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Allow Paid Prioritization on the Internet for More, Not Less, Capital Investment

by

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I. Introduction and Summary

Paid prioritization is an agreement between a broadband provider and an “edge provider,” or provider of content or services over the Internet, that allows the edge provider to pay for priority treatment in a “fast lane” to jump around congestion on the Internet.

Net neutrality proponents argue that having a fast lane for those willing to pay for it would place their competitors in the “slow” lane at a disadvantage. Moreover, they sometimes claim that broadband providers have the incentive to make the slow lane even less attractive by avoiding investing in it, so that firms in the slow lane would eventually be forced to pay to move to the fast lane. Thus, they argue, regulatory intervention is needed to protect those left in the slow lane.

In its March 2015 *Open Internet Order*, the Federal Communication Commission’s response was to prohibit broadband providers, on a blanket basis, from charging for paid prioritization. The 2015 Commission majority argued that by taking away this potential revenue source for broadband providers, the FCC would give them the incentive to increase their investment in

broadband capacity.¹ Significantly, the FCC adopted the blanket ban on paid prioritization even though, to that point, under the Commission’s previous light touch” regulatory regime, Internet service providers (ISPs) had not adopted in any meaningful way the paid prioritization practices that the agency decided to prohibit based on speculative potential harms.

The FCC will now be reexamining the existing net neutrality rules, including the blanket ban on paid prioritization, in the new rulemaking announced by Chairman Ajit Pai on April 26.² As FCC Commissioner Michael O’Rielly stated at the time of Chairman Pai’s announcement: “Even ardent supporters of net neutrality recognize, as I’ve said before, that some amount of traffic differentiation or ‘prioritization’ must be allowed or even encouraged.”³

My two previous *Perspectives* discussed the relationship between regulation and investment. The first, [Understanding Why More Regulation Means Less Investment](#), showed how, as a general proposition across industries, more regulation has several negative implications for capital investment in an industry. The second, [How Too Much Unnecessary Regulation Is Impeding Telecommunications Sector Investment](#), showed how accumulating regulatory burdens has led to less investment in the telecommunication sector, and applied the key principles to three current regulatory issues that have significant implications for telecommunications investment.

Now, this timely *Perspectives* applies this analysis to a specific regulatory restriction, the ban on paid prioritization in the FCC’s 2015 *Open Internet Order*. It describes how, despite the claim by the FCC majority in 2015 that this restriction will lead to more capital investment in broadband infrastructure, banning paid prioritization, along with the other adverse effects of the *Open Internet Order*, has held back investment in broadband infrastructure. This loss of infrastructure investment will only increase over time. This *Perspectives* then describes how similar paid prioritization practices in other industries have led to more capital investment and greater benefits for ultimate consumers. It also discusses certain industries that are likely to be held back in the future because they are prohibited from paying for the prioritization they will need to assure the quality of their service.

The FCC majority asserted in 2015 that unregulated broadband providers have an economic incentive to restrict end users and edge providers from freely connecting. Using paid prioritization to restrict access, the FCC argued, lets broadband providers (1) reduce their cost of making new capacity investment and (2) increase their profits by extracting payments from edge providers competing for limited capacity that has been restricted by the lack of investment. Thus, under the FCC’s conjecture, banning providers from charging for faster access or other enhancements to their service was supposed to take away the incentive for ISPs to “choke” consumer demand for its product, and instead encourage them to invest more in broadband infrastructure.

¹ Federal Communications Commission, FCC-15-24, In Re Protecting and Promoting the Open Internet (hereinafter *Open Internet Order*), March 12, 2015 at ¶ 18 (footnotes omitted).

² Ajit Pai, “Remarks of FCC Chairman Ajit Pai at the Newseum: “The Future of Internet Freedom,” (Speech, Washington, DC, April 28, 2017), available at <https://www.fcc.gov/document/chairman-pai-speech-future-internet-regulation>.

³ Michael O’Rielly, “Remarks of FCC Commissioner Michael O’Rielly at the FreedomWorks and Small Business & Entrepreneurial Council Event (Speech, Washington, DC, April 28, 2017), available at <https://www.fcc.gov/document/commissioner-orielly-remarks-freedomworks-sbe-council-event>.

The FCC's justification for banning paid prioritization is little more than the theory of how a monopolist protected from competition can restrict output in order to drive up prices. This theory does not apply, however, when a broadband provider does not have a large enough market share and faces current competition, because any attempts to extract high and inefficient tolls will be defeated when customers switch to a competing provider.

