 ID	827138

Section	Question	Response
Data Contact Information	Data Contact Name	Paul Cain
	Data Contact Phone Number	(404) 269-8139
	Data Contact E-mail	paul.cain@cox.com
Emergency Operations Contact Information	Emergency Operations Name	Mark Peay
	Emergency Operations Phone Number	(404) 227-6704
	Emergency Operations E-mail	mark.peay@cox.com
Certifying Official Contact Information	Certifying Official Name	Joiava T. Philpott
	Certifying Official Phone Number	(404) 269-0983
	Certifying Official E-mail	joiava.philpott@cox.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	Fixed_Broadband_Deployment_FCC_06302020.txt	Aug 3, 2020 16:00:46	314097
Fixed Broadband Subscription	Fixed_Broadband_Subscription_FCC_06302020.txt	Aug 4, 2020 14:20:30	111104
Fixed Voice Subscription	Voice_Telephone_Subscription_Detail_06302020.txt	Aug 5, 2020 14:39:59	6332

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Arizona	Cox Communications	Cable Modem – DOCSIS 3.0	1687
		Cable Modem – DOCSIS 3.1	54642
		Optical Carrier/Fiber to the End User	4835

State	DBA Name	Technology	Blocks
Arkansas	Cox Communications	Cable Modem – DOCSIS 3.1	12767
		Optical Carrier/Fiber to the End User	212
California	Cox Communications	Cable Modem – DOCSIS 3.0	1340
		Cable Modem – DOCSIS 3.1	27554
		Optical Carrier/Fiber to the End User	1109
Connecticut	Cox Communications	Cable Modem – DOCSIS 3.1	6066
		Optical Carrier/Fiber to the End User	51
District of Columbia	Cox Communications	Cable Modem – DOCSIS 3.1	5
		Optical Carrier/Fiber to the End User	3

State	DBA Name	Technology	Blocks
Florida	Cox Communications	Cable Modem – DOCSIS 3.0	13
		Cable Modem – DOCSIS 3.1	14048
		Optical Carrier/Fiber to the End User	150
Georgia	Cox Communications	Cable Modem – DOCSIS 3.0	6
		Cable Modem – DOCSIS 3.1	5426
		Optical Carrier/Fiber to the End User	97
Idaho	Cox Communications	Cable Modem – DOCSIS 3.1	742
		Optical Carrier/Fiber to the End User	8
Iowa	Cox Communications	Cable Modem – DOCSIS 3.1	1450

State	DBA Name	Technology	Blocks
		Optical Carrier/Fiber to the End User	7
Kansas	Cox Communications	Cable Modem – DOCSIS 3.0	24
		Cable Modem – DOCSIS 3.1	28932
		Optical Carrier/Fiber to the End User	190
Louisiana	Cox Communications	Cable Modem – DOCSIS 3.0	8
		Cable Modem – DOCSIS 3.1	36052
		Optical Carrier/Fiber to the End User	344
Massachusetts	Cox Communications	Cable Modem – DOCSIS 3.1	101
		Optical Carrier/Fiber to the End User	1

State	DBA Name	Technology	Blocks
Nebraska	Cox Communications	Cable Modem – DOCSIS 3.0	10
		Cable Modem – DOCSIS 3.1	12187
		Optical Carrier/Fiber to the End User	339
Nevada	Cox Communications	Cable Modem – DOCSIS 3.0	17
		Cable Modem – DOCSIS 3.1	17132
		Optical Carrier/Fiber to the End User	352
North Carolina	Cox Communications	Cable Modem – DOCSIS 3.1	24
		Optical Carrier/Fiber to the End User	2
Ohio	Cox Communications	Cable Modem – DOCSIS 3.0	1

State	DBA Name	Technology	Blocks
		Cable Modem – DOCSIS 3.1	2109
		Optical Carrier/Fiber to the End User	4
Oklahoma	Cox Communications	Cable Modem – DOCSIS 3.0	12
		Cable Modem – DOCSIS 3.1	30012
		Optical Carrier/Fiber to the End User	992
Rhode Island	Cox Communications	Cable Modem – DOCSIS 3.0	2
		Cable Modem – DOCSIS 3.1	18570
		Optical Carrier/Fiber to the End User	53
Virginia	Cox Communications	Cable Modem – DOCSIS 3.0	27

State	DBA Name	Technology	Blocks
		Cable Modem – DOCSIS 3.1	34158
		Optical Carrier/Fiber to the End User	224
Total			314097

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End-user Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Arizona	Cable Modem	19408	1223891	89287	1313178
	Optical Carrier/Fiber to the End User	4769	78130	4480	82610
Arkansas	Cable Modem	2342	133306	12043	145349

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
	Optical Carrier/Fiber to the End User	445	4261	454	4715
California	Cable Modem	11723	844658	55928	900586
	Optical Carrier/Fiber to the End User	2525	23570	5485	29055
Connecticut	Cable Modem	1985	121046	9864	130910
	Optical Carrier/Fiber to the End User	177	1042	147	1189
District of Columbia	Optical Carrier/Fiber to the End User	3	0	3	3
Florida	Cable Modem	3352	238491	19148	257639

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
	Optical Carrier/Fiber to the End User	542	5382	744	6126
Georgia	Cable Modem	1244	77307	6578	83885
	Optical Carrier/Fiber to the End User	233	3148	235	3383
Idaho	Cable Modem	75	6836	655	7491
	Optical Carrier/Fiber to the End User	7	0	8	8
Iowa	Cable Modem	431	18962	1275	20237
	Optical Carrier/Fiber to the End User	50	94	48	142

