



March 7, 2014

Letter-Expression of Interest

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O’Rielly
Jonathan Chambers
Federal Communications Commission
445 12th Street. SW
Washington, DC 20024

RE: Expression of Interest- Rural Broadband Trials, Connect America Fund, WC Docket No. 10-90

Dear Chairman Wheeler, Commissioners, and Mr. Chambers,

This letter is to express our interest in receiving funding from the Rural Broadband Trials announced at the January 30 FCC Open Meeting and subsequent filings¹. It is submitted on behalf of CVIN LLC dba Vast Networks (CVIN) (FCC registration number #0018779009).

Background

CVIN is a CLEC who provides facilities based Internet and Telephone services utilizing our existing 2,000 mile fiber optic network in 23 counties in California. We primarily serve the Central Valley of California.

The **California Central Valley is one of the world's most productive agricultural regions**. On less than 1 percent of the total farmland in the United States, the Central Valley produces 8 percent of the nation's agricultural output by value. And yet, with all this abundance, **close to 57% of the Valley is classified as either unserved or underserved by broadband infrastructure**.

With a per capita income in 2007 of \$29,790, **29% below the state average**, a labor force growing faster than job growth with **2002-2008 unemployment rates averaging 2.6% higher than the state average** and the region’s **wages being lower than the state average in every industry**, now, more than ever, this region requires the tools, resources and potential job growth **a robust network infrastructure built throughout the region** could provide.

¹ See *Technology Transitions et al.*, GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 2014).

In 2010, CVIN was awarded an ARRA grant to deploy a 1,371-mile fiber backbone network through 18 Central Valley counties. The network, consisting of 720 newly constructed miles of fiber and the leasing of 164 miles of dark fiber, provides Internet backbone service to Amador, Calaveras, Colusa, El Dorado, Fresno, Kings, Kern, Mariposa, Merced, Madera, Nevada, Placer, San Joaquin, Stanislaus, Sutter, Tuolumne, Tulare, and Yuba counties. As part of this project , CVIN serves 63 community anchor institutions, including seven public safety entities, 19 K-12 county offices of education that aggregate over 1,800 schools, 20 libraries, 14 community colleges and the Bakersfield, Fresno, and Stanislaus campuses of the California State University.

In addition, CVIN is a facilities-based (Fiber to the Premise) carrier throughout our serving territories for commercial as well as traditional and wireless carriers. One of our core businesses is delivering fiber solutions to rural schools both to deliver Internet services and to create WAN between all the schools within a District to facilitate the efficient dissemination of bandwidth across the districts.

CVIN has the necessary backbone and capacity to expand into many of the rural high cost areas the Connect America hopes to drive services. CVIN is interested in conducting experiments in four areas covering six census tracts that are in desperate need of improved access.

Proposed Service Areas

CVIN proposes to build out broadband to unserved / underserved premises within the service territory. These areas are currently economically disadvantaged, and in desperate need of the services that can be provided by this proposed network extensions.

State	County	CountyName	TractID	Eligible High Cost Locations	Extremely High Cost Locations	Annual Support
CA	6107	Tulare	6107000100	1421	358	\$ 642,116.25
CA	6107	Tulare	6107004200	702	180	\$ 321,874.21
CA	6107	Tulare	6107004300	862	224	\$ 361,247.84
CA	6107	Tulare	6107003200	720	170	\$ 357,031.66
CA	6019	Fresno	6019006403	2861	280	\$ 841,497.37
CA	6039	Madera	6039001000	1126	164	\$ 580,488.22

I. Census Tract 6107000100 – Tulare County

With the help of the Connect America Fund, CVIN is looking provide Fiber to the Premise (FTTP) Network into the more rural areas of Tulare County.

Geographic Territory

One of the service areas that CVIN would like to use for the experiment is in Census Tract 6107000100. We have had an ongoing relationship with the City of Three Rivers, CA. They approached us upon the award of the ARRA grant in hope of finding a solution to their connectivity problems. We attended a Town Meeting to discuss the current lack of broadband availability. This is a passionate community and one that has lobbied for these services for a number of years.

The local schools and healthcare facilities can greatly benefit from the availability of high speed broadband.

