

Before the Federal Communications Commission
Washington DC

Framework for Broadband Service

GN Docket 10-127

Comments:

In light of the 'Comcast order' and the Appeals Court decision regarding that order, the Commission has determined it necessary to seek comment on the matter, in order to determine if it is necessary to reclassify broadband Internet service to a telecommunications service.

To that I give an emphatic 'Yes', that is both allowable in part under current law, and will need in a few cases, additional legislation to remedy the situation, so that equal and unfettered access to the Internet can continue.

1. Some broadband Internet providers use the electromagnetic spectrum to provide service to their clients and customers. This is particularly true of wireless carriers such as AT&T, Verizon, and even smaller companies like Union Wireless.

This electromagnetic spectrum is often called 'radio' waves, and given that fact, the FCC can there be both minimum speed levels be offered to customers, and also that fair and equitable pricing is offered to customers. This must include, as stated by the Commission in the NOI, items like 'E-Rate', low income and disabled subsidies like those offered to telecommunications companies who provide phone service, and other related matters. This is required especially, and can be done now, because of provisions in Title 47 that give the Commission the prerogative to regulate the use of electromagnetic or 'radio' spectrum.

Spectrum licensees will differ with that assessment because they will say that it is different from radio or television broadcasting, as regulated by 47 CFR 73, but while they are indeed different broadcasting. The result is the same, providing a way of disseminating information using the electromagnetic spectrum. They will claim that while broadcasting is 'one to many', the Internet is 'one to one'. That is true only to the specific user's requests, but the web as a whole can be the platform like AM or FM radio, and so there must be a framework to ensure equal access to any and all lawful content, and a way still to deal with unlawful content.

- 2 Given that, the Commission is requested to look into the matter of 'bandwidth caps' now being imposed by the wireless industry, apparently in possibly a collusive manner based on how the press has been reporting on the recent CTIA Wireless meetings held in late April. Up until now, users of wireless Internet services that are offered as part of their wireless service by and large have been able to use most any service, including Internet radio streaming, without fear of 'going over' a set limit. This also may apply in the 'Bill Shock' proceeding, as for example, AT&T now sets a limit on bandwidth at 2 gigabytes total in one month for \$29.99 with a charge of \$10 a month charge for each additional gigabyte, thus having a chilling effect on the users of iPhones or similar devices for audio and visual content.

Why is that such an issue? Audio content that is streamed uses bandwidth. The data transfer rate for audio, and much more for video like Youtube, Hulu, etc., is much greater than audio.

This will help the Commission visualize the issue.

Most streaming web radio uses varying rates of compression, and therefore the amount of bandwidth needed to stream that broadcaster's programming will also vary.

Here are some common rates of compression, and using AT&T's 2GB limit, how many hours of listening can be obtained using only that bandwidth.

16kbps:	2,000 minutes of listening.
32kbps	1,000 minutes
64kbps	500 minutes
128kbps	250 minutes
192kbps	175 minutes (estimated)
256kbps	125 minutes (rarely used if ever)

Most streaming audio providers prefer 32kbps or 64kbps streaming. However, those that offer formats like classical prefer 128kbps streaming in some cases, and that because it offers the highest fidelity, claimed to be near CD quality. KUAT-FM and Pandora are using 192kbps streams, among others, and Pandora uses it as their premium service platform as desired by listeners who choose the 'Pandora One' service. Most of Pandora's currently 58 million listeners are using the 32kbps stream if they are using the basic level of service provided by Pandora. Pandora, of course is <http://www.pandora.com/>

That means that when using a smartphone on the AT&T network, or other service that caps the bandwidth usage of its customer, that it is entirely possible that the listener could only listen three hours on a smartphone. AT&T will dispute that, but if so, should provide solid evidence, including mathematical calculations, to refute this and validate that my figures are wrong.

Therefore, the FCC shall seek to remove this barrier to the use of Internet audio and video content via a smartphone or wireless device.

