

May 23, 2014

To: The Federal Communications Commission

Re: Notice of Proposed Rulemaking – Protecting the Open Internet

Docket: GN Docket No. 14-28

To the Commission:

I'm writing to you in response to the NPRM of Protecting the Open Internet. I've read the 200 page NPRM posted, and wish to offer my individual comments to questions asked by the commission.

Section 706 and Title II, Title III for Mobile

Seeing that the quickest way to adopt open internet would be for the commission to adopt any rulemaking would be to use section 706, I think in the interim, 706 would be preferred. However, Title II classification of broadband carriers must be achieved if the Commission wishes to seek universal service for broadband. The carriers and fiber providers have taken USF funds to build their networks, and to make profit from them. That is public tax dollars, and carriers are still able to not serve areas with broadband. As to mobile carriers, they have leased public spectrum, and as such the FCC needs to be regulating those airwaves as Title III. Carriers should not be able to acquire access or funds or spectrum without utilizing it in a fair and universal service manner. I would prefer that the Commission use the strongest possible tool to ensure that carriers are required to serve all of their customers fairly, wireless included.

Internet Ecosystem and Internet Openness

Working at a CLEC, I seen the first hand account of how the '96 Telecommunications Act worked, and promoted competition for phone companies. That framework worked well, for UNE copper services. However, carriers began using the internet/un-regulated networks to stifle CLEC competition growth by removing copper-cotted facilities, and creating remote DSLAMs that were fiber fed. That allowed the carrier to force the CLECs to either collocate in every single remote terminal for DSL, or be forced to tell their customers that they had to go back to the ILEC for DSL service, as the cost of collocating was roughly 25,000\$ a remote terminal. Because there was no regulation forcing carriers to allow CLECs access to fiber facilities, that competition has been dying for the last 10 years.

The same is now happening to internet content companies. The previous open internet rules of 2010 were a stepping stone, that were not very well enforced. The NPRM shows that even with the 2010 rules, they were not very enforceable. Numerous incidents are noted in the NPRM, because carriers and cable monopolies knew they could get away with discriminating on their networks (even though they took public money to build the network). The carved out monopolies of cable and telephone, even now with wireless, secures their territories and keeps those companies as the gatekeepers of what users can or can't do on the access we consumers purchase. Simply put, even with the Open Internet Order of 2010, consumers didn't see much openness at all, when it comes to carrier choice, or price schemes and increased price hikes to discourage use on the networks. (I.E. data caps on wireline and wireless networks)

Openness regarding Free Expression and Civic Engagement

The 2010 rules, which did not address "No blocking of legal content" perhaps protected free expression and civic engagement than the new rules proposed by the Commission today. One concern, such as noted by the NoAgendaShow.com podcast, is that this new rule "could" mean that what is legal today, won't be legal tomorrow. With ICANN being sent overseas, what does this rule propose for EU countries governing ICANN who now is governing IP addresses for US websites? Who decides what content or expression is legal or not? Does this rule apply only to copyrighted content, or will this mean removal of websites that are deemed "hate speech", as in the EU? What if a network provider changes their Terms of Service, to determine certain website traffic is no longer "legal" due to their contractual agreements we sign for service? There must be strict guidelines as to who will be determining what traffic is legal, and where, if this rule is to be adopted. Today, even Google's web browser, Chrome, can scan and block/blacklist websites, yet that scanning service does not block their own advertisement services that contain malware. (Malvertisements, as some call it) And malware is supposed to be illegal content. The Commission needs to look into a venue that protects speech, and not just on a copyright content level.

