NEW NETWORK NEUTRALITY RULES IN EUROPE: COMPARISONS TO THOSE IN THE U.S.

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In November 2015, the European Union enacted new binding rules for network neutrality under Regulation 2015/2120. This was the culmination of a process that began in September 2013, with roots that go back nearly ten years. In the United States, the Federal Communications Commission adopted the current incarnation of its Open Internet Order several months earlier, in February 2015.

The new European network neutrality rules are not a carbon copy of those implemented in the FCC's Open Internet Order of 2015. They reflect very different regulatory, competition policy, and market realities than those in the United States; moreover, they were motivated to a significant degree by different concerns. The rules are similar in most respects; a possibly significant difference, however, is that the European approach is arguably more innovation-friendly to the extent that it does not specifically prohibit paid prioritization. Given the rarity of problematic incidents in Europe, the net effect of the network neutrality provisions of the Regulation is likely to be minimal in any case.

This brief paper is intended to explain the similarities and differences to a North American and global audience.

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INTRODUCTION

On November 25, 2015, the European Union formally adopted new binding rules for network neutrality under Regulation 2015/2120.[1] In the United States, the Federal Communications Commission ("FCC") had adopted network neutrality rules under the current incarnation of its Open Internet Order several months earlier. [2] In what respects are these rules similar? In what respects are they different? This short paper seeks to answer these questions for a North American and global audience.

In both the EU and the U.S., these regulations have a long and complicated history; however, they are not identical in intent, effect, or motivation. As this brief paper seeks to explain, the situation in the EU differs from the U.S. in terms of the over-arching structure of government, the overall regulatory environment, the structure of the marketplace for electronic communication services, and the number of problematic incidents that have been observed. These factors interact with one another in complicated ways.

Consider, first, the overall structure of government. Unlike the U.S., the EU is not a federal republic. The Member States are sovereign and retain their authority, except in areas where they have ceded it through treaty to the EU.[3] The situation is analogous to that of the U.S. after the

1. Regulation 2015/2120 of the European Parliament and of the Council of 25 November 2015 Laying Down Measures Concerning Open Internet Access and Amending Directive 2002/22/EC on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services and Regulation (EU) No 531/2012 on Roaming on Public Mobile Communications Networks Within the Union, 2015 O.J. (L 310) 1 [hereinafter Regulation 2015/2120].

2. *Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report & Order on Remand, Declaratory Ruling, and Order, 30 FCC Rcd. 5601 (2015) [hereinafter *Open Internet Order*].

3. The operative text, as implemented under the Treaty of Lisbon of 2009, can be found in the Treaty on European Union and in the Treaty on the Functioning of the European Union ("TFEU"). Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community, Dec. 17, 2007, 2007 O.J. (C 306) 1; Consolidated Version of the Treaty on the Functioning of the European Union, May 9, 2008, 2008 O.J. (C 115) 47 [hereinafter TFEU].

American Revolution but before the enactment of the Constitution.[4]

Despite this absence of federal authority, electronic communications have operated under a common Regulatory Framework for Electronic Communications ("RFEC") since roughly 2003.[5] The European framework was motivated by many of the same goals as the Telecommunications Act of 1996 in the U.S., but it differs in important details.[6] Notably, while the EU, like the U.S., seeks to avoid needless regulation of the Internet, there was never a blanket exemption of Internet services from all or substantially all regulation (as was the case with the definition of information services in the Telecommunications Act of 1996 in the U.S.).[7] The legal debate that dominated the U.S. discussion is thus irrelevant in the EU.

The marketplace for electronic communications also differs in important ways from that of the U.S. The presence of cable is not ubiquitous in the EU. For Europe as a whole, only about half of households are passed by cable, while Italy and Greece have no cable at all.[8] Despite this limitation on facilities-based fixed network competition,

4. The U.S. operated under the Articles of Confederation from roughly 1781 to 1789. The Articles of Confederation provided for a central government; however, the central government (1) lacked the ability to prevent the states from conducting their own foreign policy; (2) lacked a strong central executive; and (3) had difficulty with collection of taxes and with management of conflicts among the states. Under the Articles, "[e]ach state retain[ed] its sovereignty, freedom, and independence, and every power, jurisdiction, and right, which [was] not by this confederation expressly delegated." ARTICLES OF CONFEDERATION of 1781, art. II.

5. The Regulatory Framework for Electronic Communications ("RFEC"), as revised in 2009, consists of one general and four specific directives: Directive 2002/21/EC on a Common Regulatory Framework for Electronic Communications Networks and Services ("Framework Directive") as amended by Directive 2009/140/EC ("Better Regulation Directive"); Directive 2002/20/EC on the Authorization of Electronic Communications Networks and Services ("Authorization Directive") as amended by Directive 2009/140/EC; Directive 2002/19/EC on Access to, and Interconnection of, Electronic Communications Networks and Associated Facilities ("Access Directive") as amended by Directive 2009/140/EC; Directive 2002/22/EC on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services ("Universal Service Directive") as amended by Directive 2009/136/EC ("Citizens' Rights Directive"); and Directive 2002/58/EC Concerning the Processing of Personal Data and the Protection of Privacy in the Electronic Communications Sector ("e-Privacy Directive") as amended by Directive 2009/136/EC. *See* REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS IN THE EUROPEAN UNION, EUR. COMM'N (2009), https://ec.europa.eu/digital-single-market/sites/digital-agenda/files/Copy%20of%20Regulatory%20Framework%20for%20Electonic%20Communications%202013%20NO%20CROPS.pdf [hereinafter RFEC].

6. *See* J. Scott Marcus, *The Potential Relevance to the United States of the European Union's Newly Adopted Regulatory Framework for Telecommunications* 1 (Fed. Commc'n Comm'n Office of Plans and Policy, Working Paper No. 36, 2002), http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-224213A2.pdf.

7. *Id.* at 7. Note that the 2015 Open Internet Order reclassified broadband internet access service so that it is no longer categorically excluded from the reach of regulation. *Open Internet Order*, *supra* note 2, at para. 29.

