

Before the
Federal Communications Commission

In the Matter of

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Restoring Internet Freedom

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WC Docket No. 17-108

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DigitalOcean

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I. Introduction

1. DigitalOcean Holdings, Inc. is a New York-based cloud infrastructure provider operating five data centers in the U.S. on both coasts. We have over 300 employees and have aggressively invested in infrastructure and human capital since our founding six years ago. Serving over one million registered users, we are the second-largest web hosting provider internationally by public-facing machines.

2. Due to the nature of our business, we rely on an Internet with fair, equal, and open access to all. The Federal Communication Commission's recent Notice of Proposed Rulemaking would eliminate current network neutrality principles and guarantee the emergence of a tiered Internet structure. Not only would the NPRM strengthen monopolies in the broadband market, it would also allow Internet service providers to pick winners and losers in many Internet markets. This would harm our and our customers' abilities to compete, innovate, invest, and support the free flow of information.

3. Therefore, we encourage the FCC to maintain current network neutrality rules under Title II of the Communications Act, as outlined in the 2015 Open Internet Order. The FCC must maintain an *ex ante* regulatory framework with clear rules against blocking, throttling, paid prioritization, and unreasonable interference for both fixed and mobile connections.

II. Background: Who We Are and What We Do

4. In 2011, DigitalOcean graduated from the Techstars startup accelerator and began offering virtual private servers to the public. Today we are the second-largest web hosting provider internationally by public-facing machines, and we serve more than one million customers. As a cloud infrastructure provider, our business depends on our ability to provide

equal Internet access to our customers. In other words, while we ourselves are not an ISP, we depend heavily on the services and network access that ISPs provide us.

5. Our market is dominated by some of the largest Internet companies in existence today, namely Google, Amazon, and Microsoft. Because the elimination of Title II categorization would impose costs upon cloud infrastructure providers that market leaders are better positioned to absorb, protections against blocking, throttling, and paid prioritization are thus critical to our ability to compete fairly in this market. Without the protections defined by Title II, incumbents would be able to seize an artificial advantage in the market, and this would adversely impact our business and our customers.

III. The FCC Should Uphold Existing Strong Net Neutrality Rules and Legal Framework Under Title II

6. DigitalOcean supports maintaining existing ex ante net neutrality regulations on the market. With regards to the current regulatory regime, DigitalOcean supports the no-blocking rule, the no-throttling and no paid prioritization rules, the transparency rule, the no unreasonable discrimination rule, net neutrality principles, and other protections as authorized by Title II of the Communications Act of 1934 and the FCC's 2015 Open Internet Order.

A. Market Developments Necessitate Ex Ante Regulations of the Broadband Market

7. In paragraph 77 of the NPRM, the FCC asks for comment regarding the development of anti-competitive behavior contrary to the four Internet Freedoms in a world without Title II classification. Two disturbing recent market developments grant ISPs significant financial, political, and other incentives to engage in such behavior. First, the telecommunications industry has experienced a major uptick in mergers and acquisitions activity, resulting in a few industry behemoths who control large swaths of the market. AT&T's acquisition of DIRECTTV and Comcast's proposed acquisition of Time Warner Cable are two recent examples of this trend, which according to reports from S&P and Capgemini will only continue.^{1 2}

8. Second, vertical integration has become widespread as many large service providers are also becoming edge providers. For instance, Comcast now owns NBCUniversal, CNBC, USA Network, and Dreamworks; AT&T owns HBO, Warner Bros., CNN, the CW, TNT, Cinemax, and the Bleacher Report; and Verizon owns Yahoo, Engadget, and The Huffington

¹ Capgemini, Communications Industry: on the verge of massive consolidation, TME (2014), https://www.nl.capgemini-consulting.com/resource-file-access/resource/pdf/europese_consolidatie.pdf (last visited July 12, 2017) (noting that the communications industry has undergone and likely will undergo consolidation, concluding that by 2020 only three major broadband providers will be left on the market)

