

# Internet Architecture and Innovation

by Barbara van Schewick

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## The FCC changed course on network neutrality. Here is why you should care.

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Wednesday's press reports of the new network neutrality rules proposed by FCC Chairman Wheeler have been met with anger and confusion. According to the [Wall Street Journal](#), "[r]egulators are proposing new rules on Internet traffic that would allow broadband providers to charge companies a premium for access to their fastest lanes. [...] [T]he proposal would [...] allow providers to give preferential treatment to traffic from some content providers, as long as such arrangements are available on 'commercially reasonable' terms for all interested content companies. Whether the terms are commercially reasonable would be decided by the FCC on a case-by-case basis."

The press, public interest groups and network neutrality proponents responded immediately: "[FCC proposal would destroy net neutrality](#)" (The Verge); "[FCC Proposal for a Payola Internet Would End Net Neutrality](#)" (Free Press); "[Goodbye, Net Neutrality; Hello, Net Discrimination](#)" (Tim Wu); "[This is not net neutrality.](#)" (Public Knowledge).

Yet, in a [blog post](#) yesterday, Chairman Wheeler explained that accounts "that the earlier policies of the Commission have been abandoned" are "incorrect."

Who is right? Do the proposed rules abandon earlier FCC policies on access fees? And if yes, should we care? This blog post answers these questions.

It makes four points:

1. Allowing access fees is a significant reversal from the FCC's earlier policies as set forth in the Open Internet Order.
2. Section 706 of the Telecommunications Act requires the FCC to allow access fees.
3. Allowing access fees is bad policy.
4. If the FCC is serious about protecting the Open Internet, it needs to start asking real questions about reclassification in its upcoming Notice of Proposed Rulemaking.

### 1. Allowing pay-to-play access fees is a significant reversal from earlier policies

Access fees are fees that an Internet service provider imposes on application and content providers who are not its Internet service customers. Access fees come in two variants:

In the first variant, an Internet service provider charges application or content providers for the right to access the network provider's Internet service customers. Applications whose providers do not pay the access fee cannot be used on the network provider's access network.

In the second variant, sometimes called "paid prioritization" or "third-party-paid prioritization," an Internet service provider charges application providers for prioritized or otherwise enhanced access to the network provider's Internet service customers. For example, if an application provider has paid such an access fee, the application's data packets may receive a better type of service (e.g., travel faster) on the Internet service provider's access network or may not count against a user's monthly bandwidth cap.

### The Open Internet Order strongly opposed access fees

The FCC's earlier policies on access fees are set forth in the [Open Internet Order](#), which



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adopted network neutrality rules for the US for the first time. While the Open Internet Rules themselves do not address access fees, the text of the order roundly rejects both types of access fees. The text of the Open Internet Order explicitly bans access fees for *access to end users*. The order all but prohibits *pay-for-priority* access fees as well: It explicitly endorses the public policy critiques of these arrangements, unequivocally rejects the main arguments in favor of them, and concludes that, “as a general matter,” arrangements of this kind are “unlikely” to be considered reasonable under the non-discrimination rule.

Thus, any new rules that allow access fees are a significant departure from the FCC’s earlier policy.

### ***Fees for access to end users***

The text of the [Open Internet Order](#) **clearly prohibits** network providers from charging application and content providers for access to the network providers’ Internet service customers (i.e. from just charging for access, without offering anything in return).

67. Some concerns have been expressed that broadband providers may seek to charge edge providers simply for delivering traffic to or carrying traffic from the broadband provider’s end-user customers. To the extent that a content, application, or service provider could avoid being blocked only by paying a fee, charging such a fee would not be permissible under these rules.

The order discusses this question in the context of the rule against blocking on the fixed Internet. To the extent that the rules prohibit blocking of a specific application on the mobile Internet, the no-blocking rule also prevents network providers from charging that application an access fee.<sup>[1]</sup>

### ***Fees for prioritized or otherwise enhanced access to end users (“third-party-paid prioritization”)***

While the text of the Open Internet Order stops short of an outright ban of “third-party-paid prioritization” arrangements, it seems to get as close to explicitly banning these arrangements as possible without explicitly banning them.