8. Cable broadband subscriptions share in fixed broadband (DOCSIS 3.0 included). *See Digital Agenda Key Indicators*, DIGITAL AGENDA DATA, http://digital-agenda-

the RFEC has resulted in substantial retail competition thanks to wholesale regulatory obligations on network operators who possess market power on the last mile of the fixed network. The EU thus has, in some senses, less facilities-based competition than the U.S., but vastly greater retail competition.[9]

The European environment also differs in that there have been very few problematic network neutrality incidents in Europe (see *infra* Section II.A). Where retail competition is strong, harmful deviations from network neutrality tend to be unprofitable. These differences in overall governmental structure, regulatory framework for electronic communications, market structure, and the frequency of problematic incidents are reflected in the network neutrality measures that have been adopted.

Regulation 2015/2120 (which deals not only with network neutrality, but also with international mobile roaming) has direct effect on European Member States[10]—as a Regulation (distinct from a Directive), it does not need to be transposed into national law.[11] The Regulation was the culmination of a process that began in September 2013, the roots of which go back some ten years. The Regulation is discussed in depth in Section III, *infra*.

A detailed assessment of the FCC's Open Internet Order[12] is not provided here, primarily because most readers of this article will already be familiar with it, and secondly because it has been exhaustively discussed elsewhere. However, this paper contrasts it with the new European Regulation where relevant. As a brief summary to provide context, the key elements of the Order include:

data.eu/datasets/digital_agenda_scoreboard_key_indicators/indicators (last visited Apr. 20, 2016).

9. *See* J. SCOTT MARCUS, EUR. PARL. INTERNAL MKT. & CONSUMER PROT. COMM., NETWORK NEUTRALITY REVISITED: CHALLENGES AND RESPONSES IN THE EU AND IN THE US 94 (2014), http://www.europarl.europa.eu/RegData/etudes/STUD/2014/518751/IPOL_STU%282014%29518751_EN.pdf.

10. The Regulation directly applies not only to the twenty-eight countries (Member States) that comprise the EU, but also to European Economic Area ("EEA") members Norway, Liechtenstein, and Iceland. European Regulations influence regulatory policy in varying degrees in many other countries as well. For instance, Switzerland is not an EU Member State but is subject to numerous obligations thanks to bilateral arrangements with the EU. In the interest of brevity, I will often speak of the EU in this paper, but the reader should keep the broader context in mind. *See* Regulation 2015/2120, *supra* note 1.

11. TFEU, *supra* note 3, art. 288.

> A regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States. A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods.

Id.

12. *Open Internet Order*, *supra* note 2.

- **No Blocking:** [Internet Service Providers ("ISPs")] shall not block lawful content, applications, services, or non-harmful devices, subject to reasonable network management.[13]
- **No throttling:** [ISPs] shall not impair or degrade lawful Internet traffic on the basis of Internet content, application, or service, or use of a non-harmful device, subject to reasonable network management.[14]
- **No paid prioritization:** [ISPs] shall not engage in paid prioritization. "'Paid prioritization' refers to the management of a broadband provider's network to directly or indirectly favor some traffic over other traffic . . ."[15]

The FCC's order does not regulate Internet interconnection, but it reserves the right to intervene on a case-by-case basis.[16]

Section I discusses the motivation for network neutrality rules in general, while Section II explains the specific considerations that led to Regulation 2015/2120. Section III discusses the actual provisions in Regulation 2015/2120, contrasting them with the FCC's Open Internet Order where appropriate. The last section provides concluding observations. To provide context for readers who may not be familiar in depth with the situation in Europe, this paper draws on and summarizes a more extensive study that this author conducted for the European Parliament in 2014.[17]

I. UNDERLYING RATIONALE FOR NETWORK NEUTRALITY RULES

The economic considerations relevant to network neutrality regulations flow from three distinct strands of economic reasoning: (1) price and quality differentiation; (2) two-sided markets; and (3) economic vertical foreclosure.[18]

With *price and quality differentiation*, the service provider (here, the network operator) offers different qualities of service at different prices.[19] In the absence of market power, this usually benefits not only the producer, but also the consumer. In fact, *Ramsey-Boiteux pricing* (taking a higher mark-up on services that are relatively *inelastic* than on price-sensitive services)[20] should optimize societal welfare.[21]

13. *Id.* at para. 15.
14. *Id.* at paras. 16–17.
15. *Id.* at para. 18.
16. *Id*. at paras. 28–31.
17. *See* MARCUS, *supra* note 9.
18. *Id.* at 12.
19. *See generally* Harold Hotelling, *Stability in Competition*, 39 THE ECON. J. 41 (1929).
20. For services that are inelastic, the volume that consumers purchase is not influenced much by the price. This is another way of saying that the price elasticity of demand is

A relatively new branch of economics deals with *two-sided markets*.[22] In a two-sided market, a platform provider somehow benefits by bringing the two sides of the market together. Payment could come from either side of the market; thus, relationships between price and cost that would be irrational in a conventional market might be reasonable in a two-sided market.

Economic foreclosure occurs when a firm that has market power in one market segment attempts to project that market power into vertically related (upstream or downstream) market segments. This can have the effect of raising prices and reducing consumer choice in markets where competition would otherwise lead to efficient outcomes.[23] In terms of static economic effects, vertical foreclosure can reduce societal welfare.

These distinct interpretations imply the need for a highly nuanced approach to network neutrality. The theory of quality and price differentiation suggests that quality differentiation is usually beneficial to societal welfare; the theory of two-sided markets is not necessarily incompatible with this view, but the theory of economic foreclosure implies that quality differentiation when used to exploit market power can harm societal welfare.

All of this would appear to suggest the need for a regulatory regime that simultaneously permits helpful outcomes and mitigates or prevents harmful outcomes. Achieving both at once is neither simple nor easy, which also perhaps helps to explain why the political debate over network neutrality has been so challenging.

So much for the economic basis. It is sometimes claimed that there are also technical grounds to enforce network neutrality—in particular, it is often claimed that network neutrality violates fundamental principles of the Internet, notably including the *end-to-end principle*.[24] This claim is unfounded.[25] Prioritized delivery was always envisioned as part of the Internet Protocol (although details were not fully specified at the

relatively low.

