

**BEFORE THE  
Federal Communications Commission  
WASHINGTON, D.C.**

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

**COMMENTS OF BRIGHT HOUSE NETWORKS**

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## **EXECUTIVE SUMMARY**

The Notice of Proposed Rulemaking suggests that the time is right for the logical “next step” for the Internet—rules governing network management and “non-discrimination” to assure its continued growth and development. But the proposal is actually a step backward that risks seriously compromising the investment and innovation that has so far characterized the Internet and broadband access. In Bright House Networks’ experience, broadband has been nurtured, funded and constantly upgraded not because of step-by-step increases in government regulation, but because the cable industry was released from restrictive rules and micromanagement and allowed to respond to competitive market forces. Network investment, plant upgrades, and programming diversity all skyrocketed as the 1992 Act’s rules were removed. Broadband speeds and VOIP competition took off as the Commission released these services from legacy franchise, carrier, cable, and telephony regulation.

Bright House Networks has constantly improved the consumers’ Internet experience, winning J.D. Power awards and launching wideband service to laudatory reviews. Collectively, cable operators have served as the principal midwives to the broadband “edge,” enabling entrepreneurs, businesses, bloggers, journalists and video providers to offer exhilarating services. The Notice focuses on the “potential” to thwart the Internet, the “incentive” to block sites, and broadband providers who “could” censor Internet content based on political views, but the actual history has been quite the opposite. Of the billions of bytes of daily Internet traffic, the Notice cites exactly two cases, one ancient, both rapidly resolved, and neither justifying stepping back from the government’s successful policy of self-restraint.

Bright House Networks has made major investments and consumers have been able to enjoy Internet content and services not because of regulatory scrutiny, but because of a long

history of deregulation and a longer history of Bright House Networks meeting consumer needs in a deregulated and highly competitive market. Cable operators today continuously improve our products to meet competition from DSL, FiOS, and increasingly-popular wireless data cards. We invest, improve, and manage our services to meet increasing customer data usage and customer expectations—not to degrade the customer experience. The lessons from JD Powers’ 2009 customer satisfaction study is that Bright House Networks’ best interest is to drive for excellence in service delivery across all applications (video, data and voice), which drives the highest level of overall satisfaction and customer retention. Our incentives are to improve service across all categories, not to rob the Internet to favor other offerings.

Cable operators make decisions to invest in technology, to repurpose capacity and to manage their networks, spectrum, and services in order to optimize the consumer experience. Evolving network management techniques can be among the *best* instruments for building and sustaining capacity. Bright House Networks did not dig up streets once again to add more megahertz for more analog 6 MHz channels on our residential cable systems: we repurposed analog spectrum to digital, used compression technology, split nodes, and expanded digital capacity with on-demand services and Switched Digital Video. Our interest in serving the customer in a highly-competitive marketplace dictates how we manage the network. No FCC rule dictated the management of the spectrum that we built.

Internet access can likewise be optimized as the demands on the network far outstrip 1980’s era tools. Networks cannot police against denial of service attacks without network management tools. Even networks optimized today for superb customer experiences may not be able to accommodate the unexpected traffic spikes or the unknown next edge application that may consume available capacity. We cannot rest on an assumption that a network can always

build itself out of congestion. The decisions about investment, capacity, monitoring, management, broadband service pricing, or the use of active Internet network management tools that are only now emerging are complex and dynamic business decisions. Bright House is making them today to optimize the consumer experience—not to suppress consumers’ enjoyment of the Internet. No regulation can capture such multifaceted and dynamic arrangements.

The proposed rules will inevitably invite costly litigation over what is “reasonable;” what it means for the standard of “non-discrimination” to be stricter for an unregulated Internet than for Title II regulated telephony; whether other questionable sources or services from the “edge” should be classified as “lawful” or not; and what is “edge” and what is “core.” If there is to be regulation, it must be far more focused to drive parties into engineering consultation and focus litigation narrowly on anticompetitive consumer harm.

Bright House Networks does agree that all providers of Internet access should provide reasonable disclosure of their network management practices. Network management is a routine function of network operation, and not something which any provider needs to hide. Disclosure requirements should be written so that malware is not given a roadmap for evasion, consumers are not overwhelmed by information overload, and web postings can substitute for government filings. In addition, all classes of providers should be required to provide this information.

