Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

	)	
In the Matter of	)	
	)	
Preserving the Open Internet	)	GN Docket No. 09-191
	)	
Broadband Industry Practices	)	WC Docket No. 07-52
	)	

REPLY COMMENTS OF DISH NETWORK

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I. INTRODUCTION

DISH Network L.L.C. ("DISH") files these reply comments in support of the Commission's efforts to preserve an open Internet.[1] Broadband services – which increasingly touch almost every aspect of our lives – are becoming as important to Americans as electricity.[2] Dramatic improvements in technology have resulted in a better video viewing experience, resulting in more and more online video content. In response to consumer demand, pay-TV providers are integrating their vast offerings of linear channels with online content obtained over broadband facilities. DISH welcomes the opportunity to compete in this rapidly-expanding video marketplace, but clear rules are needed to prevent discriminatory practices by owners of bottleneck facilities.

Furthermore, in recognition of the increasing importance of broadband, Congress, the Administration, and the Commission are helping to spur the rollout of new fiber transmission facilities.[3] A government policy focused on the deployment of critical infrastructure must also be accompanied by consumer protection rules and pro-competition policies. Timing is critical. We urge the Commission to adopt without delay the nondiscrimination rules proposed in the *Notice* (the "Proposed Rules").

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[1] *See Preserving the Open Internet*, Notice of Proposed Rulemaking, GN Docket No. 09-191, WC Docket No. 07-52, FCC 09-93, 24 FCC Rcd 13064 (2009) ("*Notice*"). All initial comments filed in response to the *Notice* hereinafter are short-cited.

[2] Chairman Julius Genachowski, Federal Communications Commission, Broadband: Our Enduring Engine for Prosperity and Opportunity (Feb. 16, 2010), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-296262A1.pdf (last visited Apr. 22, 2010).

[3] *See* American Recovery and Reinvestment Act of 2009, § 6001; Broadband Initiative Program, Broadband Technology Opportunities Program, Notice, 74 Fed. Reg. 33104 (2009); Federal Communications Commission, Connecting America: The National Broadband Plan (rel. Mar. 17, 2010) (hereinafter "National Broadband Plan").

II. SUMMARY

We begin in Section III with an explanation of why nondiscrimination rules are critical to protect consumers and stimulate competition, particularly as video consumption moves online. In Section IV, we discuss the Commission's authority to adopt the Proposed Rules, including through the classification of broadband Internet access service under Title II of the Communications Act of 1934. We urge the Commission in Section V to adopt a clear but narrow set of allowable network management practices that serve as "safe harbors." Any network management practices that are implemented by broadband providers should be fully disclosed to the public and be backed up by robust enforcement measures, as discussed in Section VI. Finally, in Section VII, we illustrate how the Commission can further promote its goals in this proceeding by adopting policies that enable competitors to access last-mile broadband facilities.

III. NONDISCRIMINATION RULES ARE NECESSARY TO ENSURE THAT CONSUMERS ARE NOT HARMED

The Commission must adopt nondiscrimination rules to ensure that consumers are protected, because history shows that broadband providers have the incentive[4] and ability[5] to favor or degrade particular sources of content. Control over bottleneck

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[4] *See, e.g.*, *Review of the Commission's Program Access Rule and Examination of Programming Tying Arrangements*, First Report and Order, MB Docket No. 07-198, FCC 10-17, 25 FCC Rcd 746, ¶¶ 1-2 (2010) (noting that cable operators repeatedly have harmed competition in the video distribution market by withholding terrestrially delivered, cable-affiliated programming from competing pay-TV providers).

[5] *See, e.g.*, *Formal Complaint of Free Press and Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, Memorandum Opinion and Order, 23 FCC Rcd 13028, 13031 (2008) (finding that Comcast used deep packet inspection to "falsif[y] network traffic" and send fraudulent reset packets, which signal that the connection to its network should be terminated and a new one established). *See also Madison River Communications, LLC*, Order,

facilities becomes even more troublesome in a digital world, where consumers are increasingly demanding access to online content as part of their pay-TV subscription. For competition in the video market to continue to thrive, multichannel video programming distributors ("MVPDs") must be able to provide a customer experience that is not inferior to service provided by vertically-integrated incumbents.

A. Lack of Competition in Last-Mile Transmission Facilities Threatens Our Digital Future

As the record demonstrates, incumbent cable and telco providers virtually control last-mile broadband transmission facilities into the home.[6] Chairman Genachowski has noted the critical nature of these facilities, by referring to them as the "indispensable infrastructure of the digital age – the 21st Century equivalent of what canals, railroads, highways, the telephone, and electricity were for previous generations."[7] The combined ownership of bottleneck facilities and pay-TV services poses an ominous threat to consumer choice and competition in the video marketplace.

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20 FCC Rcd 4295 (2005) (adopting a consent decree to resolve an investigation into Madison River Telephone Company's alleged blocking of Voice-Over-the-Internet applications).

[6] *See, e.g.*, Ad Hoc Telecommunications Users Association Comments at 6-10 (the nondiscrimination rule is needed to remedy a market failure in "last mile" services); Center for Democracy and Technology Comments ("CDT") at 5 (observing that "private-sector owners of communications networks often resist innovations that reduce their control over how their networks are used" and noting limited choices for consumers among last-mile providers); Computer & Communications Industry Association Comments ("CCIA") at 3 (open Internet rules are needed because "access to last mile facilities . . . has been the only significant barrier to Internet participation"); Google Comments at 13-14 (Internet openness is vulnerable due to the fact that "broadband networks [are] an essential input, a scarce resource, and a means of controlling Internet traffic").

[7] *See* Written Statement of Chairman Julius Genachowski, Federal Communications Commission, "Oversight of the Federal Communications Commission: The National Broadband Plan," Hearing Before the Subcommittee on Communications, Technology, and the Internet, U.S. House of Representatives (Mar. 25, 2010), *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-297087A1.pdf (last visited Apr. 22, 2010).

Historically, Direct Broadcast Satellite ("DBS") providers have been the biggest competitive threat to incumbent cable operators.[8] In fact, when DBS providers were still in their infancy, Congress and the Commission adopted proactive rules to ensure that cable providers could not quash their new competitors.[9] This approach to competition policy has been incredibly successful. Approximately one-third of all U.S. pay-TV households and over 30 million subscribers receive their television from a DBS provider.[10] Competition in the pay-TV industry also has resulted in lower prices and better service for consumers.[11]

Online video is experiencing explosive growth. By the end of 2010, the total number of Internet-connected TVs will reach approximately 10 million, and revenues generated from Internet-connected video service will reach near $1 billion.[12] Online video traffic is projected to double every two years from 2008 through 2013.[13] Pay-TV services continue to evolve at a rapid pace and providers increasingly are integrating their

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[8] *See, e.g.*, *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 06-189, FCC 07-206, Thirteenth Annual Report, 24 FCC Rcd 542, ¶¶ 6, 12 (2009) ("*Thirteenth Annual Video Competition Report*").

[9] *See* 47 U.S.C. § 548, 47 C.F.R. § 76.1200 et seq., and *Implementation of Sections 12 and 19 of the Cable Television Protection and Competition Act of 1992*, First Report and Order, MM Docket No. 92-265, FCC 93-178, 8 FCC Rcd 3359 (1993) ("*Cable Act Order*").

[10] *See Thirteenth Annual Video Competition Report* ¶ 12 (2009). *See also* DISH Network Press Release, *DISH Network Adds Its 14 Millionth Customer*, Dec. 10, 2009, *available at* http://dish.client.shareholder.com/releasedetail.cfm?ReleaseID=429358 (last visited Apr. 22, 2010).

