

9 December 2014

Chairman Tom Wheeler
Commissioner Mignon Clyburn
Commissioner Jessica Rosenworcel
Commissioner Ajit Pai
Commissioner Michael O’Rielly
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: Protecting and Promoting the Open Internet, GN Docket No. 14-28

Dear Chairman Wheeler and Commissioners,

The undersigned economists submit this letter to the Federal Communications Commission (“FCC” or “Commission”) to assist the Commission in its review of proposed rules to govern the “Open Internet.”¹

As economists who study information markets and U.S. regulatory processes, we express a common opinion: “Network Neutrality” rules are likely to come at a high social cost. Specifically, investments in network infrastructure will tend to decline if constrained by regulatory rules that limit how such productive assets can be operated and priced.

Proponents of broadband regulation argue that academic research shows the opposite, that enforced neutrality leads to greater efficiencies, that common carrier “Title II” rules are pro-consumer, and that experts in the field have reached consensus on these conclusions. That is false.

Common carrier regulations were inimical to the rise of the commercial Internet. As they were stripped away, innovative economic activity of enormous social value emerged, and the light-touch regulatory policies that have governed broadband networks have proven resoundingly successful. The development of the Internet ecosystem would likely suffer under a more intrusive regime, and the threat to the explosion of mobile innovation is particularly worrisome.

We urge the Commission to consider this annotated listing of relevant research:

- When Title II restrictions were lifted through a long series of deregulatory rule makings (principally called Computer I, Computer II and Computer III), advanced information services emerged where they had previously been blocked. This is the view not only of academic economists. *See, e.g.,* James E. Prieger, *Regulation, Innovation, and the Introduction of New Telecommunications Services*, 84 REVIEW OF ECONOMICS AND STATISTICS 704 (2002). It is also the view of the expert federal regulatory agency, the FCC. *See* Jason Oxman, *The FCC and the Unregulation of the Internet*, Federal Communications Commission OSP Working Paper 31 (July 1999).

¹ This letter is solely the work product of the signatories. No collaboration with any interested party was undertaken, and no financial support was received.

- Title II regulation does not guarantee that regulators will ban paid prioritization. We do know that in the past the regulation of interconnection charges involving voice calls generated highly discriminatory and inefficient rates. *See* Robert Crandall and Leonard Waverman, *WHO PAYS FOR UNIVERSAL SERVICE? WHEN TELEPHONE SUBSIDIES BECOME TRANSPARENT*, Brookings Institution Press (2010).
- Residential broadband services took off when unregulated cable TV operators developed the technology to offer cable modem service; the regulated telephone carriers, with a considerable head start in market share and technology, were surpassed. Phone carriers began to catch up only when broadband network sharing obligations were lifted in 2003-2005. *See* Thomas W. Hazlett & Anil Caliskan, *Natural Experiments in Broadband Regulation*, 7 *REVIEW OF NETWORK ECONOMICS* 1 (Dec. 2008).
- Open network rules can distort the race among broadband networks to roll out innovative products and services, causing delay in the deployment of digital infrastructure and possibly favoring an inferior technology. *See* Glenn Woroch, *Open Access Rules and the Broadband Race*, 2002 *MICHIGAN STATE UNIVERSITY LAW REVIEW* 1 (2002).
- Banning broadband access providers from discriminating among application services can reduce consumer welfare by steering users to inferior options or discouraging supply of desirable products. *See* Christopher S. Yoo, *Beyond Network Neutrality*, 19 *HARVARD JOURNAL OF LAW AND TECHNOLOGY* 1 (Fall 2005); Christopher S. Yoo, *Network Neutrality, Consumers, and Innovation*, 2008 *UNIVERSITY OF CHICAGO LEGAL FORUM* 179 (2008); Robert W. Hahn & Scott Wallsten, *The Economics of Net Neutrality*, *THE ECONOMISTS' VOICE* (2006).
- As the Internet evolves, different payment systems can and should evolve with it. Money transfers between broadband ISPs and content and applications providers are among the efficient methods for financing network growth and wide access to edge applications. *See* Peyman Faratin, David Clark, Steven Bauer, William Lehr, Patrick Gilmore & Arthur Berger, *The Growing Complexity of Internet Interconnection*, 72 *COMMUNICATIONS & STRATEGIES* 51 (2008, Fourth Quarter).
- Anti-discrimination rules applied to network interconnections would ironically discriminate against applications that require higher-quality connections and impede innovation at the edge. *See* J. Gregory Sidak & David J. Teece, *Innovation Spillovers and the "Dirt Road" Fallacy: The Intellectual Bankruptcy of Banning Optional Transaction for Enhanced Delivery Over the Internet*, 6 *JOURNAL OF COMPETITION LAW & ECONOMICS* 521 (2010).
- While rules assisting disclosure of consumer terms for broadband service would serve a public purpose, additional price regulation (including network neutrality rules) would not. There is no identified market failure to remedy. *See* Gerald R. Faulhaber & David J. Farber, *The Open Internet: A Customer-Centric Framework*, 4 *INTERNATIONAL JOURNAL OF COMMUNICATION* 41 (2010).

