

When Nothing Is Better Than Something

Your rural community may be blocked from receiving better internet service because of the availability of satellite or fixed wireless service. Here's what to do about it.

By Jonathan Chambers / *Conexon*

The Connect America Fund II auction was largely a success. For less than half the money per location previously spent on 4/1 Mbps and 10/1 Mbps services, a large group of bidders in the auction agreed to build fiber-to-the-home networks to provide gigabit speeds. Another group bid for reasonable subsidies to offer fixed wireless at 25 Mbps speeds.

Then there were satellite and certain fixed wireless bidders who, if left unexamined by regulators and the public, will damage the interests of rural communities.

SATELLITE VOIP SERVICE

ViaSat, the only satellite bidder in the auction, won a total of \$122,499,877 to serve 190,595 locations. Even where it didn't win, ViaSat bid as low as 1 percent of the reserve price during the auction, meaning that in some locations, it was willing to receive less than \$10 in subsidies per year over a 10-year period to offer broadband. Such bidding was an attempt by ViaSat to block competitors from receiving funds to build terrestrial networks.

On average, ViaSat will receive \$64.27 per location per year, whether or not it has subscribers. That is less than 7 percent of the money per location made available to bidders for terrestrial networks. In other words, the FCC was prepared to invest more than \$1.8 billion in the areas in which ViaSat was the winning bidder and now will spend just \$122

million over the next decade. No other funds will be spent in those areas.

From the perspective of some at the FCC, that is a great deal. Those FCC officials believe that satellite service is already adequate and the federal government need not spend any more public money to fulfill its mandate from Congress to ensure reasonably comparable service in the rural United States.

To the more than half million Americans who will be left without adequate broadband service, it isn't such a good deal. The FCC has passed a digital death sentence. Good luck attracting new businesses, enjoying the latest in video entertainment, participating in the national cultural life, benefiting from advances in telemedicine or providing opportunity for youth. For that matter, good luck getting your kids and grandkids to visit, and good luck selling your home.

There are those who think something is better than nothing. However, this particular something restricts the opportunity for getting something better in the future. If you live in one of these communities, no further funds will be spent in your community, even though your internet service will be worse than the service in 99 percent of the United States.

APPEAL TO STATE PSCS

What can you do? Ask your state public service commission to do its job.

For most of the last century, state public service commissions ensured that rural areas of the United States had telecommunications service reasonably comparable to that available in urban areas. The authority of public service commissions has been steadily cut back over the past 20 years, but public service commissions still have the authority and responsibility to ensure that companies that receive public funds provide quality telecommunications services. Before a company receives public money from the Universal Service Fund, of which CAF is one component, the state commission must certify the company as an eligible telecommunications carrier (ETC).

If I were a resident of one of the 20 states in which ViaSat submitted winning bids, I would ask my state commission to ensure that all ETC

State public service commissions can refuse to certify ViaSat as an eligible telecommunications carrier – and thus disqualify it for CAF II funds – if it cannot provide quality voice service.

applicants can deliver quality voice service. According to the FCC, this requires actual users of the service to rate the service at an average of 4.0 out of 5.0, using a test known as the voice Mean Opinion Score (MOS).

Recently, ViaSat petitioned the FCC to dumb down the FCC's testing methodology. Specifically, ViaSat is asking that the voice tests be done in a lab rather than in actual real-world calls, that the test of voice quality be a one-way script rather than conversation, and that ViaSat, rather than a neutral

third party, conduct the test. (ViaSat's request to the FCC can be viewed at <https://tinyurl.com/yc68cjek>.)

Perhaps ViaSat knew when it bid that it couldn't meet the current standard under the current testing protocol. My skepticism is based on ViaSat's representations to officials at the FCC in 2014 and 2015 that it could not meet the voice standard. In one meeting with the chairman of the FCC, ViaSat said its internal testing resulted in scores lower than 4.0. I trust something has changed in the past

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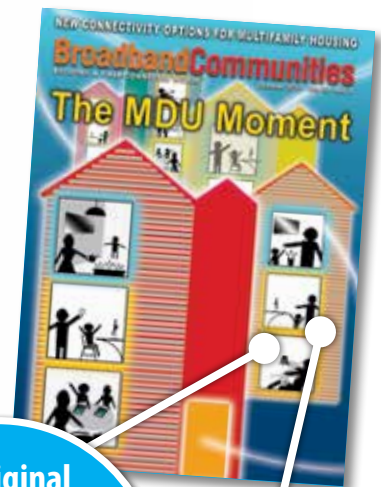
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The public should have the opportunity to see the technology plans of CAF II winners that propose to provide fixed wireless service of 100 Mbps in rural areas.

few years, even if that something isn't latency or the speed of light.

