Many sectors still seek better online connectivity to provide services

By Noah Berner
May 22, 2020

Editor's note: this is the second part of a two-part series.

Of the many industries impacted by the relatively low level of internet connectivity in Calaveras County, medical services would greatly benefit from faster speeds, said Mark Twain Health Care District CEO Randy Smart, MD.

"There are patients that have respiratory diseases, where they need oxygen, and the oxygen is not very mobile, it's in their home," he said. "And there are many older patients that simply don't have access to transportation, or are really intimidated about getting in the car and getting out on (Highway) 49 or (Highway) 4. Those patients really need our help, and particularly as you get into later stages of life – maybe palliative care, hospice care, complex care, team of therapy – those patients desperately need to have access to telehealth."

Over the past month, the Valley Springs clinic transitioned many high-risk patients to telehealth.

"For the month of April, our clinic did 21% of their appointments through telehealth. We went from 0% to 21% in one month. And in the next month, that number will not be lower, it will be higher," he said. "This is going to be the new America. The new America is going to be a tele-America. Telecommuting, telehealth, telefinancing, telebanking – probably telereporting."

Patrick Kane is the program manager for Central Sierra Connect Broadband Consortium, which works to expand broadband access in Alpine, Amador, Calaveras, Mariposa and Tuolumne counties.

"We are one of the regional consortia up and down the state of California, and our overall goal is to get to 98% connected to broadband by household in our region," he said. "Our mandate is the 6/1 Mbps measure, but we are also pushing for higher speeds."

Kane said that the main barriers to expanding wireline broadband access in the region are the high cost of infrastructure and low return on investment for service providers.

"It's expensive for these providers to run that technology out to folks," he said. "As responsible business owners, they have to consider that when they make these decisions. Something that they're not going to break even on in 15 years is something that is not an option for them."

Fixed wireless is an important delivery method for the foothills, Kane said.

"Fixed wireless is really key to hitting that 98% number that we have, because it's really one of the most effective ways to get internet connectivity to people in the central Sierra region," he said. "While it may be exorbitantly expensive to run wireline broadband to someone's home upcountry, local ISPs can get internet to them via fixed wireless in a way that is affordable and cost effective for the provider."

Conifer Communications is one of several local fixed wireless internet providers. The company was founded in 2008 and has offices in Groveland and San Andreas.

"We focus mostly on rural, and what we do is we use the local topography to put towers on mountains and then shoot microwave signals to homes and businesses," Director of Company Development Sonja Langan said. "We use fiber to come to main towers, and then we network between the towers to then serve the homes."

Langan said that the company has expanded service significantly over the past 12 years.

"We started with essentially two employees that were throwing ladders on their off-roading jeeps, and throwing a sticker on the T-shirt and saying we're a company," she said. "Now, we have a fleet of vehicles, 18 employees, and we're serving five different counties."

The company is constantly working to erect or access new towers and improve service, Langan said.

"It's our constant capital expenditure," she said. "We always have a plan that always gets moved around as to where we're going to go, and it's based on where we get the calls, and the needs of people that aren't being served in other manners."

Langan said that statistics on broadband deployment tend to understate the work that internet providers have done to expand service in recent years, due to changing benchmarks and an ever-increasing demand for higher speeds.

"The definition of high speed internet and broadband keeps shifting," she said. "It used to be that everyone had one computer and a TV for the whole family. Now, it's the phone, the iPad, the computer, and a TV in however many rooms."

For years, the Rural County Representatives of California (RCRC) has been lobbying to expand broadband access for its 37 member counties, drawn from the rural areas of the state.

"It is something that our members are very focused on, right after wildfires," RCRC Legislative Advocate Tracy Rhine said.

Rhine said broadband deployment has lagged behind in rural areas of the state.

"A lot of the focus that we are seeing from service providers is upgrading service for more of the urban, highly populated areas with things like 5G," she said. "You're seeing a lot more of that than outlay in the rural areas. And it makes sense, in that it costs a great deal more to build in terrain that's difficult, like a lot of rural areas, and most of the time you don't have the population to actually have the adoption rate that makes business sense."

In California, several government initiatives, both state and federal, have been working over the years to expand broadband service to the state's population.

In 2007, the California Advanced Services Fund (CASF) was authorized by the CPUC to provide grants to service providers working to deploy broadband in unserved and underserved areas of the state. While CASF has awarded numerous grants to internet providers over the years, access has not expanded in rural areas in meaningful ways, Rhine said.