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Kansas	Cable Modem	5213	263229	20776	284005
	Optical Carrier/Fiber to the End User	684	1829	819	2648
Louisiana	Cable Modem	9249	425052	36497	461549
	Optical Carrier/Fiber to the End User	1712	6363	2444	8807
Massachusetts	Cable Modem	25	1118	15	1133
	Optical Carrier/Fiber to the End User	2	0	2	2
Nebraska	Cable Modem	3494	202249	14905	217154

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
	Optical Carrier/Fiber to the End User	835	8734	745	9479
Nevada	Cable Modem	8130	574154	40791	614945
	Optical Carrier/Fiber to the End User	1686	28533	2063	30596
North Carolina	Cable Modem	19	488	9	497
	Optical Carrier/Fiber to the End User	3	0	3	3
Ohio	Cable Modem	1291	49377	3009	52386
	Optical Carrier/Fiber to the End User	43	119	44	163

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Oklahoma	Cable Modem	9127	421317	40352	461669
	Optical Carrier/Fiber to the End User	2432	13809	3478	17287
Rhode Island	Cable Modem	4137	201258	17257	218515
	Optical Carrier/Fiber to the End User	380	1176	451	1627
Virginia	Cable Modem	11527	557531	53323	610854
	Optical Carrier/Fiber to the End User	1804	7991	2743	10734
Total		111104	5544451	446108	5990559

Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
0.256	0.256	0	157	157
0.384	0.384	0	3490	3490
0.512	0.512	0	5	5
0.768	0.768	0	1	1
1.000	0.256	0	5	5
1.000	1.000	0	47	47
1.500	0.384	0	230	230
1.500	0.512	0	2	2
1.500	1.500	0	266	266

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
2.000	0.384	0	76	76
2.000	2.000	0	2582	2582
3.000	0.512	0	1349	1349
3.000	3.000	0	130	130
4.000	4.000	0	7	7
5.000	1.000	36	584	620
5.000	2.000	0	471	471
5.000	5.000	0	311	311
6.000	1.000	0	790	790

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
6.000	2.000	0	45	45
6.000	6.000	0	53	53
7.000	7.000	0	3	3
8.000	2.000	0	7	7
8.000	8.000	0	6	6
9.000	1.000	0	820	820
9.000	9.000	0	1	1
10.000	1.000	243916	0	243916
10.000	2.000	0	55526	55526

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
10.000	3.000	0	49	49
10.000	10.000	0	988	988
15.000	1.500	0	1	1
15.000	2.000	18146	0	18146
15.000	3.000	0	6236	6236
15.000	5.000	0	356	356
15.000	15.000	0	15	15
15.500	5.000	0	30	30
20.000	3.000	0	9380	9380

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
20.000	4.000	0	4	4
20.000	20.000	0	1678	1678
25.000	3.000	155539	0	155539
25.000	4.000	0	1478	1478
25.000	5.000	21578	82730	104308
25.000	10.000	0	75	75
25.000	15.000	0	2	2
25.000	25.000	0	55	55
28.000	4.000	0	152	152

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
30.000	10.000	0	155	155
30.000	30.000	0	761	761
40.000	40.000	0	318	318
45.000	45.000	0	7	7
50.000	3.000	838118	0	838118
50.000	5.000	0	6708	6708
50.000	10.000	98002	105590	203592
50.000	15.000	0	166	166
50.000	50.000	0	3624	3624

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
60.000	15.000	0	129	129
60.000	60.000	0	14	14
70.000	70.000	0	9	9
75.000	10.000	0	4	4
75.000	25.000	0	602	602
75.000	75.000	0	16	16
80.000	10.000	0	5	5
80.000	20.000	0	23	23
80.000	80.000	0	2	2

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
90.000	90.000	0	3	3
100.000	10.000	33124	95	33219
100.000	20.000	0	95192	95192
100.000	30.000	0	86	86
100.000	40.000	0	1	1
100.000	50.000	0	1	1
100.000	100.000	0	6482	6482
120.000	120.000	0	1	1
130.000	130.000	0	2	2

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
140.000	30.000	0	4	4
150.000	10.000	2581188	26	2581214
150.000	20.000	5988	669	6657
150.000	40.000	0	8	8
150.000	150.000	0	117	117
155.000	155.000	0	10	10
200.000	10.000	241430	0	241430
200.000	20.000	0	26053	26053
200.000	50.000	0	1	1

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
200.000	200.000	0	2256	2256
250.000	250.000	0	58	58
300.000	30.000	864745	15910	880655
300.000	50.000	0	2	2
300.000	75.000	0	14	14
300.000	80.000	0	1	1
300.000	300.000	0	1140	1140
400.000	400.000	0	242	242
500.000	35.000	0	3460	3460

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
500.000	500.000	0	1200	1200
600.000	600.000	0	22	22
700.000	700.000	0	18	18
800.000	800.000	0	3	3
900.000	900.000	0	1	1
1000.000	35.000	404628	2592	407220
1000.000	1000.000	38013	1782	39795
2000.000	2000.000	0	127	127
3000.000	3000.000	0	39	39

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
4000.000	4000.000	0	22	22
5000.000	5000.000	0	58	58
6000.000	6000.000	0	4	4
8000.000	8000.000	0	5	5
10000.000	10000.000	0	67	67
12000.000	12000.000	0	1	1
20000.000	20000.000	0	2	2
40000.000	40000.000	0	2	2
100000.000	100000.000	0	3	3

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Total		5544451	446108	5990559

Fixed Broadband Subscriptions by Technology, Bandwidths and End-user Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Cable Modem	0.256	0.256	0	152	152
	0.384	0.384	0	3483	3483
	1.000	0.256	0	5	5
	1.500	0.384	0	230	230
	1.500	1.500	0	3	3
	2.000	0.384	0	76	76
	2.000	2.000	0	2497	2497