21. *Ramsey-Boiteux* pricing depends, however, on a degree of pricing power. For an introduction to *Ramsey-Boiteux* pricing, see JEAN-JACQUES LAFFONT & JEAN TIROLE, COMPETITION IN TELECOMMUNICATIONS 60-61 (2001) (noting that a corporate monopolist and a benevolent social planner have similar incentives to reflect demand elasticity in pricing, and that doing so is efficient).

22. *See generally* Jean-Charles Rochet & Jean Tirole, *Two Sided Markets: An Overview*, 37 RAND J. OF ECON. 645 (2006).

23. The actual effects can, however, be complex. *See* LAFFONT & TIROLE, *supra* note 21, at 133–36.

24. *See* J.H. Saltzer et al., *End-to-End Arguments in System Design*, 2 ACM TRANSACTIONS ON COMPUT. SYS. 277, 278 (1984).

25. *See* KC Claffy & David D. Clark, *Adding Enhanced Services to the Internet: Lessons from History*, TPRC 43 (2015), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2587262##. Note, incidentally, that the author was a principal creator of the end-to-end principle.

outset).[26] The implementation was entirely consistent with the layered network of the Internet—the application was to signal its Type of Service requirements to the transport layer, just as it would signal any other functional requirement, and the (TCP or UDP) transport layer would in turn signal the Type of Service requirement to the Internet Protocol ("IP") network layer. Work on prioritized traffic delivery over IP has a rich tradition with roots going back to the earliest days of the Internet and its precursor networks in the seventies, eighties (when production Quality of Service ["QoS"]-aware systems were in place for the U.S. military),[27] and nineties (when most U.S.-based Internet backbone ISPs had already implemented QoS capabilities into their networks).[28]

II. MOTIVATIONS FOR NETWORK NEUTRALITY RULES IN EUROPE

Why were the new rules enacted? Were they the result of public outrage over network operator practices or egregious acts perpetrated by network operators?

This section considers the frequency of harmful deviations from network neutrality; the concerns among stakeholders, as expressed in their responses to a European Commission public consultation and elsewhere; and the risk of fragmentation among European Member States.

A. Frequency and severity of harmful deviations from network neutrality

In understanding the frequency of incidents, it is important to clarify at the outset a common misconception. The literature on network neutrality often uses the terms *quality differentiation* and *quality*

26. RFC 791 defines version 4 of the Internet Protocol (IPv4):

> The Type of Service provides an indication of the abstract parameters of the quality of service desired. These parameters are to be used to guide the selection of the actual service parameters when transmitting a datagram through a particular network. Several networks offer service precedence, which somehow treats high precedence traffic as more important than other traffic (generally by accepting only traffic above a certain precedence at time of high load). The major choice is a three way tradeoff between low-delay, high-reliability, and high-throughput.

INFO. SCI. INST., UNIV. S. CAL., RFC 791: INTERNET PROTOCOL: DARPA INTERNET PROGRAM PROTOCOL SPECIFICATION 12 (1981), https://tools.ietf.org/pdf/rfc791.pdf. Internet Protocol version 6 (IPv6) carried forward the same principles, but expanded the number of bits available to encode the requested service quality.

27. *See* Network Working Group, *RFC 1190: Experimental Internet Stream Protocol, Version 2 (ST-II)* (1990), https://tools.ietf.org/pdf/rfc1190.pdf; Network Working Group, *RFC 1819: Internet Stream Protocol Version 2 (ST2), Protocol Specification - Version ST2+* (1995), https://tools.ietf.org/pdf/rfc1819.pdf.

28. The author was the Chief Technology Officer for one of the largest backbone ISPs, GTE Internetworking, in the late 1990s. We and our major competitors already routinely made use of QoS management in 1997.

discrimination interchangeably,[29] and this is indeed in keeping with common economic terminology. Discrimination, however, is a word that is loaded with connotation. In reality, as Section I makes clear, differentiated quality of service *can be beneficial* both to consumers and to producers (i.e., network operators)—it is not necessarily harmful.

European National Regulatory Authorities ("NRAs") work through their common organization, the Body of European Regulators of Electronic Communications ("BEREC"), to develop common approaches. BEREC noted as recently as June 2014 that "very few NRAs have reported specific relevant net neutrality incidents."[30]

BEREC noted only two incidents, neither of which required explicit regulatory action.

> In France, the case of fixed ISP *free* blocking advertising in January 2013 led to an intensive public debate on net neutrality.[31] Moreover, in April 2013, Deutsche Telekom's announcement to change its price structure for fixed-network IAS [Internet access service] from 2016 raised concerns among Internet activists and (some) public media that it might constitute a net neutrality violation.[32]

It is clear that traffic differentiation is widespread in Europe;[33] however, as noted previously, traffic differentiation is not necessarily the same as harmful discrimination.

> European NRAs have generally taken a light touch approach, responding to possible problems with a nuanced case-by-case approach. [T]he prevailing approach among . . . NRAs is that possible deviations from net neutrality are dealt with on a case-by-case basis. An example of this approach is the statement published by BNetzA in June 2013 in reaction to the announcement of Deutsche Telekom that it will introduce traffic management. More generally, there is wide agreement among national regulators that the existing regulatory tools enable NRAs to address competition concerns related to net neutrality for the time being.[34]

29. *See* Alissa Cooper, How Regulation and Competition Influence Discrimination in Broadband Traffic Management: A Comparative Study of Net Neutrality in the United States and the United Kingdom iii (2013) (unpublished PhD thesis, University of Oxford), https://www.alissacooper.com/files/Thesis.pdf.

30. BODY OF EURO. REGULATORS FOR ELECTRONIC COMMC'NS, BEREC ANN. REP. 2013, 80 (2014), http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/4407-berec-annual-reports-for-2013_0.pdf.

31. *free* is the name of a broadband service operated by Iliad in France.

32. BODY OF EURO. REGULATORS FOR ELECTRONIC COMMC'NS, *supra* note 30, at 80.

33. *See generally* Cooper, *supra* note 29. *See also infra* Figure 1.

