Broadband

Whole Community Connectivity

September 2020 Update Report

Governor's Office of Science, Innovation & Technology

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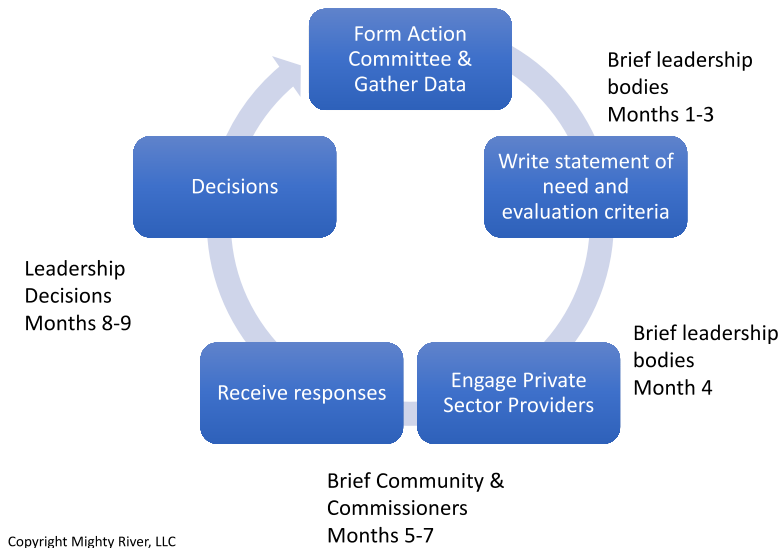
Whole Community Connectivity Program

September 2020 Update

The Nevada Governor's Office of Science Innovation and Technology (OSIT) and Nevada State E-rate Team are providing strategic guidance and implementation strategies to 15 Nevada Counties, municipalities and tribal governments. These counties, municipalities and tribal governments are seeking enhanced broadband infrastructure investments in their region and better, more cost effective and reliable broadband service for the public sector, businesses and residents.

Description
The State E-rate team process for community broadband planning is depicted in this diagram:

The Broadband Planning Process

Form Action Committee & Gather Data

Brief leadership bodies
Months 1-3

Write statement of need and evaluation criteria

Decisions

Leadership Decisions
Months 8-9

Receive responses

Engage Private Sector Providers

Brief leadership bodies
Month 4

Brief Community & Commissioners
Months 5-7

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The Whole Community Approach process involves 5 steps and is customized to fit the specific needs of the County/Municipality or Tribal Government. The Whole Community Approach includes the following:
1) Formation of the Broadband Action Team and Data Gathering
   a. Recruit elected officials, business leaders (across education, transportation, healthcare), economic development leaders and interested parties to serve on Broadband Action Team (BAT)
   b. Survey residential and business users
   c. Analyze planned road and other public works construction projects
   d. Inventory community broadband assets – Fiber, Conduit, Buildings, Land, Co-Location facilities
   e. Survey Community Anchor Institution current service and future need (K-12 and higher education, libraries, healthcare)
   f. Search Connect America Fund (CAF) allocations

2) Statement of broadband connectivity needs, statement of strategic approaches to meeting these needs summarized in a broadband playbook. The broadband playbook includes:
   a. Market demographic summary
   b. Business and Residential survey results
   c. Technical specifications for broadband needs of underserved or unserved areas. These are areas that lack 100% availability of 25Mbps download/3Mbps upload service broadband service. The 25/3 service is the FCC minimum service that defines broadband.
   d. Technical specifications for broadband service upgrades in areas that are already served by 25/3 service. Surveys from step 1 show that the service to these areas are:
      i. Experience frequent outages
      ii. Experience lower than advertised bandwidths
      iii. Experience high frequency of latency/buffering
   e. Government broadband service needs
3) Engage Service Providers/explore options
   a. Investments in public/private partnerships considered
   b. Investment in open access networks considered
4) Receive Responses from service providers/construction companies/financing partners
5) Make decisions
   a. Elected official bodies make resource allocation decisions
   b. Owning entity grants access to existing resources (fiber, co-location space, poles, building attachments, land)

Results to Date and Future Plans
OSIT and the State E-rate team began engaging with Counties and Municipalities in January 2018. The Whole Community Approach has gained momentum in all fourteen communities where OSIT and the State E-rate team have begun the process. Originally, the plan was to target three communities in year one and two. However, the broadband access gap in rural Nevada is great and the team decided to move aggressively forward.