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	3.000	0.512	0	1349	1349
	3.000	3.000	0	16	16
	5.000	1.000	31	554	585
	5.000	2.000	0	449	449
	5.000	5.000	0	3	3
	6.000	1.000	0	790	790
	6.000	2.000	0	44	44
	9.000	1.000	0	820	820
	10.000	1.000	240288	0	240288

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	10.000	2.000	0	55503	55503
	10.000	10.000	0	2	2
	15.000	1.500	0	1	1
	15.000	2.000	18116	0	18116
	15.000	3.000	0	6127	6127
	15.000	5.000	0	121	121
	20.000	3.000	0	9380	9380
	20.000	4.000	0	4	4
	20.000	20.000	0	4	4

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	25.000	3.000	154700	0	154700
	25.000	4.000	0	1478	1478
	25.000	5.000	21497	82600	104097
	25.000	15.000	0	2	2
	28.000	4.000	0	152	152
	30.000	10.000	0	155	155
	30.000	30.000	0	2	2
	50.000	3.000	821871	0	821871
	50.000	5.000	0	6708	6708

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	50.000	10.000	95651	105342	200993
	50.000	15.000	0	8	8
	60.000	15.000	0	129	129
	80.000	10.000	0	5	5
	100.000	10.000	32909	95	33004
	100.000	20.000	0	94973	94973
	140.000	30.000	0	4	4
	150.000	10.000	2504935	26	2504961
	150.000	20.000	5956	669	6625

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	200.000	10.000	239491	0	239491
	200.000	20.000	0	25939	25939
	300.000	30.000	824688	15786	840474
	500.000	35.000	0	3442	3442
	1000.000	35.000	400137	2584	402721
Optical Carrier/Fiber to the End User	0.256	0.256	0	5	5
	0.384	0.384	0	7	7
	0.512	0.512	0	5	5
	0.768	0.768	0	1	1

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	1.000	1.000	0	47	47
	1.500	0.512	0	2	2
	1.500	1.500	0	263	263
	2.000	2.000	0	85	85
	3.000	3.000	0	114	114
	4.000	4.000	0	7	7
	5.000	1.000	5	30	35
	5.000	2.000	0	22	22
	5.000	5.000	0	308	308

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	6.000	2.000	0	1	1
	6.000	6.000	0	53	53
	7.000	7.000	0	3	3
	8.000	2.000	0	7	7
	8.000	8.000	0	6	6
	9.000	9.000	0	1	1
	10.000	1.000	3628	0	3628
	10.000	2.000	0	23	23
	10.000	3.000	0	49	49

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	10.000	10.000	0	986	986
	15.000	2.000	30	0	30
	15.000	3.000	0	109	109
	15.000	5.000	0	235	235
	15.000	15.000	0	15	15
	15.500	5.000	0	30	30
	20.000	20.000	0	1674	1674
	25.000	3.000	839	0	839
	25.000	5.000	81	130	211

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	25.000	10.000	0	75	75
	25.000	25.000	0	55	55
	30.000	30.000	0	759	759
	40.000	40.000	0	318	318
	45.000	45.000	0	7	7
	50.000	3.000	16247	0	16247
	50.000	10.000	2351	248	2599
	50.000	15.000	0	158	158
	50.000	50.000	0	3624	3624

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	60.000	60.000	0	14	14
	70.000	70.000	0	9	9
	75.000	10.000	0	4	4
	75.000	25.000	0	602	602
	75.000	75.000	0	16	16
	80.000	20.000	0	23	23
	80.000	80.000	0	2	2
	90.000	90.000	0	3	3
	100.000	10.000	215	0	215

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	100.000	20.000	0	219	219
	100.000	30.000	0	86	86
	100.000	40.000	0	1	1
	100.000	50.000	0	1	1
	100.000	100.000	0	6482	6482
	120.000	120.000	0	1	1
	130.000	130.000	0	2	2
	150.000	10.000	76253	0	76253
	150.000	20.000	32	0	32

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	150.000	40.000	0	8	8
	150.000	150.000	0	117	117
	155.000	155.000	0	10	10
	200.000	10.000	1939	0	1939
	200.000	20.000	0	114	114
	200.000	50.000	0	1	1
	200.000	200.000	0	2256	2256
	250.000	250.000	0	58	58
	300.000	30.000	40057	124	40181

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	300.000	50.000	0	2	2
	300.000	75.000	0	14	14
	300.000	80.000	0	1	1
	300.000	300.000	0	1140	1140
	400.000	400.000	0	242	242
	500.000	35.000	0	18	18
	500.000	500.000	0	1200	1200
	600.000	600.000	0	22	22
	700.000	700.000	0	18	18

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	800.000	800.000	0	3	3
	900.000	900.000	0	1	1
	1000.000	35.000	4491	8	4499
	1000.000	1000.000	38013	1782	39795
	2000.000	2000.000	0	127	127
	3000.000	3000.000	0	39	39
	4000.000	4000.000	0	22	22
	5000.000	5000.000	0	58	58
	6000.000	6000.000	0	4	4

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	8000.000	8000.000	0	5	5
	10000.000	10000.000	0	67	67
	12000.000	12000.000	0	1	1
	20000.000	20000.000	0	2	2
	40000.000	40000.000	0	2	2
	100000.000	100000.000	0	3	3
Total			5544451	446108	5990559

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End-user Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Alabama	0	0	46	0
Arizona	1326	0	586445	370596
Arkansas	0	0	56265	26155
California	3884	1	512848	314347
Colorado	0	0	1120	0
Connecticut	4	0	80974	58324
Florida	0	0	106487	61241
Georgia	0	0	38272	23126
Idaho	0	0	3191	2079

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Illinois	0	0	33	0
Indiana	0	0	36	0
Iowa	2	0	13990	8375
Kansas	449	0	137632	68626
Louisiana	35	1	239513	135485
Maryland	0	0	101	0
Massachusetts	0	0	92	0
Minnesota	0	0	4	0
Missouri	0	0	58	0

