August 11th, 2014  
To: The Federal Communications Commission  
Re: 10th Broadband Inquiry  
Docket: GN Docket No. 14-126

I’m writing to you to file consumer level comments regarding the 10th Broadband Progress Inquiry. I’d like to take a few moments of your time to outline the questions asked in the inquiry report, to the best of my knowledge as a consumer, and a telecom industry worker. I work in a CLEC, a competitive location exchange company in West Kentucky. I’m knowledgeable about the technology used in the copper facilities based era, as well as fiber networks, VoIP, and cellular network technologies.

1) Advanced Telecommunications Technology

The commission asks the question: What is an advanced telecommunications Technology, and how should the Commission determine advanced technologies based on bandwidth speed.

From my own personal experience, the current standard of 4 mbps downlink, 1 mbps uplink, is insufficient for the current American household. I personally see households of 5 people need sufficient bandwidth of at least 30 mbps down and 5 mbps up. Reasoning being, that services such as Netflix, xBox Live, Playstation network, iTunes Match, all running simultaneously, cannot sufficiently run on a 10M down access line. The congestion alone for 4-5 users to have multiple devices active at once requires near 30M. Otherwise, consumers will constantly see buffering as other family members are watching video in other rooms, or trying to update core computing software. Imagine, trying to watch Netflix while your Macbook Pro is updating to OS X Yosemite, a 5Gb download. You can’t on a small 10M connection. The FCC benchmarks need to be based on 30Mbps down for broadband, with sufficient upload to support cloud services, such as iTunes or Amazon, Google Play. With video, uploading a video to cloud services is a real problem, as uploading is discriminated against with such poor uplink. No residential carriers offer sufficient uplink to use Youtube or backing up videos the size of a 30 minute iPhone video. We need the Commission to pursue higher bandwidth uplinks.

Additionally, the low uplink discourages residents from hosting their own email servers, or video servers. If the commission is looking to enforce "Net Neutrality" with no discrimination of packets, then hosted services by
residences should not be discriminated against with such low bandwidth for uplinking. Residential home owners should be able to keep their own backup servers and be able to access those servers with sufficient bandwidth while away from their home. ISPs do not have the right to block or throttle that legally owned content on consumer owned physical hard drives with poor upload speeds.

The commission should immediately begin evaluating the peak usage issues between intermediary interconnects, outlined by Level 3. If consumers traffic is being hindered at peak times because ISPs with a natural monopoly are not upgrading interconnects, the FCC needs to act. This is what appears to be happening between Verizon and Level 3 to Netflix services. Peak usage speed benchmarks are needed only for transparency, and should be evaluated via consumer speed tests. The FCC has the ability and data to show carriers peak usage broadband and let the consumers decide if that carrier has enough bandwidth to provide them during peak usage hours, before the consumer is locked into a 2 year agreement with an incumbent monopoly carrier.

Mobile services should also be included in the same benchmarks as wired broadband. The wireless carriers have relieved themselves of carrier obligations to service last-mile facilities based services for broadband, and have shifted resources and profits to the wireless based broadband services. These carriers have neglected the copper PSTN network, and forced customers to wireless carriers where there is no wired broadband available. Therefore, the exact same benchmark standards should be applied to carriers of wireless broadband, and the same services should be available to areas with no access to wired broadband competitors.