We currently have a list of nearly 200 residences that have expressed the need and are committed to signing up for services. The vast majority of this community lacks access to a minimum of 3 Mbps downstream/768 kbps upstream service. This experiment would consist of approximately 85 route miles which includes 51 miles of backbone fiber and 34 miles of laterals to connect up to 1,000 homes and businesses. It would not only provide broadband Internet but would also provide TV and Telephone services to the area. This is a mountainous region and the installation will consist of a mixture of aerial and underground fiber. As you will see below, the cost of installing the fiber will be approximately \$10,923.00 per home passed.

Service Offerings

CVIN Service offerings can be bundled or purchased as a single product. Offerings will include an unlimited local and long distance (48 states) telephone service, Internet connections from **10Mbps down/ 7 Mbps up to 1 Gbps**, as well as digital TV services.

State and Local government support

CVIN has a strong relationship with Tulare County and they have been instrumental in streamlining the permitting process for our recent ARRA grant. We are experienced in working with the California Department of Transportation (CalTrans) on the installation of infrastructure in the State ROW.

Project Timeline

From our experience, CVIN projects that it will take 6-8 months to get the necessary environmental approvals for the project. Once that is obtained, we expect the entire project to be built in 18-24 months. We will light up the project in segments as portions are completed thus allowing us to begin activating customers within 3 months of the start of construction and add new customers incrementally as the build progresses.

Funding

Below is the summary of funding that would be requested in our formal proposal. CVIN is requesting one-time funding for this experiment. The revenue stream from customers will make this a sustainable project if we can obtain funding for a portion of the construction costs.

Approximate Network build cost:

Construction Costs	per foot	Total Cost
Material (fiber, conduit, vaults, etc.)	\$ 2.50	\$ 1,117,788.00
Labor	\$ 16.00	\$ 7,153,843.20
Enviornmental	\$ 0.85	\$ 380,047.92
Permitting	\$ 0.25	\$ 111,778.80
Fiber Installation	\$ 1.92	\$ 858,461.18
Total Construction Costs		\$ 9,621,919.10
Electronics and Installation		
Total Electronics and Installation		\$ 1,051,250.00
Administration / Engineering		
Administration / Engineering		\$ 250,000.00
Total Costs		\$ 10,923,169.10
Cost per Homes passed	1000	\$ 10,923.17

CVIN is requesting 70% funding from the Connect America Fund. We will seek 20 % from the California Advanced Services Fund (CASF) and make a 10% investment.