A summary of activities in each community is contained in the table below:

County/Municipality	Accomplishments to date	Future plans
Town of Austin	1) Established broadband action team 2) Surveyed existing fiber interconnect from PC Internet 3) Identified critical broadband need at Austin School 4) Created RFP for School and Library Broadband Needs 5) Awarded fiber RFP for Austin School 6) Austin School fiber build complete leaving a 1.75 mile run of fiber through Austin	1) Bid needs for Austin Medical Center 2) Rolled into Lander County Whole Community Approach effort that is in process
Elko County	1) Established broadband action team 2) Met with all fiber, fixed wireless, copper and coax providers. Shared feedback on service interruptions and slow connectivity	1) Help Fiber to the Home providers secure financing to deploy Fiber to the Home (FTTH) in Elko and Spring Creek

	3) Completed business and residential surveys 4) Produced broadband playbook 5) Assisted two providers in introducing enhanced service 6) Assisted school district in bidding and awarding fiber WAN for Elko Schools 7) Assisted Shoshone-Paiute tribe in gaining enhanced broadband service to Owyhee/Duck Valley reservation 8) Work with Shoshone-Paiute tribe to gain approval for the filing for E-rate reimbursement for Fiber service to the Tribal Library on the Duck Valley Reservation 9) Helped city define fiber lease and tower access for existing assets 10) Identified two fiber to the home providers to deploy fiber into the Elko and Spring Creek market 11) Bring negotiations for deployment for Fiber to the Home with one Fiber to the Home provider to conclusion	2) Complete Owyhee Tribal Library E-rate funding to get upgraded fiber from Mountain Home, ID to Tribal Library in Owyhee, NV 3) Bid fiber service to Elko County School in Owyhee
Humboldt County	1) Established broadband action team 2) Completed business and residential surveys 3) Produced broadband playbook 4) Coordinated School District and Library needs and proposed and drafted a consortium bid for rural areas 5) Produced a strategy document for Broadband Action Team to consider 6) Issued RFP and received responses 7) Met with Zito Media (which bought the existing Cable provider Cal Neva). Zito in the process of offering 100Mbps download/20Mbps upload service to the Winnemucca market 8) Issued broadband enhancement RFI with Pershing and Lander Counties	1) Meet with service providers on future plans 2) Wait for Rural Digital Opportunity Fund results to begin to work with providers on the Whole Community Approach responses
City of Mesquite	1) Established broadband action team 2) Assessed service in the City. There are two fiber-based providers (Reliance Telecom and TDS cable). City is well served 3) City is lacking in upstream connections	1) CenturyLink is not interested in serving the Mesquite market with middle mile services 2) Explore with the City of Mesquite, building City owned conduit along natural gas pipeline

