Varcomm Keeps Rural California Schoolkids Engaged During COVID-19

The independent rural telco steps up to bridge the staggering homework gap by helping economically challenged students access low-cost broadband.

By Sean Buckley / *Broadband Communities*

Varcomm, an independent rural telco, is keeping students connected during the COVID-19 pandemic by setting up Wi-Fi hot spots in its service areas. It's offering free and reduced broadband access for the next 60 days to low-income residents and families with grade K–12 children in Ducor, Kennedy Meadows and Rancho Tehama, three rural, sparsely populated California communities. Residents need to provide documentation that they qualify for low-income programs such as the FCC's Lifeline or free school lunch to access these benefits.

Outside the home, residents can access free outdoor public Wi-Fi service at Varcomm's offices and other locations inside the three towns it serves.

Eric Votaw, president and CEO of Varcomm, says the company is committed to providing Wi-Fi hot spots because a large majority of the students in the three communities it serves are from low-income households.

"Our subscribers are economically challenged," he says. "In Ducor, 100 percent of students at the local elementary school are on the free lunch program."

Varcomm traces its origins to 1910, when farmers in southern Tulare County, California, banded together to create a small telephone network with a single telephone line. Given its roots, it's not surprising Varcomm has a unique customer reach today. Ducor, Rancho Tehama and Kennedy Meadows are separated by long geographical distances.

"We are a unique ILEC in that we operate three noncontiguous exchanges covering several hundred miles," Votaw says. "From the Ducor exchange to the Rancho Tehama office, it is about 350 miles. To the Kennedy Meadows exchange, it's 150 miles."

KEEP STUDENTS ENGAGED

After the pandemic forced schools in California to close, Varcomm put hot spots throughout the towns where it offers service. The telco asked local schools whether it could install wireless routers with range extenders, which Varcomm would pay for, into their locations.

Ducor is one of three rural communities in California where Varcomm offers Wi-Fi hot spots.

However, the response was mixed. "The first school said yes, and the second school did not respond," Votaw says.

To connect to the Wi-Fi service, students simply search for the VarcommStudents network and enter the password "VarcommCares."

But several rules govern eligibility to get an at home Wi-Fi router with DSL service and public Wi-Fi connectivity. Each student must be in a family that is either an existing Varcomm telephone customer or that uses the FCC's Lifeline program to get low-cost telephone service. Students are limited to 20 minutes per session. Varcomm applied filters to limit content, enabling access to email, school websites, online shopping, and other public-appropriate websites.

By offering better internet service for students, Varcomm helps keep students engaged. In Ducor, the schools go up only to the eighth grade. After that, students must travel 22 miles to the high school. By having broadband at school and at home, students have a consistent learning experience.

At home, students connect their Wi-Fi routers to 10 Mbps DSL connections. "Technology enables student participation – it keeps them interested," Votaw says.

COMMUNITYWIDE DISCOUNTS

Besides working with the schools, Varcomm installed wireless equipment at the local church in Ducor, its own offices, and the homeowners association in Rancho Tehama.

The provider set up wireless hot spots in five main locations: the Ducor Business Office, Rancho Tehama Business Office, Ducor Union Elementary School, Ducor First Baptist Church and Rancho Tehama Rec Hall.

"We reached out to the Ducor church, which was willing to do it," Votaw says. "In Rancho Tehama, we put a Wi-Fi hot spot in the HOA's recreation hall and in each of our offices where we have parking lots."

Varcomm also offers 10 Mbps internet access for free for 60 days to new customers and reduced monthly broadband rates to existing customers. If the new customers want to continue after the 60-day period, Varcomm offers low-priced internet plans.

To qualify for service, customers must provide documentation of being able to qualify for low-income programs. For existing customers, Varcomm offers a $10 per month reduction, which comes out to a 20 percent discount. If an existing customer has a student and is on the Lifeline program, the provider gives the broadband discount.

"The phones started ringing, and we started issuing the discounts and wireless modems for 60 days," Votaw says.

CORE TECHNOLOGIES, ADTRAN STEP UP

Because of California's stay-at-home mandate, customers' ability to access the Wi-Fi signals was limited. "People could drive up to our parking lot to access the Wi-Fi signal," Votaw says. "However, they could not come into the office, which we thought was really inconvenient."