[11] *See Thirteenth Annual Video Competition Report* ¶ 12 (2009)

[12] *See* Diane Mermigas, The Walmart-Vudu Match Up: An End-Run Around Cable, BNET, Feb. 23, 2010, *available at* http://industry.bnet.com/media/10006752/walmart-vudu-match-up-is-an-end-run-around-cable/ (last visited Apr. 22, 2010).

[13] *See* Cisco Visual Networking Index: Forecast and Methodology, 2008-2013, Cisco Systems (June 9, 2009), *available at* http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-481360_ns827_Networking_Solutions_White_Paper.html (last visited Apr. 22, 2010).

vast offerings of linear channels with online content.[14] Rather than canceling their subscription service, however, consumers are adopting online video services as a complement to traditional, linear pay-TV services.[15] In fact, according to a recent study, almost 40 percent of "consumer broadband household respondents want a combination of linear TV and on-demand TV," nearly 75 percent want all of their video content to come from their pay-TV provider, and consumers specifically desire Internet video as a complement to (not a substitute for) their traditional TV offerings.[16]

Because of the marketplace changes discussed above, Video-on-Demand ("VoD") and Internet-based video are becoming "must have" components of every MVPD's pay-TV package. As illustrated in Figure 1, below, every major MVPD offers an online video service in addition to linear channels offered over wireline or satellite connections. Although VoD content[17] (for example, the ability to order a pay-per-view movie through

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[14] *See, e.g.*, Nat Worden and Sam Schechner, *Comcast Rolls Out Web-TV Service*, WALL STREET JOURNAL, Dec. 16, 2009; Rob Pegoraro, *Verizon Adding Widgets, Web Video To Fios TV*, WASHINGTONPOST.COM, July 15, 2009, *available at* http://voices.washingtonpost.com/fasterforward/2009/07/verizon_adding_widgets_web_vid.html (last visited Apr. 22, 2010). *See also* Nielsen Media Research, *Television Audience 2008* (finding that the average U.S. household received over 130 channels in 2008, up from 61 in 2000).

[15] *See* Stuart Elliot, *Old and New Media Coexisting Nicely, Thank You*, NEW YORK TIMES, March 18, 2010, *available at* http://www.nytimes.com/2010/03/19/business/media/19adco.html (last visited Apr. 22, 2010).

[16] *See* In-State Press Release, *Consumers Want the Best of Both Worlds: Pay TV and Over-the-Top Video*, Mar. 10, 2010, *available at* http://www.instat.com/press.asp?ID=2757&sku=IN1004654CM (last visited Apr. 22, 2010).

[17] *See, e.g.*, Comcast Press Release, *Comcast Kicks Off the New Year with More Choices Anytime*, Dec. 28, 2009, *available at* http://www.comcast.com/About/PressRelease/PressReleaseDetail.ashx?PRID=950 (last visited Apr. 22, 2010) (recent enhancements to Comcast's existing online video service include new release movies available the same day as DVD release and expanded HD offerings); AT&T Press Release, *AT&T U-verse Expands Video On Demand Library With HD VOD Titles*, Sept. 5, 2008, *available at* http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=26059 (last visited Apr. 22, 2010) (describing enhancements to AT&T U-Verse VoD service to include expanded library of HD movies); DirecTV Press Release, DIRECTV On Demand Now Available Nationwide, June 30, 2008, *available at*

an on-screen guide) has been available for years, MVPDs also are beginning to offer their subscribers online access to certain content available in the linear channel lineup.[18] Furthermore, although DBS technology is ideal for delivering linear, high-definition channels at affordable prices, neither DBS provider controls a last-mile broadband transmission facility into the home.[19]

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http://dtv.client.shareholder.com/releasedetail.cfm?releaseid=318983 (last visited Apr. 22, 2010); CableVision News Release, *Cablevision Significantly Expands Free Video On Demand Lineup with Programming from Eight Popular Networks*, July 7, 2009, *available at* http://www.cablevision.com/about/news/article.jsp?d=070709 (last visited Apr. 22, 2010); SuddenLink Press Release, *Video on Demand to Launch in West Texas*, Sept. 18, 2008, *available at* http://suddenlinkfyi.com/2008/09/18/video-on-demand-to-launch-in-west-texas/ (last visited Apr. 22, 2010) (announcing new Suddenlink VoD service offering thousands of viewing choices, including movies, sports, news, music and shows from popular cable networks).

[18] *See, e.g.*, *Fancast XFINITY TV National Beta Launch: A Guide to Get Started*, The Official Comcast Blog, Dec. 15, 2009, available at http://blog.comcast.com/2009/12/fancast-xfinity-tv-national-beta-launch-a-guide-to-get-started.html (last visited Apr. 22, 2010) (announcing release of Fancast XFINITY TV national beta, which gives Comcast customers access to "thousands of hours of cable programming, most of which has never been available online before for no additional cost"); Verizon News Release, *Verizon Launches Trial of FiOS TV Online, Extending Multi-Screen Leadership*, Aug. 27, 2009, *available at* http://newscenter.verizon.com/press-releases/verizon/2009/verizon-launches-trial-of.html (last visited Apr. 22, 2010) (announcing a trial to bring television programming online to FiOS TV subscribers); AT&T Press Release, *AT&T Launches AT&T Entertainment Website Featuring Online TV Content and Movies*, Sept. 10, 2009, *available at* http://www.att.com/gen/press-room?pid=4800&cdvn=news&newsarticleid=27102 (last visited Apr. 22, 2010) (announcing launch of AT&T Entertainment, a new Web site that offers subscribers access to "thousands of streaming TV shows and movies on your PC").

[19] DISH Network partners with WildBlue, a leading provider of satellite broadband access to homes and businesses, to offer high-speed Internet access to customers. DISH Network High-Speed Internet powered by WildBlue is a two-way satellite service that provides an always-on, high-speed data connection with speeds up to 30 times faster than dial-up. *See* DISH Network Press Release, *EchoStar Rolls out High-Speed Internet Service*, Oct. 19, 2006, *available at* http://dish.client.shareholder.com/releasedetail.cfm?ReleaseID=243331 (last visited Apr. 22, 2010).

Figure 1: Survey of Online Video Services Offered by Pay-TV Companies

Pay-TV Company	Online Video Service	Vertically-Integrated Broadband Providers
AT&T U-Verse	AT&T Entertainment	✓
Cablevision	PC to TV Media Relay	✓
Comcast	Fancast Xfinity	✓
DirecTV	DirecTV on DEMAND	X
DISH Network	DishOnline	X
Time Warner Cable	TWondemand	✓
Verizon	FiOS TV Online	✓

To meet the growing market demand for online video, DISH is integrating online content with linear television channels through the DishOnline service.[20] Because DBS is a one-way service with no return path for its customers, however, DISH subscribers must connect their set-top boxes ("STBs") to a broadband connection to order and watch DishOnline content. As a result, the success of DishOnline is critically dependent on broadband access provided and controlled by DISH's competitors in the MVPD market (including, primarily, Comcast, Verizon and AT&T).