In different parts of the order, the FCC clearly endorses the concerns that commenters have raised against third-party-paid prioritization (see paras 76 and 24-34). At the same time, the order unequivocally rejects the two main arguments that have been used to justify paid prioritization –that paid prioritization would increase investment in broadband networks or lower the price of Internet service for end users, which in turn may increase broadband penetration:

40. Some commenters contend that open Internet rules are likely to reduce investment in broadband deployment. We disagree. (See also para 28.)

The clear rejection of the main arguments in favor of this kind of access fee makes it highly unlikely that a network provider who desired to enter into third-party paid prioritization arrangements could have used these arguments to justify a deviation from the general determination that these practices are unlikely to be considered “reasonable.”

Indeed, after eloquently discussing the various harms associated with these arrangements in the non-discrimination section of the order, the order concludes:

76. [...] In light of each of these concerns, as a general matter, it is unlikely that pay for priority would satisfy the “no unreasonable discrimination” standard.

### **The proposed rules would allow pay-for-priority access fees**

By contrast, according to the [Wall Street Journal](#), the FCC’s new “proposal would [...] allow providers to give preferential treatment to traffic from some content providers, as long as such arrangements are available on ‘commercially reasonable’ terms for all interested content companies. Whether the terms are commercially reasonable would be decided by the FCC on a case-by-case basis.” Thus, the Chairman’s proposal would allow the second type of access fees.

This is a clear reversal of the Open Internet Order’s policies towards access fees, as

[Public Knowledge has pointed out](#), p. 21.

“[T]he issue is not that broadband ISPs are charging commercially unreasonable rates to edge providers when they should be charging them commercially reasonable ones; the issue is that any charges or differential treatment between a broadband ISP and a pure edge provider (as opposed to an interconnecting network) are unreasonable. A ‘commercial reasonableness’ rule would change this norm by giving formal FCC blessing to the very kinds of arrangements the open internet rules sought to prohibit.”

## 2. Section 706 of the Telecommunications Act requires the FCC to allow access fees

Many were surprised by yesterday’s announcement. After all, in a [statement](#) in February, the Chairman had said that he is committed to protecting the Open Internet and that he intends to do so under Section 706 of the Telecommunications Act, and many observers had taken comfort in that statement.

However, a close reading of the recent opinion that struck down much of the Open Internet Order, *Verizon v. FCC*, and other relevant precedent reveals that it is impossible to adopt meaningful network neutrality rules under Section 706 of the Telecommunications Act. Section 706 and the precedent interpreting it impose numerous constraints on the FCC’s ability to adopt network neutrality rules through that statutory approach – constraints that the FCC has to respect if it wants its new network neutrality rules to be upheld in court.

First, to be upheld under Section 706, any new network neutrality rules need to provide sufficient room for individualized discrimination and negotiation. After all, *Verizon v. FCC* struck down the Open Internet Order’s no-blocking and non-discrimination rule because they violated the Communications Act’s ban on imposing common carrier obligations on entities like Internet service providers that the FCC has not classified as telecommunications service providers or common carriers under Title II of the Communications Act.

As a result, any network neutrality rules adopted under Section 706 by design must offer less protection against discrimination than the Open Internet Rules, or they will pose the same legal problems and will be struck down in court. As AT&T correctly pointed out in its [comments](#) to the FCC, under Section 706, “individualized treatment [i.e., discrimination] is the norm, not the exception.” (p.14)

Second, *Verizon v. FCC* explicitly requires the FCC to allow access fees. The Court found that a ban on access fees – even in the somewhat weaker form embodied in the Open Internet Rules – effectively requires Internet service providers to hold themselves out indiscriminately to serve all applications and content providers at a price of zero:

“The Open Internet Order makes no attempt to ensure that its reasonableness standard remains flexible. Instead, with respect to broadband providers’ potential negotiations with edge providers, the Order ominously declares: “it is unlikely that pay for priority would satisfy the ‘no unreasonable discrimination’ standard.” Open Internet Order, 25 F.C.C.R. at 17947 ¶ 76. If the Commission will likely bar broadband providers from charging edge providers for using their service, thus forcing them to sell this service to all who ask at a price of \$0, we see no room at all for ‘individualized bargaining.’” (*Verizon v. FCC*, pp. 59-60)

Under Section 706, only rules that “leave sufficient ‘room for individualized bargaining and discrimination in terms’” will “not run afoul of the statutory prohibitions on common carrier treatment.” (*Verizon v. FCC*, p. 61, citing *Cellco*, 700 F.3d at 548).

Third, the Court’s decision suggests that the FCC needs to allow the worst kind of access fees if it wants the Court to uphold a general ban on blocking:

“For example, Verizon might, consistent with the anti-blocking rule—and again, absent the anti-discrimination rule—charge an edge provider like Netflix for high-speed, priority access while limiting all other edge providers to a more standard service. In theory, moreover, not only could Verizon negotiate separate agreements with each individual edge provider regarding the level of service

provided, but it could also charge similarly-situated edge providers completely different prices for the same service.” (*Verizon v. FCC*, p. 61)

Thus, in order for the no-blocking rule to be upheld, carriers would have to be allowed to offer special treatment only to one provider, but not to others; and to charge different prices for the same service to similarly situated companies. This would allow Internet service providers to use discriminatory access fees to distort competition among the applications, content and services on the network – to pick winners and losers on the Internet.

### 3. Allowing access fees is bad policy

Under the FCC’s proposed rules, application and content providers could pay to receive better service, so that their content loads faster and more smoothly, or they could pay to have their traffic not counted against users’ bandwidth caps.

As [Ars Technica reminded us](#) yesterday, Chairman Wheeler has suggested in the past that allowing Internet service providers to charge application and content providers for better treatment might be good policy. From the Ars Technica article:

“I am a firm believer in the market,” [Chairman Wheeler] [said at the time](#). “I think we’re also going to see a two-sided market where Netflix might say, ‘well, I’ll pay in order to make sure that you might receive, my subscriber receives, the best possible transmission of this movie.’ I think we want to let those kinds of things evolve. We want to observe what happens from that, and we want to make decisions accordingly, but I go back to the fact that the marketplace is where these decisions ought to be made, and the functionality of a competitive marketplace dictates the degree of regulation.”

I don’t agree with his assessment. Access fees would significantly increase the costs of offering applications, content and services, which would fundamentally change the environment for innovation and free speech on the Internet.

Access fees reduce the profits of all application and content providers, reducing their incentives to innovate. The theory of two-sided markets even predicts that network providers would charge monopoly prices to application providers, which would reduce their incentives to innovate even further. (You can find the full argument in my book [Internet Architecture and Innovation](#), pp. 278-280.)

Most importantly, access charges disproportionately affect a certain type of innovators – innovators with little or no outside funding. Large companies will usually be able to pay access fees. By contrast, start-ups or other innovators without significant outside funding would not be able to pay these fees, putting them at an immediate competitive disadvantage to established companies that can pay. As online video company Zediva explained in a [letter to the FCC](#) in December 2010, “if streaming video over YouTube would not count towards your usage cap because YouTube (Google) paid for that arrangement, who would be interested in using an alternative streaming video application like Miro or justin.tv? Or if Netflix bought guaranteed bandwidth during times of congestion, while Zediva’s service was stuttering due to the broadband provider’s network management, who would want to rent a DVD from Zediva?”