This prompted Varcomm to look at its Wi-Fi router inventory.

Initially, the plan was to give 20 wireless routers to students on a first come, first served basis.

Varcomm, knowing it would quickly run out of routers, turned to its technology partner, Core Technologies. As Varcomm started sending out routers, Core Technologies reached out to ADTRAN, which donated 100 modems.

"When ADTRAN pledged this donation, we went full bore and let the schools know, we let the communities know, we issued press releases and we started getting the word out there," Votaw says. "We have issued about 50 Wi-Fi modems, so people are getting broadband."

Votaw adds, "This initiative keeps my people busy and is a way for us to get out to those kids and parents who are going crazy."

FTTH POSSIBILITIES

Just as the COVID-19 pandemic hit, Varcomm was on the verge of launching a GPON-based fiber-to-the-home (FTTH) network. It had an open house scheduled for March 28 and a marketing campaign ready to go, but that was put on hold when California Governor Gavin Newsom issued the stay-at-home order.

Over the FTTH network, Varcomm plans to offer a broadband-only product to support users who do not want to use a traditional landline telephone or linear video.

"We were also set to launch a broadband-only service, which we call CBOL [consumer broadband only loops]," Votaw says. "This means we could get better broadband penetration without forcing people to take a voice line."

Although he hopes free internet service for students will draw attention to the FTTH network, "right now everyone is focused on staying at home, so no one has taken FTTH."

Today, Varcomm has built out FTTH in the Ducor exchange. Later, it will extend FTTH service to Kennedy Meadows and Rancho Tehama. Votaw says, "We're doing it exchange by exchange."

Customers in Varcomm's Ducor exchange will be able to choose from two different FTTH service plans with the option to bundle the service with a landline phone or buy a stand-alone connection: a 100/50 Mbps plan and a 300/100 Mbps plan.

Just because most of the residents Varcomm serves work in low-wage, agricultural jobs does not mean they should not have access to high-speed internet.

"This is a very economically challenged community, but it's not that people aren't employed," Votaw says. "Just because you're poor does not mean you deserve crappy broadband."

One service Varcomm will not pursue is linear video. Like many other independent telcos that built out FTTH but struggled with video content costs, Varcomm will focus on enabling streaming video services such as Sling and others.

Having overseen the video efforts at Guam's GTA Teleguam, Votaw knows the challenges of delivering video.

Still, offering a bundle of high-speed broadband with an online video option could help the company mitigate any potential churn.

"I was instrumental in getting the video project off the ground at GTA on Guam, and given the fact we didn't have to compete against DISH or DirecTV, it made our business model work," Votaw says. "However, I do believe streaming services will be the wave of the future, so we have made arrangements through NRTC to resell DISH if we want and also to resell Sling TV," he says. "We haven't pushed it yet, but it's something we are going to have in our bag of tricks for stickiness."

The vast majority, or 90 percent, of its broadband customer base is

COBANK SAYS RURAL TELCOS TAKE RISKS

As the COVID-19 pandemic shakes the U.S. economy, a growing number of rural telcos have stepped up to the plate to offer a host of free and discounted services for customers.

In a recent report, "Rural Telecom Operators Take on Risks for Their Communities, But for How Long?," CoBank wrote that "COVID-19 has exposed the vulnerability of the unserved in rural America as remote learning and working from home become the norm."

More than 750 service providers signed the FCC's Keep Americans Connected Pledge, which means that they will not cancel service for 60 days for those who cannot pay their bills, will waive late fees for late payments, and will make Wi-Fi hot spots available to all who need them. The pledge, initially set to expire in mid-May, was extended through June 30, 2020.

Several rural telcos that signed the FCC pledge are providing free and discounted service and setting up free Wi-Fi hot spots.

However admirable these efforts are, CoBank says, they could pose issues for rural telcos that lack the financial scale of larger counterparts, such as AT&T and Comcast.