As more and more video consumption moves online, the competitive viability of stand-alone MVPDs depends on their ability to offer an online video experience of the same quality as the online video offerings of integrated broadband providers. Because vertically-integrated broadband providers have the ability and incentive to degrade

[20] DISH's advanced STBs are Internet capable, which allows DISH to offer over 3,000 movies and TV shows through its "DishOnline" Internet video service. *See* DISH Network Press Release, *DISH Network® Introduces TV Everywhere™*, Jan. 6, 2010, *available at* http://dish.client.shareholder.com/releasedetail.cfm?ReleaseID=434426 (last visited Apr. 22, 2010).

competitors' online video services, the Commission needs to adopt a nondiscrimination rule to ensure that competition and diversity continue to thrive in the MVPD marketplace. Failure to immediately address this issue places years of successful pro-competition policies at risk.[21]

B. The Commission's New Rules Should Address Both Structural and Economic Discrimination

To address the full spectrum of possible competitive harms, the Commission's new rules should prohibit both structural discrimination (*e.g.*, blocking, degrading, throttling) and economic discrimination (*e.g.*, bandwidth caps or pricing plans that favor one source of content over another).

The record in this proceeding strongly supports a rule that prohibits all structural discrimination by broadband providers of third-party content and applications.[22] Sophisticated network equipment – including routers, servers, and switches – has

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[21] The program access rules were first adopted in 1993. *See Cable Act Order*. Since that time, two DBS providers that were nonexistent at the time have been able to develop and offer consumers valuable video programming alternatives. *See generally Thirteenth Annual Video Competition Report*.

[22] *See, e.g.*, Ad Hoc Telecommunications Users Committee Comments at 7 (supporting the proposed nondiscrimination rule "to protect subscribers and competing providers of Internet access, content, applications, and services from Internet access service providers' market power with respect to the 'last mile'"); American Library Association Comments at 2 (supporting the nondiscrimination rule due to the "many opportunities for service providers to abuse their gatekeeper status by picking and choosing what content they might privilege with faster access"); CDT Comments at 23 (agreeing that "a nondiscrimination principle is an essential component of a framework to protect the Internet's open nature"); Free Press Comments at 74-76 (the nondiscrimination rule should prohibit any "deliberate packet or flow degradation or prioritization"); Google Comments at 58 ("the core affirmative function of the nondiscrimination rule should be to prevent a broadband provider from using its control over the network to favor or disadvantage (by blocking, degrading, prioritizing, throttling or other means) particular sources of content or applications").

dramatically increased the network operator's control over traffic flow in recent years.[23] Advancements in technology make it possible for broadband providers to degrade their competitors' content by dropping packets, increasing the number of hops, imposing artificial time delays, increasing jitter, blocking, and using a reserved portion of the network to deliver higher quality-of-service ("QoS").[24] Absent regulatory oversight, broadband providers, rather than consumers, will "choose" marketplace winners and losers. Services posing the biggest competitive threat, either because they are more innovative or offered at a lower price, are the most likely targets of anti-competitive behavior.[25] Rules that protect consumers from such harm therefore serve the public interest.

In addition, the nondiscrimination rule should explicitly prohibit economic discrimination, which includes a variety of techniques designed to steer end users to choose vertically-integrated content over third-party content. For example, broadband providers have the incentive to exempt their own online video content accessed through their pay-TV service from a monthly bandwidth cap, because it drives up the cost of their competitors' service and discourages use of third-party content. Exempting affiliated

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[23] *See, e.g.*, Cisco®, *Optimizing Application Traffic with Cisco Service Control Technology*, http://www.cisco.com/en/US/prod/collateral/ps7045/ps6129/ps6133/ps6150/prod_brochure0900aecd80241955.html (last visited Apr. 22, 2010) (lauding Cisco Service Control's ability to control network traffic, including limiting "maximum bandwidth usage of specific applications and subscribers").

[24] *See, e.g.*, Ad Hoc Telecommunications Users Association Comments at 19-21; American Library Association Comments at 2; CDT Comments at 27-29; CCIA Comments at 5; Free Press Comments at 5; Google Comments at 51-54; National Association of Telecommunications Officers and Advisors/Benton Foundation Comments at 4-5; Netflix, Inc. Comments at 5-7; Open Internet Coalition Comments at 15-16; PAETEC Holding Corp. Comments at 11-13; Public Knowledge Comments at 31-32; Skype Communications S.A.R.L. Comments at 4; Vonage Comments at 19.

[25] Open Internet Coalition Comments at 28.

services is not the same as tiered pricing and caps based on bandwidth usage, which might be a legitimate congestion management tool, if structured appropriately.[26] In sum, broadband providers should be prohibited from using artificial economic incentives to steer consumers toward their integrated offerings.

C. Broadband Providers Should Be Prohibited from Providing Prioritized Services

The nondiscrimination rule should also prohibit so-called "two-sided" pricing,[27] where broadband providers charge content, application or service providers an additional fee for enhanced or prioritized access to reach end users.[28] As Google asserts, allowing broadband providers to engage in such discriminatory pricing would, among other things, harm innovation, create a "two-tiered Internet," reduce incentives to invest in increased network capacity, and unfairly advantage broadband provider-affiliated services.[29] Moreover, DISH agrees there is no evidence that broadband providers need to charge

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[26] *See, e.g.*, CCIA Comments at 15 (arguing that tiered and usage-based pricing is not unfair or discriminatory, provided adequate customer notice is provided); Skype Communications Comments at 18 (observing that "appropriately structured and adequately disclosed service tiers can be used to differentiate efficiently between high-bandwidth and low-bandwidth users").

[27] Broadband providers have both the incentive and ability to impose charges for prioritization. As early as 2005, Bell South publicly advocated a business plan to impose charges to prioritize particular Web sites or services for delivery to end users. *See* Jonathan Krim, *Executive Wants to Charge for Web Speed*, WASHINGTON POST, Dec. 1, 2005, *available at* http://www.washingtonpost.com/wp-dyn/content/article/2005/11/30/AR2005113002109.html (last visited Mar. 25, 2010).

[28] *See, e.g.*, American Library Association Comments at 4 (a prohibition on two-side pricing "is essential to maintaining an open and fair playing field for all content and application providers"); Google Comments at ii (urging the Commission to expand the nondiscrimination rule to "prohibit imposing new charges on Internet application and content providers to reach end-users, including charges for enhanced or prioritized access").

[29] *See* Google Comments at 64.

content and applications providers in order to motivate themselves to invest in broadband networks.[30]

We also disagree with Verizon that consumers benefit when broadband providers are free to charge a premium for a higher-quality, prioritized service for latency-sensitive applications.[31] Indeed, the economic incentives dictate the opposite result. As prominent economists have noted, broadband providers can artificially drive up the value of prioritized services by deliberately declining to expand capacity on their networks and precipitating a scarcity of network resources.[32] In an environment of reduced capacity and increasing congestion, broadband providers will form only a limited number of paid-priority business relationships, leaving other online businesses at a disadvantage.[33] Because the harms outweigh the benefits, the Commission should reject requests by infrastructure providers to sanction two-sided pricing arrangements.

In addition, we agree with Google and other commenters that broadband providers should be prohibited from moving QoS-sensitive content off the "best effort"

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[30] *See* Vonage Comments at 20 ("there is no evidence to support the proposition that charging content, application and service providers is necessary to recover the cost of network and fund investment in research and development").

[31] *See* Verizon/Verizon Wireless Comments at 47-48.