2. Speed tiering. Defined as offering one speed to one group of Internet users at one price, and higher speed for other users that pay a higher price.

This is one that needs to be dealt with, as without removing this barrier to the Internet, we will not see the Internet used to its fullest advantage. The Commission may be able to regulate now, but should seek to codify the ban in 47 USC.

The practice of speed tiering only came into being when the early DSL services were offered in the 1990s. Dialup users were not restricted by providers to how 'fast' they could download or upload, it was only dictated by whether they had a 14.4, 28.8, or 56k modem.

Nowadays, providers have commandeered the DOCSIS protocol used by modems to restrict how 'fast' a user could download or upload data or listen or watch media content on the Internet. This use of DOCSIS to create castes of users should be banned, and can be done so now by requiring minimum speeds be offered to all users.

I propose therefore, that for large DSL providers that use wirelines be required to offer a higher minimum speed, and others who may not have the capacity right now to do so be given waivers to offer

the slower speed for a time to allow them to 'catch up' to the others. The minimum speed should be raised on a regular basis as technology develops, and should start in 2011 at 10mbps, and increase regularly as technology develops.

Wireless providers should be required to offer a certain minimum on 4G starting at about the same, and be required to provide a 'floor' speed based on distance from the transmitting site as weaker signals also mean slower access speeds to the 4G network's Internet services.

Pricing will need to be regulated initially to assure consumers will be able to afford DSL/Cable service, and wireless Internet services.

Third: Unlawful content matters.

The MPAA ex parte filing indicates a concern of nearly everyone about unlawful content being distributed over the Internet. This has been a thorn in the side of many, including myself, from the beginning. This is often a way that viruses, botnets, and other malicious software and programs are distributed. And it goes back to the early days when you might go to Kazaa and download a Britney Spears tune only to find it was a pornography clip and find that it also infected your computer with spyware or more recently, other malware that turned your computer into a spam-spewing botnet machine.

ISPs should be allowed to have tools at their disposal to manage these attacks and help users who may have been affected that are on their networks. This could be an exception to the speed rule above but only temporarily to stem the botnet's effectiveness. The less material the botnetted computer or workstation can spit out, the better. But this shall be accompanied by notification of the problem to the customer.

Copyright holders have recourse for infringement under the DMCA and 17 USC, and the FCC can provide additional regulation that would allow for better enforcement of both in order to meet the needs of copyright holders. It may be in some matters necessary to codify it through Congressional legislation into 47 USC some items, but by and large this can be handled by the industry through 17 USC. Codifying some aspects of 17 USC into 47 USC pertaining to the Internet may also enhance copyright law, and remove certain perceived ambiguity on the part of the public, which has been a lot of the cause of the problems experienced by copyright holders.

That is one of the areas that has to be taken care of by Congress, and may in part be what the Appeals Court decision was about.

Fourth: The use of the Internet is protected by the Constitution of the United States, particularly the Interstate Commerce Clause, and the First Amendment.

The Internet is used by nearly everyone these days at one time or another, to a greater or lesser extent. Therefore, it has become a platform for protected speech and commerce as outlined by the United States Constitution. Users share views on many political and other subjects, and utilize the net to hear the views of others, and listen to and view programs broadcast wherever they are, independent of where they are, and therefore are better informed on many political, recreational, or other matters important to them.

That is the crux of my argument. Bandwidth caps should be considered unconstitutional because they

hinder the use of the Internet to disseminate lawful communications between content providers and users of that content, while the rule of law is necessary to protect the user of the Internet from the unlawful or harmful content.

The FCC can require minimum standards of ISPs regarding speeds offered to customers, and provide at the same time protections to customers regarding illicit content, and copyright holders and other stakeholders regarding making available content without fear of losing income to piracy, etc.

Fifth: Regulatory analysis indicates the FCC can do many things already on its own, but must go to Congress for others.

Since the Internet was invented by Government agencies, the Government, via the FCC, can regulate the minimum standards that all ISPs should follow in providing service, including consumer and user protections.