If there is to be regulation to “preserve the open Internet,” it should have no role in defining what the cable network can deliver beyond best efforts residential Internet, and should not apply to other services. There should be no rule applied to core video services, even if they shift from QAM to IP transport for the last mile. If consumers are to continue to enjoy innovation in cable services, then any net neutrality regulation must leave managed services as a

creative enterprise zone. The Commission will recall that it took a “hands off” approach—even created bulwarks against local, state and federal regulation—to promote premium channels, tiers, new cable technologies, modems, and VOIP. Consumers have been rewarded with innovative networks and offerings, more selections, ad-free premium choices, on-demand choices, broadband, choice in broadband tiers, choice in dial tone, and TV Everywhere. Creative managed IP services can offer extraordinary consumer benefits in research and trading, banking and finance, cloud computing and security, priority government services, and more if IP services are given room for experimentation and growth. A need for the government to tread carefully, along with clear legal constraints, require the narrowest construction of any net neutrality rule that may be adopted.

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**COMMENTS OF BRIGHT HOUSE NETWORKS**

Bright House Networks, LLC hereby submits its comments in response to the Notice of Proposed Rulemaking issued by the Commission in the above-captioned proceedings.<sup>1</sup> Bright House Networks is the country’s seventh largest MSO, and a full-service communications provider in Florida, Alabama, California, Indiana, and Michigan, with approximately 2.4 million customers. In each of its operating divisions, Bright House Networks offers advanced digital video, high speed data, facilities-based competitive voice services and high-capacity business class services.

**I. BROADBAND HAS BEEN NURTURED, FUNDED AND CONSTANTLY UPGRADED BECAUSE OF DEREGULATED MARKET FORCES**

The premise of the Notice is that the time is right for the logical “next step” for the Internet—rules governing network management and “non-discrimination” to assure its continued growth and development. But the proposal risks seriously compromising an environment which has to date cultivated investment and innovation. If the Commission is to achieve its intended goals, a more restrained approach is required.

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<sup>1</sup> *Preserving the Open Internet; Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd. 13065 (2009) (hereinafter “*Notice*”)

**A. Innovation And Consumer Choice Increased As The Government Released The Cable Industry From Restrictive Rules And Micromanagement**

In Bright House Networks' experience, broadband has been nurtured, funded and constantly upgraded not because of step-by-step increases in government regulation but because the cable industry was released from restrictive rules and micromanagement and allowed to respond to competitive market forces. Not very long ago, the industry labored under intricate regulations intended to protect consumers but which actually constrained innovation and reduced consumer choices.<sup>2</sup> Rate regulations that treated operators as carriers entitled only to cost recovery ended up freezing the programming market.<sup>3</sup> Gradually, the rules were liberalized, then sunset.<sup>4</sup> Network investment, plant upgrades, and programming diversity all skyrocketed.<sup>5</sup> When cable began to bring broadband speeds to Internet access and competitive VOIP competition to incumbent LECs, the Commission helped nurture the new services by releasing

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<sup>2</sup> The Commission acknowledged the regulations' effect on investment in 1994, when it explicitly amended rate regulations to "facilitate the development of new services." *Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation*, Second Order on Reconsideration, Fourth Report and Order, and Fifth NPRM, 9 FCC Rcd. 4119, ¶ 22 (1994) ("A key concern expressed by operators and programmers throughout this proceeding has been that the benchmark approach may not permit operators to respond to marketplace incentives to expand the services included in regulated program tiers. The 'going-forward' methodology set forth in this Order provides such incentives for the benefit of operators, programmers, and subscribers alike.").

<sup>3</sup> *See id.* ¶ 40 (Under the new going-forward methodology, "operators may recover the full amount of programming expenses associated with added channels, plus a markup on new programming expenses... . This methodology provides a relatively simple way for operators to adjust rates. It also provides appropriate incentives for operators to provide additional, high quality programming. The going-forward methodology accordingly will promote our goals of assuring reasonable rates while encouraging the continued growth of the cable industry.").

<sup>4</sup> *See id.*; *see also Implementation of Cable Act Reform Provisions of the Telecommunications Act of 1996*, Order and Notice of Proposed Rulemaking, 11 FCC Rcd. 5937, ¶¶ 49-50 (1996) (implementing the 1996 Act and sunsetting the rate rules for CPST effective March 31, 1999).