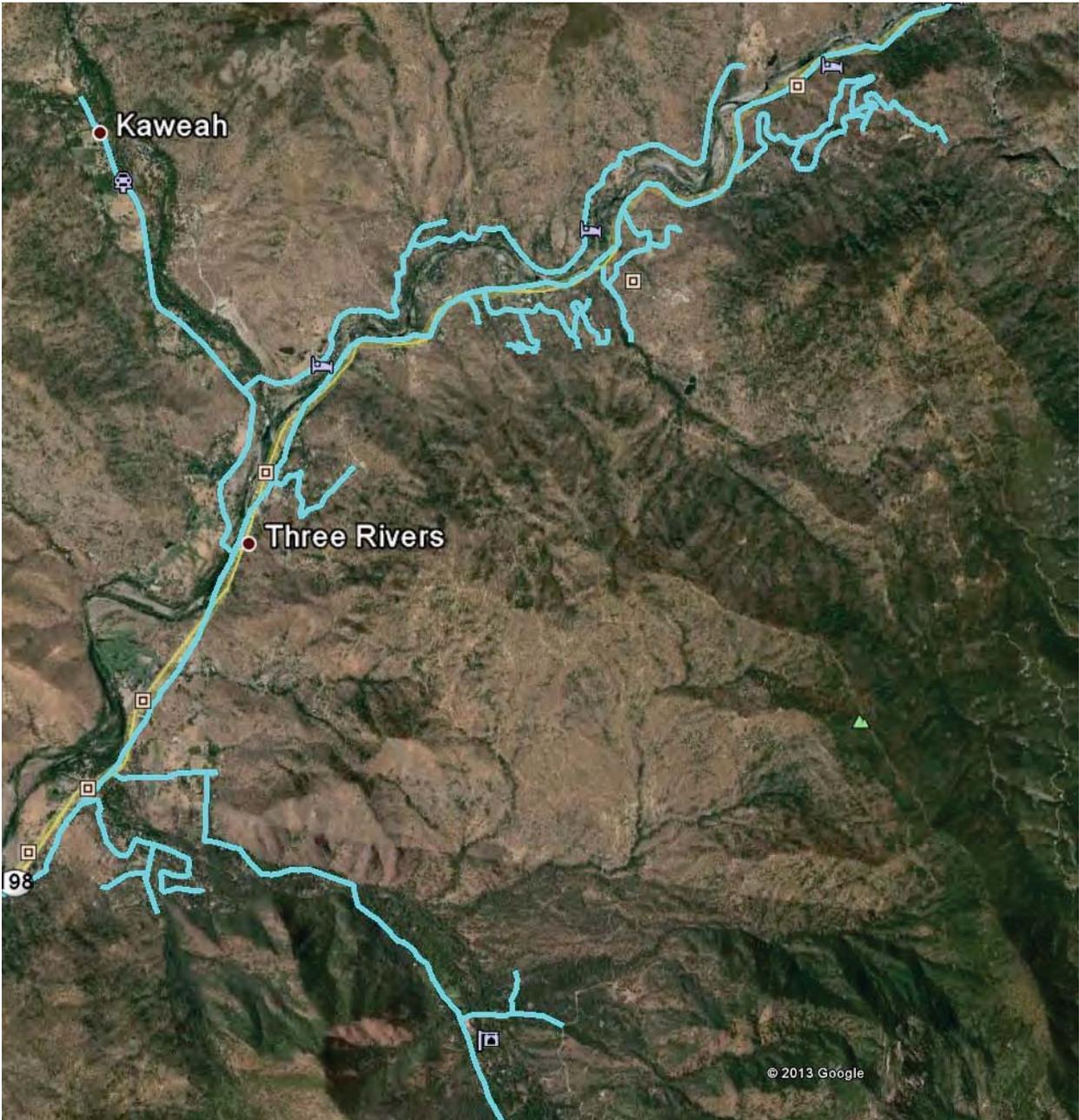
Funding Requested		
Connect America Fund	70%	\$ 7,646,218.37
CVIN Investment	10%	\$ 1,092,316.91
CASF Grant	20%	\$ 2,184,633.82
Total		\$ 10,923,169.10

Project Map

Overview







II. Census Tracts 6107004300, 6107004400, 6107003200 – Tulare County

With the help of the Connect America Fund, CVIN is looking provide Fiber to the Premise (FTTP) Network into the more rural areas of Tulare County.

Geographic Territory

One of the service areas that CVIN would like to use for the experiment is in Census Tracts 6107004300, 6107004400, 6107003200. These areas cover a number of small communities that have struggled with limited or no bandwidth availability including, Allensworth, Alpaugh, Pixley, Tipton, and Woodville. For the past several years we have been in discussions with several rural school Districts including Allensworth and Alpaugh Unified School Districts in trying to find a way to extend fiber to these rural schools and communities. Without some form of subsidies these communities will not be able to get the advanced services they need to improve education, healthcare, and attract new businesses to the area.

There are nearly 2,500 homes and businesses that will be passed as we extend fiber between and through these small towns. This experiment would consist of approximately 142 route miles which includes 90 miles of backbone fiber and 52 miles of laterals to connect up to 2,500 homes and businesses. It would not only provide broadband Internet but would also provide TV and Telephone services to the area. Installation will consist of a mixture of aerial and underground fiber. As you will see below, the cost of installing the fiber will be approximately \$8,430.00 per home passed.

Service Offerings

CVIN service offerings can be bundled or purchased as a single product. Offerings will include an unlimited local and long distance (48 states) telephone service, Internet connections from **10mbps down/ 7 mbps up to 1 Gbps**, as well as digital TV services.

State and Local government support

CVIN has a strong relationship with Tulare County and they have been instrumental in streamlining the permitting process for our recent ARRA grant. We are experienced in working with the California Department of Transportation (CalTrans) on the installation of infrastructure in the State ROW.

Project Timeline

From our experience, CVIN projects that it will take 6-8 months to get the necessary environmental approvals for the project. Once that is obtained, we expect the entire project to be built in 18-24 months. We will light up the project in segments as portions are completed thus allowing us to begin activating customers within 3 months of the start of construction and add new customers incrementally as the build progresses.