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Nebraska	807	0	128334	68779
Nevada	0	0	284475	184464
Ohio	0	0	24839	18240
Oklahoma	3358	0	280159	135782
Oregon	0	0	48	0
Pennsylvania	0	0	48	0
Rhode Island	260	0	157315	92589
South Dakota	0	0	4	0
Tennessee	0	0	145	0

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Texas	0	0	236	0
Utah	0	0	65	0
Virginia	7423	114	390277	204992
Washington	0	0	18	0
West Virginia	0	0	13	0
Total	17548	116	3043083	1773200

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
Arizona	0	0

State	Wholesale	UNE-L
California	0	0
Connecticut	0	0
Iowa	0	0
Kansas	0	0
Louisiana	0	0
Nebraska	0	0
Oklahoma	0	0
Rhode Island	0	0
Virginia	0	0

State	Wholesale	UNE-L
Total	0	0

VGE Lines Provided to End Users by State, Bundle and Product Type

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
Arizona	1326	37	1289	0	0	909	417
California	3884	93	3791	0	1	2399	1484
Connecticut	4	0	4	0	0	3	1
Iowa	2	0	2	0	0	1	1
Kansas	449	12	437	0	0	328	121

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
Louisiana	35	4	31	0	1	31	3
Nebraska	807	19	788	0	0	622	185
Oklahoma	3358	69	3289	0	0	1785	1573
Rhode Island	260	18	242	0	0	123	137
Virginia	7423	92	7331	1	113	5877	1432
Total	17548	344	17204	1	115	12078	5354

VGE Lines Provided to End Users by State, Ownership and Last-mile Medium

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Arizona	1326	1221	105	0	8	1318	0	0
California	3884	3503	381	0	1113	2771	0	0
Connecticut	4	4	0	0	0	4	0	0
Iowa	2	2	0	0	0	2	0	0
Kansas	449	427	22	0	0	449	0	0
Louisiana	35	32	3	0	10	25	0	0
Nebraska	807	783	24	0	0	807	0	0
Oklahoma	3358	3093	265	0	358	3000	0	0

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Rhode Island	260	252	8	0	0	260	0	0
Virginia	7423	7065	358	0	470	6953	0	0
Total	17548	16382	1166	0	1959	15589	0	0

Fixed Voice Subscription (iVoIP)

Over-the-top VoIP Subscriptions by State and End-user Type

State	Total	Consumer	Business / Govt
Alabama	46	0	46
Arizona	565	0	565
Arkansas	354	0	354
California	7831	0	7831

State	Total	Consumer	Business / Govt
Colorado	1120	0	1120
Connecticut	11	0	11
Florida	129	0	129
Georgia	23	0	23
Idaho	52	0	52
Illinois	33	0	33
Indiana	36	0	36
Iowa	74	0	74
Kansas	1145	0	1145

State	Total	Consumer	Business / Govt
Louisiana	247	0	247
Maryland	101	0	101
Massachusetts	82	0	82
Minnesota	4	0	4
Missouri	58	0	58
Nebraska	804	0	804
Nevada	542	0	542
Ohio	67	0	67
Oklahoma	503	0	503

State	Total	Consumer	Business / Govt
Oregon	48	0	48
Pennsylvania	48	0	48
Rhode Island	89	0	89
South Dakota	4	0	4
Tennessee	145	0	145
Texas	236	0	236
Utah	65	0	65
Virginia	2499	0	2499
Washington	18	0	18

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Connecticut	80963	58324	22639	70541	10422	284	80679	0	0
Florida	106358	61241	45117	90591	15767	1656	104702	0	0
Georgia	38249	23126	15123	33394	4855	656	37593	0	0
Idaho	3139	2079	1060	2755	384	0	3139	0	0
Illinois	0	0	0	0	0	0	0	0	0
Indiana	0	0	0	0	0	0	0	0	0
Iowa	13916	8375	5541	10635	3281	25	13891	0	0
Kansas	136487	68626	67861	103541	32946	678	135809	0	0

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Louisiana	239266	135485	103781	194981	44285	1598	237668	0	0
Maryland	0	0	0	0	0	0	0	0	0
Massachusetts	10	0	10	0	10	10	0	0	0
Minnesota	0	0	0	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0	0	0
Nebraska	127530	68779	58751	96219	31311	1625	125905	0	0
Nevada	283933	184464	99469	244363	39570	7077	276856	0	0
Ohio	24772	18240	6532	21725	3047	26	24746	0	0

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	387778	204992	182786	289354	98424	3954	383824	0	0
Washington	0	0	0	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0	0	0	0
Total	3026091	1773200	1252891	2423129	602962	70109	2955982	0	0

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(RETAIN FOR YOUR RECORDS) Form 477 Filing Summary

FRN:

0001834696

Data as of:

Dec 31, 2020

Operations:

Non-ILEC

Submission Status:

Original - Submitted

Last Updated:

Mar 1, 2021 13:47:48

Filer Identification

Section	Question	Response
Filer Information	Company Name	Cox Communications
	Holding Company Name	Cox Communications, Inc.
	SAC ID	279011, 439003, 549017
	499 ID	827138
Data Contact Information	Data Contact Name	Paul Cain
	Data Contact Phone Number	(404) 269-8139
	Data Contact E-mail	paul.cain@cox.com

Section	Question	Response
Emergency Operations Contact Information	Emergency Operations Name	Mark Peay
	Emergency Operations Phone Number	(404) 227-6704
	Emergency Operations E-mail	mark.peay@cox.com
Certifying Official Contact Information	Certifying Official Name	Joiava T. Philpott
	Certifying Official Phone Number	(404) 269-0983
	Certifying Official E-mail	joiava.philpott@cox.com