² S&P Global Ratings, Industry Top Trends 2017 (February 16, 2017), <https://www.spratings.com/documents/20184/1481001/ITT+2017+Telecommunications/c370126e-36d5-45e9-bb74-c5b0798c0530> (last visited July 12, 2017) (noting that the trend of consolidation within the telecommuncations industry will continue)

Post.³ In our view, this vertical integration is a sufficient incentive for ISPs to engage in anti-competitive behavior such as throttling, paid prioritization, blocking, and unreasonable discrimination - especially with regards to content or applications services owned by ISPs. Industry consolidation exacerbates this issue, as the current market structure grants a few large players disproportionate market power to aggressively pursue such plays. For these reasons, DigitalOcean finds that ex ante regulations are a critical measure to prevent anti-competitive behavior that would dampen innovation and investment.

B. Necessity of the No-Blocking Rule.

9. In paragraphs 79 - 81, the FCC requests comment on the no-blocking rule. Many of DigitalOcean's customers are small businesses or individual content and applications providers. As creators of online content and applications, our customers require net neutrality protections to reach audiences and compete with market incumbents. Without the no-blocking rule, small content and applications providers such as our customers could suffer from prohibitive blocking that would hinder innovation, competition, and investment. As a competitor to the largest technology firms in existence, DigitalOcean's ability to innovate, compete, and invest would also be negatively impacted. Therefore, we believe that the FCC should sustain this rule under the current Title II regulatory regime and that the no-blocking rule is necessary for all providers, including smaller providers.

10. As outlined above, current market trends gives us "reason to think providers would behave differently today if the Commission were to eliminate the no-blocking rule."⁴ Empirical evidence supports this conclusion as well. Prior to 2015, many large Internet service providers violated the no-blocking rule for political, financial, or other reasons. For example, Comcast blocked Bittorrent traffic on its network,⁵ and AT&T blocked FaceTime in 2012.⁶ The rise of vertically integrated ISPs is further concerning because such organizations have a built-in incentive to block competing content and applications providers.

11. Finally, the U.S. federal judiciary has shown in *Comcast Corp vs. FCC*⁷ and *FCC vs. Verizon*⁸ that the only legal authority for net neutrality protections such as the no-blocking rule comes in the form of classification of ISPs and broadband providers as common carriers under

³ Jeff Dunn, BusinessInsider, Trump's New FCC Boss Could Make It Easier For Internet Companies to Play Favorites (January 24, 2017), <http://www.businessinsider.com/internet-content-net-neutrality-fcc-ajit-pai-trump-chart-2017-1> (last visited July 12, 2017) (noting the various content providers owned or operated by service providers)

⁴ *Restoring Internet Freedom*, Notice of Proposed Rulemaking, 17 FCC Rcd 60, para 79 (2017).

⁵ Declan McCullagh, CNet, Comcast Really Does Block BitTorrent Traffic After All (October 19, 2007), <https://www.cnet.com/news/comcast-really-does-block-bittorrent-traffic-after-all/> (last visited July 12, 2017) (noting that Comcast blocked access to BitTorrent traffic on its network).

⁶ Killian Bell, Cult of Mac, AT&T: Because FaceTime Is Built Into Your iPhone, We Can Block It And There's Nothing You Can Do About It (August 22, 2012), <https://www.cultofmac.com/186208/att-because-facetime-is-built-into-your-iphone-we-can-block-it-and-the-res-nothing-you-can-do-about-it/> (last visited July 12, 2017) (noting that AT&T blocked access to FaceTime on its networks in 2012).

⁷ *Comcast Corp. v. Federal Communications Commission*, No. 08-1291 (D.C. Cir. 2010).

⁸ *Verizon v. Federal Communications Commission*, No. 11-1355 (D.C. Cir. 2014).

Title II of the Communications Act. We thus support Title II classification and oppose the elimination of the no-blocking rule.