	4) Explored Southwest Gas Pipeline construction and the potential to add broadband 5) Identified CenturyLink fiber path along gas pipeline with an interconnect 12 miles north of the center of the City of Mesquite	3) Distribute business survey and provide results to Reliance and TDS. This may cause these providers to offer upgraded service.
Pershing County	1) Established broadband action team 2) Completed business and residential surveys 3) Produced broadband playbook 4) Assisting Lovelock tribe with broadband planning related to street beautification project on tribal land in Lovelock 5) Assisted County Government with network upgrade RFP. No acceptable service proposals were received. 6) Authored E-rate application for application for fiber to the Schools in Lovelock. Successfully awarded contract for Fiber to the Schools and Library in Lovelock 7) Issued broadband enhancement RFI with Lander and Humboldt Counties	1) Meet with service providers on future plans 2) Wait for Rural Digital Opportunity Fund results to begin to work with providers on the Whole Community Approach responses
White Pine County/ City of Ely	1) Established broadband action team 2) Complete business and residential surveys 3) Produced broadband playbook 4) Positioning City of Ely to leverage planned street beautification project for improved broadband infrastructure 5) Assisting Ely-Shoshone tribe with broadband planning on tribal lands 6) Assisted White Pine County Schools with the upgrade of its WAN from fixed wireless to Fiber connectivity	1) Awarded the following fiber contracts with E-rate reimbursement – White Pine County Schools (including Baker, Lander, and McGill) Schools including Ely Shoshone Tribal Library; Learning Bridge Charter School and White Pine County Library 2) Continue to work with Fiber provider to expand service to business and residential customers
Lander County	1) Established broadband action team 2) Completed business and residential surveys 3) Produced broadband playbook for Lander County 4) Issued broadband enhancement RFI with Pershing and Humboldt Counties	1) Providers on future plans 2) Wait for Rural Digital Opportunity Fund results to begin to work with providers on the Whole Community Approach responses
Tahoe Transportation Authority	1) Created investment portfolio document for the Tahoe Transportation Authority	1) Continue to work with Tahoe Transportation District

		to shop to investors who may be interested in building Fiber to the Home in Tahoe portion of Douglas, Carson City and Washoe Counties	to attract fiber investments in and around South Lake Tahoe and North Lake Tahoe areas in NV
Carson City	1) Assist with interface with Zayo and other carriers willing to offer services in Carson City	1) Continue work with Carson City Government	
Douglas County	1) Initial draft of Douglas Broadband Action Document completed	1) Continue work with Douglas County Government	
Ely Shoshone Reservation	1) Worked to get fiber into reservation as part of the E-rate work with White Pine County	1) Continue to assist tribe's efforts to upgrade residential service on reservation	
Moapa River Indian Reservation – Moapa Paiutes	1) Working with Tribe to develop plan to bring better community anchor institution and residential broadband service to the reservation. Leverage E-rate; Rural Healthcare Program, USDA Distance Learning and Telemedicine (DLT) grants and T Mobile Settlement 2) Work with Moapa Valley Telephone initially because of their long history of service to the tribe	1) Meet with Tribe and Moapa Valley Telephone	
Te Moak – Battle Mountain; South Fork and Wells bands	1) Working with Tribe to develop plan to bring better community anchor institution and residential broadband service to the reservation. Leverage E-rate; Rural Healthcare Program, USDA Distance Learning and Telemedicine (DLT) grants and T Mobile Settlement	1) Monitor RDOF awards to identify providers	
Fort McDermitt Indian Reservation – Shoshone and Paiute	1) Working with Tribe to develop plan to bring better community anchor institution and residential broadband service to the reservation. Leverage E-rate; Rural Healthcare Program, USDA Distance Learning and Telemedicine (DLT) grants and T Mobile Settlement	1) Monitor RDOF awards to identify providers	

Sample broadband survey Results

An accurate reflection of the gravity of the lack of broadband access in rural Nevada is evident in the residential and business broadband survey results.

The survey results from Elko County are particularly compelling:

Business Survey Results (146 responses):
Demand for improved service is high and satisfaction with current service is very low. A recent survey of broadband demand among businesses found the following:

1. 73.7% of businesses in Elko County are very dissatisfied or somewhat dissatisfied with the service provided by their current broadband provider
2. 93% of businesses in Elko County reported they desired to upgrade their current broadband service. 79% showed a desire to have connections greater than or equal to 100 Mbps.
3. 72% of businesses in Elko County reported they experienced buffering delays either daily or weekly
4. 99% of Elko County businesses expressed that it would be a wise investment for Elko County Government to undertake efforts to attract better broadband service to the region

Residential Survey Results (1,180 responses):
1. 76% of Elko County residents are either somewhat or very dissatisfied with their current broadband service.
2. 86% of Elko County residents experience buffering of their broadband connection, frequently while watching streaming video.
3. 96% of Elko County residents are interested in faster broadband service
4. 99% of Elko County residents expressed that it would be a wise investment for Elko County Government to undertake efforts to attract better broadband service to the region