Moreover, if entry by other providers is reasonably easy, even a firm that is currently a monopolist will see that any inefficient tolls it imposes will only give other providers more incentive to enter the market and take its customers. When entry like this can occur, profits based on taking advantage of leverage from high market shares in a dynamic market are not sustainable because they attract new investment and entry by competitors.

Rather than address any possible concerns, however conjectural, about consumer harm in ways that will encourage more competition, the FCC chose to take a regulatory approach that will only discourage new entry and investment by ISPs. Limiting the revenue streams and pricing arrangements for new entrants reduces their incentive to make the investments necessary to enter and compete effectively against current broadband providers.

Various forms of paid prioritization arrangements can be found in many different industries, including grocery stores, book store chains, air travel, sports stadiums, and package delivery services. Governments seeking to attract private investment for road construction are expanding their optional toll lanes for commuters willing to pay to avoid congestion. Having prioritization as a revenue source increases the incentive for providers in other industries to make capital investments needed to compete for customers willing to pay for priority service. These capital investments provide benefits to all customers, even the ones who are not paying for prioritization. In general, these pricing arrangements have not worked to exclude those who do not pay for prioritization, and more typically lead to lower prices and better service for the most cost-conscious customers.

Autonomous vehicles, interactive e-learning, and telemedicine are examples of applications in their early stages of development that require a high level of end-to-end reliability. Investors may be unwilling to take the risk of investing in these applications if they cannot be assured of reliable prioritized broadband connections. Some edge providers that are sensitive to delays may be better off paying extra, in the same way that some people shipping packages are willing to pay extra for priority mail services, while others will not see enough benefit from avoiding delays to justify paying more.

Governmental units in the future may find that Amber alerts, severe weather alerts, and Homeland Security warnings should be given priority over other Internet traffic. As emergency services evolve, governments may want to have paid prioritization available as an option for these and other highly time-sensitive functions.

Paid prioritization should not be treated as unambiguously pro-competitive or anticompetitive on a blanket basis. Less intrusive responses used to address market failures and inefficiencies in other industries, including antitrust, consumer protection laws, and minimum quality standards, may be sufficient to prevent the harms that could plausibly result from paid prioritization by

broadband providers. These alternative approaches have the advantage of not destroying the real benefits and efficiencies that can be achieved using voluntary contracting arrangements, which will encourage more investment by both broadband providers and edge providers whose applications require fast and reliable broadband connections.

In the absence of much evidence of actual harm from paid prioritization on the Internet, the FCC should proceed with caution. Whatever policy the FCC develops, it should seek to address the specific harm that arises from clearly anticompetitive instances of paid priority, while encouraging the experimentation and innovation that will attract capital investment and provide benefits to consumers.

II. The FCC's Ban on Paid Prioritization

The FCC based its ban on paid prioritization on the Internet in large part on what it called the “virtuous cycle” theory:

The key insight of the virtuous cycle is that broadband providers have both the incentive and the ability to act as gatekeepers standing between edge providers and consumers. As gatekeepers, they can block access altogether; they can target competitors, including competitors to their own video services; and they can extract unfair tolls. Such conduct would, as the Commission concluded in 2010, “reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure.” In other words, when a broadband provider acts as a gatekeeper, it actually chokes consumer demand for the very broadband product it can supply.⁴

This questionable theory gave the FCC the basis for arguing that its restrictions on broadband providers would encourage investment by ISPs by taking away their incentive to restrict output and drive up their tolls. In doing so, the Internet would be divided into “fast lanes” for those who pay the tolls and “slow lanes” for those that don't. Thus, the FCC adopted the following prohibition:

No Paid Prioritization. Paid prioritization occurs when a broadband provider accepts payment (monetary or otherwise) to manage its network in a way that benefits particular content, applications, services, or devices. To protect against “fast lanes,” this Order adopts a rule that establishes that:

A person engaged in the provision of broadband Internet access service, insofar as such person is so engaged, shall not engage in paid prioritization. “Paid prioritization” refers to the management of a broadband provider's network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity.⁵

⁴ *Id.* at ¶ 20 (footnotes omitted).

⁵ *Id.* at ¶ 18 (footnotes omitted).

III. How the FCC's Ban on Paid Prioritization Discourages Capital Investment

The FCC majority asserted in 2015 that unregulated broadband providers have an economic incentive to restrict end users and edge providers from freely connecting. Doing so, the FCC argued, offers broadband providers two benefits: They can avoid the cost of making new investments and they can increase their profits by extracting payments from edge providers competing for limited capacity that has been restricted by the lack of investment. Thus, under the FCC's conjecture, banning providers from charging for faster access or other enhancements to their service was supposed to take away the incentive for ISPs to "choke" consumer demand for its product, and instead encourage them to invest more in broadband infrastructure.