34. BODY OF EURO. REGULATORS FOR ELECTRONIC COMMC'NS, *supra* note 30, at 77.

B. Concerns among stakeholders and the general public

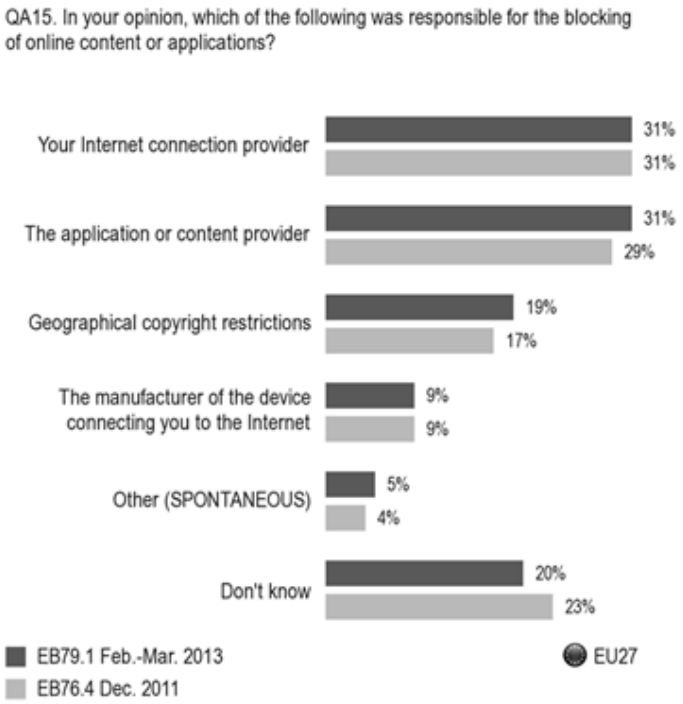
A significant number of European Internet users believe that they have experienced blocking at least once; however, the reasons are various, and by no means do all of them imply the classic network neutrality problem of blockage by the network operator. This is apparent in a large-scale survey of European households conducted on behalf of the European Commission in 2013.[35] Of those who believe that they have been blocked, an equal fraction (31%) believe that they have been blocked by the content or application provider versus the network operator, and an additional 9% attribute blockage to the provider of the device.[36] Some 19% believe that they were blocked due to geographical content restrictions.[37] These different forms of blocking have quite different public policy implications.

35. EUROPEAN COMM'N, SPECIAL EUROBAROMETER 396: E-COMMUNICATIONS HOUSEHOLD SURVEY (2013), http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=2629.

36. *Id.* at 73.

37. *Id.*

FIGURE 1. EUROPEAN SURVEY RESULTS: PERCEIVED CAUSES OF BLOCKING OF ACCESS TO CONTENT (2011 AND 2013)[38]



Stakeholder views are complex. The European Commission's 2012 public consultation on network neutrality could be said to have reached a consensus to the effect that traffic management on the part of ISPs can be permissible in general under suitable conditions. However, traffic management is not permissible when it is used in anticompetitive or harmful ways, such as blocking legitimate content or applications, unreasonably degrading services, or impeding services competing with the ISP's own services. Nearly all stakeholders felt that for a network operator to prioritize affiliated content, to the detriment of non-affiliated content, would be problematic.[39] Many expressed concern over the risk over diverging approaches among the EU Member States.[40]

38. This graph comes from the European Commission's 2013 survey. *Id.*

39. MARCUS, *supra* note 9, at 13–14. Note that this is consistent with the concerns expressed in Section I over vertical foreclosure.

40. *Id.* The Commission conducted a public consultation on network neutrality at the end of 2012, with an eye towards a legislative initiative in 2013. For whatever reason, the Commission never published a comprehensive analysis of the results of that public consultation; nonetheless, the 131 non-confidential textual stakeholder responses were publicly available, and a substantial sample was analysed in the author's 2014 study for the European Parliament.

Among consumers who responded to the consultation, as many as 80% were opposed to nearly all forms of traffic management;[41] this result must, however, be interpreted with caution, since the consumers who responded can be said to represent a non-random sample that is potentially subject to self-selection bias, a phenomenon well known to political scientists. Indeed, a subsequent study based on classical telephone survey methods found significantly different results.

> [The] views expressed in the public consultation differ significantly from representative consumer preferences and values. For instance, consumer opinions about traffic management were largely negative among citizens in the public consultation, while the unbiased survey results demonstrate that there is in fact a substantial segment of consumers who are interested in purchasing prioritized services.
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> . . . .
>
> [C]itizens in the public consultation expressed a significant degree of concern [regarding a guaranteed quality of service for specific content or a specific application]. Two thirds of them found traffic management measures applied to deliver special services problematic. Around one fourth felt they were appropriate, while 9.2 % see them as a necessity. The representative consumer survey shows [, however,] a much more nuanced picture as regards such services.[42]

C. The risk of legal and regulatory fragmentation among EU Member States

The EU operates under a generally consistent and harmonized regulatory framework; however, Member States sometimes interpret the RFEC framework in divergent ways. Since the existing framework is comprised of European Directives that must be transposed into national law, there are many opportunities for inconsistent interpretation.[43]

It is also possible for Member States to implement national laws that go beyond the RFEC in areas where the RFEC itself does not prohibit them from doing so.[44] Network neutrality laws have been enacted in the Netherlands (2011),[45] Slovenia (2013),[46] and subsequently

41. *Id.*

42. Rene C.G. Arnold et al., *All But Neutral: Citizen Responses to the European Commission's Public Consultation on Network Neutrality*, *in* NET NEUTRALITY COMPENDIUM 199 (Luca Belli & Primavera De Filippi eds., 2015).

43. For a general introduction to European regulation of electronic communications, see MARCUS, *supra* note 9, at 89–93.