Peering Agreements and Data Sponsors

With the news of Netflix entering agreements with ISPs for faster traffic, Level 3 released a very interesting blog post regarding carriers whom were deliberately degrading traffic in order to have content providers pay for access, rather than use the port arrangements that Level 3 offered both companies reasonably. These agreements that allow Chairman Wheeler's "Fast Lane" services, could possibly stifle access to content

and lead to blocking of traffic that is not "sponsored" or even worse, force consumers to use a service that does not count against that customer's data cap, due to monopoly carriers restrictive usage policies on video capable networks. We have yet to see what type of data sponsorships AT&T will roll out, but given their track record on attempts to block access to Apple's Facetime, Skype, and iMessages, we could only assume that any arrangement AT&T brings to the public would not favor consumers fairly. This becomes even worse with families primarily using mobile for broadband, as children have no ability to comprehend data caps or their impact on cellular bills. Families that have no choice other than using metered mobile internet at 15\$ a Gb overage, on 4G/LTE networks able to use 1Gb in less than 2 hours. If a child uses a non-sponsored app to watch a Disney movie, and that app does not allow scaling to standard quality, then that specific movie could eat over 4Gb of data, resulting in a 60\$ overage fee. These are the billing scams that are in place TODAY! You can only imagine the chaos of having to individually pick and find video services that are sponsored by your carrier, then keep up with if those agreements are still valid or not.

Traffic Throttling, Network Management

Having been a victim of AT&T's cellular throttling for unlimited data plans, and seeing companies throttle services or ports using BitTorrent, I've come to the conclusion that throttling is nothing more than a way for carriers to extort money out of paying customers. AT&T began doing this to users of 3G data for video services, by saying they were ONLY throttling the top 5% of users. That quickly became any user going over 2.5Gb of data. After public outcry, and nothing from the FCC, AT&T was allowed to continue this network practice, in order to get customers off of unlimited data and onto the overage plan billing we have today. Where customers pay for what they "think" they might use, and then get billed astronomical rates for overage. There are instances of network traffic shaping where ISPs discriminate against using bitTorrent or peer-to-peer file transfer services. Most of these instances have been used to try to combat online piracy. However, as studies have shown, people are willing to use legal avenues to obtain streaming services of video and audio content if that venue is offered to them. Take HBO's Game of Thrones for instance. When HBO streaming services work, traffic of piracy was down for that week. As HBO's service deteriorated, people turned to bitTorrent as their last resort to view content that they already paid for, HBO streaming services. (This was data reported on **DSLReports.com**) Aside from illegally sharing copyrighted content, BitTorrent services are used to distribute freeware software and legal, unlicensed content such as podcasts. If carriers block or throttle these services, they are interfering with an avenue that allows faster distribution of downloads and offers

privacy to users, that do not have to go through browser trackers and malware ads to get legal content. This convoluted service should be handled the same way that Napster or Limewire was treated, through the court system. I do not believe carriers should have the right to block these services, since there is a legitimate legal use for them.

Meters, Data Caps, and Unregulated Billing Schemes

As I noted before, I've been a victim of AT&T's throttling, and low data caps. Where I live, there is no wireline broadband internet service available. The only option is to use either AT&T wireless, Verizon wireless, or HughesNet. Being that AT&T is already my cellular carrier, and has been since the Cingular Wireless days, I opt to use AT&T 4G(HSPA+) service for my primary internet connection. HughesNet has worse fair-use policies than mobile carriers, restricting customers to download software updates at 2AM in the morning in order to avoid throttling to 56K speeds if the connection uses over 250Mb a day. I've had friends say HughesNet is the worst carrier on the planet for this type of rule. I couldn't refuse their claim. Next in line would be wireless carriers, who's metered billing scams on the public are notorious for overcharging customers without regulatory oversight. I've written letters to the FCC in the past regarding these billing meters, and nothing has been done. The most recent, this year, was regarding overage fees being billed to my account 5 days after the billing cycle had ended, tacking on a 15\$ overage fee because AT&T's billing system takes 5 days for usage to show up on a customer's bill. This makes adjusting mobile usage to stay under the already low caps impossible. To make matters worse, AT&T charges the customer for latency, jitter, QoS re-transmission of data packets that is caused by their network. Water companies do not charge for a leak on their side of the meter. Why are data carriers allowed to bill for their failure to deliver packets?