"It's one thing for a large company like Comcast or AT&T to live up to the Keep Americans Connected Pledge; it's an entirely different story for small rural operators," CoBank wrote. "These concessions and sacrifices will bear significant financial risks for small, rural operators if the pandemic lingers for an extended period. For example, giving away free service to those who can't pay their bill because of COVID-19 introduces the risk that nonpayers could include those who can pay their bill but choose not to over fears about future household cash flow."

residential, but the telco will offer local businesses a mix of fiber and broadband wireless.

"With our fiber and some fixed wireless, we feel that we will be able to offer ranchers and farmers a service that will enable their use of IoT cattle monitoring and water monitoring," Votaw says.

HELPING OTHER COMMUNITIES

Varcomm has been surprised that adjacent communities – including ones it does not serve – have asked if the telco can help with distance learning.

"When the press release hit, we got calls from other school districts," Votaw says. "I told them I am sorry. We don't service your territory."

However, the telco is starting to work with a community near Ducor to offer some wireless service. It will help with technical issues to bring service to students.

"I told a neighboring community that I could probably hit some of their students wirelessly, but I don't have a whole lot of facilities there," Votaw says. "Other than our fiber that runs through their town, I don't have a distribution network there."

Nearby communities have also asked if they could get FTTH networks.

"The superintendent in a neighboring school district saw we were giving internet away and saw we had FTTH and asked me, 'Why can't you do that here?'" Votaw says. "I told them, we're not in your territory, so we can help, but we can't do it for you."

The FCC's Rural Digital Opportunity Fund (RDOF) program may offer some hope for the neighboring towns outside Varcomm's territory that want better broadband, particularly FTTH. Through a two-phase reverse auction mechanism, the RDOF will direct up to $20.4 billion over 10 years to finance up to gigabit speed broadband networks in unserved rural areas.

The RDOF Phase I auction is currently scheduled to begin on October 22, 2020, and will target more than six million homes and businesses in census blocks entirely unserved by voice and broadband with speeds of at least 25/3 Mbps. The second phase will cover locations in partially served census blocks, as well as locations not funded in Phase I.

Varcomm is working with Calix and consultant Moss Adams to see how it can leverage RDOF funds to help communities near its current service areas enhance their broadband capabilities.

The service provider has identified locations in two counties where it would like to build out fiber.

"My understanding is the neighboring exchange that wants FTTH broadband is eligible for RDOF funding," Votaw says. "After I get a little bit of information on RDOF, we're going back to their school to see what we can do to help them access RDOF money, use some of their E-Rate money and get them what they need." ❖

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BROADBAND AVAILABILITY REMAINS INCONSISTENT

Initiatives from Varcomm and other telcos highlight that the COVID-19 pandemic has shown that a lack of broadband in rural and remote communities is part of a broader homework gap issue.

According to a previously published Pew Research Center analysis of 2015 U.S. Census Bureau data, 15 percent of U.S. households with school-age children do not have a high-speed internet connection at home. School-age children in lower-income households are especially likely to lack broadband access. Likewise, according to a recent study from the Hispanic Heritage Foundation, Family Online Safety Institute and My College Options, nearly 50 percent of students say they have been unable to complete a homework assignment because they don't have access to the internet or a computer.

Overall discrepancies over broadband availability continue to run rampant.

The FCC in May 2019 said that 93.7 percent of people in the United States had broadband access, leaving only 21.3 million people without it. However, when Broadband Now manually researched broadband availability this year, the firm estimated that 42 million people in the United States do not have access to wired or fixed wireless broadband. This reflects an additional 6.5 percent of people beyond FCC estimates.

A key issue with the FCC's data is that it relies on Form 477 data. A big issue with Form 477 is that if an ISP offers service to at least one household in a census block, then the FCC counts the entire census block as covered by that provider.

In addition, the FCC's $80 billion estimate to bridge the digital gap includes a mix of fiber and fixed wireless technologies, reflecting the regulator's technology-agnostic approach to bridge the digital divide for students.

However, dairy cooperative Land O'Lakes says that broadband access may be a $150 billion problem. Like independent telcos, Land O' Lakes offers free Wi-Fi to residents and students. CEO Beth Ford contends broadband should be a national priority, like rural electrification in the 1930s.

"We've been pushing the need for a 1930s kind of rural electric level investment where we have broadband accessible across the United States," Ford said in a Star Tribune article. "That would be a $100 billion to $150 billion investment."