Funding

Below is the summary of funding that would be requested in our formal proposal. CVIN is requesting one-time funding for this experiment. The revenue stream from customers will make this a sustainable project if we can obtain funding for a portion of the construction costs.

Approximate Network build cost:

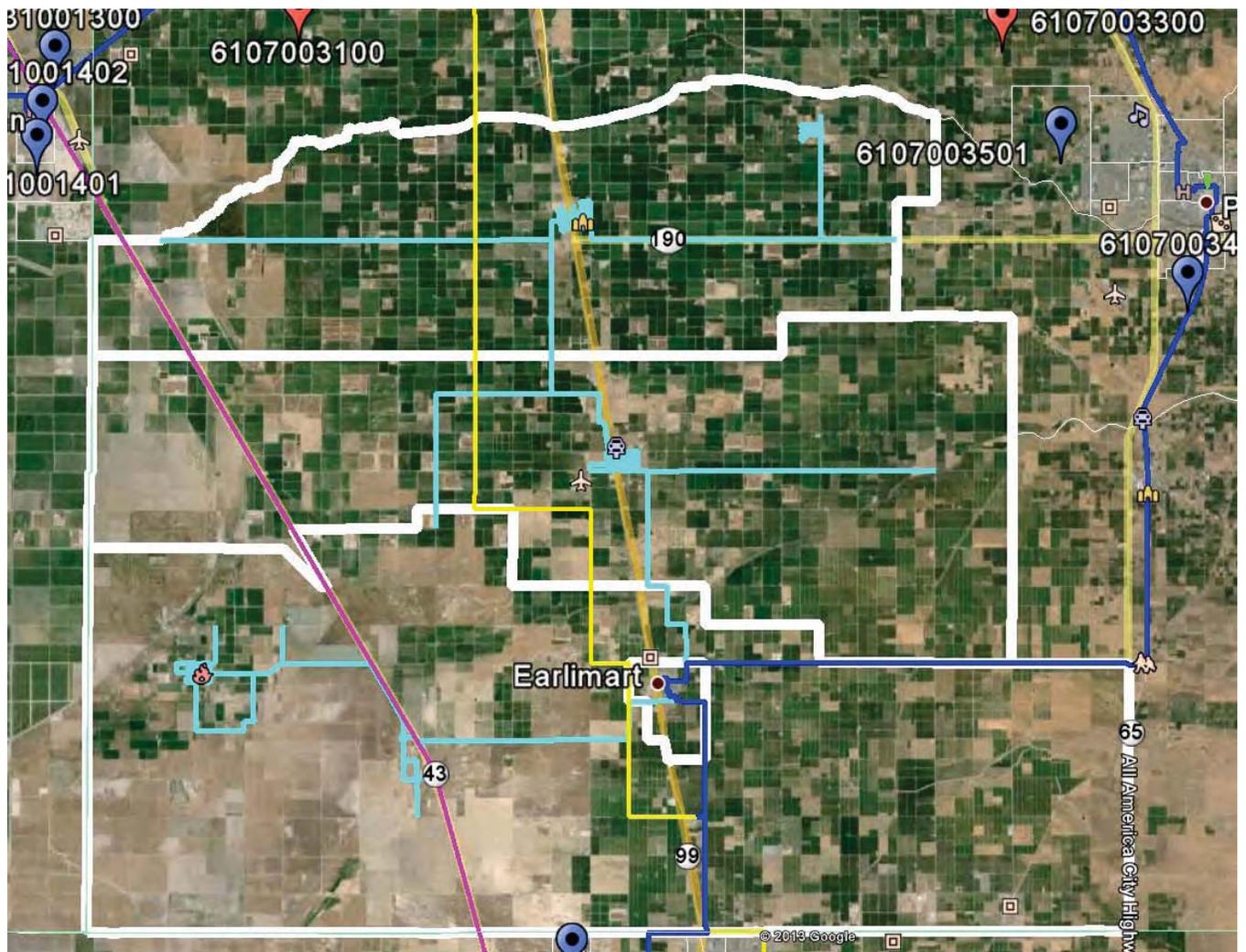
Construction Costs	per foot	Total Cost
Material (fiber, conduit, vaults, etc.)	\$ 2.50	\$ 1,870,220.00
Labor	\$ 18.00	\$ 13,465,584.00
Enviornmental	\$ 0.85	\$ 635,874.80
Permitting	\$ 0.25	\$ 187,022.00
Fiber Installation	\$ 1.92	\$ 1,436,328.96
Total Construction Costs		\$ 17,595,029.76
Electronics and Installation		
Total Electronics and Installation		\$ 2,388,750.00
Administration / Engineering		
Administration / Engineering		\$ 250,000.00
Total Costs		\$ 20,233,779.76
Cost per Homes passed	2400	\$ 8,430.74

