Economic Policy Vignette 2015-1-13

Regulation in Financial Translation

Regulatory Uncertainty: the FCC’s Open-Internet Docket

Anna-Maria Kovacs, Ph.D., CFA

January 2015

Anna-Maria Kovacs is a Visiting Senior Policy Scholar at Georgetown University’s Center for Business and Public Policy. She has covered the communications industry for more than three decades as a financial analyst and consultant.
Introduction

When regulators act or are about to act, they are often accused of creating “regulatory uncertainty” that might hinder investment. The Federal Communications Commission’s (FCC’s) open-Internet proceeding has raised such concern about investment by the broadband Internet access providers (BIAs) who face the threat of recategorization as common carriers under Title II of the Telecommunications Act of 1996 (Act). Given that BIAs are expected to spend more than $110 billion in 2015 on a combination of network infrastructure and spectrum, and that they are the direct target of recategorization, this is certainly a valid concern.1 BIAs, however, form only a part of the Internet ecosystem, even if they account for most of its capital investment. Edge providers and BIAs together form the virtuous circle of investment and innovation that helps drive so much of the American economy. As Jeff Pulver,2 the Center for Democracy and Technology (CDT),3 the Center for Boundless Innovation (CBIT),4 Cisco,5 and others6 on various sides of the open-Internet debate have pointed out, recategorization threatens the entire Internet ecosystem.

As the FCC engages in its Procrustean task of trying to fit BIAs into Title II, it is unlikely to be able to keep the knife away from content delivery networks (CDNs), peering and transit providers, and providers of VOIP, texting, tweeting, social media, and content. These entities, by equally arbitrary means, could also be sliced and diced into something they never intended to be. All parts of the Internet ecosystem are at risk of being forced to deconstruct their service offerings no matter how thoroughly the offerings may be integrated or how much consumers desire them to be integrated. No one will be safe from the FCC’s ability to make private services commercial, force companies to unbundle their services, and dictate services to fit regulatory definitions rather than to respond to consumer demands and preferences. This

2 Jeff Pulver, “Fear and Loathing as Telecom Policy,” Huff Post Business Blog, August 6, 2014: “The madness of Title II means declaring everything telecom...I can attest I have no idea how to judge the difference between IP transmission and IP services for the purposes of my next startup. I will not be able to explain it to investors, because the line exists entirely in the mind of whoever happens to be Chairman of the FCC.” Hereafter referred to as Pulver.
3 Center for Democracy and Technology, Comments, FCC GN docket 14-28, July 17, 2014, pp. 3-4: “First, the Commission should clearly establish that its open Internet rules and authority focus specifically and exclusively on the provision of transmission functions. The Commission should expressly disclaim any possible extension to the wide range of services and applications that travel “over the top” of the Internet transmission capacity provided by Internet access providers.” [emphasis in original]. Hereafter referred to as CDT.
4 Center for Boundless Innovation in Technology, Reply Comments, FCC GN docket 14-28, September 15, 2014, p. 27: “If the FCC were to recategorize broadband as a ‘telecommunications service’, it would be required to evaluate every Internet service within its ‘end-to-end’ regulatory authority to determine whether it should be subject to regulation under Title II.” Hereafter referred to as CBIT.
5 Cisco Systems Inc, Comments, FCC GN docket 14-28, July 17, 2014, p. 27: “Even assuming this service provided to edge providers can be separated from the Internet access services offered to end-users in this way, that service would still involve the intertwined transmission and data processing technologies that constitute information services. Attempting to segregate and recategorize this remote delivery service, in other words, would necessarily open the door to classifying almost all Internet-based services. The Commission should not pursue this notion.” Hereafter referred to as Cisco.
means that the valuations of all companies in the Internet ecosystem are vulnerable to the FCC’s order, edge stocks no less than BIA stocks.

Despite these very real and worrisome unintended consequences, the FCC has publicly confirmed that it will pursue a path of Title II regulation of BIAs. The stakes are high for American consumers and the U.S. economy. Congress needs to step in to help the FCC achieve the important goal of preserving an open Internet without pulling the entire digital economy into the ambit of telephone regulations.

In order to appreciate how edge companies and their services could be drawn into the Title II regime, one must understand the basis advocates are suggesting the FCC use for invoking Title II in the first place.

**The Title-II Reclassification Toolkit**

Because the proceeding is, on one level, a debate about definitions and force-fitting services into them, we briefly cite the relevant terminology.  