Whether or not the FCC changes its testing methodology, any state commission can adopt the FCC methodology or its own methodology in the ETC process. I would recommend using five elements in the test:

- 1 The test participants who measure voice quality should be engaged in conversation.
- 2 Both parties to the conversation should use the satellite VoIP service so that double-hop call quality is measured.
- 3 The test should be conducted by an objective firm unrelated to ViaSat.
- 4 The testing should involve individuals from the communities this service will affect.
- 5 The testing methodology and scores should be available to the public.

If the tests demonstrate quality voice service, then the state commission will have more confidence in granting the ETC petition. If not, the ETC application should be denied and the potential funding returned to the Connect America Fund for re-auction next year.

RURAL 100 MBPS FIXED WIRELESS SERVICE

A substantial amount of funding was won by fixed wireless bidders that committed to make 100 Mbps service available to at least 95 percent of the locations in every census block assigned to them, assuming that 70 percent of the locations would subscribe to such service. As no service of this type today meets the FCC's CAF requirements throughout any rural census block

group in the United States, I am skeptical of these offers as well.

A winning bidder for a census block group is obliged to make the requisite service available to every location in the eligible census blocks in the group. Locations are housing units and small businesses. The supported network must be capable of providing the actual speed at peak times with 70 percent subscription rates.

Each winning bidder was required to provide the FCC with its technology design by November 5, and that plan should be available to state commissions for review as part of the ETC application.

It is possible that the 100 Mbps tier fixed wireless bidders will submit technology plans that will pass muster. None of the bidders in the Rural Broadband Experiment of a few years ago submitted a technology plan that met these requirements. But, as with satellite, perhaps things have changed in the past few years. The FCC is woefully understaffed to review such plans, as are the state commissions. When the state of New York faced a similar challenge following its auction, it engaged third-party consultants.

When I was at the FCC, the technology plans I saw while evaluating fixed wireless technologies by some of the same winning bidders were inadequate. They did not meet the requirements and would not have passed the recently adopted testing protocols. I don't doubt that it is technically possible for fixed wireless bidders to provide 100 Mbps service using only unlicensed spectrum. After all, they could build fiber-to-the-home or fiber-to-the-curb networks and use a

combination of Wi-Fi and other short-range wireless technologies.

However, you'd have to see the technology plans to know what they are proposing. Nothing in the submissions to the FCC or in public statements would lead one to believe that the fixed wireless bidders have the spectrum or technology that would enable them to meet FCC requirements or even have plans to acquire the requisite spectrum or technology. I think the public should have an opportunity to see the technology plans.

NO MAGIC BULLETS

I believe individuals and companies should be free to invest their resources in technologies and networks that they believe will gain them customers and make them successful. However, I think the public's money should not be spent on speculation, and the government should stop wasting public resources on incremental improvements in broadband when real improvement is within reach.

When I was at the FCC, each of the three chairpersons asked me to look at FCC technology programs that had been beset by fraud in which the public's money had been ill-spent. There has been fraud in every FCC spending program. Much of the fraud was not due to unscrupulous raiders of the public fisc. There was some of that, but most fraud was due to hopeful service providers and hopeful public officials, who wanted to believe that problems of access, whether the unserved populations were rural, high-cost, poor or disabled, could be solved with some magic new technology.

As the FCC prepares to invest more than \$50 billion of the public's money over the next decade in rural broadband, shouldn't the public know what we're buying? ❖

Jonathan Chambers, formerly chief of the FCC's Office of Strategic Planning, is a principal of Conexon, which works with rural electric membership cooperatives to bring fiber to the home to rural communities. Contact him at jonathan@conexon.us.