I. INTRODUCTION

The Federal Communications Commission released an Order on December 23, 2010[1] (NN Order) that regulates broadband Internet Service Providers (ISPs). This is done via regulations concerning *transparency*, governing how broadband networks explain their services to customers; a *no blocking* provision, mandating that subscribers be permitted to deploy whatever computers, mobile devices, or applications they like for use with the network access service they purchase; and a *no unreasonable discrimination* rule for network management actions, such that ISP efforts to maintain service quality (e.g., mitigating congestion) or to price and package their services do not burden rival applications.[2] The policy is deemed *network neutrality* (NN), and the NN Order passed on a three-to-two vote (both Republican commissioners dissenting).

The first item in this regulatory trio generates only modest controversy; indeed, opponents of NN often suggest that full and frank disclosure of ISP practices are all that are needed for a well-functioning market.[3] Moreover, the NN Order mitigated potential opposition to such rules by declining to mandate any specific disclosure format, noting that "the best approach is to allow flexibility in implementation of the transparency rule, while providing guidance regarding effective disclosure models."[4] The second and third provisions, however, are intensely controversial both with respect to the agency's legal jurisdiction and to their ultimate economic effect. If the regulations are found to fall under the Commission's statutory charter, the rules will ostensibly reduce the discretion of broadband ISPs in how they price and bundle their services. Operators will generally not be allowed to impose "vertical restrictions" on their customers, which include, not only the outright blocking of certain legally available Internet content, but

- subscriptions that include services or applications delivered at lower prices and/or better quality than competing applications;
- provision of different levels of transport speed or reliability to differing applications; and

[1] Preserving the Open Internet, 25 FCC Rcd. 17,905 (2010) [hereinafter FCC NN Order].
[2] *Id.* at 17,905 ¶ 1.
[3] Economic Issues in Broadband Competition A National Broadband Plan for Our Future, 2010 WL 45550, at *11-12 [hereinafter DOJ 2010] (ex parte submission of Dep't of Justice).
[4] FCC NN Order, *supra* note 1, at 17,928 ¶ 56.

- charging of fees to content providers accessing end users on their broadband network.

NN restrictions are imposed on both fixed and mobile (wireless) broadband networks, although rules for the latter are stated in narrower terms.[5] How tightly the regulations will be enforced is unclear, as the FCC has given itself wide latitude in enforcement. "Network management" is barred only if it is "unreasonable," for instance.

Enforcement complications are nicely illustrated in the first complaint filed under the rules, received by the FCC on January 10, 2011. The petition[6] alleges that MetroPCS, the country's fifth largest mobile telephone network, violated NN by discriminatorily favoring one video site over another. This stems from the pricing schedule set by MetroPCS:

- a $60 per month "all you can eat" plan for unlimited voice, texting, and data over its advanced Fourth Generation (4G) network;
- a $40 plan for its older 2G network, unlimited voice calls, texting, and email/web browsing – but excluding video streaming, except YouTube videos, which are available to subscribers without limit.

According to MetroPCS,[7] YouTube videos are included in the cheaper package because (a) they are very popular with MetroPCS customers, and (b) Google, the owner of YouTube, constructed a special compression technique permitting the 2G network to transfer video files without the congestion spillovers normally incurred by video streaming. Rival video sites are disadvantaged by the arrangement, but MetroPCS gains no benefit from that outcome (it has no ownership interest in Google and receives no compensation from the content provider[8]), but only from the enhanced satisfaction of its customers. While the case against anticompetitive foreclosure is overwhelming,[9] it is unclear whether the FCC will dismiss the complaint. Indeed, the NN Order

[5] The *no unreasonable discrimination* rule is applied only to fixed networks. While the *no blocking* rule applies to mobile as well as fixed operators, it only prohibits blocking of services competing with mobile network voice or video products. FCC NN Order, *supra* note 1, at 17,905 ¶ 1.

[6] Ex Parte Presentation from Free Press to Julius Genachowski, Chairman, Fed. Commc'ns Comm'n (Jan. 10, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021025487.

[7] Ex Parte Presentation from MetroPCS Communications, Inc., to Julius Genachowski, Chairman, Fed. Commc'ns Comm'n (Feb. 14, 2011), *available at* http://fjallfoss.fcc.gov/ecfs/document/view?id=7021029361.

[8] *Id.*

[9] Thomas W. Hazlett, *FCC Net Neutrality Rules and Efficiency*, FINANCIAL TIMES, Mar. 29, 2011, http://www.ft.com/cms/s/0/f75fd638-5990-11e0-baa8-00144feab49a.html.

invites the allegation, pointedly using the MetroPCS price schedule to illustrate the type of business arrangement it considers to be problematic discrimination.[10] It has quickly turned into an example of the complexity of the NN trade-offs – imposing restrictions inhibiting an innovative, low-cost competitor in broadband access markets so as to protect an "open" flow of traffic – inherent in NN policy enforcement.

While Internet growth and innovation are impressive, the FCC finds that the marketplace "faces real threats."[11] Left unregulated, broadband providers will inevitably be tempted to bias the access service provided to end users, favoring applications that they own or are paid to support. This would force upstart service suppliers to bargain with a "gatekeeper," undermining the "open Internet," where users "at the edge" are able to freely communicate with all others. The result would be a disruption of the virtuous circle – infrastructure builders creating demand for content and applications, and then content and applications driving demand for more infrastructure investment -- fueling Internet growth. "Restricting edge providers' ability to reach end users, and limiting end users' ability to choose which edge providers to patronize, would reduce the rate of innovation at the edge and, in turn, the likely rate of improvements to network infrastructure."[12]

This paper critiques the NN policy – specifically, the no blocking and no unreasonable discrimination rules. After a short legal analysis evaluating the likelihood that the FCC's rules are likely to be declared beyond the scope of the agency's charter in Part II, we focus upon the economic impact of net neutrality regulations. In Part III we explain the regulatory status of the Internet. It is beyond paradoxical that the FCC argues that it is imposing new regulations so as to preserve the Internet's current economic structure; that structure has developed in an unregulated environment where firms are free to experiment with business models – and vertical integration – at will.

We next explore, in Part IV, the widespread use of "non-neutral" business forms by ISPs, Internet backbone providers, and application developers. Far from the Internet being an architectural construction, the network of networks is an evolving ecosystem in which key

[10] The Order states, "These dangers to Internet openness are not speculative or merely theoretical." FCC NN Order, *supra* note 1, at 17,926 ¶ 36. It then lists several examples. In the next paragraph, it offers, "[A] major mobile broadband provider prohibits use of its wireless service for 'downloading movies using peer-to-peer file sharing services' and VoIP applications." *Id.* ¶ 37. The footnote cites MetroPCS, which in addition to limiting video streaming on its 2G network, also (and for similar reasons) limited peer-to-peer voice calls. *Id.*

[11] FCC NN Order, *supra* note 1, at 17,907 ¶ 4.

[12] *Id.* at 17,910 ¶ 14.