Title II regulates common carriers. “Telecommunications service” providers qualify as common carriers under the Act and “information service” providers do not. According to the Act’s definitions, both use “telecommunications,” i.e., transmission among and between points specified by the user, during which the information conveyed is unchanged in form or content. A “telecommunications service” is “telecommunications” offered to the public directly for a fee, regardless of the facilities used. An “information service” is the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via “telecommunications” and beyond a mere network management capability. In addition to meeting the criteria for a “telecommunications service”, a mobile service also has to be commercial, rather than private, to qualify for common-carriage.

BIAs offer an integrated service that includes both transmission and other functions such as email, web-browsing, newsgroups, DNS-look up (Internet address lookup), and cybersecurity. The Supreme Court affirmed in *Brand X* in 2005 that these integrated services are information services not regulated under Title II. Mobile BIA, in addition, is classified as a private service, which makes it doubly exempt from regulation under Title II.

For proponents of Title II regulation of all BIAs—fixed and mobile—to achieve their goal, the FCC has to find a legally sustainable way to sever the BIAs’ integrated services into separate telecommunications and information service components. Then it can reclassify the telecommunications component as a “telecommunications service”, assuming the service can also be construed to meet all the other criteria. For example, it has to be offered to the public directly, and there has to be a fee. In the case of mobile

---

7 47 U.S.C. §153 for the definitions and §332(c)(1) and (2) for the treatment of mobile services.
BIAs, the FCC also has to declare that the mobile broadband Internet access, which it and the courts have declared to be private, is commercial. It also has to justify its actions.

The FCC docket in the Open Internet proceeding is rife with legal theories about the tools and justifications the agency might use to accomplish this goal. If the FCC follows this course and is upheld, then it will be in a position to apply the same toolkit to various edge providers. That makes Title II reclassification of BIAs as problematic for edge companies and their investors as it is for BIAs and theirs.

Some of the tools suggested by advocates of Title II reclassification

- **Reverse precedent and declare that a private service has become commercial.** Public Knowledge and Peha/Cherry, for example, assert that there is precedent for the FCC to declare that a company is offering a commercial service, even when the FCC and courts have affirmed the company’s position that its service is private.9

- **Sever and unbundle telecommunications from the rest of the BIAs’ integrated service.** There is little debate that email, web-browsing, DNS-lookup, and cybersecurity are information services, but many parties argue that those functions have become so widely available that they are severable from transport. Wu/Narechania and Free Press, for example,10 each argue that the FCC could force BIAs to unbundle their offerings. They would have to create a service consisting of transmission alone, without email, etc. Peha/Cherry also offer an alternate approach for DNS-lookup. They would categorize it as a network management function that can be a component of a telecommunications service.11

Parties also approach severability and unbundling from a different angle: the direction or beneficiary of the service. They argue that even if the service actually offered to end-user subscribers is an information service, the BIAs also can be construed to offer a pure transmission service to edge providers. Wu/Narechania describe this variation in terms of call v. response or send v. receive.12 Mozilla, recognizing that all Internet endpoints both send and receive, invents a third “remote delivery” function, which it describes as an “overlay” which is not itself physical and is “logically and legally distinct” from both subscriber access and interconnection and peering. In essence, it

---


11 Peha/Cherry, p. 6-7.

amounts to a duty to provide non-discriminatory service.¹³ Mozilla’s variation, which implicates the higher layers of the OSI¹⁴ model, could capture over-the-top providers. To avoid such a prospect, CDT places the borders between the access provided and the rest of the Internet, and asks the FCC to ensure that division by declaring that its order only applies to the BIA who supplies the subscriber’s IP address.¹⁵

- Force the BIAs to offer that “telecommunications” as a service directly to the public for a fee. By whatever means the BIAs’ services may be unbundled, to meet the definition of a “telecommunications service” they must convert that “telecommunications” into a service they offer directly to the public and they must receive a fee for it. Thus, parties also debate ways to construe that payment has occurred. Netflix, for example, even though it argues that the BIAs’ transport is severable from both the accompanying information functions such as email etc. and from the peering and transit portion of transport, still maintains that the subscriber-user’s payment covers everything provided in both directions.¹⁶

- Declare that IP-traffic meets the “between or among points specified by the user” requirement. Peha/Cherry, for example, argue that no matter how circuitous the path through various networks from ingress to egress, each network hands off to the next and, essentially, acts as the user’s agent in this IP-transport relay.¹⁷