The FCC can:

Require ISPs to offer minimum speeds at reasonable prices and raise those minimums as needed to ensure that all have access to all content provided over the Internet.

This has already been done in broadcasting, in 1980 and shortly thereafter 47 USC 73 was amended to require certain classes of FM broadcast stations to broadcast at minimum power levels to keep their class of station, otherwise they would be downgraded to a lower class.

With the Internet, the FCC could mandate a minimum DSL and wireless speed level for all, and the ISPs would have to comply within a specified time. This will ensure always that any user can access any desired content without difficulty due to speeds, etc.

Requiring minimum access speeds will also enhance the National Broadband Plan and help to achieve the goals set forth therein. The FCC or any citizen would be able to ask that the minimum speed level be raised at times or set forth a timetable for raises in the minimum speed until the goals are met.

Ban wireless bandwidth use caps for consumers, and ensure a reasonable price for all users, at a level that will ensure that all can have reasonable access to the Internet, including audio and video content, wherever they are at and are using the Internet at.

To the extent that some areas cannot attain the minimum speed levels yet, the FCC should grant waivers to allow for build-out to proceed effectively and prudently to ensure quality, but be sure that endless waivers do not get granted, but require compliance within a certain time.

The FCC needs to ask Congress for:

Authority that the Appeals Court said was lacking when they issued their decision, that matter was obvious, as there was no framework in 47 USC to handle that particular narrow matter.

Ask Congress to codify certain sections of 17 USC into the 47 USC law and allow the FCC and enable the Commission to bring enforcement actions against rogue ISPs as it pertains to copyright law.

There may be even the need to ensure that some of the things I think the FCC can do now be put into

the United States Code to ensure that the things I have raised are enforceable, or I or others may yet find and raise.

Another issue, wireless handset exclusivity.

One thing that has dogged many users of wireless services is the inability to choose a handset then choose a provider. Right now you have to choose between a good service and a 'crappy' phone as it is often put, or choose a crappy service because it has a good phone (handset).

Failure of the Commission to resolve this issue means it is out of compliance with the AT&T breakup order as issued by Judge Green. In that one they were told to 'butt out' of the handset business. I remember returning a phone to US West in 1985 that was rented. That is how everyone did it up until the breakup order. Wireless providers are apparently in violation of that order, given that CMRS unique numbers are often called 'phone numbers' or 'cell numbers' meaning phone numbers, and have been from the beginning, cellular service started just before the Judge Green order, and so it applies here too with wireless handsets.

With that assured, one could say get an iPhone, buy service on Cricket, and be satisfied, and if something happened where they needed or wanted to change service providers, they could simply go in and do it and not have to worry about a contract or agreement, or have to throw away the phone.

Wireless providers should be provided with a framework, both in Congressional legislation, and Commission action, to ensure all have access to 4G networks regardless of provider, and not have to endure the extra costs associated with 'Roaming'. Roaming charges should be banned altogether, and a framework should be enacted to ensure access. There are public safety benefits too, like what if your provider's tower was out of commission but you were in range to another provider's tower when you had an emergency? You would then be able to make the call anyway.

'Locked' phones must be banned without further argument, so that this can be more fully accomplished quickly as well. No congressional action required to ban locked phones or allow any phone on any carrier without exclusion of any other phone on any other carrier.

The FCC has sat on that proceeding long enough, that is why I'm bringing it into this NOI.

A final note:

The word processor issue meant that some of this will appear to some to be 'rambling' in nature, and for that I also apologize, so please accept that with my thanks.

Again I thank the Commission for the opportunity to comment on the issues in the NOI and related ones and look forward to the eventual rulemaking process and will have more once the Commission decides what issues need further regulation and what needs to go to Congress, and also I endorse the need for the Internet and related services that facilitate the use of it to be reclassified as a 'Telecommunications Service' to meet the needs and goals of my comments and those of others.

Sincerely,

/s/

James W. Anderson

Filed: 15 July 2010

Via: ECFS