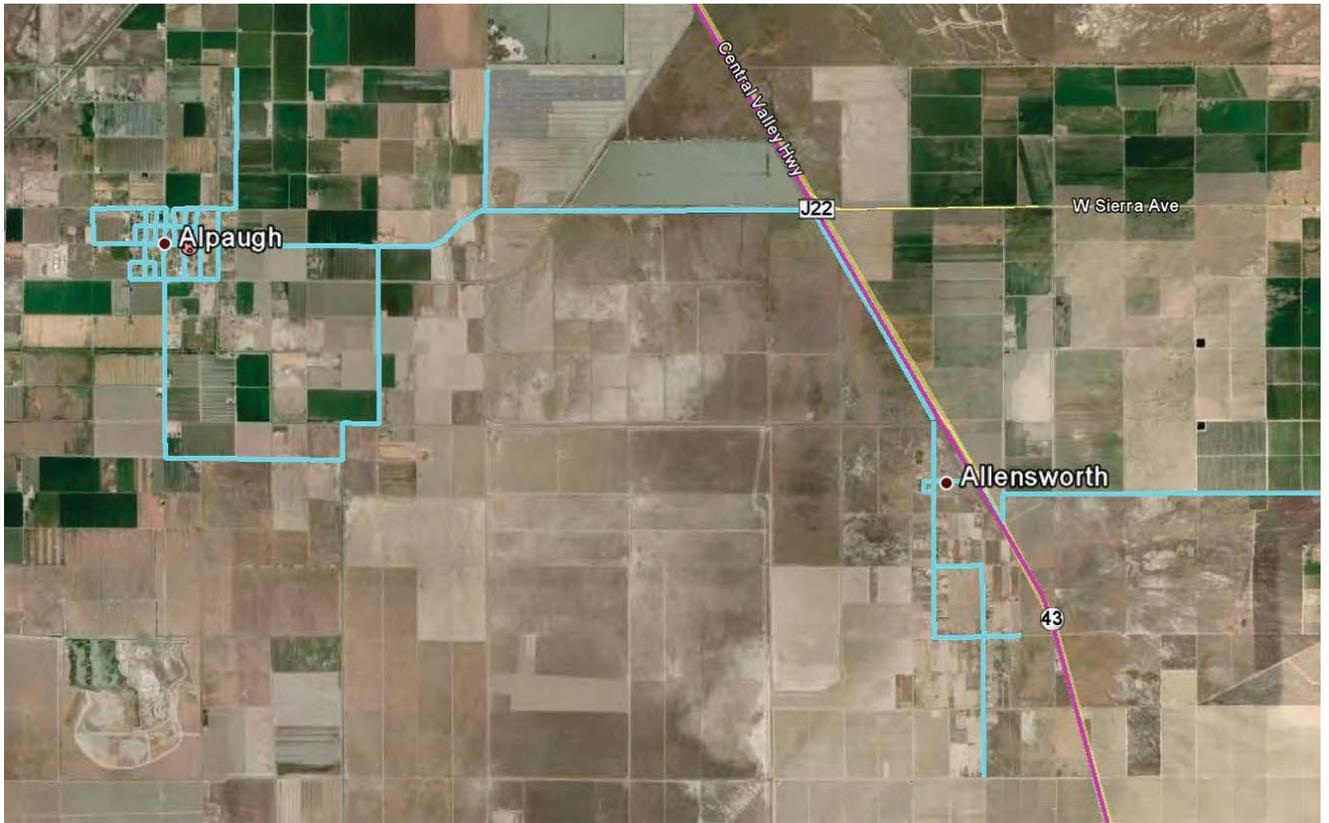
CVIN is requesting 70% funding from the Connect America Fund. We will seek 20 % from the California Advanced Services Fund (CASF) and make a 10% investment.