Why should we care if start-ups or other innovators without significant outside funding cannot pay these fees and therefore lose the ability to innovate? Throughout the history of the Internet, innovators with little or no outside funding have developed many important innovations (including E-Bay, Facebook, Yahoo, Google, Apache Web Server, the World Wide Web, Flickr and Blogger), and there is no reason to believe this would change in the future. [Thus, removing \(or at least impeding\) the ability of this important subgroup of innovators to develop new applications will significantly reduce the overall amount and quality of application innovation.](#)

Finally, access fees may impose serious collateral damage on values like free speech or a more participatory culture by making it more difficult for individuals or non-profits to be heard or to find an audience for their creative works. Today, individuals and non-profits can put their content online at low cost, and when it travels across the network, that content receives the same service from the network as commercial content. By contrast, access fees would create two classes of speakers – those who can pay to

receive better treatment (e.g., large, established companies or wealthy individuals) and those who cannot afford to do so – often individuals and groups with unpopular or new viewpoints, like activists and artists. But if the videos produced by public interest groups to educate the public or the online classes offered by universities count against users’ bandwidth caps or stutter because these entities were unable to pay for better treatment, while commercial content does not count against users’ bandwidth caps or loads smoothly even during times of congestion, non-commercial content will become relatively less attractive, making it more difficult to find an audience.

[My Opening Statement at the FCC Workshop on Approaches to Preserving the Open Internet in Seattle in April 2010](#) explains the impact of access fees on application innovation and the importance of low-cost innovators in more detail, using stories from the history of the Internet – including the story of two then-unknown graduate students, Larry Page and Sergey Brin.

Network neutrality is not dead. The rules proposed by the Chairman, which rightly caused alarm among supporters of an open Internet, are the logical outcome of his decision to use Section 706 of the Telecommunications Act to achieve the goal that we all share – protecting the Open Internet.

Fortunately, the FCC has another option: The FCC can reclassify Internet service as a telecommunications service and adopt network neutrality rules under Title II of the Telecommunications Act – rules that are unencumbered by the restrictions imposed by Section 706.

According to the [Wall Street Journal](#), “[t]he commission has decided for now against reclassifying broadband as a public utility [...]. However, the commission has left the reclassification option on the table at present.”

As I’ve explained, Section 706 seriously limits the FCC’s ability to adopt meaningful network neutrality rules, so “leaving the reclassification option on the table” is not enough. The FCC needs to do its due diligence and seriously explore all available options, and that requires asking real questions about reclassification in the upcoming Notice of Proposed Rulemaking.

Chairman Wheeler says he is committed to protecting the Open Internet. We all agree on that goal. Now we just need to find the right way to get there.

Footnote 1:

See the explicit reference to para 67, which contains the access fee discussion, in the discussion of the rule against blocking on mobile networks on p. 56, note 306 of the order.

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The FCC Changed Course on Net Neutrality: Here Is Why You Should Care. These days, the FCC is concerned with net neutrality, the expansion of wireless phone networks, and the crowded condition of broadcast airwaves. The things we take for granted, such as telephone numbers and Internet network addresses, are rapidly running out, and the FCC has to worry about preparing for the future while making sure that communications remain stable in the present. IP Addresses Are Running Out: What You Need To Know. FCC Head to Revise Broadband-Rules Plan. check out Mitel solutions by business need, size and industry. The court allowed the FCC to kill net neutrality because washing machines can't make phone calls. There is also a quote from Macbeth? Let's experience this together. I just want to reiterate that the fundamental question here is "should mobile broadband providers be able to block and throttle internet traffic" and somehow the court has been sidetracked into nonsensical arguments about whether the availability of VoIP services that connect to the phone system determines the answer. This network neutrality or net neutrality means that every service on the internet competes on a level playing field and it is users (i.e. us) that choose which internet service wins. This system brings its own set of issues with it but it is better than the alternative. Net neutrality principles are closely aligned with the principles behind the freedom of expression. But, here is an example from not-too-long ago where this completely broke down. The Motion Picture Production Code In the 1930s, the entire movie industry in the United States was controlled by a small group of firms led by Paramount, MGM and Fox. How and Why the FCC created Net Neutrality on TechCrunch. Why the arguments against net neutrality are wrong on TechCrunch.