[32] *See, e.g.*, Nicholas Economides, *Why Imposing New Tolls on Third-Party Content and Applications Threatens Innovation and Will Not Improve Broadband Providers' Investment*, at 13 (January 2010), Appendix A to Comments of Google Inc., *citing* Robin Lee and Timothy Wu (2009), *Subsidizing Creativity through Network Design: Zero-Pricing and Net Neutrality*, JOURNAL OF ECONOMIC PERSPECTIVES, vol. 23, no 3, pp. 61-76. *See also* Open Internet Coalition Comments at 30-36 (noting that "there is no guarantee that any profits from prioritizing traffic on their networks would be used to finance capital expenditures. . . [instead] profits simply may be returned to shareholders"); Public Knowledge Comments at 45 (cautioning that "[p]rioritization of users' traffic can raise competitive concerns [and] introduce incentives to increase scarcity").

[33] *See* Free Press Comments at 3-4 (unless two-side pricing is prohibited, "ISPs will only be able to form a small number of paid-priority business relationships . . .[meaning that] ISPs will likely form exclusive paid-priority relationships, resulting in the Balkanization of the Internet").

Internet portion of their pipe onto a dedicated path.[34] If the Commission were to exempt some portion of a broadband provider's network facilities from regulation, it would create an "escape hatch" for broadband providers seeking to avoid open Internet obligations.[35] Vertically-integrated broadband providers easily could allocate large portions of their pipes to optimize their own online video services by squeezing competing movie and television services (*e.g.*, DishOnline, Hulu, YouTube, Netflix) into a downsized Internet-portion of the pipe, thereby placing such services at a competitive disadvantage. The Proposed Rules would thus be rendered toothless.

Alcatel-Lucent argues that preventing the use of dedicated capacity would be harmful, because it could result in added network congestion once all traffic is moved to the public Internet.[36] We disagree. Congestion is primarily a problem in the last mile to

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[34] *See* Google Comments at 75 (arguing that the Commission "should clarify that the 'managed services' label does not extend to any service that makes use of the public Internet . . .at any point along its communications path"); CDT Comments at 48 (cautioning that unless the definition of "managed" services is sufficiently narrow, broadband providers could redefine selected Internet traffic as "managed or specialized service" traffic and "therefore exempt that traffic from the open Internet rules"); Free Press Comments at 109 ("[t]o the extent that managed or specialized services use network capacity that could be used for Internet access service, they should be carefully supervised and regulated"). *But see* Alcatel-Lucent Comments at 21 (we do "not see managed service offerings as a threat to 'best effort' broadband Internet access but rather as a full complement to this form of access and one that will financially justify the widespread broadband availability the Commission seeks to achieve"); Clearwire Comments at 14 (the Commission should define "managed" services as those that "may run side-by-side with a carrier's broadband Internet access service"); Ericsson Comments at 3, n. 7 ("Ericsson uses the term 'managed services' to mean applications and content that are delivered to end users with some different degree of control over QoS than that which applies generally to IP-delivered traffic"); OPASTCO Comments at 12-13 ("establishing a general and flexible definition of managed or specialized services will improve the ability and incentive of rural ILECs to invest in their broadband networks, to the benefit of all of their customers").

[35] *See* Google Comments at 75; *see also* Netflix Comments at 9-10 ("Netflix is concerned that network operators will use so-called managed services in a way that harms unaffiliated content or service providers that compete directly with services provided by the network operator, owing either to their vertical integration, as discussed above, or resulting from competitive threats to their legacy 'managed services' business").

[36] *See* Alcatel-Lucent Comments at 21.

the end user. Moreover, if network congestion is degrading consumers' online experience, the solution is obvious: network providers can add more capacity.[37] Consumers, competition, and innovation will be harmed if the Internet ecosystem becomes a two-tiered environment where preferred traffic travels on an optimized, segregated platform while public Internet traffic is relegated to a "windy dirt road."

Nondiscrimination rules are thus needed to ensure that all online video content is treated in the same manner, regardless of source, so that broadband providers cannot harm competition by ensuring that only affiliated MVPDs can deliver the best quality video experience. That said, DISH does not oppose a limited exemption that would allow a vertically-integrated broadband provider to partition off linear television channels to maintain quality-of-service. Vertically-integrated broadband providers do not have bottleneck control over one-way delivery of linear channels, because competition from service providers using other technologies, such as satellite, can provide a comparable consumer experience. Such an exemption should be limited to: "[a] portion of the electromagnetic frequency spectrum that is used by an MVPD for the one-way transmission of linear television channels to residential subscribers." Any exception for linear video programming should not extend to online video or any other two-way services that compete with content delivered over the public Internet.

We also note that the QoS-protected services discussed above are sometimes referred to as "managed services." The Commission offered no workable definition for

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[37] Because of the unexpectedly high bandwidth needs of the iPhone, AT&T has been desperately building capacity before it loses its monopoly on the phone and many customers along with it. *See, e.g.*, Niraj Sheth, *AT&T Prepares Network for Battle*, WALL STREET JOURNAL, Mar. 31, 2010 (explaining AT&T's efforts to improve network capacity).

"managed" services, however, and no consensus position has developed.[38] Given the lack of clarity in the record regarding the definition of "managed" services, much less agreement on how they should be regulated, it would be premature for the Commission to adopt any rules at this time. In the meantime, a robust nondiscrimination rule should apply.

IV. THE COMMISSION HAS THE AUTHORITY TO ADOPT THE PROPOSED RULES UNDER TITLE II

In the wake of the D.C. Circuit's *Comcast v. FCC* decision,[39] the need for regulatory certainty and a stable legal framework for overseeing broadband facilities is greater than ever. Title II of the Communications Act would provide a solid legal and regulatory framework to protect consumers, promote investment, and foster robust competition.[40] Prior Commission decisions to refrain from classifying broadband transmission facilities under Title II were based on data collected a decade ago and need to be updated in light of legal, technological and market developments.[41]

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[38] *See, e.g.*, Ad Hoc Telecommunication Users Committee Comments at 28 ("[t]he NPRM fails to provide sufficient information regarding the nature of the 'managed or specialized services' to permit comment by interested parties"); AT&T Comments at 101 (the Commission "would be hard-pressed" to devise a workable definition for managed services, even in a separate proceeding); CDT Comments at 2-3 (the *Notice* fails to provide any definition of "managed services," which creates the risk that the term could be misinterpreted to create "gaping loopholes in the open Internet rules); T-Mobile USA Comments at 30-31 (an exception for "managed services" does not save the open Internet rules). The Commission's initial definition of "managed or specialized service" is "Internet-Protocol-based offerings (including voice and subscription video services, and certain business services provided to enterprise customers), often provided over the same networks used for broadband Internet access service." *See Notice* ¶ 148.

[39] *Comcast Corp. v. FCC*, No. 08-1291 (D.C. Cir. Apr. 6, 2010).

[40] The exercise of Title II jurisdiction will also enable the Commission to gather full and accurate facts about broadband services as they develop and afford the agency maximum flexibility through the statutory forbearance process to tailor and adjust rules and regulations as broadband services, markets and technology evolve. 47 U.S.C. § 160.