The 2015 FCC majority offered very little evidence that these conjectured harms were occurring, despite the history of the Internet having been allowed to develop to that point with only "light touch" regulatory oversight. As then-Commissioner Ajit Pai pointed out in his dissent to the Open Internet Order:

Nevertheless, the Order ominously claims that "[t]hreats to Internet openness remain today," that broadband providers "hold all the tools necessary to deceive consumers, degrade content or disfavor the content that they don't like," and that the FCC continues "to hear concerns about other broadband provider practices involving blocking or degrading third-party applications." The evidence of these continuing threats? There is none; it's all anecdote, hypothesis, and hysteria. A small ISP in North Carolina allegedly blocked VoIP calls a decade ago. Comcast capped BitTorrent traffic to ease upload congestion eight years ago. Apple introduced FaceTime over Wi-Fi first, cellular networks later. Examples this picayune and stale aren't enough to tell a coherent story about net neutrality. The bogeyman never had it so easy.

But the Order trots out other horrors: "[B]roadband providers have both the incentive and the ability to act as gatekeepers," "the potential to cause a variety of other negative externalities that hurt the open nature of the Internet," and "the incentive and ability to engage in paid prioritization" or other "consumer harms." The common thread linking these and countless other exhibits is that they simply do not exist. One could read the entire document—and I did—without finding anything more than hypothesized harms. One would think that a broken Internet marketplace would be rife with anticompetitive examples. But the agency doesn't list them. And it's not for a lack of effort.⁶

Apart from the thinness of evidence of actual harm from any existing Internet practices, the FCC's theory is little more than the standard economic analysis of the incentives of a monopolist or firm in a highly-concentrated market to restrict output in order to drive up prices. For this theory to be plausible, two conditions must be met: The broadband provider (1) must have a large market share and (2) must have some protection from new firms entering the market.

If, however, the broadband provider does not have a large market share and faces current competition, then any attempts to extract high and inefficient tolls will be defeated when

⁶ Dissenting Statement of Commissioner Ajit Pai, *Open Internet Order* (footnotes omitted).

customers switch to a competing provider. And if entry by other providers is reasonably easy, then even a firm that is currently a monopolist will see that any inefficient tolls it imposes will only give other providers more incentive to enter the market and take its customers.

Thus, profits based on taking advantage of leverage from high market shares in a dynamic market are not sustainable because they attract new entry and investment by competitors. More competition like this should be encouraged, because it defeats the incentive to restrict capacity described by the “virtuous cycle” theory, and also bring new firms into the market that can be the source of new innovation.

Rather than address any possible concerns, however conjectural, about consumer harm in ways that will encourage more competition, the FCC chose to take a regulatory approach that can only discourage new entry and investment. As Commissioner Michael O’Rielly pointed out in his dissent to the *Open Internet Order*:

And yet, literally nothing in this Order will promote competition among Internet service providers. To the contrary, reclassifying broadband, applying the bulk of Title II rules, and half-heartedly forbearing from the rest “for now” will drive smaller competitors out of business and leave the rest in regulatory vassalage. Monopoly rules designed for the monopoly era will inevitably move us in the direction of a monopoly.⁷

By restricting how ISPs can benefit from their new investments, the FCC made entry and new capital investment by potential competing broadband providers less attractive for new providers. Unless incumbent providers can be confident that they are well-insulated from new competition or expansion by smaller providers, they do not have the incentive to restrict capacity to raise tolls, because other providers can provide that capacity through their investments.

The 2015 FCC majority’s analysis of how banning paid prioritization will encourage more investment is contradicted by conventional economic analysis, and now is being exposed as misguided by the recent decline in capital investment. My previous *Perspectives*, [How Too Much Unnecessary Regulation Is Impeding Telecommunications Sector Investment](#), described the growing evidence that accumulating regulatory burdens generally in the telecommunication sector have been accompanied by less capital investment in broadband capacity. There is also considerable evidence and analysis from other markets where paid prioritization has been used, which shows that the paid prioritization arrangements that develop without regulatory intervention generally benefit consumers and lead to more capital investment in their industries.

IV. Consumers Benefit from Paid Prioritization in Many Markets

Paid prioritization is used in many markets, regulated and unregulated. It takes a variety of different forms, so that it is possible to point out differences between the paid prioritization in different markets. Even so, it is striking how common the practice is, and how widely accepted different forms of paid prioritization have become in other markets. More to the point, these forms of paid prioritization do not lead to firms trying to choke off demand for their products. More typically, they lead to more investment and more choices that benefit customers.

⁷ Dissenting Statement of Commissioner Michael O’Rielly, *Open Internet Order* (footnotes omitted).