<sup>5</sup> There were 139 cable programming services available in the nation by the end of 1995. That number had grown to 565 by 2006. *See History of Cable Television*, National Cable and Telecommunications Association, <http://www.ncta.com/About/About/HistoryofCableTelevision.aspx> (last visited Jan. 8, 2010); *see also Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Thirteenth Annual Report, 24 FCC Rcd. 542, ¶ 21 (2009). The cable industry has invested over \$161 billion since 1996 in infrastructure. *See Industry Data*, National Cable and Telecommunications Association, *available at* <http://www.ncta.com/Statistics.aspx> (last visited Jan. 7, 2010).

them from legacy franchise, carrier, cable, and telephony regulation.<sup>6</sup> Broadband investment, speeds, reach and competitive voice offerings soared.<sup>7</sup>

Although the cable industry led the way from dial-up to broadband Internet access, it has not had the market to itself. The investments and improvements made by the cable industry spurred ILECs to bring DSL out of hiding. Today, cable operators are in fierce competition with other providers of Internet access. We must continuously improve our product to meet competition from DSL, FiOS, and increasingly-popular wireless data cards. Cable customer data rates are doubling every 21 months and customer expectations keep rising.<sup>8</sup> This competitive marketplace and consumer demand was born from an express government policy to keep the Internet “unfettered by Federal or State regulation,”<sup>9</sup> and those market forces spur each provider to continuous investment and improvement, all to the benefit of consumers.

## **B. Cable Has Constantly Improved The Internet Experience**

The cable industry’s network innovations and constantly improving broadband footprint has enabled countless entrepreneurs, businesses, bloggers, journalists and video providers to offer exhilarating services from the “edge” of the Internet, as lauded in the Notice. For the second year in a row, J.D. Power and Associates ranked Bright House Networks highest in customer satisfaction in the South region in its 2009 Internet Service Provider Residential Customer Satisfaction Study. The results of the study showed Bright House Networks’ Road

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<sup>6</sup> See, e.g., *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities*, Declaratory Ruling and Notice of Proposed Rulemaking, 17 FCC Rcd. 4798 (2002), *aff’d*, *NCTA v. Brand X*, 545 U.S. 967 (2005); *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 14853 (2005), *aff’d*, *Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007); *Vonage Holdings Corp.*, Memorandum Opinion and Order, 19 FCC Rcd. 22404 (2004) (hereinafter “*Vonage Order*”), *aff’d sub nom.*, *Minnesota Pub. Utils. Comm’n v. FCC*, 483 F.3d 570 (8th Cir. 2007).

<sup>7</sup> By 2008, cable broadband was available to an estimated 93 percent of U.S. households, up from just 46 percent eight years earlier, and the number of cable voice customers grew from just 1.5 million in 2001 to over 15 million in 2007. *2008 Industry Overview*, National Cable Telecommunications Association, *available at* [http://i.ncta.com/ncta\\_com/PDFs/NCTA\\_Annual\\_Report\\_05.16.08.pdf](http://i.ncta.com/ncta_com/PDFs/NCTA_Annual_Report_05.16.08.pdf) (last visited Jan. 10, 2010).

<sup>8</sup> Paul Liao, *Cable network operating and planning considerations*, Cable Television Laboratories, Inc., Dec. 8, 2009 at 14, presented at the Commission’s December 8, 2009 Open Internet Workshop in Washington, D.C.

<sup>9</sup> 47 U.S.C. § 230.

Runner service having the highest overall performance in cost of service, customer service and billing. Bright House Networks received an overall satisfaction score of 686 – 47 points higher than the industry average, 45 points higher than the regional average and 18 points above the next highest-rated provider in the South. The J.D. Power Report noted that cable modem penetration had increased from 41% in Q2 2008 to 45%, while DSL penetration has decreased from 30% to 26%.

A good example of the consumer experience is from Bright House Networks' Tampa market. Bright House Networks upgraded the network to wideband, offering 40 by 4 service (downstream service at 40 Mbps and upstream service at 4 Mbps). The consumer response has been overwhelmingly positive, as is evident in consumers' own words in online forums:

- the speed is spot on both upstream and downstream with both offnet and onnet testing
- NICE PINGTEST, NICE SPEEDTEST.
- RR LIGHTING ROCKS!!!!
- the best truly high speed broadband available for the price (despite what Verizon might say)
- Yea it's pretty awesome. Most people don't even come close to this capability for their residential broadband. People in the Tampa Bay area are pretty spoiled and don't even know it.
- I went to FIOS after almost 10 years with RR. Guess I am going to switch back
- The tech that came out was awesome and knew his stuff.
- You would have to have 6 people streaming hd movies at the same time to use that bandwidth.