[41] *See Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, Declaratory Ruling, 17 FCC Rcd 4798, 4822, ¶ 38 (2002) ("*Cable Modem Ruling*"),

A. The Communications Act and Ample Precedent Support FCC Oversight Over Broadband Transmission Pursuant to Title II

Contrary to claims that the Commission lacks authority to oversee broadband providers' services,[42] Congress granted the Commission expansive authority to adapt its rules as technology evolves.[43] The Communications Act does not tie the Commission's hands when facilities and infrastructure are upgraded from copper or coaxial cable to fiber or other facilities, or as services migrate from narrowband to broadband. Certainly, the Commission has never been constrained by such technological restrictions and there is no legal support for this narrow construction. Rather, the statute defines services in broad terms without regard to particular facilities.[44]

Ample legal precedent also reinforces that the Commission can exercise its authority to impose Title II obligations when there is a public interest reason to do so. As the Commission noted in 2005, neither the 1996 Act nor the Commission's decisions have disturbed the traditional *NARUC I* two-prong common carriage test.[45] The first

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aff'd, *National Cable & Telecommunications Ass'n v. Brand X Internet Servs*., 545 U.S. 967 (2005) (intermediate history omitted); *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) ("*Wireline Broadband Order*"), *aff'd Time Warner Telecom, Inv. v. FCC*, 507 F.3d 205 (3d Cir. 2007); *Appropriate Regulatory Treatment for Broadband Access to the Internet Over Wireless Networks*, Declaratory Ruling, WT Docket No. 07-53, 22 FCC Rcd 5901, 5909-10, 5912 (2007) ("*Wireless Broadband Ruling*").

[42] *See, e.g.,* AT&T Comments at 208; Comcast Comments at 22-26; Independent Telephone and Telecommunications Alliance Comments at 16-17; National Cable and Telecommunications Association Comments at 10-15.

[43] *See, e.g., Nat'l Broad. Co. v. U.S.*, 319 U.S. 190, 219 (1943) (FCC's authority to ensure that the public interest is not subordinated to private interests is "not niggardly but expansive."); *FCC v. Pottsville Broadcasting*, 309 U.S. 134, 138 (1940) (The Communications Act is a "supple instrument").

[44] *See, e.g.,* 47 U.S.C. § 153(46) (defining "telecommunications services" "regardless of the facilities used.").

[45] *See Wireline Broadband Order* ¶ 103. This well-settled precedent holds Title II common carriage is appropriate if: (1) the statute or the FCC, in furtherance of the "public interest,"

prong of *NARUC I* is an analysis of "whether there is a public interest reason for the Commission to require facilities to be offered on a common carrier basis."[46] This inquiry, in turn, focuses on how consumers will be impacted, including whether there are alternative common carrier facilities for users.[47] The record here underscores that there are ample public interest reasons for the Commission to proceed under Title II, including lack of competitive broadband access options, the risk of anticompetitive conduct, and the overwhelming importance of broadband transmission for access to the Internet and other key national purposes.[48] As the record shows, broadband providers rely upon government-supported public rights-of-way and public benefits such as Universal Service funds for their physical transmission facilities, further underscoring the need for federal oversight to ensure the public interest is served.[49]

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mandates that the transmission service be offered on a common carrier basis; *or* (2) the provider undertakes the offering of the transmission service on a nondiscriminatory basis. *See Nat'l Ass'n of Regulatory Utility Commc'ns v. FCC*, 525 F.2d 630 (D.C. Cir. 1976), *cert. denied, Nat'l Ass'n of Radiotelephone Sys. v. FCC*, 425 U.S. 992 (1976); *Nat'l Ass'n of Regulatory Utility Commc'ns v. FCC*, 533 F.2d 601 (D.C. Cir. 1976).

[46] *See, e.g., Tel-Optik Ltd.*, Memorandum Opinion and Order, 100 F.C.C. 2d 1033, ¶ 29 (1985); *Commission Consideration of Applications Under the Cable Landing License Act*, Notice of Proposed Rulemaking, 15 FCC Rcd 20789, ¶ 65 (2000).

[47] The Commission has explained, "[u]nder *NARUC I* and Commission precedent, our decision necessarily must consider whether the proposed [service] is a competitive 'bottleneck' (*i.e.*, whether there are no competitive substitutes, enabling the owner to restrict output or raise prices), or whether there are, in fact, competitive alternatives." *AT&T Submarine Systems, Inc.*, Cable Landing License, 11 FCC Rcd 14885, ¶ 39 (1996). *See also, AT&T Corp.*, Cable Landing License, 13 FCC Rcd 16232, ¶ 15 (1998) (Title II appropriate for "a potential bottleneck facility").

[48] *See, e.g.*, CDT Comments at 22; Public Knowledge Comments at 5-6; Vonage Comments at 11-12.

[49] Google Comments at i, 22.

B. The Commission Must Update its Regulatory Framework as Technology and Services Evolve

The Commission expressly recognized that broadband services were still evolving when it reached its earlier decisions on cable and wireline-based broadband Internet access services.[50] Ten years have elapsed since the Commission embarked on its initial inquiry – practically a lifetime for the Internet. As the expert agency, it is the Commission's responsibility to ensure that its regulatory conclusions are still appropriate given rapid changes in technology and the marketplace.

Verizon and others are wrong to state the Commission cannot change course and classify broadband transmission (access) as a Title II "telecommunications service."[51] Not only does the Commission have broad public interest authority to determine how services should be classified, legal precedent is clear that a regulatory agency may change its mind if it provides a rational basis and reasoned analysis for doing so.[52] Indeed, the law is clear that an agency has an affirmative duty to update its rules according to facts

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[50] For example, in the *Cable Modem Ruling*, the Commission observed that broadband services were "nascent," "not yet clear," and still "emerging." *Cable Modem Ruling* ¶ 83. *See also Wireline Broadband Order* ¶ 146.

[51] *See* Verizon/Verizon Wireless Comments at 86-94. *See also* Alcatel-Lucent Comments at 25 ("the Communications Act expressly prohibits the Commission from imposing common-carriage obligations (such as nondiscrimination requirements) on entities with respect to their provision of an offering that is not a 'telecommunications service'"); AT&T Comments at 78-80, 209-214 (arguing that the Commission should maintain prior precedent to decline to impose common-carrier-style and other economic regulation on broadband Internet access service); MetroPCS Comments at 6-7 (arguing that the "Commission's authority would be virtually limitless if it is able to promulgate broad regulations based on the ambiguous and hazy directives provided in Sections 230, 201(b) and 706(a)").

[52] *See Motor Vehicle Mfrs. Ass'n, Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). In fact, it is not even necessary for the Commission to prove that its reasons for a new policy are better, simply that "the new policy is permissible under the statute, that there are good reasons for it, and that the agency *believes* it to be better, which the conscious change of course adequately indicates." *FCC v. Fox Television Stations, Inc.*, 129 S.Ct. 1800, 1810-1811 (2009).

that develop.[53] As the Supreme Court has previously noted, "[i]f time and changing circumstances reveal that the 'public interest' is not served by application of the Regulations, it must be assumed that the Commission will act in accordance with its statutory obligations."[54]

Notably, the Commission has already committed to follow precisely this path. In the *Wireline Broadband Order*, the Commission explicitly notes that it is free to change its rules.[55] Moreover, in response to a question from the Court about what the agency would do if the public interest suffered as a result of the *Wireline Broadband Order*, FCC Counsel stated: "I think, your Honor, the FCC would be obligated to take some action. It's the FCC's obligation over time to revisit its predictive judgments. . . . When you have a dynamic industry as communications is, the Commission has to make some projections about the direction in which the market is going. But the Commission will occasionally have to revisit those decisions to determine whether or not they're right."[56]

C. The Commission's Prior Predictions and Factual Assumptions Are No Longer Valid

The Commission's early predictions about the broadband transmission and services market have not come to pass. There is not robust competition from facilities providers but rather a persistent duopoly. While the Commission stated that it expected increased competition and changes in the nation's broadband infrastructure – ranging

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[53] *FCC v. WNCN Listeners Guild*, 450 U.S. 582, 603 (1981) (the Commission "should be alert to the consequences of its policies and should stand ready to alter its rule if necessary to serve the public interest more fully")

[54] *Nat'l Broad. Co.*, 319 U.S. at 225.