Funding Requested		
Connect America Fund	70%	\$ 14,163,645.83
CVIN Investment	10%	\$ 2,023,377.98
CASF Grant	20%	\$ 4,046,755.95
Total		\$ 20,233,779.76

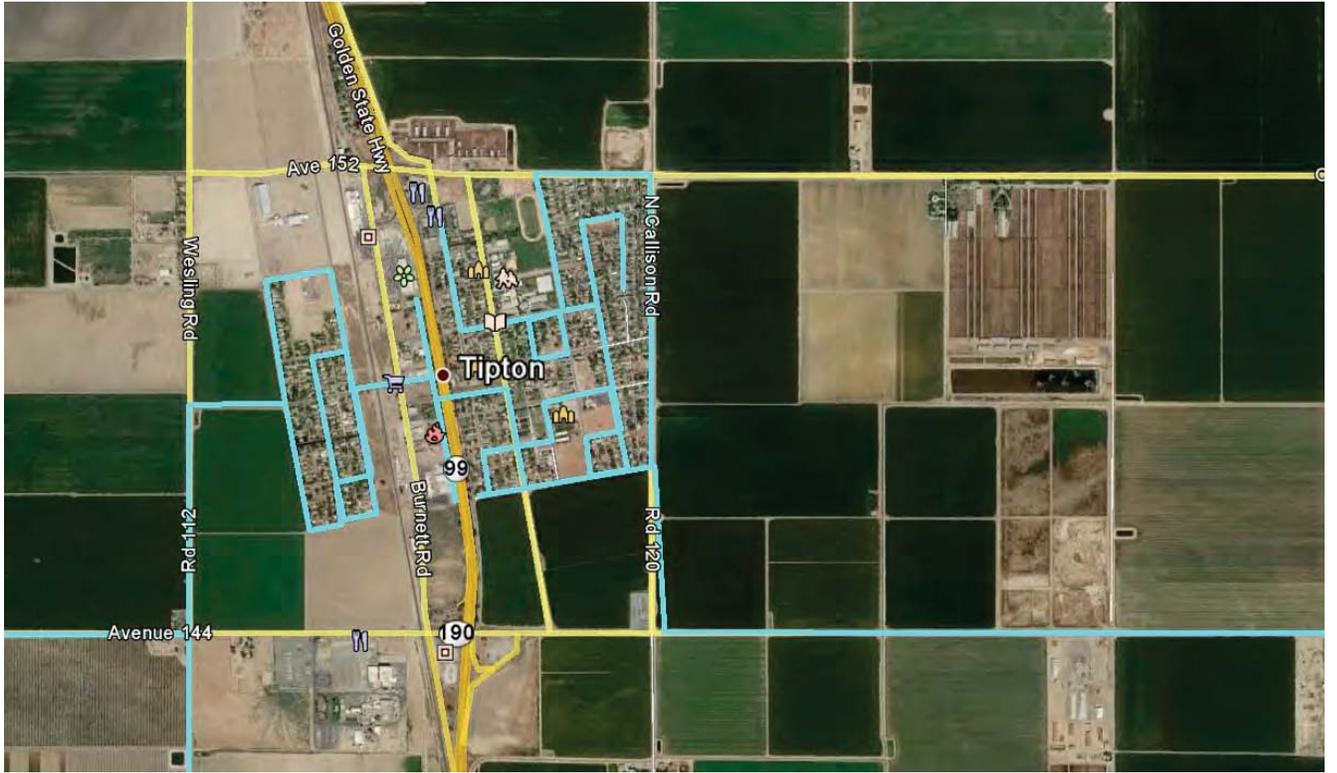
Project Map

Overview











III. Census Tract 6019006403 – Fresno County

With the help of the Connect America Fund, CVIN is looking provide Fiber to the Premise (FTTP) Network into the more rural areas of Fresno County.

Geographic Territory

One of the service areas that CVIN would like to use for the experiment is in [Census Tract 6019006403](#). These areas cover a number of small communities that have struggled with limited or no bandwidth availability including Squaw Valley and Dunlap. Without some form of subsidies these communities will not be able to get the advanced services they need to improve education, healthcare, and attract new businesses to the area.