For instance: Where I live, in West Kentucky, the county has no option for wired broadband access. Yet, in Kentucky, AT&T is pushing legislation to end carrier of last resort responsibilities. AT&T is no longer building DSL facilities for customers, even though they are the natural monopoly for LATA 464. Instead, AT&T is offering wireless phone service, and wireless broadband. The catch is that for 100$ a month equivalent to AT&T's wireline broadband offerings, AT&T wireless broadband comes at the expense of overage fees, data caps, and broadband meters that consistently do not work properly. It's a sham that the FCC does not regulate pricing of bandwidth via the network transparency rule and allows carriers to charge 15$ for overages or throttle consumer's broadband connection where the carriers sold the consumer an "unlimited" data plan. I was one of those consumers AT&T "forced" to move to a metered plan with overages in order to connect my only broadband availability to my laptop and iPad. the FCC did nothing to
combat carriers discriminating against users needing access for these devices over the past 3 years, and now we're struggling each month with low bandwidth caps, little ability to control video on devices, and under constant concern that a child family member will pick up the device and start streaming YouTube in HD on an iPad without the ability to filter or block access the service directly on the device, or through game apps that link to video services (Such as Disney's "Where's My Mickey"). Mobile broadband services should also have sufficient data allotments for users that allow the ability to complete app updates, operating system updates for computers, gaming consoles, and other devices without penalty of going over a data cap. OS X Mavericks upgrade is a 5Gb upgrade. In order to install on my MacBook Pro, I had to physically drive an hour to a different city in order to update my computer, because there is no public wifi in my town sufficient to handle a 5Gb operating system upgrade. There is no wifi sufficient in my small town to support a 100mb podcast download. How does the Commission expect consumers to perform critical updates for their cell phones when wifi is insufficient to download 100mb in an hour?

The Consumerist has a great article noting that Comcast, whom is using "mobile competition" to garner FCC support for merging with Time Warner, falsely claims mobile internet is a viable competitor to fixed broadband. Using "Breaking Bad" as the example, streaming the entire series on a fixed broadband network only costs between $30 and 100$. However, streaming the exact same content over LTE would rack up $1,500 to $2,500 dollars in overage fees. (Source: http://consumerist.com/2014/08/18/comcast-says-mobile-data-is-competitive-but-it-costs-2k-to-stream-breaking-bad-over-lte/)

2) Measuring Broadband Development

Using the current tools that the FCC has today, the Commission should require that ISPs report each month the actual speeds that consumers get on their devices or home routers, and be available via the FCC Broadband Map. The FCC should incorporate realtime data from the FCC's Speed Test application, as well as require carriers provide their own realtime coverage data, enforced through the Transparency rule. Carriers know where no signal areas are, but refuse to show true carrier coverage maps to consumers. Wireless carriers should also be required to show true speed test data on their website for their customers on coverage maps. Latency and dropped connections should also be reported on the coverage maps.
3) Timely Deployment of Broadband to America

The commission asks: Is broadband being deployed to all Americans in a reasonable and timely fashion? This depends on who you ask. The consumers, or the ISPs. The ISPs will tell you "Yes, we're fulfilling our part of the bargain to provide access to 90% of our customer base." The consumer, on the other hand, would say "No, we have yet to get wired broadband to our house, and the telco/cable company says there's no plans to deploy new services."

I recently heard of a local high school's plans for utilizing technology in the classroom for middle schoolers. Their plan is to have the kids use their personal cell phones to look at Google Earth, and have kids use planning tools for homework on their smartphones or tablets. What's not in the equation, is what this usage costs parents on their cellular data plans. The schools may have wifi, but it's the child's responsibility to make sure their device is connected to the school's wifi before downloading software for school or using applications. This is a data management nightmare for parents trying to regulate their family's usage and overage fees. 15$ a Gb is a steep price to pay for the school's wifi being down, and a student trying to do homework on a cellular priced connection, or watch a video when the internet signal drops at school, which rolls over to cellular. That particular school no longer has adequate computers to allow each student access to a computer lab. The computer lab is now only for the "technology impaired household" that doesn't have a computer or internet access. Think of the county student having to do homework on a 10Gb mifi connection. Would you like for your family to be limited on their homework access, or pay overages? a 30Gb plan (which is more reasonable for this type of application) costs 225$ a month with cellular carriers! The digital divide is real, and it's real when paying for internet in the rural areas in the country.
Closing

The FCC is charged with a great responsibility to monitor and measure America’s broadband development and capabilities. Today’s technology requires much higher access than the benchmarks that the FCC is asking to define. I highly urge the FCC to increase the broadband definition well beyond 10Mbps and examine household broadband as 30Mbps/10Mbps uplink for the future development of internet services.

Thank you for your time,

Scott Stewart
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