Data Submitted

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Deployment	Fixed_Broadband_Deployment_FCC_12312020.txt	Feb 9, 2021 10:17:17	315393

Form Section	File Name	Date & Time	Number of Rows
Fixed Broadband Subscription	Fixed_Broadband_Subscription_FCC_12312020.txt	Feb 10, 2021 08:16:25	117757
Fixed Voice Subscription	Voice_Telephone_Subscription_Detail_FCC_12312020.txt	Feb 10, 2021 08:41:02	6314

Fixed Broadband Deployment

Census Block Counts by State, DBA Name and Technology

State	DBA Name	Technology	Blocks
Arizona	Cox Communications	Cable Modem – DOCSIS 3.0	1687
		Cable Modem – DOCSIS 3.1	54687
		Optical Carrier/Fiber to the End User	5284
Arkansas	Cox Communications	Cable Modem – DOCSIS 3.1	12776

State	DBA Name	Technology	Blocks
		Optical Carrier/Fiber to the End User	275
California	Cox Communications	Cable Modem – DOCSIS 3.0	302
		Cable Modem – DOCSIS 3.1	28640
		Optical Carrier/Fiber to the End User	1211
Connecticut	Cox Communications	Cable Modem – DOCSIS 3.1	6068
		Optical Carrier/Fiber to the End User	49
District of Columbia	Cox Communications	Cable Modem – DOCSIS 3.1	5
		Optical Carrier/Fiber to the End User	3
Florida	Cox Communications	Cable Modem – DOCSIS 3.0	5

State	DBA Name	Technology	Blocks
		Cable Modem – DOCSIS 3.1	14058
		Optical Carrier/Fiber to the End User	178
Georgia	Cox Communications	Cable Modem – DOCSIS 3.0	7
		Cable Modem – DOCSIS 3.1	5440
		Optical Carrier/Fiber to the End User	114
Idaho	Cox Communications	Cable Modem – DOCSIS 3.1	742
		Optical Carrier/Fiber to the End User	8
Iowa	Cox Communications	Cable Modem – DOCSIS 3.1	1451
		Optical Carrier/Fiber to the End User	25

State	DBA Name	Technology	Blocks
Kansas	Cox Communications	Cable Modem – DOCSIS 3.0	24
		Cable Modem – DOCSIS 3.1	28928
		Optical Carrier/Fiber to the End User	259
Louisiana	Cox Communications	Cable Modem – DOCSIS 3.0	9
		Cable Modem – DOCSIS 3.1	36068
		Optical Carrier/Fiber to the End User	426
Massachusetts	Cox Communications	Cable Modem – DOCSIS 3.1	101
		Optical Carrier/Fiber to the End User	1
Nebraska	Cox Communications	Cable Modem – DOCSIS 3.0	10

State	DBA Name	Technology	Blocks
		Cable Modem – DOCSIS 3.1	12191
		Optical Carrier/Fiber to the End User	410
Nevada	Cox Communications	Cable Modem – DOCSIS 3.0	16
		Cable Modem – DOCSIS 3.1	17129
		Optical Carrier/Fiber to the End User	443
North Carolina	Cox Communications	Cable Modem – DOCSIS 3.1	24
		Optical Carrier/Fiber to the End User	2
Ohio	Cox Communications	Cable Modem – DOCSIS 3.0	1
		Cable Modem – DOCSIS 3.1	2110

State	DBA Name	Technology	Blocks
		Optical Carrier/Fiber to the End User	4
Oklahoma	Cox Communications	Cable Modem – DOCSIS 3.0	12
		Cable Modem – DOCSIS 3.1	30053
		Optical Carrier/Fiber to the End User	1038
Rhode Island	Cox Communications	Cable Modem – DOCSIS 3.0	2
		Cable Modem – DOCSIS 3.1	18583
		Optical Carrier/Fiber to the End User	57
Virginia	Cox Communications	Cable Modem – DOCSIS 3.0	26
		Cable Modem – DOCSIS 3.1	34194

State	DBA Name	Technology	Blocks
		Optical Carrier/Fiber to the End User	257
Total			315393

Fixed Broadband Subscription

Fixed Broadband Subscriptions by State, Technology and End-user Type

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Arizona	Cable Modem	20386	1287174	91447	1378621
	Optical Carrier/Fiber to the End User	5310	96451	5146	101597
Arkansas	Cable Modem	2455	136152	12044	148196
	Optical Carrier/Fiber to the End User	519	4989	519	5508

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
California	Cable Modem	12410	860192	55931	916123
	Optical Carrier/Fiber to the End User	2691	26499	5596	32095
Connecticut	Cable Modem	2081	123749	9875	133624
	Optical Carrier/Fiber to the End User	196	1216	173	1389
District of Columbia	Optical Carrier/Fiber to the End User	4	0	4	4
Florida	Cable Modem	3501	244012	19400	263412
	Optical Carrier/Fiber to the End User	612	6348	860	7208

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Georgia	Cable Modem	1286	80145	6690	86835
	Optical Carrier/Fiber to the End User	283	3663	275	3938
Idaho	Cable Modem	81	7176	697	7873
	Optical Carrier/Fiber to the End User	9	0	13	13
Iowa	Cable Modem	456	19211	1273	20484
	Optical Carrier/Fiber to the End User	59	162	53	215
Kansas	Cable Modem	5505	271194	20758	291952

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
	Optical Carrier/Fiber to the End User	767	2188	902	3090
Louisiana	Cable Modem	9683	437696	36825	474521
	Optical Carrier/Fiber to the End User	1836	7492	2617	10109
Massachusetts	Cable Modem	26	1075	14	1089
	Optical Carrier/Fiber to the End User	2	0	2	2
Nebraska	Cable Modem	3688	203576	14877	218453
	Optical Carrier/Fiber to the End User	917	10869	818	11687