**C. The Record Of Investment, Capacity, and Speeds Enabling Consumers To Enjoy “Edge” Applications Does Not Justify Regulatory Intervention**

There are lessons from this experience—but they are not the ones drawn in the Notice. Bright House Networks has made these investments and consumers have been able to enjoy Internet content and services not *because of* the Commission's “Four Freedoms” Internet policy

statement (as suggested in the Notice),<sup>10</sup> but because of a long history of deregulation and a longer history of Bright House Networks meeting consumer needs and competitive demands. For all the warnings in the Notice about what might have been—the “potential” to thwart the Internet, the “incentive” to block sites, and broadband providers who “could” censor Internet content based on political views<sup>11</sup>—the actual history has been quite the opposite. Cable operators have built systems designed to maximize consumer enjoyment of the Internet, and in doing so, have served as the principal midwives to the broadband “edge.” We have expanded capacity for higher and higher Internet speeds, downstream and up, rather than starving the Internet to favor another line of business. The record across the cable industry is the same: more investment, more capacity, higher speeds, more choices of broadband “tiers,” all delivering robust “edge” applications to consumers. Any record justifying regulatory intervention is remarkably thin. Of the billions of bytes of daily traffic in emails, graphics, calls, files, photos, videos, blogs, Facebook updates and tweets, the Notice cites exactly two cases: a local telephone company that had blocked competing VoIP more than four years ago; and a cable company’s effort to control upstream P2P network congestion. Although the Commission’s authority remains in doubt, both instances were both rapidly resolved and are not still “occurring” as styled in the Notice. We submit that the “next step” of prophylactic rules proposed in the Notice is actually a step backward into regulation that will frustrate a virtuous cycle of investment, innovation, and mutual benefits to consumers, cable providers, and “edge” applications.

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<sup>10</sup> See Notice ¶ 48 (“Since the Commission adopted the *Internet Policy Statement* over four years ago, our nation has seen even greater expansion of broadband Internet access service.”).

<sup>11</sup> *Id.* ¶¶ 8, 63, 68, 69, 70, 71, 75, 103.

## **II. NETWORK MANAGEMENT CAN BE ONE OF THE *BEST* INSTRUMENTS FOR BUILDING AND SUSTAINING CAPACITY**

To its credit, the Notice displays somewhat less skepticism about network management itself than has some of the commentary circulating around an “open Internet.” Yet the Notice still reflects an unnecessary suspicion about network management which is quite misplaced. Cable operators make decisions to invest in technology, to repurpose capacity, to manage their networks, spectrum and services in order to optimize the consumer experience in light of competitive forces and consumer demand—not to degrade the consumer experience. Evolving network management techniques can be among the *best* instruments for building and sustaining capacity on real networks serving real consumers.

### **A. Residential Video Expanded Dramatically With Network Management**

All spectrum and every network needs to be managed to achieve optimal results. Bright House Networks did not dig up streets once again to add more megahertz for more analog 6 MHz channels on our residential cable systems; we repurposed analog spectrum to digital, used compression technology, split nodes, and expanded digital capacity with on-demand services and Switched Digital Video (“SDV”). Competition and consumer demand drives our decisions on how we manage our networks to serve consumers. No FCC rule dictated the management of the spectrum that we built. On the one occasion when FCC staff sought to halt spectrum management—with respect to SDV—the full Commission reversed, recognizing the consumer benefits that such techniques have for freeing capacity for more channels, more HD, and faster broadband.<sup>12</sup> These consumer benefits emerged because cable built, operates and continues to refine an intelligent network. Had the Commission sought to convert cable into a passive pipe,

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<sup>12</sup> See *Oceanic Time Warner Cable, a Subsidiary of Time Warner Cable, Inc.*, Order on Review, 24 FCC Rcd. 8716 (2009).

or freeze cable spectrum management at any point along the way, these benefits may never have come to fruition.

## **B. Network Management Can Optimize Internet Access**

Parallel issues are arising with Internet access. The 1980's era rules that may have sufficed for FTP Telenet (remote login), FTP (File Transfer), and SMTP (electronic mail delivery) do not suffice for today's needs. "End-to-end" principles do not stop denial of service attacks or handle traffic in light of a pandemic. In fact, many applications on the web today were engineered as an "end run" around the network management algorithms that were supposed to assure fairness in bandwidth allocation. The upshot is that unmanaged networks are not automatically non-discriminatory: they *favor* those particular applications that are designed to consume capacity at the expense of others. The fact that Akamai, Limelight, and other content delivery networks ("CDNs") have developed is testament to the failure of "end to end" to provide the quality of service that is actually desired by Internet consumers. Network management for Internet access can be as beneficial for optimizing that service as network management has been for improving residential video.