44. *See id.*

45. Robert Stil, Chief Economist, Onafhankelijke Post en Telecommunicatie Autoriteit (OPTA), Net neutrality in the Netherlands, Presentation to the Muenchner Kreis (Jan. 23,

in Finland,[47] and might well have been enacted in other Member States, had the European Commission not put forward network neutrality legislative proposals. The groundbreaking Dutch law was a direct result of public outrage over announcements by the Dutch network operator KPN of its intention to introduce a "chat charge" for users of IP messaging applications, such as WhatsApp, in order to mitigate the negative impact that these applications were having on KPN's revenues from traditional SMS services.[48] KPN also revealed that it had used deep packet inspection ("DPI") in order to monitor the usage of certain applications on its mobile network, which raised privacy concerns.[49] These laws at the Member State level do not appear to have been particularly problematic *per se*; however, their long-term effects and effectiveness are uncertain.[50]

As previously noted, the European Commission put forward its Telecoms Single Market proposals to the Parliament on September 11, 2013.[51] The network neutrality portions appear to have been motivated in large part by valid concerns that enactment of different network neutrality laws in multiple Member States might lead to inconsistencies and incompatibilities that would impede the European Single Market.[52] As explained previously, many stakeholders expressed similar concerns in their responses to the Commission's 2012 public consultation.

2012). *See also* MARCUS, *supra* note 9, at 90–91.

46. *See* Uradni list Republike Slovenije [Official Gazette of the Slovenian Republic], Dec. 31 2012, http://www.uradni-list.si/_pdf/2012/Ur/u2012109.pdf#!/u2012109-pdf. *See also* Innocenzo Genna, *Slovenian Reinforces Net Neutrality Principles*, RADIOBRUXELLASLIBERA (Feb. 14, 2013), https://radiobruxelleslibera.wordpress.com/2013/01/03/slovenia-reinforces-net-neutrality-principles/; MARCUS, *supra* note 9, at 91.

47. EUROPEAN COMM'N, 2014 REPORT ON IMPLEMENTATION OF THE EU REGULATORY FRAMEWORK FOR ELECTRONIC COMMUNICATIONS: FINLAND (2014), https://ec.europa.eu/digital-agenda/en/news/2014-report-implementation-eu-regulatory-framework-electronic-communications. "Currently, Section 68 of the Communications Market Act contains general Net Neutrality provisions. Article 68 provides that the terms of an agreement on a telephone network subscriber connection and any other agreement on receiving a communications service may not restrict the user's right to choose a content service provider." *Id.* at 12.

48. Stil, *supra* note 45.

49. *Id.*

50. Christopher T. Marsden, *Net Neutrality: Past Policy, Present Proposals, Future Regulation?*, *in* THE VALUE OF NETWORK NEUTRALITY FOR THE INTERNET OF TOMORROW 76, 85 (Luca Belli & Primavera De Filippi eds., 2013). "Field research is needed to examine the effectiveness of such laws and their operator and consumer effects."

51. Eur. Comm'n, *Proposal for a Regulation of the European Parliament and the Council Laying Down Measures Concerning the European Single Market for Electronic Communications and to Achieve a Connected Continent*, COM (2013) 627 final (Sept. 11, 2013).

52. *See* Eur. Comm'n, *Impact Assessment Accompanying the Document Proposal for a Regulation of the European Parliament and of the Council Laying Down Measures Concerning the European Single Market for Electronic Communications and to Achieve a Connected Continent*, SWD (2013) 331 final (Sept. 11, 2013).

D. Summary of motivations

At the risk of oversimplifying a very complex discussion, I would argue that the recently-enacted rules were *not* primarily a reasoned response to a perceived need to strengthen regulatory authority. As discussed in Section II.A, *supra*, the national regulatory authorities have consistently reported that there are few incidents of harmful deviations, and that they already had sufficient authority to deal with whatever was likely to emerge in the near to medium term.

Among market players, there were certainly opposing interests between network operators versus content and application providers. However, both accepted reasonable traffic management under suitable preconditions.[53] This does not seem to have been the decisive factor for the regulators or for the politicians.

Should the decision to enact network neutrality rules be seen then as having been primarily political? I would suggest that the answer is more yes than no (and to say that it was political is not to say that it was in some sense incorrect). Some consumers are clearly passionate about these issues; however, unbiased survey data suggest that the majority of consumers have only a limited appreciation of network neutrality issues, and that large numbers of consumers are far more accepting of reasonable traffic management than are the relatively small number who hold strong views opposing traffic management. As noted earlier in this section, it is possible that European political institutions were overly responsive to passionate and highly vocal partisans.

For the European Commission (the body responsible for initiating European legislation), the key concern was clearly that network neutrality laws might proliferate among the Member States, and that twenty-eight different network neutrality laws were unlikely to be mutually compatible.[54] This would have risked an impenetrable thicket for firms hoping to offer innovative online services, and would have adversely impacted the European Single Market that the Commission is

53. *See* Arnold et al., *supra* note 42, at 199; *see also* MARCUS, *supra* note 9, at 61.

54. *See* Eur. Comm'n, *supra* note 52, at 29.

> Absent clear and predictable rules at EU level, some EU Member States have begun to adopt their own approaches regarding traffic management practices (often referred to as 'net neutrality'). Regulatory measures have been developed at national level ranging from non-binding instruments (self-regulatory measures in the United Kingdom and Denmark) and more elaborated guidelines (NRA guidance in France) to the enactment of specific legislation on net neutrality (the Netherlands and Slovenia). Additionally, Germany is planning to adopt legislative proposals in the near future. Several initiatives have been announced or are under preparation in other Member States. This could result in further fragmentation of the Single Market that significantly complicates the integrated management of multi-territorial networks.

Id. at 29-30.

committed to defending.