Users Options with Multiple Internet Carriers

With the extent of broadband services, consumers could be utilizing 3 or 4 different broadband providers to deliver content to them in an effective way. Such as: Primary wireline connection, primary mobile broadband connection, secondary mobile connection/MiFi device, and various wifi options from local businesses, where data throughput is decent enough to carry the specific service. (I say this, because I've encountered free wifi data so slow that it couldn't even update a 20Mb app on an iPhone within an hour.) Recently, a favorite podcast of mine, that I mentioned before - No Agenda Show, recorded a session over Skype to a co-host on vacation in Japan. The podcast host uses Comcast as a cable connection, which normally does not work well for audio because of poor conditioning on the wirelines within Comcast's network. The host must use **Sonic.Net** DSL service in order to have usable Skype audio. However, when the

partner host was in Japan, the Comcast worked better, as the **Sonic.Net** connection continued to have audio quality issues. This is most likely because of Comcast's agreements with overseas carriers like Level 3 and it's peering agreements. However, consumers have no idea what peering agreements are in place with certain carriers or their traffic discrimination policies to make an informed decision when connecting to a contracted service for internet access. This is a problem, that needs transparency.

Will increased competition solve this, and bring lower pricing to consumers? It did for customers that went to a CLEC for phone and DSL service. Today, we have fiber over builders in select markets, that are driving prices down in major metropolitan areas. That's great for the city, but continues to put rural Americans in the underserved/not served at all bucket. More money is being spent in cities than there is in small towns and rural areas where there is no competition, other than an ISP monopoly. LTE will never be a viable replacement unless the FCC steps in and regulates the billing practices that are crippling it's potential for serving the underserved.

Bandwidth Inequality

Not only do ISP's discriminate on traffic for QoS services, video and now "fast lane" peering, but there is a discrimination of traffic when it comes to upload and download speeds from carriers. Upload speeds are far less than the downlink signal. Why is this? Why should it take 4 times as long to upload a video to a cloud service, than it takes to download one? ISP's have put language in their ToS that prohibit servers from residential accounts. Thus, the need for sufficient uploading is not seen by carriers. However, why should an ISP not allow a residential person to have their own email server? Or their own cloud server, for legitimate family services? One word: Competition. Carriers do not want competing services on their networks that would allow individuals to circumvent the carrier's own email service or cloud services. If the FCC is truly interested in Open Internet, or Packet Equality, then Bandwidth Equality must be enforced as well.

Enterprise Services And the Dangers of Price Cap Billing

Never before has the economy of businesses today been threatened by the hand of regulation. Businesses simply cannot do business today without the internet. They are moving to IP based SIP session phone PBXs, which transfer over fiber access. They're using fiber access to backup core files. Credit cards process over the internet. Banks can't operate without the internet anymore, as no one seems to write checks these days. Everything is electronic, everything is IP based. Carriers are threatening to turn off

backup POTS service lines by petitioning the state legislatures to let them out of carrier obligations for copper phone lines. Businesses can't rely on cellular alone because it's not 100% reliable. Fiber is not 100% reliable because outages take hours to repair. Backup DSL lines flake out when the copper service they run on gets wet from a busted NID. Copper service carriers take up to 5 days now to fix a phone line, that is meant for an alarm system or fax services.

And now, metered internet threatens the future of the connected business. For a company that primarily uses the internet for it's business, metering access bandwidth pipes is a nightmare. Carriers remember the bill and keep schemes from the CABs voice service days, and how VoIP is entering the same scheme. Now, carriers are looking at data caps and bandwidth meters for business lines, which adds uncontrollable overages to the already convoluted billing for large businesses.

If the FCC does not get involved with rate caps on per usage billing, businesses will be forced to shut down. WiFi access will disappear, because of the rates carriers could impose and hikes at any time. The internet as we know it will vanish, and finding connectivity to offload mobile traffic will be impossible.

I'm not saying enterprises and businesses shouldn't be subject to data caps and metered billing, but whatever the carriers bill, has to be sustainable to not destroy the economy of business itself.

Sincerely,

Scott Stewart