

**NERA**  
ECONOMIC CONSULTING

Received & Inspected

MAR 19 2015

FCC Mail Room

**Dr. Christian Dippon**  
Senior Vice President

National Economic Research Associates, Inc.  
200 Clarendon Street, 35th Floor  
Boston, Massachusetts 02116  
+1 617 621 0444 Fax +1 617 621 0336  
Direct dial: +1 603 111 1111  
terry.hawkes@nera.com  
www.nera.com

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

18 March 2015

DOCKET FILE COPY ORIGINAL

**Re: GN Docket No. 14-28**

Dear Ms. Dortch:

This letter is to advise you that on 17 March 2015, myself and Jonathan Falk of NERA Economic Consulting publicly filed a Comment in General Docket Number 14-28. The filing responds to the Commission's *Report and Order on Remand, Declaratory Ruling, and Order*. I have attached five copies of the filing.

Sincerely yours,



Christian Dippon

cc: Mignon Clyburn, Jessica Rosenworcel, Ajit Pai, Michael O'Rielly.

No. of Copies rec'd  
List ABCDE

0+4

MAR 19 2015

FCC Mail Room\*

## The Net Neutrality Order: It's Worse Than We Thought

Dr. Christian Dippon  
NERA Economic Consulting  
Washington, DC

Jonathan Falk  
NERA Economic Consulting  
New York, NY

March 16, 2015

On March 12, 2015, the FCC released its much anticipated *Report and Order on Remand, Declaratory Ruling, and Order* (Order) that reclassified both fixed-line Internet Service Providers (ISPs) and mobile telephone providers as providers subject to Title II regulation as stipulated in the Telecommunications Act of 1996.<sup>1</sup> In submitting its comments for this then-pending Order, CALinnovates, a California-based technology group, commissioned NERA Economic Consulting (NERA) to prepare a White Paper on the economic repercussions of Title II Reclassification, which CALinnovates submitted to the FCC.<sup>2</sup> Nearly four million commenters responded to the FCC's request for comment in this proceeding.

The FCC took note of NERA's White Paper in its filing:

CALinnovates submitted a commissioned White Paper by NERA Economic Consulting, asserting that reclassification will have a strong negative effect on innovation (with associated harms to investment and employment). The White Paper asserts that small edge providers will be harmed by reclassification, as Title II provisions "will serve to increase the capital costs for innovators both directly and indirectly as well as to foster the sort of regulatory uncertainty that deters investors from ever investing." We disagree. The White Paper assumes that broadband Internet access services will be subject to the full scope of Title II provisions, and proscribes [sic] increased costs to regulatory uncertainty. As discussed below, we forbear from application of many of Title II's provisions to broadband Internet access services, and in doing so, provide the regulatory certainty necessary to continued investment and innovation.<sup>3</sup>

---

\* Comments welcome: christian.dippon@nera.com; jonathan.falk@nera.com

<sup>1</sup> In the Matter of Protecting and Promoting the Open Internet, *Report and Order, Declaratory Ruling, and Order*, GN Docket No. 14-28, FCC 15-24, rel. Mar. 12, 2015, [http://transition.fcc.gov/Daily\\_Releases/Daily\\_Business/2015/db0312/FCC-15-24A1.pdf](http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db0312/FCC-15-24A1.pdf).

<sup>2</sup> "Economic Repercussions of Applying Title II to Internet Service," a White Paper by Christian Dippon, PhD and Jonathan Falk of NERA Economic Consulting, September 9, 2014, <http://apps.fcc.gov/ecfs/document/view?id=7522639528>.

<sup>3</sup> Order, ¶ 419, footnotes omitted.

We are pleased that the FCC found our White Paper sufficiently compelling to reference it in its decision, even though it disagreed with our conclusions. To the extent that we may have overstated the scope of Title II's application, we admit that we were working in the dark because the FCC requested comments without stating whether Title II would apply and if so which provisions would apply. We are not alone in this. Commissioner O'Rielly, in his dissent, eloquently describes the difficulty with writing specific comments when one is ignorant of the exact contours of the proposed change in regulation.<sup>4</sup>

However, having read the Order in its entirety, we confirm that our findings fully apply to the actual Order. Simply forbearing from selected sections of Title II does not reverse our findings, nor does the FCC provide any evidence that it should. If anything, we *understated* the effects this Order has on innovation as it inserts regulatory uncertainty well beyond those already contained in Title II. In fact, the Order goes far beyond the implementation of so-called *net neutrality* provisions. It implements a far-reaching regulatory scheme that is beyond (in many ways) what we envisioned when writing the White Paper. If the FCC's critique of our White Paper is that the Order creates regulatory certainty, we find it necessary to reassert our previous conclusions; that is, there will be a loss of innovation, increased costs for innovation, reduced competition, loss of employment, and outright inefficiency.