[55] *Wireline Broadband Order* ¶81.

[56] *See* Transcript of Oral Argument at 46, *Time Warner Telecom* (3d Cir. 2007).

from wireless to broadband over power lines to cables placed in gas lines[57] – the facts now show that broadband access is still a duopoly.[58]

Likewise, while the Commission anticipated that providers of broadband transmission would have ample incentives to spread their network costs "over as much traffic and as many customers as possible regardless of whether such customers are wholesale or retail,"[59] the facts show that no robust wholesale market has emerged. Rather, the record shows that broadband providers are more likely to use their broadband access control to quash competition.

V. COMMISSION-SANCTIONED NETWORK MANAGEMENT PRACTICES SHOULD BE LIMITED TO GENUINE CONGESTION ISSUES

A. The Commission Should Authorize Only Congestion-Based Network Management Practices

DISH agrees that the "reasonable network management" exception to the Proposed Rules should be limited solely to a set of engineering practices legitimately

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[57] *Wireline Broadband Order* ¶¶ 33, 50.

[58] National Broadband Plan at 42. The FCC also notes the "fragile" state of such competition where it presently exists. *Id.*

[59] *Wireline Broadband Order* ¶ 74.

related to network congestion.[60] Unless the scope of the exception is limited in this way, anticompetitive blocking and degrading of third-party content will escape enforcement.[61]

Broadband provider proposals for the "reasonable network management" exception fail to protect consumers and competitors.[62] For example, AT&T asserts that the exception should cover network management tools rationally related to any broadband provider-defined "legitimate" interest.[63] Unless the Commission explicitly confines the exception to congestion-based traffic management, broadband providers could throttle or block third-party applications without regard for the actual bandwidth

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[60] *See, e.g.*, Ad Hoc Telecommunications Users Association Comments at 24-25 (urging the Commission to specify that "reasonable" network management "shall be limited to addressing specific instances of congestion that would result in imminent degradation of network performance if not remedied through network management practices"); Free Press Comments at 55-57 (advocating a "user-specific, time-limited, congestion-triggered management approach" over "Internet overcharging," where consumers pay fees for exceeding usage caps); Google Comments at 68 (urging the Commission to "to establish a clear but narrow set of reasonable network management practices, limited solely to engineering practices legitimately related to network congestion").

[61] *See, e.g.*, Amazon.com Comments at 3 (unless the reasonable network management exception is sufficiently narrow, "a broadband Internet access service provider might, in the name of network management, attempt to justify a commercial practice that causes collateral harm"); American Library Association Comments at 3 (observing that "[t]he need for any service provider to practice reasonable network management makes sense, as long as it is not used as an excuse to violate the nondiscrimination principle"); CCIA Comments at 6 (unless properly narrowed, the exception "can become a 'Trojan horse'" that dominant broadband providers "could use to cloak discriminatory or unreasonable practices"); New Jersey Division of Rate Counsel at 14 (the reasonable network management exception must be "narrow and extremely well-defined" so that broadband providers do not have "unwarranted opportunities for anticompetitive behavior").

[62] *See, e.g.*, AT&T Comments at 183-86 ("reasonable network management" should be a "highly flexible exception to its Internet *principles*"); Comcast Comments at 50-51 (asking the Commission to confirm that the exception is intended "to be flexible to allow broadband ISPs to react to marketplace and technological demands without delay"); Time Warner Cable Comments at 52, 71-72 (asking that the Commission establish a broad range of network management practices as "presumptively reasonable" and impose "a heavy burden on complainants to demonstrate that such network management practices in fact are anticompetitive and thus should be deemed unreasonably discriminatory"); Verizon Comments at 81-82 (arguing that any rule that limits providers to "reasonable" network management practices "will engender uncertainty and undermine the ability of providers to engage in practices needed to serve and protect consumers").

[63] *See* AT&T Comments at 187.

burden imposed by those applications. By requiring broadband providers to identify a *bona fide*, temporary instance of network congestion that warrants intervention, the Commission will prevent broadband providers from prolonging the use of egregious "network management" techniques.

Likewise, DISH agrees with the vast majority of commenters that the Commission should deem any provider-, content- or application-specific network management practice *per se* unreasonable and not subject to any exception.[64] If broadband providers were permitted to single out specific sources of content, discriminatory practices – such as Comcast's treatment of BitTorrent packets – would be even harder to detect.

Finally, DISH agrees that the focus of this proceeding should be on vertically-integrated operators of broadband transmission facilities.[65] Over-the-top service enhancements offered by companies such as Akamai or Limelight, which neither own nor control transmission facilities, should be considered outside the scope of this proceeding.

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[64] *See* Ad Hoc Telecommunications Users Association Comments at 26 (asking the Commission to "affirmatively declare that network management practices are *per se* unreasonable if they discriminate based upon the identity of a content or application service provider"); Google Comments at 70 (for a network congestion management technique to be reasonable, it must be applied in a neutral and nondiscriminatory manner with respect to the identity of the users and to the affiliation of the content and applications affected); Skype Comments at 8 (arguing that it is never reasonable for any network operator to block, throttle or degrade particular applications without regard to the network capacity such applications are actually consuming).

[65] *See, e.g.* Akamai Comments at 3-4 (if the Proposed Rules are adopted, they properly should apply at most to "provider[s] of broadband internet access service," as defined in the *Notice*); Google Comments at 12-14 (arguing that "broadband infrastructure's unique role as an essential, scarce, and modular resource demands government oversight"); CDT Comments at 5 (open Internet rules are needed because "[h]istory shows that private-sector owners of communications networks often resist innovations that reduce their control over how their networks are used," including AT&T's resistance to use of the Carterphone on its telephone network).

B. The Commission Should Adopt "Safe Harbors" To Provide Guidance on Allowable Network Management Techniques

DISH agrees that the Commission should adopt a clear but narrow set of allowable network management practices that serve as "safe harbors."[66] Safe harbors reduce uncertainty and will help address Verizon's concern that network engineers will be subjected to "the risk of sanctions for guessing wrong as to what regulators might later deem reasonable."[67] Commission-sanctioned safe harbors would allow broadband providers to implement pre-approved network management practices without fear of an enforcement action.

The Commission should develop a list of safe harbors that, at a minimum, satisfy the following factors:

i. The network management practice is applied in a neutral and nondiscriminatory manner that does not take into account the source or affiliation of the content.

ii. All similar services (*e.g.*, all video) are treated in an identical manner and receive the same prioritization and quality-of-service.

iii. Services provided by vertically-integrated broadband providers are not given priority over non-affiliated services.

iv. Objective, transparent criteria (such as bandwidth usage) are used in applying the network management practice.

Furthermore, the Commission should establish a waiver process for reviewing network management practices that fall outside of safe harbors. Broadband providers should be required to obtain Commission permission through the waiver process prior to implementing any new network management practice that does not fall within a

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[66] *See* Google Comments at 68; Information Technology Industry Council Comments at 8-9; Skype Comments at 6; Wireless Internet Service Providers Association Comments at 4.