- U.S. broadband ISPs, if using unregulated status to extract above-competitive gains from either customers or edge providers, would exhibit high industry returns. Such returns have not been in evidence. See Thomas W. Hazlett & Dennis Weisman, *Market Power in U.S. Broadband Services*, 38 REVIEW OF INDUSTRIAL ORGANIZATION 151 (2011).
- The prospect of vertical foreclosure, the economic harm thought to justify network neutrality regulation, is more effectively diagnosed and treated using established antitrust law. See Jonathan E. Nuechterlein, *Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate*, 7 JOURNAL ON TELECOMMUNICATIONS AND HIGH TECHNOLOGY LAW 20 (2009); Thomas W. Hazlett & Joshua D. Wright, *The Law and Economics of Network Neutrality*, 45 INDIANA LAW REVIEW 767 (2012).
- There is no compelling evidence that the optimal charge on one side of the two-sided markets in which broadband networks operate should be zero. Nor does a non-zero charge to heavy transit vendors necessarily reflect vertical foreclosure. See Dennis Weisman & Robert Kulick, *Price Discrimination, Two-Sided Markets and Net Neutrality Regulation*, 13 TULANE JOURNAL OF TECHNOLOGY AND INTELLECTUAL PROPERTY 81 (Fall 2010).
- Extending open network rules to wireless broadband providers ignores inherent technical differences of the two networks and likely results in costs that far exceed the benefits available from this increasingly vital technology. See Robert Hahn, Robert Litan, and Hal Singer, *The Economics of “Wireless Net Neutrality,”* 3 JOURNAL OF COMPETITION LAW & ECONOMICS 399 (2007).
- Net neutrality regulation would require, in some form, price regulation. Such controls will distort market choices, and will likely reduce the welfare of internet users. See C. Scott Hemphill, *Network Neutrality and the False Promise of Zero-Price Regulation*, YALE JOURNAL ON REGULATION 135 (2008); Babette E.L. Boliek, *Wireless Net Neutrality Regulation and the Problem with Pricing: An Empirical, Cautionary Tale*, 16 MICHIGAN TELECOMMUNICATIONS & TECHNOLOGY LAW REVIEW 1 (2009).

Net Neutrality rules preclude charges by broadband access providers on content and applications services, a ban that will continue under Type II regulation. Selected research finds that such a prohibition could benefit internet users, but that conclusion is speculative based entirely on theoretical reasoning.²

Even when arguing for policies counter to the pattern, regulators have themselves documented the inverse relationship between broadband regulation and innovation. The emergence of the “Open Internet,” as heralded in the Commission’s 2010 Open Internet Order, came about via competitive economic forces, not net neutrality regulation – and was actively thwarted, initially, by Title II rules. To re-impose such rules today is to subvert the very dynamics that grow networks and, hence, support a rich eco-system for Internet content and applications.

² See, e.g., Nicholas Economides and Benjamin Hermalin, *The Economics of Network Neutrality*, 43 THE RAND JOURNAL OF ECONOMICS 602 (2012).

We believe that empirical research can inform the regulatory debate over Net Neutrality, leading policy makers to construct rules and regulations as evidence-based policies. Should the FCC ignore this economic evidence, it is the Internet community which will suffer.

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