Many states now offer optional “fast lanes” on highways, for a toll, as a way of attracting investment for highway projects.⁸ Commuters who want to avoid the tolls are not excluded from the highway, while commuters willing to pay for a faster trip have that option. Virginia has used the optional toll system to attract private investment for highway construction, and recently announced that it had attracted new private investment to expand the optional toll network to another stretch of highway I-395. Terry McAuliffe, Virginia’s Democratic governor, touted this expansion as “the latest step in our ongoing effort to move more people and provide more travel choices in one of the most congested corridors in the country.”⁹ Even the drivers who do not pay the toll benefit from the private investment and expansion of the highway, which reduces congestion in the non-toll lanes while giving them the option to use the faster toll lanes when they wish to use them.

One paid prioritization practice that has been extensively analyzed over many years by the U.S. antitrust agencies is the payment of slotting allowances at grocery stores, bookstores, and other retailers.¹⁰ A supplier seeking to sell its merchandise at a retailer may agree to pay a slotting allowance to have its products placed on the most favorable shelf space, while other suppliers may be willing to accept less favorable shelf space. Rather than excluding new suppliers, paying for favorable slotting may be an effective strategy for introducing new products that would otherwise require more spending on advertising and other forms of marketing. Notably, some major retailers, including Wal-Mart, choose not to charge slotting allowances, while other retailers have charged them for decades. Former Federal Trade Commissioner Joshua D. Wright, in his review of the economic effects of slotting allowances, finds that the practice generally benefits consumers:

My results show that slotting contracts are primarily associated with brand-shifting of sales within a product category, but not increases in category level prices or a reduction in category output or variety. To the extent that slotting contract revenue is passed on to consumers in competitive retail markets, an assumption generally warranted in the grocery retail industry, the results here imply that slotting contract competition is likely to benefit consumers. In sum, my findings are inconsistent with anticompetitive theories and, in practice, demonstrate that such agreements are likely procompetitive and consistent with the promotional services theory.¹¹

The paid prioritizations prohibited by the *Open Internet* Order, the slotting allowances charged by retailers, and optional toll fast lanes on highways all take the form of upstream parties paying

⁸ Robert Krol, “Tolling the Freeway: Congestion Pricing and the Economics of Managing Traffic.” Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, VA, May 5, 2016, available at <https://www.mercatus.org/publication/tolling-freeway-congestion-pricing-and-economics-managing-traffic>.

⁹ Terry McAuliffe, “Governor McAuliffe Announces Acceptance of Private Sector Proposal to Deliver I-395 Express Lanes Extension, News Release, February 25, 2017, available at <https://governor.virginia.gov/newsroom/newsarticle?articleId=19616>.

¹⁰ See, e.g., Federal Trade Commission Staff Study, “Slotting Allowances in the Retail Grocery Industry, Selected Case Studies in Five Product Categories,” Nov. 2003, available at <https://www.ftc.gov/reports/use-slotting-allowances-retail-grocery-industry>.

¹¹ Joshua D. Wright, “Slotting Contracts and Consumers Welfare,” *Antitrust Law Journal*, Vol. 74, No. 2 (2007), 439, at 440.

the downstream distributors for favorable treatment. Final consumers in these markets are not directly involved in forming the paid prioritization arrangement, but they are still affected by the arrangements. In other markets, however, final customers have shown they are willing to enter into paid prioritization arrangements from the downstream side of the transaction, and usually are better off for it.

Airlines charge passengers extra for a variety of different enhanced services, including first class seats, priority boarding, seats with extra leg room, and seats near the front of the airplane. The airlines' goal is not to exclude passengers who do not pay for these services or force them to pay higher fares. In fact, the opposite is much more likely. Regular air travelers can see that airlines try to fill as many seats as they can, and even market "bare bones" fares that may not include any choice of seat, for example. The customers who do not pay extra for better service are unlikely to be made worse off by having other customers on the plane who choose to pay extra for better service. Instead, it is more likely that customers who pay less are better off if the airline chooses to offer more flights over more routes to attract customers willing to pay extra, and then offers lower fares to fill the remaining seats on those flights. Put another way, forcing airlines to charge the same fares for everyone will almost certainly lead to fewer flights and routes, as well as less investment for increasing capacity, all of which will raise fares and reduce choices for the most cost-conscious customers, leaving them worse off as a result.

Similarly, sports stadiums have luxury boxes and favorable seating available for higher prices, but that does not mean the stadium operators want to exclude other customers who are unwilling to pay for premium seating or amenities, or build smaller stadiums to restrict the supply of seats in order to drive up prices. Having some customers pay extra for better seats generates revenue that may be used to upgrade the stadium, to offer extra amenities that may be available to all customers, or to attract free agent professional players to make their teams more competitive, all of which may make seeing the games more enjoyable for all fans, even the ones paying the least.