Herein, we reiterate our main concerns in light of the Order and discuss several new issues previously unforeseen before the Order. With respect to regulatory uncertainty, we stressed that the basic mechanism is that innovators need to raise money. Because regulatory mechanisms create delays and increase risks and costs in bringing an innovation to market and establishing a foothold, prospective investors have to factor in the delay, the cost of regulatory compliance, and the uncertainty of regulatory approval. This directly raises the cost of innovation, which in turn will cause worthwhile innovations to go unfunded in many cases simply because the costs are higher and the expected rates of return are lower. Small edge providers are particularly impacted by this change. The FCC agrees with us on this mechanism;<sup>5</sup> therefore, a mere showing of how the Order foments regulatory uncertainty affirms the results.

## 1. Just and Reasonable Rates

Section III(A) of the White Paper discusses the problem of establishing just and reasonable rates in Section 201(b) of Title II—a section the Order specifically cites as a tentpole provision of Title II reclassification. Indeed, the Order envisions the net neutrality provisions as flowing directly from its authority under 201(b). To be clear, the Order does not directly mention rates paid by ISP customers as being within its purview,<sup>6</sup> although the possibility is mentioned

---

<sup>4</sup> “This is a clearly a situation where ‘interested parties would have had to divine the agency’s unspoken thoughts, because the final rule was surprisingly distant from the proposed rule.’” (*Dissenting Statement of Commissioner Michael O’Rielly*, Re: Protecting and Promoting the Open Internet, GN Docket No. 14028, p. 2, footnote omitted)

<sup>5</sup> “We are mindful that vague or unclear regulatory requirements could stymie rather than encourage innovation...” (Order, ¶ 138.)

<sup>6</sup> The Order contains no direct reference to just and reasonable rates although it contains 38 references to just and reasonable efforts. In any case, there is no forbearance mentioned from 201(b) that contains the provision for just and reasonable rates.

obliquely in that customers have now been given an explicit right to complain about rates in Section 208, which clearly raises regulatory uncertainty.<sup>7</sup>

The requirement for just and reasonable rates is a two-edged sword. Although consumer groups have traditionally used this argument when trying to get lower rates for a particular service, regulated firms have also used it when trying to get rate increases. If this Order passes legal review, this is exactly what is reasonably foreseeable.

The hallmark of the Order is the “No Paid Prioritization Provision.” This provision bans an edge provider from paying an ISP to improve service quality. In other words, a rate has been set for edge providers to upgrade the quality of service reaching their customers and that rate is zero. That rate (zero) is “fair and reasonable” or it is not. The Order explains at length why such a rate is fair and reasonable, but the explanation given in the Order does not take into account the investment an ISP will have to make to ensure reliable service, particularly for the most traffic-intensive applications. Any argument that such investment costs can be passed along to subscribers is, first, a factual question and, second, subject to complaint by *non-users* of these particular traffic-intensive applications.

Taking an obvious example, if an ISP has to make investments to enable the smooth streaming of Netflix and YouTube (two applications prominently mentioned in the Order), it will now be illegal to pass those costs along to the users of those services or to secure a payment from the service itself. The ISP must spread the costs of the investment over *all* subscribers whether or not they use the service, or it must use its profits to subsidize the costs. Either way, there is a colorable, cognizable claim that the rates paid are neither fair nor reasonable under Section 201(b). As we previously explained, Title II reclassification *requires that these complaints be taken seriously*, and the FCC understands this because it established an elaborate complaint system in the Order. However, taking complaints about rates and investments seriously before knowing the outcome is the hallmark of regulatory uncertainty, which leads to the decline in innovation that we cite. Responding to complaints, uncertainty over complaint resolution, and uncertainty over who pays for what and how, raises regulatory uncertainty costs for both ISPs and edge providers. Although the banning of paid prioritization (the so-called fast lane provision) is stated in relatively unambiguous terms, the dictates of Section 201(b) require the FCC to take seriously any claims that paid prioritization ought to be allowed through the provision of a waiver.<sup>8</sup> The other two so-called “bright-line” rules (“no throttling” and “no blocking”) can also be evaded through requests for definitions of “network management practices,” as covered in the next section.