III. MAJOR ELEMENTS OF REGULATION 2015/2120

Regulation 2015/2120 exists in order to establish "common rules to safeguard equal and non-discriminatory treatment of traffic in the provision of Internet access services and related end-users' rights."[55]

The Regulation does not use the words "network neutrality," but it establishes a set of user rights that broadly conform to one of the more common definitions of network neutrality:

> End-users shall have the right to access and distribute information and content, use and provide applications and services, and use terminal equipment of their choice, irrespective of the end-user's or provider's location or the location, origin or destination of the information, content, application or service, via their Internet access service.[56]

As a Regulation (as distinct from a Directive), it has a direct effect on European Member States. It does not need to be transposed into national law.[57] The Regulation directly applies not only to the twenty-eight Member States that comprise the EU, but also to European Economic Area (EEA) members Norway, Liechtenstein, and Iceland.[58]

The lengthy legal discussions in the U.S. about *telecommunications services* versus *information services* (sometimes expressed somewhat imprecisely as Title II versus Title I) are an artifact of U.S. law. They were irrelevant to the European discussion. There was never a serious question as to whether the European co-legislators (Commission, Parliament, and Council) had authority to regulate network operators in this way.[59]

This section provides historical background, then discusses key aspects, including the approach to prioritization in general, and to specialized services in particular. The discussion continues with consumer protection aspects, zero rating (which does not explicitly appear in the Regulation), and next steps to achieve implementation.

55. Regulation 2015/2120, *supra* note 1, at 8, art. 1(1). The Regulation also deals with international mobile roaming; however, those aspects are outside the scope of this paper.

56. *Id.*, art. 3(1). This is explicitly without prejudice to the lawfulness (or otherwise) of the content, applications or services. *Id.*

57. *See* TFEU, *supra* note 3.

58. *See* Regulation 2015/2120, *supra* note 1, at 1. The explanatory text to the title of the Regulation explains that it has "EEA relevance."

59. There is, however, an ongoing discussion as to whether providers of electronic content and services need to somehow be explicitly included within the scope of the RFEC, which is linked to the definition of "electronic communication services."

A. Historical background to the Regulation

The enactment of Regulation 2015/2120 could be said to be the culmination of a process whose roots go back some ten years; however, the immediate legislative history began in 2013.[60]

The European framework as adopted in 2002–2003[61] did not specifically address network neutrality, but network neutrality became a significant issue in the 2006 revisions to the regulatory framework, which were enacted late in 2009. A number of changes to the regulatory framework were introduced as a result:

- Amendment of Article 8 of the Framework Directive to establish the ability of end users to access content, applications or services of their choice as an explicit goal of European policy.[62]
- Amendment of Article 20 of the Universal Service Directive to oblige providers of electronic communication services to inform their end users of their practices in regard to traffic management, and providing end users with the right to change providers without penalty if they are dissatisfied with a change in these practices.[63]
- Empowerment of NRAs through Article 22(3) of the Universal Service Directive to impose, if necessary, minimum QoS obligations on network operators.[64]

The minimum QoS obligations have not been imposed, and they are not very likely to be imposed any time soon. Thus, it is the transparency

60. This section is based on the author's report made on behalf of the European Parliament. *See* MARCUS, *supra* note 9.

61. The regulatory framework consists of one general and four specific directives. *See* RFEC, *supra* note 5.

62. "The national regulatory authorities shall promote the interests of the citizens of the EU by inter alia: . . . promoting the ability of end-users to access and distribute information or run applications and services of their choice . . ." Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a Common Regulatory Framework for Electronic Communications Networks and Services (Framework Directive), 2002 O.J. (L108) 33, 42, art. 8(4), amended by Directive 2009/140/EC of the European Parliament and of the Council of 25 November 2009, 2009 O.J. (L 337) 37, 51, art. 8(4)(g).

63. Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on Universal Service and Users' Rights Relating to Electronic Communications Networks and Services (Universal Service Directive), 2002 O.J. (L 108) 51, 64, art. 20 amended by Directive 2009/136/EC of the European Parliament and of the Council of 25 November 2009, 2009 O.J. (L 337) 11, 23–24, art 20.

64. "In order to prevent the degradation of service and the hindering or slowing down of traffic over networks, Member States shall ensure that national regulatory authorities are able to set minimum quality of service requirements on an undertaking or undertakings providing public communications networks." *Id.* art. 22(3). The text goes on to establish coordination mechanisms between the Member States and the Commission.

obligations that constitute the real, substantive change.

Given that Europe has, for the most part, not experienced major problems with network neutrality, these relatively soft obligations could be said to have worked reasonably well, a view that the NRAs also hold (see *supra* Section II).

The European Commission put forward its Telecoms Single Market ("TSM") legislative proposals to the Parliament on September 11, 2013, less than a year before Parliamentary elections.[65] These proposals covered a wide range of issues addressing authorization, spectrum management, international mobile roaming, and more. The network neutrality provisions sought primarily to minimize the risk of needlessly intrusive Member State interventions.[66]

On April 3, 2014, the European Parliament passed at First Reading (i.e., without subsequent cycles of amendments and further Readings) a TSM Regulation based on the Commission's proposed text, but greatly simplified and enormously reduced in scope.[67] The network neutrality provisions were retained, in general, but altered and strengthened in ways that might have greatly limited traffic management, even in instances where many would have considered it to be appropriate.[68] A lengthy negotiation between Council and Parliament resulted in a legislative compromise that, in the author's judgment, was sensible. It was passed on October 27, 2015, and formally gazetted as Regulation 2015/2120 on November 26, 2015.[69]

65. *See* Eur. Comm'n, *supra* note 51.

66. As previously noted, the European Commission's Impact Assessment for the TSM Regulation expressed the concern in this way:

> Absent clear and predictable rules at EU level, some EU Member States have begun to adopt their own approaches regarding traffic management practices (often referred to as 'net neutrality'). . . . This could result in further fragmentation of the Single Market that significantly complicates the integrated management of multi-territorial networks.

Eur. Comm'n, *supra* note 52, at 29–30.

67. The elimination of large parts of the initial TSM legislative proposal was appropriate in my view. *See* J. Scott Marcus et al., *How to Build a Ubiquitous EU Digital Society*, Doc. IP/A/ITRE/ST/2012-09, ITRE (2013), http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/518736/IPOL-ITRE_ET(2013)518736_EN.pdf.

68. *European Parliament Legislative Resolution of 3 April 2014 on the Proposal for a Regulation of the European Parliament and of the Council Laying Down Measures Concerning the European Single Market for Electronic Communications and to Achieve a Connected Continent, and Amending Directives 2002/20/EC, 2002/21/EC, 2002/22/EC, and Regulations (EC) No 1211/2009 and (EU) No 531/2012 (COM(2013)0627 – C7-0267/2013 – 2013/0309(COD))*, COM (2013) 0627 first reading (Apr. 3, 2014), http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0281+0+DOC+XML+V0//EN.