There are nearly 1,200 homes and businesses that will be passed as we extend fiber between and through these small towns. This experiment would consist of approximately 101 route miles which includes 49 miles of backbone fiber and 44 miles of laterals to connect up to 1,200 homes and businesses. It would not only provide broadband Internet but would also provide TV and Telephone

services to the area. Installation will consist of a mixture of aerial and underground fiber. As you will see below, the cost of installing the fiber will be approximately \$8,430.00 per home passed.

Service Offerings

CVIN Service offerings can be bundled or purchased as a single product. Offerings will include an unlimited local and long distance (48 states) telephone service, Internet connections from **10mbps down/ 7mbps up to 1 Gbps**, as well as digital TV services.

State and Local government support

We are experienced in working with the California Department of Transportation (CalTrans) on the installation of infrastructure in the State ROW.

Project Timeline

From our experience, CVIN projects that it will take 6-8 months to get the necessary environmental approvals for the project. Once that is obtained, we expect the entire project to be built in 18-24 months. We will light up the project in segments as portions are completed thus allowing us to begin activating customers within 3 months of the start of construction and add new customers incrementally as the build progresses.

Funding

Below is the summary of funding that would be requested in our formal proposal. CVIN is requesting one-time funding for this experiment. The revenue stream from customers will make this a sustainable project if we can obtain funding for a portion of the construction costs.

Approximate Network build cost:

Construction Costs	per foot	Total Cost
Material (fiber, conduit, vaults, etc.)	\$ 2.50	\$ 1,221,687.50
Labor	\$ 18.00	\$ 8,796,150.00
Environmental	\$ 0.95	\$ 464,241.25
Permitting	\$ 0.95	\$ 464,241.25
Fiber Installation	\$ 1.92	\$ 938,256.00
Total Construction Costs		\$ 11,884,576.00
Electronics and Installation		
Total Electronics and Installation		\$ 1,284,250.00
Administration / Engineering		
Administration / Engineering		\$ 250,000.00
Total Costs		\$ 13,418,826.00
Cost per Homes passed	1243	\$ 10,795.52

CVIN is requesting 70% funding from the Connect America Fund. We will seek 20 % from the California Advanced Services Fund (CASF) and make a 10% investment.

Funding Requested		
Connect America Fund	70%	\$ 9,393,178.20
CVIN Investment	10%	\$ 1,341,882.60
CASF Grant	20%	\$ 2,683,765.20
Total		\$ 13,418,826.00

Project Map

Overview



IV. Census Tract 6039001000 – Madera County

With the help of the Connect America Fund, CVIN is looking provide Fiber to the Premise (FTTP) Network into the more rural areas of Madera County.

Geographic Territory

One of the service areas that CVIN would like to use for the experiment is in Census Tract 6039001000. This is a rural area with no significant population center where residents have limited or no bandwidth availability. We would build a backbone throughout the area and extend laterals to the schools, residences, and businesses. Without some form of subsidies these communities will not be able to get

the advanced services they need to improve education, healthcare, and attract **new businesses** to the area.

There are nearly 1,200 homes and businesses that will be passed as we extend fiber between and through these small towns. This experiment would consist of approximately 108 route miles which includes 68 miles of backbone fiber and 40 miles of laterals to connect up to 1,200 homes and businesses. It would not only provide broadband Internet but would also provide TV and Telephone services to the area. Installation will consist of a mixture of aerial and underground fiber. As you will see below, the cost of installing the fiber will be approximately \$13,560 per home passed due the large distance between homes and population density.

Service Offerings

CVIN Service offerings can be bundled or purchased as a single product. Offerings will include an unlimited local and long distance (48 states) telephone service, Internet connections from **10mbps down/ 7mbps up to 1 Gbps**, as well as digital TV services.

State and Local government support

We have a strong relationship with Madera County and could expedite the permitting process. We are experienced in working with the California Department of Transportation (CalTrans) on the installation of infrastructure in the State ROW.

Project Timeline

From our experience, CVIN projects that it will take 6-8 months to get the necessary environmental approvals for the project. Once that is obtained, we expect the entire project to be built in 18-24 months. We will light up the project in segments as portions are completed thus allowing us to begin activating customers within 3 months of the start of construction and add new customers incrementally as the build progresses.