Every broadband service provider needs to make capacity decisions. At Bright House Networks, we manage network capacity decisions based on consumer demand, which varies according to consumer segment. We offer tiers of service because some consumers don't use Internet much, others use Internet regularly and some use it a lot. We make smart capacity additions in the network to meet our diverse customer needs. But the needs keep changing, and we increase capacity incrementally to meet the ever changing market demand. We project capacity on all parts of the networks (access, core and transit) based on current usage, past growth trend, future subscriber growth and overall consumption behavior on the Internet. Last year, we invested in the next generation wideband platform in Tampa, our largest operating

division, quadrupling the capacity well ahead of demand in order to provide a superb customer experience. But investment alone does not replace network management. Networks cannot police against denial of service attacks without network management tools. Even networks optimized today for superb customer experiences may not be able to accommodate the unexpected traffic spikes, such as the flood of traffic as Michael Jackson news spread, or the unknown next edge application that may consume available capacity. We monitor usage to try to maintain a peak average port utilization at our targets, but monitoring alone may not be sufficient. We do not know what tomorrow's demand may be, or whether the next application will strain capacity as much as application writers strain available resources in each iteration of personal computer operating systems and chips. Cable operators need to retain the flexibility to manage networks to preserve a good customer experience. We cannot rest on an assumption that a network can always build itself out of congestion. The tools for more active Internet network management are only now emerging, and we expect them to evolve rapidly to meet changes in Internet traffic. These decisions about investment, capacity, monitoring, management and even broadband service pricing are complex and dynamic business decisions. Bright House is making them today to optimize the consumer experience—not to suppress consumers' enjoyment of the Internet.

### **C. Regulation Will Slow Broadband Providers Ability To Optimize Capacity**

We submit that there is no regulation that can capture such multifaceted and dynamic arrangements. To try to do so—even with rules proposed at the highest level of abstraction, with room for “reasonable” “other” management techniques<sup>13</sup>—will in fact slow the ability of broadband providers to optimize capacity for a dynamic and evolving service. It will inevitably

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<sup>13</sup> See Notice, Appendix A: Draft Proposed Rules for Public Input, Part 8, § 8.3.

invite costly litigation over what is “reasonable;”<sup>14</sup> what it means for the standard of “non-discrimination” to be stricter for an unregulated Internet than for Title II regulated telephony;<sup>15</sup> whether content is “lawful” in copyright;<sup>16</sup> whether other questionable sources or services from the “edge” should be classified as “lawful” or not; and what is “edge” and what is “core.”<sup>17</sup> In a highly competitive and dynamic market for Internet access, cable operators should be permitted to invest in technology, repurpose capacity and make rapid decisions to manage their networks, spectrum and services in order to optimize the consumer experience, meet ever-changing consumer demands and compete with wired and wireless providers offering competing service. Cable operators should not be subject to continual regulatory challenge, nor should they need a rulemaking or waiver before responding to the next challenge in offering broadband service

Broadband service providers can be as much a source of innovation in the Internet experience as are apps providers from the “edge.” They should not be singled out for a carrier role fraught with such regulatory drag on innovation. A passive pipe common carrier model killed video dial tone.<sup>18</sup> By contrast, DBS flourished once the Commission dropped the common carrier model and let it blend content with transmission.<sup>19</sup> Likewise, broadband expanded to

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<sup>14</sup> *Id.*

<sup>15</sup> *Id.* § 8.13.

<sup>16</sup> *Id.* § 8.5.

<sup>17</sup> Recent testimony to the Commission has recounted how media regulation that begins with good intentions inevitably morphs into a political instrument used to restrict unpopular speech. The pattern has been evident in persistent efforts to enforce communications “decency,” in political constraints placed on the domain name system, in calls for political candidates to have access to search engines, and in calls for control against “biased” search results. See Robert Corn-Revere, Speech at FCC Workshop, *Democratic Engagement, and the Open Internet*, December 15, 2009. It should be recalled that the Fairness doctrine was used by politicians in the Kennedy, Johnson, and Nixon administrations as weapons to suppress speech.

<sup>18</sup> See S. Rep. No. 104-230, at 179 (1996) (“Those rules implemented a rigid common carrier regime, including the Commission’s customer premises equipment and Computer III rules, and thereby created substantial obstacles to the actual operation of open video systems.”). Open Video Systems were the next installment, with the same premise, and failed to do any better. It is generally recognized to be “a flop.” See M. Botein, *Open Video Systems: Too Much Regulation Too Late?*, 58 Fed. Comm. L.J. 439, 439 (2006).

<sup>19</sup> See *National Ass’n of Broadcasters v. FCC*, 740 F.2d 1190, 1195 (D.C. Cir. 1984).

more than 92% of the market once freed of legacy regimes. Its further evolution should not be handicapped by regulated carrier models from the past.