[67] *See* Verizon/Verizon Wireless Comments at 81.

previously-established safe harbor.[68] Any waiver request would be subject to standard Commission waiver procedures, including a period for public comment.[69]

C. The Commission Should Establish a Process for Resolving Complaints

The Commission should also establish a dispute resolution process for network management complaints.[70] The Commission's formal complaint process for handling network management disputes should be as follows:

<u>FCC Formal Complaint Process:</u>

(1) Aggrieved parties should first be required to make a *prima facie* showing that the broadband provider has violated the open Internet rules. The burden would then shift to the broadband provider to demonstrate that the complained-of action qualifies as a reasonable network management tool or otherwise does not violate the Commission's rules.[71]

(2) While the complaint is pending, the broadband provider is enjoined from continuing any alleged discriminatory practice to prevent harm and disruption to consumers.[72]

(3) If the Commission finds that a broadband provider's network management practice violates the Commission's rules, the Enforcement Bureau enters an order

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[68] *See* Google Comments at 73-74.

[69] *See* 47 C.F.R. § 1.3.

[70] DISH agrees with Google that the Commission has ample authority to enforce the nondiscrimination and transparency rules using a case-by-case adjudicatory approach. *See* Google Comments at 52.

[71] *See* Google Comments at 89 (noting that "the majority of evidence regarding network practices and incidences of discrimination is within the control of the broadband provider, and not the aggrieved party affected by the practice"). *See also* Vonage Comments at 32 (arguing that "as the holder of technical information concerning the management of the network, the broadband network provider should bear the burden of proof that the alleged network management practice is 'reasonable'").

[72] *See, e.g.*, New Jersey Division of Rate Counsel Comments at 14 ("Because the rules necessarily cannot anticipate the various possible anticompetitive consequences of the intersection of evolving technology and market structure, particularly where gatekeepers' affiliates also provide applications, a timely complaint resolution process is essential."); PAETEC Comments at 20-21 (noting that PAETEC and its end user customers are harmed when "large providers' indiscriminate network management practices" are not properly narrow or targeted).

within 90 days prohibiting the practice. Any party that files a formal complaint that is accompanied by a TAG advisory opinion (discussed below) would receive expedited treatment.

D. Technical Advisory Groups Should be Established to Provide Technical Advice and Serve as an Initial Forum to Help Resolve Disputes

DISH supports the establishment of engineering-focused bodies – such as the technical advisory groups ("TAGs") suggested by Verizon and Google – to develop best practices and provide advice to the Commission on complicated engineering issues. Because of the constantly-evolving nature of broadband networks, TAGs staffed by engineers and other stakeholders can provide guidance on fact-based inquiries and help to informally resolve disputes.[73]

The TAGs would serve three primary functions:

(1) Make recommendations to the Commission about which network management techniques should fall within the purview of a safe harbor;

(2) Conduct fact-based inquiries about network management techniques and provide informal guidance to parties about whether an FCC waiver is needed; and

(3) Provide an informal process to help resolve disputes between parties, thereby reducing the need for Commission involvement.

TAGs could serve an initial role in both the Commission waiver and complaint processes described above. Ideally, parties will agree to first seek an advisory opinion from a TAG, which should narrow the issues in dispute and hopefully reduce the need for

[73] *See* Google/Verizon Comments at 5-7. *See also* CDT Comments at 43-46 (supporting a prominent role for standard-setting bodies such as the Internet Engineering Task Force ("IETF") in evaluating reasonable network management practices); Comcast Comments at 50-51 (supporting safe harbors for network management practices that conform with standards promulgated by standards-setting bodies like the IETF and other relevant Standards Development Organizations (SDOs)).

Commission involvement.[74] In particular, the TAGs should implement specific procedures for handling informal complaints as follows:

TAG Informal Complaint Resolution Process:

(1) Private parties may file a complaint or inquiry with the TAG. The complaint should follow the format set forth in the Commission's rules (47 C.F.R. §76.7) and be preceded by a 10-day pre-filing notice as described in 47 C.F.R. §76.1003(b). The complaint should be made electronically and shall be no more than 10 pages.

(2) A balanced panel of technical experts shall review the inquiry/complaint and issue a decision within 30 days. At least one neutral party (e.g., academic) must participate in each matter submitted for resolution. Discussions among experts may be in person, via email, or conference call.

(3) The decision shall be in the form of an advisory opinion, which shall contain a written explanation of the majority view and, if relevant, the dissenting opinion. The decision shall include the relevant facts and the reasoning behind the decision, and shall be written by a neutral party.[75]

(4) If the losing party chooses to appeal the decision to the Commission, the advisory opinion shall be submitted to the Commission in order for the matter to receive expedited treatment.

If TAGs are genuinely balanced and neutral technical bodies, then all parties should be willing to seek informal guidance, which will be far quicker and much less expensive than seeking formal Commission review. That said, the Commission may not delegate authority to a nongovernmental entity, such as a TAG; thus, the Commission

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[74] For example, EchoStar initiated a retransmission consent arbitration with Fox pursuant to the complaint procedures set forth in the News Corp/DIRECTV merger conditions. Neither party appealed the decision of the arbitrator, even though the merger conditions provided for Commission review of all such decisions. *See General Motors Corporation and Hughes Electronics Corporation, Transferors, and The News Corporation Limited, Transferee*, Memorandum Opinion and Order, MB Docket No. 03-124, FCC 03-330, 19 FCC Rcd 473, Appendix B (2004).

[75] *See* Google/Verizon Comments at 5-6. The advisory opinion would include "findings of fact based on the evidence presented, analysis of any applicable industry best practices or principles, any other analysis relevant to the reasonableness of the practices at issue, and recommendations concerning the practices at issue." *Id.*

must retain jurisdiction to issue a final decision if the parties cannot resolve their dispute through the TAG process.[76]

VI. THE RECORD REFLECTS STRONG SUPPORT FOR DETAILED DISCLOSURE OF NETWORK MANAGEMENT PRACTICES AND ROBUST ENFORCEMENT

DISH agrees with the overwhelming number of commenters that support a transparency rule mandating disclosure of network management practices and other material terms of service.[77] The Commission should clarify that the rule requires advance notice of changes to network management practices, even if the new practice appears to fall within a safe harbor. The new transparency rule is sorely needed, given that the top three residential broadband providers either do not disclose their network management practices or do not explain in detail the underlying technical processes that they use to manage congestion.[78] The Commission should expand the transparency rule to require detailed disclosure by broadband providers of additional technical information about the network management practices in use. Enhanced disclosures should include details about,

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[76] *See Schechter Poultry Corp. v. United States*, 295 U.S. 495, 537 (1934); *Carter v. Carter Coal*, 298 U.S. 238, 311 (1935).

[77] *See, e.g.*, Adtran, Inc. Comments at 14-15; American Library Association Comments at 2; Bright House Networks Comments at 10-11; CDT Comments at 31-36; Cisco Comments at 3; Google Comments at 64-67; Communications Workers of America Comments at 21-23; Distributed Computing Industry Association Comments at 9; Free Press Comments at 115-121; Information Technology Industry Council Comments at 10-12; Open Internet Coalition Comments at 88-90; Level 3 Comments at 13; Vonage Comments at 22-24.