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
Nevada	Cable Modem	8620	595992	41757	637749
	Optical Carrier/Fiber to the End User	1851	35231	2236	37467
North Carolina	Cable Modem	21	515	9	524
	Optical Carrier/Fiber to the End User	3	0	3	3
Ohio	Cable Modem	1345	50506	2995	53501
	Optical Carrier/Fiber to the End User	47	127	49	176
Oklahoma	Cable Modem	9607	428780	40387	469167

State	Technology	Census Tracts	Subscriptions		
			Consumer	Business / Govt	Total
	Optical Carrier/Fiber to the End User	2708	16436	3685	20121
Rhode Island	Cable Modem	4322	200562	17336	217898
	Optical Carrier/Fiber to the End User	412	1630	476	2106
Virginia	Cable Modem	12132	566476	53615	620091
	Optical Carrier/Fiber to the End User	1926	10216	2863	13079
Total		117757	5737700	452220	6189920

Fixed Broadband Subscriptions by Bandwidths and End-user Type

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
0.256	0.256	0	143	143
0.384	0.384	0	3720	3720
0.512	0.512	0	4	4
1.000	0.256	0	6	6
1.000	1.000	0	44	44
1.500	0.384	0	226	226
1.500	0.512	0	2	2
1.500	1.500	0	241	241
2.000	0.384	0	71	71

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
2.000	2.000	0	2375	2375
3.000	0.512	0	1110	1110
3.000	3.000	0	112	112
4.000	4.000	0	6	6
5.000	1.000	10	521	531
5.000	2.000	0	515	515
5.000	5.000	0	295	295
6.000	1.000	0	716	716
6.000	2.000	0	40	40

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
6.000	6.000	0	45	45
7.000	7.000	0	3	3
8.000	2.000	0	7	7
8.000	8.000	0	3	3
9.000	1.000	0	714	714
9.000	9.000	0	1	1
10.000	1.000	226333	0	226333
10.000	2.000	0	48805	48805
10.000	3.000	0	40	40

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
10.000	10.000	0	939	939
15.000	2.000	15337	0	15337
15.000	3.000	0	5671	5671
15.000	5.000	0	307	307
15.000	15.000	0	10	10
15.500	5.000	0	27	27
20.000	3.000	0	9703	9703
20.000	4.000	0	2	2
20.000	20.000	0	1585	1585

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
25.000	3.000	170729	0	170729
25.000	4.000	0	1393	1393
25.000	5.000	18273	75932	94205
25.000	10.000	0	64	64
25.000	15.000	0	2	2
25.000	25.000	0	49	49
28.000	4.000	0	126	126
30.000	10.000	0	128	128
30.000	30.000	0	764	764

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
40.000	40.000	0	304	304
45.000	45.000	0	7	7
50.000	3.000	847686	0	847686
50.000	5.000	0	6654	6654
50.000	10.000	0	106059	106059
50.000	15.000	0	146	146
50.000	50.000	0	3771	3771
60.000	15.000	0	108	108
60.000	60.000	0	13	13

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
70.000	70.000	0	6	6
75.000	10.000	0	4	4
75.000	25.000	0	539	539
75.000	75.000	0	13	13
80.000	10.000	0	4	4
80.000	20.000	0	19	19
80.000	80.000	0	1	1
90.000	90.000	0	3	3
100.000	10.000	27789	104	27893

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
100.000	20.000	0	103299	103299
100.000	30.000	0	69	69
100.000	50.000	0	1	1
100.000	100.000	0	7045	7045
130.000	130.000	0	1	1
140.000	30.000	0	4	4
150.000	10.000	2590853	40	2590893
150.000	20.000	4407	739	5146
150.000	40.000	0	6	6

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
150.000	150.000	0	128	128
155.000	155.000	0	5	5
200.000	10.000	190041	0	190041
200.000	20.000	0	31168	31168
200.000	200.000	0	2562	2562
250.000	250.000	0	56	56
300.000	30.000	646284	19119	665403
300.000	50.000	0	2	2
300.000	75.000	0	12	12

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
300.000	80.000	0	1	1
300.000	300.000	0	1378	1378
400.000	400.000	0	292	292
500.000	10.000	372539	0	372539
500.000	35.000	0	4749	4749
500.000	500.000	0	1382	1382
600.000	600.000	0	22	22
700.000	700.000	0	17	17
800.000	800.000	0	3	3

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
900.000	900.000	0	3	3
1000.000	35.000	577483	3275	580758
1000.000	1000.000	49936	2214	52150
2000.000	2000.000	0	142	142
3000.000	3000.000	0	43	43
4000.000	4000.000	0	26	26
5000.000	5000.000	0	66	66
6000.000	6000.000	0	3	3
8000.000	8000.000	0	7	7

Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
10000.000	10000.000	0	103	103
20000.000	20000.000	0	4	4
30000.000	30000.000	0	1	1
40000.000	40000.000	0	6	6
100000.000	100000.000	0	5	5
Total		5737700	452220	6189920

Fixed Broadband Subscriptions by Technology, Bandwidths and End-user Type

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
Cable Modem	0.256	0.256	0	138	138
	0.384	0.384	0	3714	3714

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	1.000	0.256	0	6	6
	1.500	0.384	0	226	226
	1.500	1.500	0	9	9
	2.000	0.384	0	71	71
	2.000	2.000	0	2304	2304
	3.000	0.512	0	1110	1110
	3.000	3.000	0	15	15
	5.000	1.000	10	495	505
	5.000	2.000	0	497	497

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	5.000	5.000	0	3	3
	6.000	1.000	0	716	716
	6.000	2.000	0	39	39
	9.000	1.000	0	714	714
	10.000	1.000	222665	0	222665
	10.000	2.000	0	48775	48775
	10.000	10.000	0	1	1
	15.000	2.000	15307	0	15307
	15.000	3.000	0	5571	5571