**D. Any Network Management Regulation Must Drive Parties Into Engineering Consultation And Focus Litigation Narrowly On Anticompetitive Consumer Harm**

The “non-discrimination” regulation proposed in the Notice would deprive broadband providers of the very tools they need to continue to innovate. If there is to be regulation, it must be freed from blanket suspicion about “discrimination,” and adopt a far more refined focus on unreasonable and anticompetitive forms of discrimination that adversely affect consumers. Its procedures must be carefully tailored to fully engage engineering dialogue through engineering forums such as the IETF and the proposed Technical Advisory Process *before* jumping to Commission litigation. The Commission’s litigation processes themselves must be crafted to leave a heavy burden of proof on those challenging network management techniques adopted in good faith, to require proof of anti-competitive purpose and consumer harm, and to provide incentives that reduce the risk of frivolous challenges.

**III. REASONABLE DISCLOSURE REQUIREMENTS SHOULD APPLY TO ALL PROVIDERS OF INTERNET ACCESS**

Bright House Networks does agree that all providers of Internet access should provide reasonable disclosure of their network management practices. Network management is a routine function of network operation, and not something which any provider needs to hide. But disclosure requirements should not become a recipe for malware to evade restraints, for consumers to be overwhelmed by information overload, for a new set of government filings or for rules that apply only to one class of provider.

First, no disclosure rule should require that Internet access providers provide a roadmap for evasion of protections against spam, viruses, or other malware.

Second, disclosure requirements should be kept at a high enough level—such as types of management and likely effect on consumer experience—so that providers are not compelled to overwhelm consumers with unreadable detail or information overload.<sup>20</sup> The disclosure should cover why management techniques are being introduced; who is affected by them; when the management will occur; what type of Internet traffic is subject to management; and how the management techniques will affect a user’s Internet experience.

Third, posting the disclosure on a provider’s web site should be sufficient. This will permit a predictable location for consumers and others to find it, a forum for convenient periodic updates if techniques change materially, and an opportunity for the government to monitor practices without creating another formal filing requirement.

Finally, the requirement should apply to all parties offering Internet access, whether or not they are considered broadband, wireline, wireless or otherwise. If consumers, “edge” providers and the government are to have informative and comparative information, there is no reason to single out just one class of provider.

#### **IV. ANY NET NEUTRALITY REGULATION MUST LEAVE MANAGED SERVICES AS A CREATIVE ENTERPRISE ZONE**

If the Commission nonetheless decides to adopt net neutrality rules, it must also take great care to apply the rules specifically to the assigned task: residential high speed Internet access. If the rule is allowed to expand to other services, it could do even more monumental harm to consumers and to innovation.

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<sup>20</sup> Many studies report that consumers cannot process such “overload.” See, e.g., Susanna Kim Ripken, *The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation*, 58 *Baylor L. Rev.* 139, 160 (2006) (stating that, “[i]n some contexts, too much information can be worse than too little because people are boundedly rational and have only limited cognitive abilities to process vast amounts of complex information at once”); Cass R. Sunstein, *Informing America: Risk, Disclosure, and the First Amendment*, 20 *Fla. St. U. L. Rev.* 653, 668 (1993) (concluding that information overload “caus[es] consumers to treat a large amount of information as equivalent to no information at all”).

### **A. Managed IP Services Can Offer Extraordinary Consumer Benefits**

Consider services that are available from other platforms today: LECs offer residential service, fractional DS1s, DS1s, DS3s, Sonet based services, Frame Relay and Ethernet Services and Private lines. Why would there be any constraint on offering IP equivalents like Metro Ethernet, Dedicated Internet Access, and Managed VPNs? The potential uses of managed (IP) services go far beyond the telemedicine and education examples mentioned in the Notice. For example, stock research and trading firms could elect to use “certified” P2P clients over a managed IP network to ensure secure distribution. Banking and financial institutions could provide ultra secure connections to consumers. Government agencies could use secure cloud computing to manage applications or desktop clients remotely over the managed IP network. Training facilities could use the same approach. Trusted parties could pro-actively manage desktop security, software versioning and protection, or remote storage and backup for consumers using an IP network managed for security and trust. Priority services could be provided to the appropriate governmental, emergency or financial services staff to insure continued operation during emergencies. In time, even content developers and providers could use a managed IP network for distribution to clients. There are undoubtedly new entrants who would like to challenge the large incumbents at the “edge,” but do not have the resources to build CDNs or an OpenEdge platform of the kind that has allowed Google to prioritize itself on the Internet. Managed services should be available to such providers, or net neutrality will simply become a recipe for insulating large incumbents at the “edge” of the net from new competition. The potential models for managed services should be bounded only by imagination, not by government regulation. The development of such IP services must be given room for experimentation and growth.