[78] Neither AT&T nor Verizon offer information on their Web sites regarding network management practices currently in use for their broadband access services. Comcast offers a "Frequently Asked Questions" form for its network management practices, but does not explain the underlying technical processes. For example, Comcast states that if a particular area of the network experiences congestion, Comcast "will identify which customer accounts are using the greatest amounts of bandwidth and their Internet traffic will be temporarily managed until the period of congestion passes," but does not explain what technological steps will enable it to "manage" these heavy-usage customers. *See* Frequently Asked Questions about Network Management, Comcast Customer Central, *available at* http://networkmanagement.comcast.net/ (last visited Apr. 22, 2010).

among other things, any methods used to prioritize, block, or throttle traffic; processes to address traffic congestion; any content or message examination processes (*e.g.*, traffic routing processes based on the sender, receiver or type of traffic); and actual transmission and capacity rates of the service.[79]

The transparency rule will make available critical information to enable the Commission to enforce its open Internet rules and help consumers make informed choices about broadband service. As the National Broadband Plan observes, substantially expanded and publicly available information about broadband service performance will "make data on actual performance easily accessible to all interested parties, especially consumers, and create a mechanism for checking service provider broadband performance claims."[80] DISH commends the Commission for advancing transparency by launching the Consumer Broadband Test application, which allows consumers to test their broadband service speeds.[81] DISH supports the National Broadband Plan recommendation that the Commission initiate a rulemaking proceeding to develop performance disclosure requirements for broadband.[82] The Commission's efforts in this area would augment data obtained from monitoring agents placed at national headends and at the edge of the networks to track latency and jitter, as DISH proposed in its initial comments.[83]

Finally, failure to comply with the transparency rule should result in monetary fines. The Commission should reject arguments in the record that discourage

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79 *See* Google Comments at 65.

80 *See* National Broadband Plan at Recommendation 4.4, p. 45.

81 *See* FCC News Release, FCC Launches Broadband Consumer Tools (Mar. 11, 2010).

82 *See* National Broadband Plan at Recommendation 4.5, p. 46.

83 *See* DISH Network Comments at 7.

enforcement of the open Internet rules through traditional methods such as damages or fines.[84] Robust disclosures are the foundation for the ability to detect network management practices that harm consumers and the competitive market, and the Commission must back up its rules with real penalties for noncompliance.

VII. THE OPEN INTERNET WOULD BE ENHANCED BY POLICIES THAT ENABLE COMPETITORS TO ACCESS LAST-MILE FACILITIES

The Commission should reject as misleading any claim that the Proposed Rules constitute a more "interventionist" approach to broadband regulation when compared with other countries.[85] Quite the contrary. In the case of the countries cited by some commenters, it was aggressive regulatory policies, such as wholesale requirements and unbundling rules, that substantially obviated the need for open Internet-type regulations in the first place.[86]

In particular, AT&T's claim[87] that UK regulators "have repeatedly refused calls to interfere with Internet service providers' management of their networks" entirely ignores

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[84] *See* Wireless Internet Service Providers Association Comments at 15 (stating that the FCC should not assess damages, fines or forfeitures for violations of the network neutrality rules).

[85] *See, e.g.*, AT&T Comments at 87-88 (arguing that "[i]nternational approaches to issues grouped under the 'net neutrality' umbrella have been far less interventionist than the rules proposed" in the *Notice*); Information Technology and Innovation Foundation Comments at i (characterizing recent reviews of the "Internet regulatory framework" conducted in Canada and the European Union as having "concluded that the proper emphasis, for the time being, is to stress consumer disclosure of Internet access services over sweeping restrictions on specific network management practices or business models"); and Alcatel-Lucent Comments at 26 (positing that "[i]f the proposed rules are adopted in their current form, particularly the unqualified nondiscrimination principle, then the United States will be an outlier and innovation and investment could be driven to countries that have a more liberalized regulatory structure").

[86] As illustrated by CCIA, France, Greece, Ireland, South Korea, Spain, Australia, Sweden, and the UK (among others) have imposed regulatory rules to limit or eliminate an incumbent's ability and incentives to discriminate against third party purchasers of its wholesale products. *See* Kip Meek and Robert Kenny, Ingenious Consulting Network, *Network Neutrality Rules in Comparative Perspective: A Relatively Limited Intervention in the Market*, Attachment A to CCIA's Comments, at 17-23.

[87] AT&T Comments at 88.

the fact that, in 2004 and 2005, UK regulator Ofcom assessed the state of the broadband market and thereafter required the "natural monopoly" elements of British Telecom's ("BT") assets (including in particular its copper network) to be placed in a separate business unit called Openreach.[88] In addition, Ofcom required BT to offer to its competitors retail broadband services over BT's copper wires.[89] Two competitive providers, Carphone Warehouse and Sky, took advantage of the new availability of BT's copper local loop elements, demonstrating that unbundling reforms resulted in "a competitive first generation broadband market" which has "driv[en] up choice and service levels and driv[en] down prices."[90] Other countries are following in the UK's footsteps by examining competition in broadband markets and assessing the need for intervention.[91]

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[88] *See* Chapter 3a, *A Competitive Digital Communications Infrastructure*, Digital Britain, at 50 (2009).

[89] *Id.*

[90] *Id.*

[91] A recent European Union ("EU") study concluded that "uncompetitive telecoms markets" in member countries were causing consumers and businesses to lose 25 billion Euros each year and were artificially restricting broadband speeds. *See* European Competitive Telecom Association Press Release, *Europe's €25bln digital deficit*, March 3, 2010, *available at* http://www.ectaportal.com/en/PRESS/ECTA-Press-Releases/2010/Europe-s-25bln-digital-deficit/ (last visited Apr. 22, 2010). The report also found that "[l]ess concentrated markets consistently deliver better prices for consumers and businesses – and in the case of broadband significantly higher speeds. Where material competition from 'unbundling' of the incumbent network exists typical consumers receive 8Mbit/s instead of 2Mbit/s." In November 2009 the EU concluded its Telecoms Reform package, which includes some new guarantees for an open and more neutral Internet. Council Directive 2009/140/EC, 2009 O.J. (L 337) 37, 69. Similarly, in October 2009, the Canadian Radio-television and Telecommunications Commission ("CRTC") adopted rules limiting the use of Internet traffic management practices ("ITMPs"). Among other things, the rules require that any ITMP be designed to address a defined need and be transparent to end user consumers. All ITMPs are subject to CRTC review and particular scrutiny will be applied where a carrier imposes more restrictive ITMPs on its wholesale services than on its retail services. *See* Telecom Regulatory Policy CRTC 2009-657 (Ottawa 21 Oct. 2009), *available at* http://www.crtc.gc.ca/eng/archive/2009/2009-657.htm (last visited Apr. 22, 2010).

As illustrated in the UK, mandating unbundling of broadband facilities has resulted in increased competition among multiple providers, more innovation, and lower prices for consumers.[92] The presence of multiple broadband providers in a market also curbs anti-competitive behavior. Thus, the Commission should expeditiously review its pending proceedings to determine the best way to establish a wholesale market for broadband services.[93] DISH also supports the National Broadband Plan recommendation to modernize "the hodgepodge of wholesale access rights and pricing mechanisms" that characterize the market for broadband network inputs.[94]

VIII. CONCLUSION

To preserve an open Internet and foster competition in the rapidly-evolving video marketplace, the Commission should promptly adopt clear, enforceable open Internet rules.

Respectfully submitted,

/s/

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92 *See* Ofcom, *Communications Market Report* 201-03 (2009), *available at* http://www.ofcom.org.uk/research/cm/cmr09/cmr09.pdf (last visited Apr. 22, 2010).

93 *See* National Broadband Plan at Recommendation 4.6, page 47. The Commission should resolve several pending proceedings that affect wholesale broadband access, including unbundling obligations of ILECs. *See Unbundled Access to Network Elements; Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, Order on Remand, 20 FCC Rcd 2533 (2005).

94 *See* National Broadband Plan at Recommendation 4.6, at 47.

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