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	15.000	5.000	0	99	99
	20.000	3.000	0	9703	9703
	20.000	4.000	0	2	2
	20.000	20.000	0	3	3
	25.000	3.000	169517	0	169517
	25.000	4.000	0	1393	1393
	25.000	5.000	18191	75786	93977
	25.000	15.000	0	2	2
	28.000	4.000	0	126	126

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	30.000	10.000	0	128	128
	30.000	30.000	0	2	2
	50.000	3.000	828613	0	828613
	50.000	5.000	0	6654	6654
	50.000	10.000	0	105727	105727
	50.000	15.000	0	9	9
	60.000	15.000	0	108	108
	80.000	10.000	0	4	4
	100.000	10.000	27602	104	27706

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	100.000	20.000	0	102988	102988
	140.000	30.000	0	4	4
	150.000	10.000	2500165	40	2500205
	150.000	20.000	4376	739	5115
	200.000	10.000	188393	0	188393
	200.000	20.000	0	30991	30991
	300.000	30.000	613354	18935	632289
	500.000	10.000	354462	0	354462
	500.000	35.000	0	4720	4720

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	1000.000	35.000	571528	3259	574787
Optical Carrier/Fiber to the End User	0.256	0.256	0	5	5
	0.384	0.384	0	6	6
	0.512	0.512	0	4	4
	1.000	1.000	0	44	44
	1.500	0.512	0	2	2
	1.500	1.500	0	232	232
	2.000	2.000	0	71	71
	3.000	3.000	0	97	97

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	4.000	4.000	0	6	6
	5.000	1.000	0	26	26
	5.000	2.000	0	18	18
	5.000	5.000	0	292	292
	6.000	2.000	0	1	1
	6.000	6.000	0	45	45
	7.000	7.000	0	3	3
	8.000	2.000	0	7	7
	8.000	8.000	0	3	3

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	9.000	9.000	0	1	1
	10.000	1.000	3668	0	3668
	10.000	2.000	0	30	30
	10.000	3.000	0	40	40
	10.000	10.000	0	938	938
	15.000	2.000	30	0	30
	15.000	3.000	0	100	100
	15.000	5.000	0	208	208
	15.000	15.000	0	10	10

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	15.500	5.000	0	27	27
	20.000	20.000	0	1582	1582
	25.000	3.000	1212	0	1212
	25.000	5.000	82	146	228
	25.000	10.000	0	64	64
	25.000	25.000	0	49	49
	30.000	30.000	0	762	762
	40.000	40.000	0	304	304
	45.000	45.000	0	7	7

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	50.000	3.000	19073	0	19073
	50.000	10.000	0	332	332
	50.000	15.000	0	137	137
	50.000	50.000	0	3771	3771
	60.000	60.000	0	13	13
	70.000	70.000	0	6	6
	75.000	10.000	0	4	4
	75.000	25.000	0	539	539
	75.000	75.000	0	13	13

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	80.000	20.000	0	19	19
	80.000	80.000	0	1	1
	90.000	90.000	0	3	3
	100.000	10.000	187	0	187
	100.000	20.000	0	311	311
	100.000	30.000	0	69	69
	100.000	50.000	0	1	1
	100.000	100.000	0	7045	7045
	130.000	130.000	0	1	1

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	150.000	10.000	90688	0	90688
	150.000	20.000	31	0	31
	150.000	40.000	0	6	6
	150.000	150.000	0	128	128
	155.000	155.000	0	5	5
	200.000	10.000	1648	0	1648
	200.000	20.000	0	177	177
	200.000	200.000	0	2562	2562
	250.000	250.000	0	56	56

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	300.000	30.000	32930	184	33114
	300.000	50.000	0	2	2
	300.000	75.000	0	12	12
	300.000	80.000	0	1	1
	300.000	300.000	0	1378	1378
	400.000	400.000	0	292	292
	500.000	10.000	18077	0	18077
	500.000	35.000	0	29	29
	500.000	500.000	0	1382	1382

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	600.000	600.000	0	22	22
	700.000	700.000	0	17	17
	800.000	800.000	0	3	3
	900.000	900.000	0	3	3
	1000.000	35.000	5955	16	5971
	1000.000	1000.000	49936	2214	52150
	2000.000	2000.000	0	142	142
	3000.000	3000.000	0	43	43
	4000.000	4000.000	0	26	26

Technology	Downstream Bandwidth (in Mbps)	Upstream Bandwidth (in Mbps)	Consumer	Business / Govt	Total
	5000.000	5000.000	0	66	66
	6000.000	6000.000	0	3	3
	8000.000	8000.000	0	7	7
	10000.000	10000.000	0	103	103
	20000.000	20000.000	0	4	4
	30000.000	30000.000	0	1	1
	40000.000	40000.000	0	6	6
	100000.000	100000.000	0	5	5
Total			5737700	452220	6189920

Fixed Voice Subscription

VGE Lines and VoIP Subscriptions by State and End-user Type

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Alabama	0	0	46	0
Arizona	1148	0	566546	349060
Arkansas	0	0	53994	24761
California	2993	0	494349	298496
Colorado	0	0	1126	0
Connecticut	4	0	78175	55644
Florida	0	0	101764	56974
Georgia	0	0	36775	21683

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Idaho	0	0	3120	2014
Illinois	0	0	62	0
Indiana	0	0	38	0
Iowa	2	0	13444	8046
Kansas	401	0	132968	65300
Kentucky	0	0	4	0
Louisiana	33	0	228251	126779
Maryland	0	0	135	0
Massachusetts	0	0	92	0

