

# Net Neutrality Tech Talk

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Slide 1:

Hello, my name is John Hossler. I wanted to put together this talk in order to spread awareness of a topic that I care about very much. In this talk, I hope to give someone new information or a new perspective on the topic of Net Neutrality.

Slide 2:

Some of you might be wondering what this topic even is. Well, the key idea is that all data must be treated the same by both the government and Internet Service Providers (ISPs). This idea has been broken down into three smaller ideas that protect the general idea: No blocking, No throttling, and No Paid Prioritization.

Down 1:

No blocking is what prohibits the blocking of legal data and the connection of non-harmful devices. This means I can buy my own modem made by a third party and use it to connect to my ISP. It also means I can use Peer to peer services, such as bittorrent, to spread or get legal content. This protects both the right to send and receive such traffic.

Down 2:

No throttling is definitely related to no blocking, but it's harder, as a consumer, to understand what is happening. If a consumer tries to access a service online and it's really slow and hard to use, the first instinct is to assume fault with the service and then move on to another service. The dangerous part about this is that it allows ISPs to artificially move the market towards services that directly make them more money. This is extremely anti-competitive behavior, and only the ISP wins; however, there could be a legitimate usage for throttling – it can be used to regulate network traffic and minimize bandwidth congestion, which benefits the consumer.

Down 3:

No Paid Prioritization is where I found the most internal conflict and where I see benefit to slackening the rules the FCC currently has in place. The idea behind it is that broadband providers may not favor some traffic over other traffic in exchange for 'consideration' (for example, money). This blocks fastlanes created by ISPs. The key to this point is keeping it context with the central idea of Net Neutrality: all data must be treated the same by .. ISPs. I am completely in favor of me, as a consumer, being able to prioritize youtube traffic while I'm watching youtube, and later prioritizing Netflix or some music streaming service. The issue I have with paid prioritization is ISPs choosing what is prioritized for me, and is why it is mentioned. All three of these ideas are closely related to each other: Prioritization necessitates throttling of some kind and throttling is softer but less transparent form of blocking. This is why I do not think you can partially support Net Neutrality.

Slide 3:

Another key element of this discussion is understanding the role of Title II in protecting Net Neutrality. To do this, I think going over a little bit of history is useful. In 1996, the Telecommunications Act was made, which was made with the intent of allowing anyone to enter into the communications business. In 1998, Digital Millennium Copyright Act protected ISPs from liability for the data that travels along their infrastructure. In 2002, the FCC ruled ISPs as "information services". Then, in 2004, the FCC makes the Open Internet Order to protect ideas of Net Neutrality on the internet.

Down 1:

Well, what went wrong? With the Open Internet Order, it seems like there is protection for Net Neutrality ideas, but these rules hadn't been tested yet.

Down 2:

In 2010, after Comcast throttled the Peer-to-peer service BitTorrent, the courts ruled that the FCC didn't have a sufficient statutory basis to regulate the behavior of ISPs. One of the ideas of Net Neutrality was infringed upon, and the FCC couldn't do anything. Spoiler: this isn't the only time. In 2014, Verizon sues the FCC for the Open Internet Order (redone in 2010 after the debacle with Comcast) and wins. The court decided that the FCC had no authority to enforce the Open Internet Order rules as long as ISPs were not identified as "common carriers". Around this time, Verizon slows down traffic to Netflix for their customers until Netflix agrees to a paid-peering plan with them. At this point, it seems like Net Neutrality has lost. ISPs can do what they want and control the online market and slow down services without any way for the government to stop them.

Down 3:

This is why, in 2015, the FCC classified ISPs as common carriers under Title II of the Communications Act of 1934. Now, the FCC can stop and penalize the ISPs for violating Net Neutrality ideas laid out in 2004. This means no blocking, no throttling, and no paid prioritization. Finally. Now, you might be wondering why the government needs to get involved. Why do the consumers need protection from a product they want and choose to purchase? With a free market, competition should prevent abuse against the consumers, so how were the ISPs able to do these things unless they were things the consumers wanted? The issue with that is the fact that most people don't have a choice when it comes to what service to get. With people that want 10 Mbps minimum, 36% don't have more than 2 choices, and 10% only have one option as of 2015. These statistics only get worse as speed goes up. With apartment complexes making deals with ISPs, even here in huntsville, I only have one 'choice' in ISP, and having internet isn't an option for me. The market doesn't protect me. This is where the classification of ISPs as common carriers can do what the market is currently unable to do.

Down 4:

Where does Adtran Stand on the issue? I was unaware until a question from a co-op at a lunch and learn, but from reading Adtran's comments on the FCC's website, I found out that they do support some ideas of Net Neutrality, like No Blocking and No Throttling, but disagree with No Paid Prioritization. Adtran also supports reclassifying ISPs as information services so that the FCC cannot regulate the ISPs. I think I've provided enough information above as to why that is a bad idea; however, I think looking at how this affects our customers is a good place to start for finding out more reasons why Adtran might take this stance.

Slide 4:

How does this affect our customers here at adtran? The obvious answer is that our customers are ISPs, so that means they have this new legislation that allows them to be regulated as common carriers. The negatives I've heard from this is that regulation slows investment, innovation, and growth. With the Amazons of the world entering into new markets (as well as our homes), this scares our customers and makes them worried about their ability to be stay competitive.

Down 1:

From what I've seen though, this doesn't match what these companies have been telling their investors. Revenue has continued to increase, investment has grown, and while I don't

know how to measure how innovation was affected, I am doubtful of that claim since the other two concerns can't actually be verified.

Slide 5:

If this affects our customers, then the question of how it affects us is a serious one. I was told that we lost out on a multi-million dollar deal with a customer when the open internet order of 2015 went through. Our stock plummeted from today's levels to \$ 14.65/share. From what I understand, there was a definite decrease in investment that hurt Adtran. It might be easy to zoom in on one bad thing in 2015 and blame it on the FCC to say the decision was bad, but since then we've seen pretty continuous growth. Our customers are growing, we are growing, and investment is growing. The negatives for our customers, to me, only seem like net neutrality policies and the regulation that comes with that. I remain unconvinced that the open internet order of 2015 had any of the long term negative economic effects that I would see as reasons to abandon it. I am open to the idea that the rules, as it stand, need modification, but that doesn't mean we throw out all the rules.

Down 1:

So far, I am dissatisfied for our reasoning for supporting reclassification. In my opinion, all this does is create more uncertainty in a market that we are doing well in. There has to be a good reason for this, and one idea I ran across in my research is that, by supporting this reclassification, Adtran is building better relationships with these big customers so that the economic future of Adtran is more secure with these customers. This is a valid point, in my opinion, but I am still concerned that this legislation could ultimately hurt us, both as people who use the internet and as a network infrastructure company. There are other ways to build relationships, and from an Adtran-centric view, I don't know if these FCC comments were made in our best interest. In some of my discussions, the idea of holding a town hall, if there was enough interest, to discuss this topic and where Adtran stands was proposed. I want to do a quick show of hands to see if there is enough interest in this.

Slide 6:

Well, thank you for listening. I would encourage you to contact me if you have questions or want to talk about this. I want to learn more, and if you disagree with me, I would love to hear your perspective. Here's my email, thank you.