Funding

Below is the summary of funding that would be requested in our formal proposal. CVIN is requesting one-time funding for this experiment. The revenue stream from customers will make this a sustainable project if we can obtain funding for a portion of the construction costs.

Approximate Network build cost:

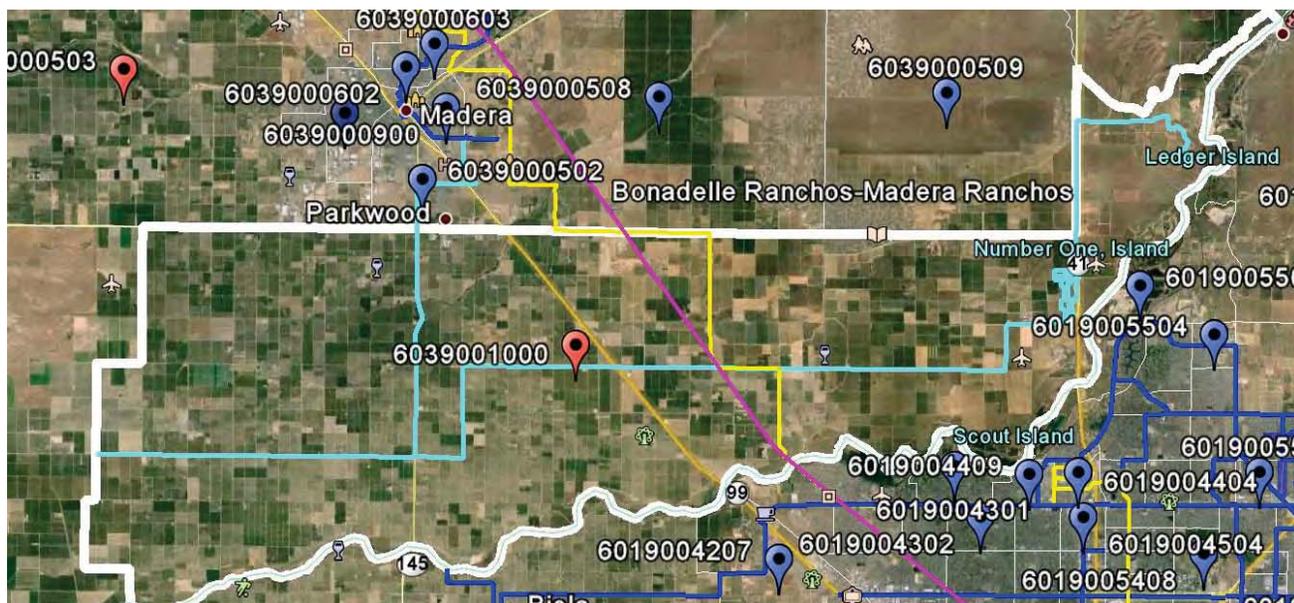
Construction Costs	per foot	Total Cost
Material (fiber, conduit, vaults, etc.)	\$ 2.50	\$ 1,421,612.50
Labor	\$ 18.00	\$ 10,235,610.00
Enviornmental	\$ 0.95	\$ 540,212.75
Permitting	\$ 0.95	\$ 540,212.75
Fiber Installation	\$ 1.92	\$ 1,091,798.40
Total Construction Costs		\$ 13,829,446.40
Electronics and Installation		
Total Electronics and Installation		\$ 1,284,250.00
Administration / Engineering		
Administration / Engineering		\$ 250,000.00
Total Costs		\$ 15,363,696.40
Cost per Homes passed	1133	\$ 13,560.19

CVIN is requesting 70% funding from the Connect America Fund. We will seek 20 % from the California Advanced Services Fund (CASF) and make a 10% investment.

Funding Requested		
Connect America Fund	70%	\$ 10,754,587.48
CVIN Investment	10%	\$ 1,536,369.64
CASF Grant	20%	\$ 3,072,739.28
Total		\$ 15,363,696.40

Project Map

Overview



Closing

On behalf of CVIN we would like to thank the FCC for giving us the opportunity to submit this experiment request. We are looking forward to submitting the actual proposal when directed to do so.

Sincerely,



David S. Nelson
CEO
CVIN. LLC., dba Vast Networks