In addition, the White Paper explicitly contemplates (and condemns) the injection of FCC rulemaking into what has heretofore been private negotiations between ISPs and Internet backbone providers and content delivery networks (CDNs). Although the FCC forbears from injecting itself into these negotiations *for the moment*, the Order explicitly states that Title II reclassification gives it the right to do so should it be so inclined.<sup>9</sup>

---

<sup>7</sup> In particular, Section 208 complaints are backstopped by the requirement that rates be just and reasonable. (Order, footnote 328.)

<sup>8</sup> Order, ¶ 7.

<sup>9</sup> Order, ¶ 31.

When Internet traffic exchange breaks down—regardless of the cause—it risks preventing consumers from reaching the services and applications of their choosing, disrupting the virtuous cycle. We recognize the importance of timely review in the midst of commercial disputes. The Commission will be available to hear disputes raised under sections 201 and 202 on a case-by-case basis.<sup>10</sup>

Thus, the FCC plans to throw itself into commercial disputes when it chooses and it plans to substitute its judgment for the commercial judgment of the parties involved. The speed of this process and the uncertainty involved will surely raise costs.

In addition and *for the moment*, innovative rate plans, particularly zero-based plans like T-Mobile's music service, are allowed but are subject to scrutiny and possible litigation at any time. We do not believe that zero-rated services are violations of net neutrality, and our colleague Dr. Jeffrey A. Eisenach has, we believe, a persuasive paper on the issue.<sup>11</sup> However, the FCC certainly has raised the regulatory costs of such innovative pricing plans with this Order.

Although the FCC's plan to become involved in these disputes is unacceptable in the present, *threatening* to intervene at some unspecified point in the future actually *increases* regulatory uncertainty relative even to a rule banning zero-based services.

## 2. Nomenclature

Section III(B) of the White Paper discusses the nomenclature problem, which is that regulation requires definitions of scope and the very definition of scope encourages entry that can avoid regulation in an inefficient manner and prosper. The resulting regulatory uncertainty again quells innovation. If you do not know that you are subject to regulation or if you design a service to avoid a regulatory problem, then you can easily find yourself drawn into disputes. Are you an ISP? Is a practice reasonable network management? An obvious example is a practice, which has as its true genesis an entirely innocuous traffic management protocol, that now requires, in advance of implementation, a *legal opinion* as to whether the practice is reasonable, which in turn depends not on what the practice is intended to do but how it might be judged in a subsequent regulatory inquiry.

Nomenclatural problems abound in the Order. To begin, the Order redefines a service called broadband Internet access service (BIAS) as:

A mass-market retail service by wire or radio that provides the capability to transmit data to and receive data from all or substantially all Internet endpoints, including any capabilities that are incidental to and enable the operation of the communications service, but excluding dial-up Internet access service. This term also encompasses any service that the Commission finds to be providing a

---

<sup>10</sup> Order, ¶ 205.

<sup>11</sup> *Testimony of Jeffrey A. Eisenach, Ph.D. before the Committee on the Judiciary United States Senate*, dated September 17, 2014, available at [www.nera.com](http://www.nera.com).

functional equivalent of the service described in the previous sentence, or that is used to evade the protections set forth in this Part.<sup>12</sup>

This definition is replete with terms that can and will be argued by attorneys. For example, “mass-market,” “retail,” “substantially all,” “functional equivalent,” and “evade” are the most obvious. Since we are not lawyers, there are doubtless other terms whose ambiguities must be plumbed.

The definition of network management practices, which work to preclude both the “no blocking” and “no throttling” rules, will of course be open to interpretation by the involved parties.

Although not anticipated by the White Paper but equally troubling, are the provisions to prohibit “unreasonable interference or unreasonable disadvantage to consumers or edge providers.”<sup>13</sup> These provisions are, at this time, completely open-ended and undefined. As a direct result of the dynamic nature of competition and as we predicted, the FCC has no idea how to define these practices. The resulting regulatory uncertainty for innovative edge providers, however, is eminently foreseeable. Successful edge providers will find themselves defending (without even being a direct party to a complaint) allegations by unsuccessful edge providers that their failures stem from some ISP practice that disadvantaged them. Consumers will have a poorer experience with the unsuccessful edge provider. That edge provider in turn will deflect blame for the poor experience with higher latency, presumably the result of some provisioning decision of its ISP’s network. Litigation will ensue, and even if the successful firm wins regulatory uncertainty will thwart its opportunities to expand. All that is required is a colorable argument by the losing edge provider that its business model was disrupted in any way by network issues.