C. Necessity of the No-Throttling Rule.

12. In paragraphs 82 - 83, the FCC requests comment on the no-throttling rule. Our customers, especially smaller content and applications providers, would be negatively impacted by throttling and would find their competitive positions diminished if ISPs were to throttle their traffic. As a cloud infrastructure provider, DigitalOcean's business would also be adversely affected by the throttling of traffic originating on our servers. Therefore, due to current market trends and empirical evidence, we reach similar conclusions concerning the no-throttling rule as with the no-blocking rule. We believe that the FCC should sustain this rule under the current Title II regulatory regime and that the no-throttling rule is necessary for all providers, including smaller providers. Furthermore, the no-throttling rule should be sustained even if the FCC eliminates the no-blocking rule, as it is indeed "a sufficiently severe and distinct threat that it required its own, separate, codified rule."⁹

13. As an anti-competitive industry practice that threatens innovation and consumer choice, throttling is harmful to consumers in all cases. As a result, the no-throttling rule does not prevent providers from "offering broadband Internet access service with differentiated prioritization that benefits consumers."¹⁰ It would be impossible for providers to create services with differentiated prioritization, nor do providers have any incentive to create such services. As detailed in a recent summons filed by the State of New York in *New York vs Charter*, a "senior Spectrum-[Time Warner Cable] executive" wrote in an email that "our interconnect strategy these days, is more about how we manage our backbone and especially edge resources with the enormous growth in content. The transit costs are rounding errors compared to impacts to the edge of making the wrong decisions. **We really want content networks paying us for access and right now we force those through transit that do not want to pay**" (emphasis added).¹¹ As written in the filing, such throttling harmed consumers and resulted in lower Internet access speeds for end-users;¹² specifically, users experienced low speeds on services such as "Youtube, Netflix, and Twitch while also having problems with Video games such as League of Legends."¹³ Because other ISPs have employed similar throttling strategies,¹⁴ we maintain that throttling is not the one-off, firm-specific behavior that the FCC implies in its NPRM but rather a widespread anti-competitive industry practice that allows ISPs to pick winners and losers in the content and applications provider markets. From the TWC emails and throttling

⁹ Title II Order, 30 FCC Rcd at 5652, para. 121.

¹⁰ NPRM, para. 83.

¹¹ *Charter Communications, Inc. v. People of the State of New York* (filed January 31, 2017), Summons, Index No. 450318.2017, para. 284.

¹² *Id.* at 60-1, para. 285-91.

¹³ *Id.* at 7, para. 25.

¹⁴ Shalini Ramachandran, Wall Street Journal, Netflix to Pay Comcast for Smoother Streaming (February 23, 2014), <https://www.wsj.com/articles/netflix-agrees-to-pay-comcast-to-improve-its-streaming-1393175346?> (last visited July 12, 2017) (noting that Netflix paid Comcast and other internet service providers to end throttling).

across the industry, we see throttling as a tactic deployed not to benefit consumers but rather a tactic for ISPs to extract additional revenue *at the cost of consumers*.

14. Finally, as stated with respect to the no-blocking rule, we believe that Title II classification is the only legal mechanism to ensure an adequate and enforceable no-throttling rule to protect a free, open, and fair Internet. We thus support Title II classification and oppose the elimination of the no-throttling rule.

D. Necessity of the No Paid Prioritization Rule

15. In paragraphs 84 - 85, the FCC requests comment on the no paid prioritization rule. Due to current market trends and empirical evidence, we reach similar conclusions concerning the no paid prioritization rule as with the no-blocking and no-throttling rules. We believe that the FCC should sustain the no paid prioritization rule under the current Title II regulatory regime.

16. We do not believe that paid prioritization is a “non-existent” problem as claimed in the NPRM. As written by the FCC’s Wireless Telecommunications Bureau in a letter to AT&T late last year, current industry zero-rating practices “inhibit competition, harm consumers, and interfere with the “virtuous cycle” needed to assure the continuing benefits of the Open Internet.”

¹⁵ Paid prioritization is no different. Without the no paid prioritization rule, ISPs would have free rein to charge exorbitant fees to prioritize traffic from large content providers and market incumbents. This would inherently disadvantage DigitalOcean and our customers, many of whom are smaller content providers or individual developers and providers. Paid prioritization would present an insurmountable challenge to our customers’ ability to compete because only the largest content providers could afford prioritizing traffic. Not only would paid prioritization practices be anti-competitive and dampen market conditions, they would also be detrimental to consumer choice since end-users would find it more difficult to discover content from smaller providers. We do not believe that it is possible for paid prioritization to incentivize competition or increase consumer surplus, as the FCC hints in paragraph 85, nor would ISPs have incentive to develop paid prioritization plans to reach these goals. The continued need for the paid prioritization rule is thus significant.