**Justifications for using these tools**

- Find that BIAs are terminating monopolies. These parties argue that it makes no difference how many competitors are offering BIA service to the subscribing end-user; once that subscriber has chosen a BIA, that BIA provides the only access from the rest of the world to that subscriber.¹⁸

- Create a Duty to Serve. Those who want to follow the Wu/Narechania or Mozilla path – to create a telecommunications service severed from originating access – suggest assigning the BIA a duty to serve the counter-parties that want to reach the subscriber.¹⁹

---


¹⁴ OSI stands for Open Systems Interconnection model.

¹⁵ CDT, pp. 20-22. CDT distinguishes between subscriber-facing and edge-facing, arguing that the former provides access to the full Internet while the latter provides access only to the subscribers of a single BIA.

¹⁶ Netflix pp 9, 15-16. Also, CDT, p. 22.

¹⁷ Peha/Cherry, pp. 5-6. Wu/Narechania argues that the edge provider responding to a call qualifies as a user who can specify points for a transmission, pp. 14-15.

¹⁸ Wu/Narechania, p. 16.

¹⁹ Mozilla Petition, p. 5: “However, this history is past, and gone with it is the assumption that it is sufficient to view a last-mile network operator as having only two duties, to interconnection/peering partners and to end users. Now, technology enables fine-grained network management creating potential commercial relationships with remote, arms-length endpoints. Therefore, a last-mile operator must be viewed as having a separate duty with respect to remote endpoints, in addition to its duties to end users and interconnection/peering partners. Privity in network traffic management has been changed, fundamentally, through deep-packet inspection and other advanced network management technologies. And it is that change that the Commission must address. The actual and potential services between an ISP and a remote endpoint enable that endpoint to communicate
• **Claim Changed Circumstances.** Most advocates for Title II argue that circumstances have changed since the Supreme Court’s ruling in 2005 which confirmed that BIAs’ integrated offerings were information services. For example, parties argue that email, web-browsing, DNS-lookup, and cybersecurity are now widely available and severable from transport, even if they were integral in 2005. Advocates point out that subscribers no longer need to buy these services from their BIA. It doesn’t matter that many subscribers actually do buy an integrated bundle—they could buy them separately if the FCC forced unbundling.  

**These Tools and Justifications for Triggering Title II Could also Apply to Edge Companies.**

That Title II is a threat to BIAs and their investors is well understood and well documented. Communications analysts who cover BIAs have been following the open-Internet proceeding with increasing concern since the FCC initiated it in response to the D.C. Circuit’s reversal of its prior open-Internet order in January 2014. Less well understood by investors is the danger this Title II toolkit poses to edge providers, yet the same tools can be turned against edge providers, using the same justifications.

It is obvious from the occasional pleas in the docket requesting the FCC to avoid dragging edge providers into Title II that at least some parties realize the potential expansiveness of public utility regulation. Reclassification could transform CDNs, peering and transit providers, and numerous over-the-top (online) services into telecommunications services.

Some edge providers’ services become telecommunications services as soon as the bright line separating those from information services is blurred. Providers of peering and transit integrate transport along with information functions analogous to BIAs’ use of DNS-lookup. If the BIAs’ DNS-lookup is mere network management, so are peering and transport providers’ integrated information services. Both become telecommunications services through the same rationale.

---

21 For example, Simon Flannery et al, *Telecom Services: December Chart Book – From Bad to Worse*, Morgan Stanley, January 6, 2015. Points out that the S&P Telecom continues to underperform, and recommends a continuing cautious outlook, citing competitive pressures and the regulatory outlook.
24 CDT, p. 7: “While the Commission’s proposed definition seems reasonably narrowly focused, the Commission could be more specific by stating that the provision of Internet access includes (i) the assigning of an Internet Protocol address to a device owned or controlled by the subscriber; and (ii) providing the subscriber with the means for Internet Protocol communications to be transmitted physically, by wire or radio, between the subscriber’s device and one or more interconnection points that enable further routing, directly or indirectly, to the Internet. This would help clarify that reclassification applies only to the entities offering “last mile” transmission service and not to (for example) backbone providers, content delivery networks, or over-the-top services.”
Changing circumstances are the only constant of the Internet. If increased popularity of a type of application is reason enough to force BIAs to unbundle email, news groups, and web-browsing from transport, then it is reason enough to sever any application that becomes popular from its transport. Platforms for talking, texting, tweeting, video-sharing, chatting, blogging, gaming, social networking and web-conferencing all have components that could be severed and unbundled using combinations of the same tools that can be employed against BIAs. In many cases, the justification of terminating monopoly can be used because there is only one path to exclusive content or to closed user-groups.