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Michigan	0	0	25	0
Missouri	0	0	63	0
Nebraska	685	0	125098	65921
Nevada	0	0	270915	171771
New York	0	0	4	0
Ohio	0	0	23427	16998
Oklahoma	2636	0	267197	127983
Oregon	0	0	48	0
Pennsylvania	0	0	48	0

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Rhode Island	111	0	150718	86838
South Carolina	0	0	4	0
South Dakota	0	0	4	0
Tennessee	0	0	164	0
Texas	0	0	449	0
Utah	0	0	76	0
Virginia	5796	0	375915	190655
Washington	0	0	18	0
West Virginia	0	0	13	0

State	Total VGE Lines	Consumer VGE Lines	Total VoIP Subscriptions	Consumer VoIP Subscriptions
Total	13809	0	2925075	1668923

Fixed Voice Subscription (VGE Lines)

VGE Lines Provided to Unaffiliated Providers by State

State	Wholesale	UNE-L
Arizona	0	0
California	0	0
Connecticut	0	0
Iowa	0	0
Kansas	0	0
Louisiana	0	0

State	Wholesale	UNE-L
Nebraska	0	0
Oklahoma	0	0
Rhode Island	0	0
Virginia	0	0
Total	0	0

VGE Lines Provided to End Users by State, Bundle and Product Type

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
Arizona	1148	27	1121	0	0	761	387

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
California	2993	65	2928	0	0	1752	1241
Connecticut	4	0	4	0	0	3	1
Iowa	2	0	2	0	0	1	1
Kansas	401	8	393	0	0	328	73
Louisiana	33	3	30	0	0	30	3
Nebraska	685	12	673	0	0	532	153
Oklahoma	2636	50	2586	0	0	1394	1242
Rhode Island	111	10	101	0	0	7	104

State	Total	by Bundle		by Product Type			
		Sold w/ Internet	Sold w/o Internet	Consumer		Bus-Govt	
				& No PIC	& PIC	& No PIC	& PIC
Virginia	5796	66	5730	0	0	4782	1014
Total	13809	241	13568	0	0	9590	4219

VGE Lines Provided to End Users by State, Ownership and Last-mile Medium

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Arizona	1148	1057	91	0	8	1140	0	0
California	2993	2700	293	0	902	2091	0	0
Connecticut	4	4	0	0	0	4	0	0

State	Total	by Ownership			by Last-mile Medium			
		Owned	UNE-L	Resale	FTTP	Coax	Fixed Wireless	Copper
Iowa	2	2	0	0	0	2	0	0
Kansas	401	381	20	0	0	401	0	0
Louisiana	33	30	3	0	10	23	0	0
Nebraska	685	664	21	0	0	685	0	0
Oklahoma	2636	2428	208	0	152	2484	0	0
Rhode Island	111	108	3	0	0	111	0	0
Virginia	5796	5512	284	0	467	5329	0	0
Total	13809	12886	923	0	1539	12270	0	0

Fixed Voice Subscription (iVoIP)

Over-the-top VoIP Subscriptions by State and End-user Type

State	Total	Consumer	Business / Govt
Alabama	46	0	46
Arizona	555	0	555
Arkansas	362	0	362
California	7551	0	7551
Colorado	1126	0	1126
Connecticut	11	0	11
Florida	142	0	142
Georgia	23	0	23
Idaho	53	0	53

State	Total	Consumer	Business / Govt
Illinois	62	0	62
Indiana	38	0	38
Iowa	76	0	76
Kansas	1116	0	1116
Kentucky	4	0	4
Louisiana	245	0	245
Maryland	135	0	135
Massachusetts	82	0	82
Michigan	25	0	25

State	Total	Consumer	Business / Govt
Missouri	63	0	63
Nebraska	932	0	932
Nevada	436	0	436
New York	4	0	4
Ohio	67	0	67
Oklahoma	580	0	580
Oregon	48	0	48
Pennsylvania	48	0	48
Rhode Island	88	0	88

State	Total	Consumer	Business / Govt
South Carolina	4	0	4
South Dakota	4	0	4
Tennessee	164	0	164
Texas	449	0	449
Utah	76	0	76
Virginia	2543	0	2543
Washington	18	0	18
West Virginia	13	0	13
Total	17189	0	17189

All other VoIP Subscriptions by State, End-user Type, Bundle and Last-mile Medium

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Alabama	0	0	0	0	0	0	0	0	0
Arizona	565991	349060	216931	467903	98088	14623	551368	0	0
Arkansas	53632	24761	28871	43310	10322	470	53162	0	0
California	486798	298496	188302	391248	95550	26363	460435	0	0
Colorado	0	0	0	0	0	0	0	0	0
Connecticut	78164	55644	22520	67847	10317	335	77829	0	0
Florida	101622	56974	44648	86630	14992	1735	99887	0	0
Georgia	36752	21683	15069	32070	4682	669	36083	0	0

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Massachusetts	10	0	10	0	10	10	0	0	0
Michigan	0	0	0	0	0	0	0	0	0
Missouri	0	0	0	0	0	0	0	0	0
Nebraska	124166	65921	58245	93463	30703	1811	122355	0	0
Nevada	270479	171771	98708	233004	37475	7417	263062	0	0
New York	0	0	0	0	0	0	0	0	0
Ohio	23360	16998	6362	20456	2904	34	23326	0	0
Oklahoma	266617	127983	138634	202034	64583	11790	254827	0	0

State	Total	by End-user Type		by Bundle		by Last-mile Medium			
		Consumer	Business / Government	Sold w/ Internet	Sold w/o Internet	FTTP	Coax	Fixed Wireless	Copper
Virginia	373372	190655	182717	276004	97368	4354	369018	0	0
Washington	0	0	0	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0	0	0	0
Total	2907886	1668923	1238963	2330578	577308	72369	2835517	0	0