This concern is echoed even by parties who are strong proponents of FCC action. The Electronic Frontier Foundation’s generally favorable reaction to the Order contains this caveat:

Indeed, today’s order punts many difficult questions to the general conduct rule, which applies whenever conduct doesn’t fall into one of the three categories of blocking, throttling, or paid prioritization, and also applies to all disputes relating to interconnection (ISP deals with other Internet infrastructure companies). That means important net neutrality questions will be evaluated on a case-by-case basis. The expense and expertise to raise and respond to issues on that basis could tilt the process in favor of big and established players, like major ISPs and content providers<sup>14</sup>.

Tilting the process in favor of big and established players is exactly the mechanism by which innovation is thwarted, social benefits are lost and unemployment increases.

This is not a new issue. NERA pointed out in the White Paper that a purpose of Title II under the Telecommunications Act of 1996 was to assist new competition in telecommunications. However, what it did was create an entirely wasteful regime in which the competitive companies (CLECs) sued the incumbents over the failure of the CLEC’s own business models claiming that

---

<sup>12</sup> Order, ¶ 25.

<sup>13</sup> Order, ¶¶ 20–22; ¶¶ 133–153.

<sup>14</sup> <https://www.eff.org/deeplinks/2015/03/todays-net-neutrality-order-win-few-blemishes>

wholesale rates they paid and the wholesale quality of service they received were not just and reasonable. These court cases did nothing to advance telecommunications competition, but much to generate litigation and uncertainty.

The terms mentioned above are just examples. Other to-be-defined terms in the Order include:

- terms of the transparency reporting requirements;
- definition of edge providers' content delivery networks;
- definitions leading to the exemption of incidental provision of broadband services, meant to exempt coffee shops, airlines, and similar venues;
- "non-harmful devices";
- "sufficient for consumers to make informed choices"; and
- "specialized services."

Many of these definitions will be resolved concurrently with the inevitable challenges to the Order on other grounds, particularly those revolving around the Notice. The Order characterizes these problems as "short-term," but in our experience that is wishful thinking of the highest order.

### 3. Harms

Referencing our White Paper from among the almost four million submissions received can be taken as tacit acknowledgment that our section on harms was compelling enough to require notice; the FCC's counter-argument was not that the harms were not real, but that they were illusory because the regulatory risks were not real. Having dispelled the notion that the regulatory risks are illusory, however, we now reassert, more strongly for having been implicitly accepted, the effects of regulatory uncertainty on innovation, end-user satisfaction with broadband service, BIAS competition, and employment in the economy. All can be expected to fall.

We never claimed that all the provisions of Title II would induce regulatory uncertainty and concomitant harm. We focused our critique on Section 201(b), which we assumed would be part of the regime, and we were right. In particular, we focused on nomenclature, confident that *any* regulatory scheme turns on definitional issues, and litigants will attempt to exploit nomenclatural ambiguities. What we did not anticipate was the broad scope of the other provisions that would raise regulatory uncertainty, which makes the situation more of a problem. The phrase "case-by-case basis" occurs throughout the Order.

- The Commission will be available to hear disputes raised under sections 201 and 202 on a case-by-case basis (§ 29).
- This no-unreasonable interference/disadvantage standard will operate on a case-by-case basis (§ 108).
- For that reason, we adopt a rule setting forth a no-unreasonable interference/disadvantage standard, under which the Commission can prohibit, on a case-by-case basis, practices that

unreasonably interfere with or unreasonably disadvantage the ability of consumers to reach the Internet content, services, and applications of their choosing or of edge providers to access consumers using the Internet (§ 135).