Once a court affirms the FCC’s power to dictate a provider’s offering at the FCC’s will rather than at the provider’s, the whole ecosystem is endangered. It doesn’t matter what an edge provider is actually offering, any more than it matters what a BIA is actually offering; the FCC can force unbundling. It doesn’t matter if a service is offered for pay; the FCC can define what constitutes pay. It doesn’t matter whether it is offered on a commercial basis; the FCC can force that, too. It doesn’t even matter that the FCC has no intention of extending regulation to the edge. The ultimate decision will be up to the courts, after a lengthy process, with results that may well differ case by case. That would create enormous uncertainty for the whole ecosystem.

In addition to being ensnared by the various regulatory contortions described above, some edge providers could get drawn into Title II even more directly. Those who seek free transport regardless of the volume of traffic they generate—or more formally wish to benefit from intercarrier compensation at bill-and-keep’s zero rate—have to be carriers themselves. If the goal is free transport, the price is submission to Title II. And if the goal is to prohibit paid prioritization, imposing Title II on the BIAs is not helpful. Title II only prohibits unreasonable discrimination, and it has traditionally allowed different offering to different classes of users at different prices.

**The Forbearance Fallacy**

Forbearance is not likely to provide an automatic solution. Even if the FCC were to attempt to forbear from all provisions of Title II, some parties will contest that attempt. Public Knowledge—a key driver of this proceeding—makes clear in its comments that the only provisions it is willing to forgo are those that regulate obscene calls, operator services, calling cards, and telemessaging. It is not willing to forgo rate

---

25 Wu/Narechania, FCLJ, p. 3.
26 NASUCA, Reply comments, FCC GN docket 14-28, September 15, 2014, p. 38-39. Also: AT&T, ex parte, FCC GN docket 14-28, May 9, 2014, p. 5: “Indeed, reclassification would raise a host of issues that reclassification proponents have completely ignored in their advocacy. For example, if broadband Internet access service is a telecommunications service, then broadband Internet access providers could be entitled to receive transport and termination fees under section 251(b)(5). The Commission could not avoid this occurrence by establishing a bill-and-keep regime because, unlike voice traffic, Internet traffic is asymmetric. And because Internet traffic would now be subject to reciprocal compensation, virtually every settlement free peering arrangement would have to be replaced by newly negotiated arrangements implementing the reciprocal compensation provisions of the Communications Act. Moreover, in those instances in which reciprocal compensation does not apply, ISPs would be entitled to file tariffs for the collection of charges for terminating Internet traffic to their customers.” NASUCA quotes AT&T and responds that it believes that edge providers should be brought under the Title II regime.
27 For example, Tumblr, Comments, FCC GN docket 14-28, September 15, 2014, pp 6-7, argues that it should not have to pay either access fees or fees for paid prioritization. Hereafter referred to as Tumblr.
regulation and tariffing, privacy regulation, interconnection, mandatory wholesaling, and endless reporting requirements, to name only a few items in its long list.28

Others’ lists differ, but between them the lists cover all provisions that have economic and financial significance to any part of the Internet ecosystem. They can be expected to demand enforcement of those provisions. The courts will have to follow the statute, which is not likely to give the courts the flexibility to allow the FCC to forbear from all the significant obligations in Title II.

Undoubtedly, some will want to regulate the Internet ecosystem as if it were still a twentieth-century telephone system. Comptel’s comments in the open-Internet docket make clear that its goal is to extend wholesale regulation to the broadband-IP ecosystem: “The Commission should ensure that the benefits of competitive access to last-mile facilities continue as the public switched telephone network transitions from TDM to IP technology.”29 NASUCA (National Association of State Utility Consumer Advocates) declares: “Title II should apply to a broader swathe of the ecology than it currently does.”30

CDT, whose primary concern is free speech, explains why there may be a call for regulation of the edge even as it asks the FCC to protect edge providers from regulation. It explains that at the edge there is “a smorgasbord of services and applications, many of which are not themselves open, neutral, or nondiscriminatory; rather, they reflect the particular preferences or idiosyncratic tastes of their creators or users.” CDT also notes: “To be sure, some over-the-top services may come to present legitimate questions about market power or anticompetitive conduct.”31