69. Regulation 2015/2120, *supra* note 1.

B. Application requirements

The text of the Regulation goes to considerable lengths to enable network operators to implement sensible traffic management, while prohibiting anticompetitive practices. The key text appears in Article 3(3):

> Providers of internet access services shall treat all traffic equally, when providing internet access services, without discrimination, restriction or interference, and irrespective of the sender and receiver, the content accessed or distributed, the applications or services used or provided, or the terminal equipment used.
>
> The [previous text] shall not prevent providers of internet access services from implementing reasonable traffic management measures. In order to be deemed to be reasonable, such measures shall be transparent, non-discriminatory and proportionate, and shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic. Such measures shall not monitor the specific content and shall not be maintained for longer than necessary.[70]

The phrasing "shall not be based on commercial considerations but on objectively different technical quality of service requirements of specific categories of traffic"[71] appears to be significant. The recitals to this Regulation make it clear that it is permissible to treat applications that objectively require or benefit from differentiated QoS differently from those that are relatively insensitive to QoS.[72] Bidirectional real-time VoIP and related video services are the most obvious examples.[73]

The text goes on to limit the ability of network operators to go beyond the previous restrictions, and not to

> [B]lock, slow down, alter, restrict, interfere with, degrade or discriminate between specific content, applications or services, or specific categories thereof, except as necessary, and only for as long as necessary" in order to comply with legal requirements; preserve the integrity of the network or of end-user equipment; or deal with network congestion "provided that equivalent categories of traffic are

70. *Id.* at 8, art. 3(3).

71. *Id.*

72. "According to general principles of Union law and settled case law, comparable situations should not be treated differently and different situations should not be treated in the same way unless such treatment is objectively justified." *Id.* at 2, recital 8.

73. It is not altogether clear to this author how "longer than necessary" will be interpreted in practice, since QoS-sensitive applications would always benefit from differentiated QoS.

treated equally.[74]

The ability of traffic management to process personal data is limited to that which is "necessary and proportionate"[75] in order to achieve those objectives. This effectively sets limits on the use of techniques such as DPI.

C. Specialized services

The Regulation does not use the term "specialized services" (which has been very visible in the global network neutrality discussion), but it explicitly permits them. Article 3(5) specifically states:

> Providers of electronic communications to the public, including providers of internet access services, and providers of content, applications and services shall be free to offer services other than internet access services which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet requirements of the content, applications or services for a specific level of quality.[76]

This provision would appear to explicitly permit services such as IPTV over the network operator's own facilities, an offering that is already widely available in Europe.[77] The exception again relates to applications that objectively require differentiated QoS. The recitals to the Regulation provide clarifications as to the intent:

> Such specific levels of quality are, for instance, required by some services responding to a public interest or by some new machine-to-machine communications services. Providers of electronic communications to the public, including providers of internet access services, and providers of content, applications and services should therefore be free to offer services which are not internet access services and which are optimised for specific content, applications or services, or a combination thereof, where the optimisation is necessary in order to meet the requirements of the content,

74. Regulation 2015/2120, *supra* note 1, at 8, art. 3(3). These exceptions are spelled out in greater detail in Recitals 11, 13, 14, and 15 than in the operative text. *Id.* at 3.

75. *Id.* at 9, art. 3(4). The word *proportionate*, in the context of European law and regulation, generally denotes that a practice is no more intrusive than necessary. Indeed, the European Commission's 2015 "Better Regulation Guidelines" define proportionality as "acting only where necessary and in a way that does not go beyond what is needed to resolve the problem." *Commission Staff Working Document: Better Regulation Guidelines,* at 5 COM (2015) 215 final (May 19, 2015).

76. Regulation 2015/2120, *supra* note 1, at 9, art. 3(5).

77. *See Entertain Is More Than Just Television*, TELEKOM, https://www.telekom.com/innovation/81276 (last visited Feb. 15, 2016).

applications or services for a specific level of quality.[78]

The recitals go on to urge NRAs to "verify whether and to what extent such optimization is objectively necessary to ensure one or more specific and key features of the content, applications or services and to enable a corresponding quality assurance to be given to end-users" in order to avoid "circumventing the provisions regarding traffic management measures . . . ."[79]

The FCC's Open Internet Order prohibits paid prioritization.[80] To an economist, this prohibition is quite strange, since it interferes with legitimate market mechanisms. No equivalent prohibition exists in the European Regulation, as is made clear in Recital 17:

> In order to avoid the provision of such other services having a negative impact on the availability or general quality of internet access services for end-users, sufficient capacity needs to be ensured. Providers of electronic communications to the public, including providers of internet access services, should, therefore, offer such other services, or conclude corresponding agreements with providers of content, applications or services facilitating such other services, only if the network capacity is sufficient for their provision in addition to any internet access services provided.[81]

This brings us to a key remaining provision relating to the "dirt road" effect. There has been an intense discussion in Europe as to whether specialized services might crowd out normal non-specialized Internet access. This concern is clearly expressed in a BEREC report from 2012.[82] They note that it is not unusual for an integrated broadband provider that also offers services such as video to positively differentiate in favor of its upstream services, which "do not necessarily raise competition problems"; negative differentiation however is characterized as a "hypothetical situation" that "when it negatively affects a large number of content providers, is referred to in the net neutrality literature as the 'dirt road.'"[83] BEREC goes on to observe that "[a] vertically integrated [broadband ISP with SMP in a retail internet access market] has incentives to discriminate traffic coming from [content and application providers] which provide contents or applications competing

78. Regulation 2015/2120, *supra* note 1, at 4, recital 16.

79. *Id*.

80. *Open Internet Order*, *supra* note 2, at para. 18.