17. Finally, as stated with respect to the no-blocking and no-throttling rules, we believe that Title II classification is the only legal mechanism to ensure an adequate and enforceable no paid prioritization rule to protect a free, open, and fair Internet. We thus support Title II classification and oppose the elimination of the no paid prioritization rule rule.

E. Methods of Cloud Hosting and Impact on Net Neutrality Regulations

¹⁵ Jon Wilkins and FCC to Robert Quinn and AT&T, RE: AT&T’s Sponsored Data Program (December 1, 2016), https://cdn3.vox-cdn.com/uploads/chorus_asset/file/7575775/Letter_to_R._Quinn_12.1.16.0.pdf (noting the FCC’s disapproval of AT&T’s plans for zero-rating).

18. In paragraph 86 of the NPRM, the FCC seeks “comment on current traffic delivery arrangements online.”¹⁶ DigitalOcean is a cloud hosting and infrastructure provider for content, application, and service providers. While it is true that large online content providers may build their own hosting solutions and data centers, many small content and applications providers, such as our customers, rely on third-party cloud hosting and infrastructure solutions such as DigitalOcean. This is because smaller content providers may find it cost-prohibitive to build their own data centers.

19. Like many cloud infrastructure providers, DigitalOcean connects to other networks in two ways. First, DigitalOcean connects to the World Wide Web through ISPs. As detailed in parts A - D of this comment, ISPs may find it profitable to engage in blocking, throttling, paid prioritization, or other unreasonable discrimination. If ISPs were to block or throttle traffic to and from DigitalOcean servers, or if competing cloud infrastructure providers were to pay for prioritization of traffic to and from their servers, our business and competitive standing would be negatively impacted. More importantly, the ability of our customers to innovate, compete, and access a fair, open Internet would be significantly negatively impacted. Secondly, DigitalOcean engages in network peering, sometimes with ISPs themselves. In the absence of net neutrality rules, ISPs may find it more profitable to engage in blocking, throttling, paid prioritization, or other unreasonable discrimination rather than peering. ISPs would thus have a substantial financial incentive not to participate in peering with organizations such as DigitalOcean. This would negatively impact our network performance, our business, and the businesses of our customers.

20. While large content providers such as Netflix may be able to absorb the costs associated with anti-competitive behavior by ISPs - and indeed, these providers have absorbed such costs in the past, as detailed above in section C, DigitalOcean and our customers will find it more difficult to do so. We are especially concerned about our customers' abilities to compete with larger content providers and market incumbents. Furthermore, because many of our customers are smaller content providers, our customers may not be able to absorb the switching costs associated with switching providers or building their own infrastructure. Thus, the elimination of status quo net neutrality protections and Title II classification will disproportionately impact market challengers, small businesses and individuals, and smaller content providers.

IV. Conclusion

21. The FCC's proposed approach to re-classify service providers under Title I would harm innovation, competition, consumer choice, and protections of the four Internet freedoms. Because small content providers and market challengers such as DigitalOcean do not have the resources to compete in a world of ex post regulation, our customers and our business at DigitalOcean would be severely harmed absent status quo bright-line rules and Title II authority for ex ante regulation of the market.

¹⁶ *Restoring Internet Freedom*, Notice of Proposed Rulemaking, 17 FCC Rcd 60, para 86 (2017).

22. The rules outlined in the 2015 Open Internet Order and Title II classification work well and are the only legal regulatory mechanisms to maintain net neutrality protections. In order to support innovation, investment, and competition, the FCC should maintain its current regulatory approach under Title II: ban blocking, throttling, paid prioritization, and unreasonable discrimination of Internet traffic while mandating transparency.

Respectfully submitted,

DigitalOcean Holdings, Inc.