"I think that the issue is inherent in the way that the program is structured," she said. "If I'm a service provider and I have a project to serve a census block, if I provide broadband service to just one household in that census block, that census block is considered served. And that could be with 10/1 Mbps speeds. And you can see the issue, right, it becomes kind of like Swiss cheese, in that these areas will be reported as served, but in reality, you may have only one household in that whole census block that is actually getting service, and quite frankly, it's a service speed that isn't sufficient. I will tell you, now that we're all working at home, and we have children that are trying to do homework – we're doing Zoom meetings, Google Classroom – those speeds are not adequate. They weren't adequate to begin with to do basic functions at home – and I'm not talking about streaming Netflix – just simply uploading a photo to send to grandma, or trying to do some sort of shared document online."

A new bill, SB-1130, seeks to make modifications to the CASF program to make it more effective.

"The focus of that bill is to really get providers to deploy scalable, future-proof technology – meaning fiber – so that you have speeds more like 25/25 Mbps, or 100/100 Mbps, as opposed to what we are currently seeing and what's allowable through the CASF program, which is funding for deployment of 10/1 Mbps," she said.

Rhine said that she has seen little progress in expanding broadband access in rural areas over the past few years.

"I've been with RCRC four years now working on broadband issues," she said. "I cannot think of any areas that have seen significant upgrades in service, or seen projects that have greatly extended service."

While fixed wireless has expanded access in rural communities, it does have its downsides, Rhine said.

"The problem with fixed wireless, especially in rural areas, is that it's difficult to get signal, it's not very reliable, and you're not going to have the speeds that you need for commerce," she said. "In rural areas, we do have businesses, and we do like to take ATM cards, and you need broadband to be able to do that."

Rural residents tend to pay more for internet service than their urban counterparts, Rhine said.

"It can be very expensive, especially in rural areas when you don't have a lot of competition, a lot of choices, and so you pretty much have to take whatever is offered," she said. "Usually that is at a higher cost and with less service."

Scarcity of infrastructure in rural areas was highlighted by the devastating wildfires of recent years, as well as the Public Safety Power Shutoffs (PSPS) of last year, Rhine said.

"Something that we saw was the outages of cellular towers and broadband through cable," she said. "We had major issues in areas that are fire-prone. And during PSPS events, those telecommunication sites went down, so those individuals didn't have any ability to know if they needed to evacuate; if there was a disaster; how long would electricity be out. That's another thing that we talk about a lot when we're advocating for broadband, is that these are the areas that really need to have access in case of emergencies."

Calaveras County Supervisor Jack Garamendi is on the Executive Committee of the RCRC. He said that the county has been working hard to expand broadband access in recent years.

"The county is doing everything that they can to provide these services, and what we can provide is right-of-way, clear guidance, ways to reduce the cost of installation," he said. "We have to expand access to broadband internet throughout Calaveras County."

Garamendi cited a new trenching policy that makes it easier for service providers to install infrastructure along public roads. He said that the county has also been working with local providers, such as Volcano Communications Group, to expand service. Last year, Volcano brought fiber optic cable to downtown West Point.

"Our local providers who provide both broadband through fiber optic and those who provide fixed wireless are really doing the best that they can," he said. "We just need to find a way to help them, if this is one of our societal goals, which in my opinion it needs to be."

Because it is generally unprofitable for service providers to deploy broadband to rural households, government programs to subsidize costs play an essential role in expanding access, Garamendi said.

"I'm very much an advocate for many of the programs that are going on," he said. "How do you take a community that's spread out and find an economical way to provide these services without government support? It can't happen, and it won't make sense."

Garamendi said that the most challenging expense lies in building the "last mile" of infrastructure, the final leg of the network that connects individual homes to the internet.

"I have a high-speed cable going right through the middle of my district, coming right up Jesus Maria, through Mountain Ranch, and down to San Andreas," he said. "That is like having a superhighway through the middle of your community, but no off-ramps or on-ramps. So even though it's there, we can't access it."

The spread of the novel coronavirus and the enactment of shelter-in-place restrictions have made the need for adequate broadband increasingly clear, Garamendi said.

"I don't think there's ever been a greater exclamation point for the need for broadband access than the COVID-19 crisis that we're currently going through," he said. "Kids having the ability to go to school, parents having the ability to telecommute, the ability to conduct commerce over the internet – these are all things that are vital for continuing to grow our community and our economy, and they're places where we need federal and state help to help mitigate the excessive costs of doing this. If we don't make the investment, we're going to keep a large cohort of our population from moving forward in the new economy."

Source: http://www.calaverasenterprise.com/news/article_782d97bc-9c5a-11ea-9f72-e3f36b04eebf.html