## B. Net Neutrality Rules Must Address Only Best Efforts Internet

The Notice frames this discussion as a request to describe all offerings that might be considered “managed services,”<sup>21</sup> but that is looking at the issue backwards. Cable has managed its network, spectrum, and services for decades. If there is to be a regulation to “preserve the open Internet,” it should have no role in defining what the cable network can deliver beyond best efforts residential Internet. There should be no rule applied to core video services, even if they shift from QAM to IP transport for the last mile. Nor should there be application to other IP services. Attempting to define and corral a set of IP services into a “managed services” bucket would only constrain and bound in advance what should be an enterprise zone for cable operators to innovate.

Allowing innovation to proceed has reaped huge consumer benefits. The Commission took a “hands off” approach—even created bulwarks against local, state and federal regulation—to promote premium channels, tiers, new cable technologies, modems, and VOIP.<sup>22</sup> Consumers have been rewarded with innovative networks and offerings, more selections, ad-free premium choices, on-demand choices, broadband, choice in broadband tiers, choice in dial tone, and TV Everywhere. As the Notice recognizes and as detailed above, developers at the “edge” of the

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<sup>21</sup> See Notice ¶¶ 149-151.

<sup>22</sup> See *In the Matter of Amendment of Part 76 of the Commission’s Rules and Regulations*, Notice, FCC 74-384, 46 F.C.C.2d 175; 1974 FCC LEXIS 2959, ¶¶ 91-95 (April 17, 1974) (revenue from premium channels exempted from franchise fees); *In re: Community Cable TV, Inc.*, Memorandum Opinion and Order, FCC 84-331, 98 F.C.C.2d 1180, 1984 FCC LEXIS 2286, ¶¶ 14-15, 18 (July 25, 1984) (cable operator is free to “tier its services as it wishes” under FCC rules, because “allowing market give-and-take to occur without adding government as an additional participant is the better course in fostering development of program services for the public”); *City of New York v. FCC*, 486 U.S. 57 (1988) (“Technical standards that vary from community to community create potentially serious negative consequences for cable system operators and cable consumers in terms of the cost of service and the ability of the industry to respond to technological changes.”); *Implementation of Cable Act Reform Provisions of the Telecommunications Act of 1996*, Report and Order, 14 FCC Rcd. 5296, ¶ 126 (1999), quoting H.R. Rep. No. 104-204, pt. 1, at 110 (1995) (“The Committee finds that the patchwork of regulations that would result from a locality-by-locality approach is particularly inappropriate in today’s intensely dynamic technological environment.”); *NCTA v. Brand X Internet Servs.*, 545 U.S. 967 (2005) (cable modem service is an “information service,” exempt from cable and common carrier regulation); *Minnesota Pub. Utils. Comm’n v. FCC*, 483 F.3d 570, 583 (8th Cir. 2007) (upholding FCC’s *Vonage Order* to designate VoIP as an information service rather than a telecommunications service).

Internet do not have the exclusive franchise on innovation. Superimposing a regulatory overlay on this approach would reverse decades of wise restraint and constrain innovation in the very IP domain where it is most likely to occur.

**C. No Formulaic Structural Separation Is Required Between Best Efforts Internet And Managed IP Services**

If the Commission decides to adopt net neutrality rules for best efforts Internet, but seeks to leave room for IP managed service innovation, it must also make clear that IP managed services and best efforts Internet are not required to follow some formalistic structural separation. Potential innovations in managed services are not in zero-sum competition for network resources with best efforts Internet. Bright House Networks has continuously improved its Internet service at the same time it has improved its video services, investing in CMTSs, transit, edge capacity, as well as SDV platforms, always trying to improve the consumer experience and to compete with rival providers, rather than to starve one service for the benefit of another. Starving the network in favor of one application over another is not in the consumer's best interest, nor is it in ours. The commercial reality is that Bright House Networks' best interest is to drive for excellence in service delivery across all applications (video, data and voice). JD Powers 2009 results highlight that overall satisfaction is highest among "triple play customers," compared to double play (Internet/Phone or Internet/Video) and single service customers. Customer retention is also highest among triple play customers. Adding the computer as an additional screen in the home offers Bright House Networks greater, not fewer, opportunities to service and satisfy our customers. Our incentives are to improve service across all categories, not to rob the Internet to favor other offerings.

Sharing facilities actually increases efficiencies. For example, Bright House Networks utilizes IP backbones for both video and data, and both services have benefited from sharing.