For entities like NASUCA and NARUC (National Association of Regulatory Utility Commissions), whose interest is in the welfare of the ultimate consumer, arguments that edge providers should be exempt from regulation so that they can practice the very behaviors they condemn in BIAs are hardly convincing. And there are many other complaints. For example, Facebook has been accused of manipulating users by manipulating their news content.32 It has also been accused of blocking small business owners’ posts so that it could extract more ad revenues from them.33 Complaints that Google violates privacy are rife around the world. Whether particular complaints against Facebook and Google are valid or not, reclassification would provide state commissions as well as the FCC with handy tools to address them (although it might, arguably, remove the FTC from the equation).

While it might be desirable from the perspective of NASUCA or NARUC to provide a panoply of tools with which to regulate the broadband ecosystem from one end to the other, the prospect is daunting to investors who can anticipate decades of ever-changing rules for the companies they fund.

---

28 Public Knowledge, Comments, pp. 80-97, is willing to have the FCC forbear from sections 223, 226, 228, and 260. On the other hand, it is not willing to have the FCC forbear from sections 201, 202, 203, 205, 206, 207, 209, 211, 212, 213, 214—especially 214 (c) and (e), 215, 218, 219, 220, 222, 225, 251, 254, 255, 256, 257. Tumblr, pp. 9-10, would retain at least “Sections 201, 202, and 208 (guaranteeing net neutrality), 206, 207, 209, and 216 (holding broadband providers accountable for violations), 222 (protecting privacy), 251(a) and 256 (promoting interconnection), and 214(e), 225, 254, 255, and 257 (promoting access to the network).” Comptel, Comments, pp. 21-24 and 26, would retain at least sections 201, 202, 208, 214(a)(3), 222, 229, 251, 252, 254.
30 NASUCA, p. 38.
**Regulatory Uncertainty**

To one degree or another, every service and application on the Internet relies on a combination of transmission and information. The results defy easy categorization. Tumblr asks: “Is Tumblr a social network? A video streaming website? An image sharing network? A communications system? A news service?” To that question, this docket adds another: How soon will its components be forcibly unbundled so that it can be regulated as a common carrier?

Jeff Pulver echoes that fear: “The madness of Title II means declaring everything telecom. ... I can attest I have no idea how to judge the difference between IP transmission and IP services for the purposes of my next startup. I will not be able to explain it to investors, because the line exists in the mind of whoever happens to be Chairman of the FCC.”

One thing is certain about the open-Internet docket: An FCC order to reclassify under Title II will be litigated. When it is litigated, the FCC’s attempts to limit the effects to BIAs – as well as its attempts to forbear from some provisions — will be part of that litigation. When and how an appeals court will rule is not predictable. But it is predictable that the more careful the FCC is to write a sustainable order inclusive enough to capture BIAs under Title II, the more likely it is that it will also capture the edge. Thus, while it is not predictable whether the FCC will or will not be sustained, it is predictable that if it is sustained its victory will result in decades of unintended consequences for edge providers as well as BIAs.

**Conclusion**

For investors who fund any level of the broadband ecosystem, the contortions suggested in the docket are threatening. In essence, much of the docket is a recommendation that instead of looking at a service factually to determine its regulatory classification, the FCC should decide on a classification and force the provider to modify the service until it fits. If the FCC agrees with this approach, no provider of either infrastructure or services will be safe from regulation under Title II.

Many edge stocks sell at astronomical valuations. Their investors believe they own rapidly growing and highly innovative companies, for which they paid much higher multiples than they would pay for regulated utilities. Thus, edge stocks are as vulnerable to being devalued by the FCC’s move to Title II as the BIA stocks are.

In the nineteen years since the passage of the Telecommunications Act of 1996, the Internet has evolved to the point that it cannot fit well into any of the classifications offered within the Act. That the FCC is considering such legal contortions to make it fit is indicative of the desperate need for legislation that can accommodate the dynamic and ever-changing nature of the Internet while still protecting

---

34 Tumblr, p. 7.
35 Pulver.
consumers. America’s consumers and investors need an open Internet that continues to grow and evolve. It is time for Congress to pass clarifying legislation to place a solid legal foundation under the Internet.