- We adopt our tentative conclusion to follow a case-by-case approach, considering the totality of the circumstances, when analyzing whether conduct satisfies the no-unreasonable interference/disadvantage standard to protect the open Internet (§ 138).
- As a result, the Commission will be available to hear disputes regarding arrangements for the exchange of traffic with a broadband Internet access provider raised under sections 201 and 202 on a case-by-case basis (§ 193).
- For this reason, we adopt a case-by-case approach, which will provide the Commission with greater experience (§ 202).
- At this time, we believe that a case-by-case approach is appropriate regarding Internet traffic exchange arrangements between broadband Internet access service providers and edge providers or intermediaries—an area that historically has functioned without significant Commission oversight (§ 203).
- The Commission will be available to hear disputes raised under sections 201 and 202 on a case-by-case basis (§ 205).
- As discussed above, our assertion of authority over Internet traffic exchange practices addresses that question by providing us with the necessary case-by-case enforcement tools to identify practices that may constitute such evasion and address them (§ 206).
- We therefore elect to maintain a case-by-case approach (§ 218).
- Case-by-case analysis will allow the Commission to use the conduct-based rules adopted today to take action against practices that are known to harm consumers without interfering with broadband providers' beneficial network management practices (§ 222).
- We therefore tentatively concluded that the Commission should continue to use a case-by-case approach, taking into account the totality of the circumstances, in considering alleged violations of the open Internet rules (§ 246).
- We affirm our proposal to continue to analyze open Internet complaints on a case-by-case basis (§ 247).
- The Commission “consider[s] on a case-by-case basis motions by nonparties wishing to submit amicus-type filings addressing the legal issues raised in [a] proceeding,” and grants such requests when warranted (§ 269).
- We retain the discretion to evaluate the reasonableness of broadband providers' practices under this rule on a case-by-case basis (§ 305).
- While we necessarily proceed on a case-by-case basis in light of the fact specific nature of particular preemption inquiries, we will act promptly, whenever necessary, to prevent state regulations that would conflict with the federal regulatory framework or otherwise frustrate federal broadband policies (§ 433).

- Furthermore, our forbearance in this Order, informed by recent experience and the record in this proceeding, reflects the recognition that, beyond the specific bright-line rules adopted above, particular conduct by a broadband Internet access service provider can have mixed consequences, rendering case-by-case evaluation superior to bright-line rules (¶ 496).

Even the bright-line tests have waivers and exemptions for reasonable management practices, which the FCC will determine on a case-by-case basis. As we said in the White Paper, it would be impossible to do otherwise because the dynamic nature of the Internet ecosystem makes predicting business models, management practices, state preemption requests, privacy waivers, and the rest unspecifiable in advance. The FCC apparently agrees with this proposition, and it agrees with the proposition that regulatory uncertainty can hinder innovation. Yet, the FCC ignores the fact that this plethora of case-by-case pleadings is anathema to regulatory certainty.

#### 4. Privacy

Finally, the White Paper did not discuss privacy issues because we assumed forbearance on those issues. Surprisingly, however, the Order does not forbear on the privacy section (222) and instead “forbear[s] at this time from applying our implementing rules, pending the adoption of [privacy] rules to govern broadband Internet access service in a separate rulemaking proceeding.”<sup>15</sup>

In its discussions of what might constitute the application of Section 222 to BIAS providers, they comment:

Indeed, even as to services that historically have been subject to section 222, questions about the application of those privacy requirements can arise and must be dealt with by the Commission as technology evolves, and the record here does not demonstrate specific concerns suggesting that Commission clarification of statutory terms as needed would be inadequate in this context.... More generally, the existing CPNI rules do not address many of the types of sensitive information to which a provider of broadband Internet access service is likely to have access, such as (to cite just one example) customers’ web browsing history<sup>16</sup>.

In this last line, the FCC asserts the authority to make it illegal for an ISP or mobile operator to identify via geocoding the location of a web request to an edge provider. This so dramatically upsets the settled expectations of entire current industries that we are certain the FCC will at least attempt to tread carefully here, but this authority obviously threatens the current business practices of, say, Google, Uber, CDNs and a host of other services. And the uncertainty it raises for *new* Internet-based services should be obvious. The FCC plans to implement Section 222, but does not define what “customer information” is to be protected and what constitutes “reasonable precautions,” thereby, again, raising regulatory uncertainty. While it is of course possible that the subsequent proceeding to implement Section 222 would provide regulatory clarity, the evidence for that the result on the basis of this Order is thin. Again, we reiterate a point we made in our original White Paper: this heightened regulatory uncertainty doesn’t stem

---

<sup>15</sup> Order, ¶ 462

<sup>16</sup> Order, ¶¶ 466-467

from a choice to be ambiguous where clarity would be preferred. The dynamic nature of the Internet ecosystem makes clarity *impossible*. It is the choice to regulate under Title II that *causes* the regulatory uncertainty.

## 5. Conclusion

We stand behind the basic results of NERA's White Paper and find that, if anything, the Order has actually made us more worried about the state of competition and innovation than we were before seeing it, assuming it manages to pass its initial, and inevitable, court challenges.

Although the Order is quite long, the actual new rules are very short, reflecting the difficulties that nomenclature and case-by-case analysis will bring. Further, the Order tries to describe the new rules as "light-handed," ignoring the incentives of aggrieved parties to achieve through FCC litigation what they could not achieve in open competition. As a result, innovation is shackled with new costs that could kill, or at least severely hamper, further development of the Internet ecosystem.