81. Regulation 2015/2120, *supra* note 1, at 4, recital 17.

82. BODY OF EURO. REGULATORS FOR ELECTRONIC COMMC'NS, DIFFERENTIATION PRACTICES AND RELATED COMPETITION ISSUES IN THE SCOPE OF NET NEUTRALITY 61 (2012), http://berec.europa.eu/eng/document_register/subject_matter/berec/download/0/1094-berec-report-on-differentiation-practice_0.pdf.

83. *Id.*

with its subsidiary. Users face negative effects."[84]

This author emphasizes that this concern is, as BEREC noted, a "hypothetical situation" that has not been observed in practice. Moreover, there are strong economic reasons to doubt that network operators would find it profitable to allow the network to degrade to a "dirt road" if any alternative were realistically available to them. The theory of quality differentiation suggests that providers of a service are motivated to benefit from the fact that different consumers of the service have different willingness to pay for services of different quality.[85] To a first order, one would expect that a network operator that allows the network to degrade is sacrificing revenue from consumers with low willingness to pay who would otherwise pay more than the network operator's marginal cost to supply.

If a network operator has market power, it might be argued, the network operator would be motivated to reduce quality for low-quality services in order to force users to accept high-quality, high-price services. This begs the question: If the network operator has enough market power to do so,[86] does it not already have enough market power to simply raise the price of all services, with or without quality discrimination?[87]

In any case, Article 3(5) of the Regulation goes on to prohibit "dirt road" effects and to oblige NRAs to monitor networks to prevent possible emergence of "dirt road" effects:

> Providers of electronic communications to the public, including providers of internet access services, may offer or facilitate such services only if the network capacity is sufficient to provide them in addition to any internet access services provided. Such services shall not be usable or offered as a replacement for internet access services, and shall not be to the detriment of the availability or general quality of internet access services for end-users.[88]

D. Consumer protection

The Regulation goes on in Article 4 to codify and expand the consumer's right to information on traffic management measures beyond

84. *Id.* at 62.

85. *See generally* Hotelling, *supra* note 19.

86. The question here is, incidentally, not whether the network operator possesses significant market power ("SMP") as defined in European Regulatory practice. Rather, the question deals with the possession of market power *after all regulatory remedies have been applied*, i.e., in a modified "Greenfield" sense.

87. *See* J. Scott Marcus & Martin Waldburger, *Identifying Harm to the Best Efforts Internet* (2015), http://ssrn.com/abstract=2624604.

88. Regulation 2015/2120, *supra* note 1, at 9, art. 3(5).

those that had been enacted in the Universal Service Directive in 2009.[89] In doing so, it reduces the risk of problematic inconsistencies among the Member States. Measures for resolving consumer complaints must be put in place. The Regulation also makes actionable "[a]ny significant discrepancy, continuous or regularly recurring, between the actual performance of the internet access service regarding speed or other quality of service parameters and the performance indicated by the provider of internet access services."[90]

E. Zero rating

The Commission has defined zero rating as "a commercial practice used by some providers of internet access, especially mobile operators, not to count the data volume of particular applications or services against the user's limited monthly data volume."[91] Explicit rules on zero rating were actively discussed, but are conspicuous by their absence from the final text of Regulation 2015/2120. Zero rating is a particularly challenging policy area. If practiced by a network operator that has effective market power,[92] it could be viewed as a form of vertical foreclosure (see *supra* Section I), which generally reduces societal welfare.

A blanket prohibition would have complex effects that are not well understood. What is fairly clear, however, is that it would put NRAs in the miserable position of denying benefits to consumers that the market players would otherwise be willing to give them. For this reason, it is perplexing that European consumer advocates have been the most vocal advocates of a position that most likely increases effective prices to consumers.[93]

F. Next steps

The Regulation calls on NRAs going forward to monitor compliance and to publish annual reports of their findings.[94] Notably, it

89. *Id.* at 9–10, art. 4.

90. *Id.* at 10, art. 4(4).

91. Press Release, European Commission Fact Sheet, Roaming Charges and Open Internet: Questions and Answers (updated Oct. 27, 2015), http://europa.eu/rapid/press-release_MEMO-15-5275_en.htm.

92. Again, market power as used here is *not* conventional SMP as used in European practice. The issue here is whether there is *de facto* market power after all regulatory remedies (including loop unbundling bit-stream access) have been applied.

93. *See, e.g.*, BUREAU EUROPÉEN DES UNIONS DE CONSOMMATEURS AISBL [BEUC], TELECOMS SINGLE MARKET: TRILOGUE NEGOTIATIONS – BEUC'S KEY DEMANDS (2015), http://www.beuc.eu/publications/beuc-x-2015-028_gbe-telecom_single_market_trilogue-key_beuc_demands.pdf.

94. Regulation 2015/2120, *supra* note 1, at 10, art. 5(1).

also calls on BEREC to issue implementation guidelines for the NRAs by August 30, 2016.[95]

Again, with directives, it typically takes at least eighteen months for the Member States to transpose European policy into national law. The network neutrality portions of this Regulation, however, take effect in April 2016 (with some exceptions where, for instance, a Member State has existing measures, such as self-regulatory schemes, already in effect, in which case implementation may be delayed until the end of 2016).[96]

CONCLUDING OBSERVATIONS

The European Regulation that implements network neutrality is similar in many respects to the FCC's Open Internet Order, but also different in important respects. It responds to a different set of regulatory needs and market realities. Whatever one thinks of network neutrality violations in the U.S., it is fairly clear that they have been rare in Europe. Moreover, European NRAs have not been asking for greater authority.

The Regulation put in place serves primarily instead to limit the ability of the Member States to implement diverging and possibly mutually inconsistent or incompatible approaches to network neutrality—a concern which the U.S., as a federal republic where the FCC has substantial ability to pre-empt the states, does not confront.

In terms of substance, the rules appear to be broadly similar in theory, with the notable exception of the FCC's prohibition on paid prioritization. There is no equivalent prohibition in Europe. This author prefers the European approach. While the two approaches appear in theory to be similar, how different they will prove to be in practice remains to be seen. As the saying goes, "[i]n theory, there is no difference between theory and practice. But, in practice, there is."[97]

95. *Id.*
96. *Id.* at 17, art. 10.
97. Sometimes attributed to the baseball coach Yogi Berra.