Of course, the U.S. Postal Service also offers its own fast lane and slow lane for customers. Customers can pay for various forms of expedited delivery for packages and mail, or they can pay regular postage or bulk rates for mail that will be delivered on a slower schedule. Federal Express and other private delivery services offer similar expedited "fast lane" schedules, but that has not given them the incentive to slow down deliveries of packages for customers who do not pay extra for higher priority deliveries.¹²

These and other variations on paid prioritization have developed over time, as suppliers, distributors, and customers have experimented in the market to find the arrangements that provide the greatest benefits. So long as markets are reasonably competitive, arrangements that try to take advantage of other parties will not survive for long, because the parties at a disadvantage can find alternative arrangements.

¹² See Kenneth Button and David Christiansen, "Unleashing Innovation: The Deregulation of Air Cargo Transportation." Mercatus on Policy, Mercatus Center at George Mason University, Arlington, VA, December 15, 2014, available at <https://www.mercatus.org/publication/unleashing-innovation-deregulation-air-cargo-transportation>.

V. When Paid Prioritization May Be Necessary for Attracting Investment.

Some specialized services for dedicated users require a high level of end-to-end reliability. The benefits from video phone calls and video streams from Netflix, for example, are reduced when they are delayed by slow buffering. Other Internet uses do not necessarily require a prioritized Internet connection. Email traffic, most file downloading, and many other uses lose little of their value if their transmission is delayed somewhat in a slow lane, although too long a delay could diminish their value.

Governmental units in the future may find that Amber alerts, severe weather alerts, and Homeland Security warnings should be given priority over other Internet traffic. As emergency services evolve, governments may want to have paid prioritization available as an option for these and other highly time-sensitive functions.

As capital investment in broadband capacity continues to decline and demand for Internet services increases, the ban on paid prioritization will affect both services that are sensitive to delays and services that are not. Those that are harmed may be better off paying extra, in the same way that some people shipping packages are willing to pay extra for priority mail services, while others will not see enough benefit from avoiding delays to justify paying more.

The analysis above describes how slotting allowances in retail stores are more likely to encourage entry by new suppliers rather than discourage them from entering. For many new suppliers, paying for favorable slotting may be a cost-effective strategy for introducing a new product. Similarly, paid prioritization could be cost effective for Internet start-ups to allow the new entrants to promote their services as being in the “fast lane,” and therefore give them more incentive to invest in their own operations.

Many future web applications are unlikely to develop if their developers cannot be assured that they will have access to fast and stable Internet connections. Autonomous vehicles, interactive e-learning, and telemedicine are examples of applications in their early stages of development. Investors may be unwilling to take the risk of investing in these applications if they cannot be assured of reliable prioritized broadband connections.

The FCC’s prohibition against charging for paid prioritization may well prevent these services from developing, as well as other new applications that no one is yet anticipating. Their loss is difficult to measure because we cannot easily anticipate what will never happen. Less intrusive responses used to address market failures and inefficiencies in other industries, including antitrust, consumer protection laws, and minimum quality standards, may be sufficient to prevent the harms that could plausibly result from paid prioritization by broadband providers. These alternative approaches have the advantage of not destroying the real benefits and efficiencies that can be achieved using voluntary contracting arrangements, and not driving off investment for the applications and new entrants that may require fast and reliable broadband connections.

Conclusion

Paid prioritization should not be treated as unambiguously pro-competitive or anticompetitive on a blanket basis. Paid prioritization potentially can discourage investment, and can lead to harm to

final customers when too little investment in infrastructure may give ISPs market power as they allocate limited capacity.

Addressing these situations with a sweeping regulatory ban on paid prioritization creates two problems that are likely to be worse than the problem the regulation is intended to address. First, such a ban prevents the paid prioritization arrangements that benefit final customers, who may want to pay extra for the reliability needed for their applications. Second, the ban on paid prioritization limits the return on investment by ISPs, so that they will invest less in situations where they do not have market power and protection from new entry.

Any concerns about broadband providers having market power and abusing it should be addressed in a more focused way on a case-by-case basis that does not throw out the baby with the bathwater. In the absence of much evidence of actual harm from paid prioritization on the Internet, the FCC should proceed with caution. Whatever policy the FCC develops, it should seek to address the specific harm that arises from clearly anticompetitive instances of paid priority, while encouraging the experimentation and innovation that will attract capital investment and provide benefits to consumers.

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