There is no *a priori* reason to carve up networks and cordon off facilities used for best efforts Internet from those used for IP managed services. It makes no practical sense to isolate transit points, backbones, peering arrangements, CDNs, or bandwidth and declare that any facilities used for best efforts Internet cannot be used for managed services. Such separations will serve only to constrain innovation, reduce efficiencies, and run counter to technological trends towards converging around IP. To date, market forces have been quite sufficient to produce investment and improvement in both Internet and video regardless of facility sharing. If there is concern for the future, the Commission would do better to simply monitor the market as it does today to assure that best efforts Internet is not degraded or starved, rather than to adopt regulations that preclude the very efficiencies that have worked to date.

#### **D. Legal Constraints Require Regulations To Be As Narrow As Possible**

The Commission's authority under the Communications Act to adopt net neutrality rules is already subject to considerable doubt, for reasons that have been thoroughly explored elsewhere.<sup>23</sup> But there are also constitutional free speech issues that compel the narrowest construction of any net neutrality rule that may be adopted. Mass media distributors have well-settled First Amendment rights. Cable's status as a First Amendment speaker has been so well accepted that the Supreme Court has likened it to a newspaper's editorial selection of content under *Tornillo*.<sup>24</sup> Even distributors with heavily regulated "carrier" offerings, like incumbent LECs, have clearly established First Amendment rights to offer non-"carrier" cable services and

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<sup>23</sup> See, e.g., *Final Opening Brief*, Comcast Corporation, Case No. 08-1291, at 41-52, filed Nov. 23, 2009 (D.C. Cir.); *Intervenor For Petitioner Brief*, NBC Universal and National Cable & Telecommunications Association, Case No. 08-1291, at 30-35, filed Aug. 10, 2009 (D.C. Cir.).

<sup>24</sup> See e.g., *Turner Broad. Sys., Inc. v. FCC*, 512 U.S. 622, 636 (1994) ("Cable programmers and cable operators engage in and transmit speech, and they are entitled to the protection of the speech and press provisions of the First Amendment."); *Hurley v. Irish-American Gay, Lesbian & Bisexual Group of Boston*, 515 U.S. 557, 570 (1995) (likening cable channel lineup to newspaper's opinion page and advertising selections); *Comcast Cablevision of Broward County, Inc. v. Broward County*, 124 F. Supp. 2d 685, 692 (S.D. Fla. 2000).

even to exercise editorial discretion (such as terminating “dial-a-porn”) on the carrier platform.<sup>25</sup> Cable’s rights to such freedoms do not depend on whether it carries services in analog, QAM, or IP. No regulation adopted by the Commission, nor any law adopted by Congress, may constrain those rights.

## CONCLUSION

The proposed regulation of Internet access is actually a step backward that risks seriously compromising the investment and innovation that has so far characterized the Internet and broadband access. If there is to be regulation, it must be far more focused to drive parties into engineering consultation and focus litigation narrowly on anticompetitive consumer harm; require all providers of Internet access to provide reasonable disclosure of their network management practices; and ensure that such regulations have no role in defining what the cable network can deliver beyond best efforts residential Internet, so that core video services and managed IP services are given room for experimentation and growth.

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<sup>25</sup> See, e.g., *US West, Inc. v. United States*, 48 F.3d 1092, 1098 (9th Cir. 1994), *vacated and remanded for consideration of mootness*, 516 U.S. 1155 (1996); *Chesapeake & Potomac Tel. Co. of Va. v. United States*, 42 F.3d 181, 190 (4th Cir. 1994), *vacated and remanded for consideration of mootness*, 516 U.S. 415 (1996); *Southern New England Tel. Co. v. United States*, 886 F. Supp. 211, 217 (D. Conn. 1995); *NYNEX Corp. v. United States*, No. Civ. 93-323-P-C, 1994 WL 779761 (D. Me. Dec. 8, 1994); *BellSouth Corp. v. United States*, 868 F. Supp. 1335, 1339 (N.D. Ala. 1994); *Ameritech Corp. v. United States*, 867 F. Supp. 721, 728 (N.D. Ill. 1994); *US West, Inc. v. United States*, 855 F. Supp. 1184, 1190 (W.D. Wash. 1994); *Carlin Commc’ns, Inc. v. Mountain States Tel. & Tel. Co.*, 827 F.2d 1291, 1293-95 (9th Cir. 1987); *Carlin Commc’ns, Inc. v. Southern Bell Tel. & Tel. Co.*, 802 F.2d 1352 (11th Cir. 1986); *Network Commc’ns v. Michigan Bell Tel. Co.*, 703 F. Supp. 1267, 1275 (E.D. Mich. 1989); *Information Providers’ Coalition for Defense of First Amendment v. FCC*, 928 F.2d 866, 877 (9th Cir. 1991) (“a carrier is free under the Constitution to terminate service to dial-a-porn operators altogether”).

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