

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C.**

In the Matter of )  
 )  
Protecting and Preserving the Open Internet ) GN Docket No. 14-28  
 )

**COMMENTS OF BRIGHT HOUSE NETWORKS**

Paul Glist  
Chris Savage  
Davis Wright Tremaine LLP  
1919 Pennsylvania Avenue, N.W.  
Washington, DC 20006-3402

Arthur J. Steinhauer  
Cody Harrison  
Sabin, Bermant & Gould LLP  
Four Times Square  
New York, NY 10036

Counsel for Bright House Networks, LLC

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## EXECUTIVE SUMMARY

*Continuous Improvement in Broadband.* Investment and competitive choices continue to advance dramatically under “light touch” open internet rules. Bright House Networks (BHN) has increased its network capacity more than 20 fold, raised downstream capacity to 90 Mbps and upstream to 20 Mbps, added nationwide WiFi access, won J.D. Power customer satisfaction awards, and enabled almost every large school system in our footprint to put technology at the center of the classroom. BHN continues to meet and beat its ever-rising advertised speeds despite skyrocketing Internet traffic. There has been no starvation of resources devoted to the Internet. Without the constraints of traditional common carrier regulation, BHN has continued to invest, upgrade and respond rapidly in a highly competitive marketplace. Consumers may choose broadband from BHN, formidable wireline broadband providers, and ubiquitous 4G LTE providers, all of whom should be equally committed to non-discrimination responsibilities if any of them are.

*Blackouts from the Edge.* These market imperatives and ordinary competition laws alone should be sufficient to protect and preserve the open Internet; but if a balanced principle of non-discrimination is to be restated in regulation, then the principle should address the new challenge of Internet blackouts perpetrated from the edge. Video program suppliers have repeatedly blacked out consumers from receiving their Internet feeds, most notably because of programming and retransmission consent battles with cable, satellite and telephone over terms for distributing *channels* over pay TV networks. Pay television has already suffered this shift from a “must carry” regime to a dysfunctional world of needless, unchecked blackouts in the name of retransmission consent. Now Internet blackouts are sweeping in even Internet-only customers having nothing to do with such disputes. It is time to contain these destructive

blackouts from spreading to the Internet. If consumers have the right to reach all end points of the Internet free of discriminatory blocking by the core, then the Commission should assure them the right to reach all end points of the Internet free of discriminatory blocking by the edge.

*Enhanced Transparency.* The existing transparency rules are working well. Interested consumers may also supplement this information with performance measurements using a variety of online tools to measure speed, packet loss, and other elements of service without any additional equipment or metrics from their service provider. In fact, so transparent is the Internet that consumers can use tools to see the path of their data, providing a readily-available system of built-in checks and balances. ISPs are meeting and beating their promises. The suggested enhancements to ISPs' transparency are not only unnecessary, they will generate more confusion than clarity. An ISP, for example, can only describe the congestion within its control, but the sources of congestion can be a user's display device, the capacity and configuration of the home WiFi system, video quality settings elected by the user, the adaptive bit rate algorithms of the edge provider, or the capacity and geography of the source CDN server. Requiring additional detail from ISPs alone will not provide helpful information, will increase customer confusion, and will leave ISPs with the blame for matters we cannot control. The suggestion to distill information into a nutrition-style label omits key information of importance to consumers, such as BHN's inclusion of nationwide WiFi access or a second ISP's offer to pay for early termination fees that a third ISP might charge. Such deficiencies are symptomatic of a larger problem: the Commission cannot anticipate all technologies for delivering broadband Internet access, which features will be important, or how to measure them. Trying to fit these competitive offerings into a standardized label will constrain competition in this dynamic market.

There is no justification for imposing burdensome new rules for “tailored” notices and data for the edge. Netflix’s recent decision to move its traffic to middle mile transit providers with insufficient capacity to serve Netflix’s traffic requirements manufactured artificial congestion for political purposes. Objective experts report that congestion at interconnection points is not widespread and that where it occurs it is transient and shifting. Researchers have been quite able to make their measurements from public information. Multi-stakeholder forums can socialize practices that optimize networks and user experiences. Imposing new publishing and data mining requirements on ISPs will do much to fuel misleading campaigns of questionable charges, but will not advance an open Internet.

*Scope.* Continuing to allow specialized services is essential for the continued evolution of a healthy, innovative, and efficient Internet and IP ecosystem. As we continue to invest in our networks and services, we will be managing our spectrum, migrating to IP, and experimenting with different architectures. These are not simple processes susceptible to uniform solutions. If new rules are to be observed for the broadband Internet product, specialized services must continue to provide an IP enterprise zone for the continued development of technologies and services. Despite the perennial predictions that specialized services will unfairly consume bandwidth and capacity at the expense of Internet access, specialized services have not constrained or limited broadband internet access service. There is no basis for expanding the rules to cover specialized services or other services.

*The Cost of Title II.* In addition to the well-known costs of imposing Title II common carrier regulation, reclassification of broadband as telecommunication can trigger increased state and local taxes and burdens over which the FCC may have little control. The risk of higher cost, uncertainty, and local burdens on broadband is antithetical to the Commission’s goal of a stable

investment climate, greater deployment, and greater adoption. In each earlier technology wave of cable services, satellite, broadband, voice, wireless and spectrum, consumers enjoyed the full benefit of investment, innovation and competition once providers were freed of legacy carrier-style regulation. The lesson should be applied to broadband, where ISPs' actual behaviors are disciplined by a very competitive multi-sided market in which they do not block and cannot block an edge-based content provider without diminishing the value of their Internet services and suffering competitive consequences.

*Paid Prioritization.* Although BHN has no plans for paid prioritization, the Commission should not prohibit all such future uses. The Internet has a history of evolving in unpredictable yet beneficial ways. Commercial services, new streaming techniques, content delivery networks, and apps all transcended earlier limited conceptions of the Internet and have created better consumer experiences. Title II common carriage does not prohibit "paid prioritization," and the Commission should not presume prioritization to be incurably evil. The Commission can readily address today's concerns by requiring transparency if and when "paid prioritization" models are developed.

Broadband investment, speed, features and competitive choices have been able to flourish under "light touch" Open Internet rules. The Commission should retain that light touch, and avoid erecting new barriers to the Internet's continued evolution in unpredictable yet beneficial ways.

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**COMMENTS OF BRIGHT HOUSE NETWORKS**

Bright House Networks, LLC (BHN) hereby submits its comments in response to the Notice of Proposed Rulemaking issued by the Commission in the above-captioned proceeding.<sup>1</sup> BHN is the country’s sixth largest cable 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, BHN offers advanced digital video, high speed data, facilities-based competitive voice services and high-capacity business class services.

**I. “LIGHT TOUCH” OPEN INTERNET RULES HAVE BEEN CONDUCTIVE TO INVESTMENT, CONTINUOUS ENHANCEMENT OF INTERNET SERVICES AND COMPETITIVE CHOICES**

BHN was and remains a supporter of the open Internet and of a constructive role for the Commission to help assure both. In evaluating how best to strike the balance between Open Internet rules and promoting continued investment in broadband, the Commission should place high value on how well investment, continuous enhancement of internet services and competitive choices have fared under the current rules. BHN’s record over the past four years has

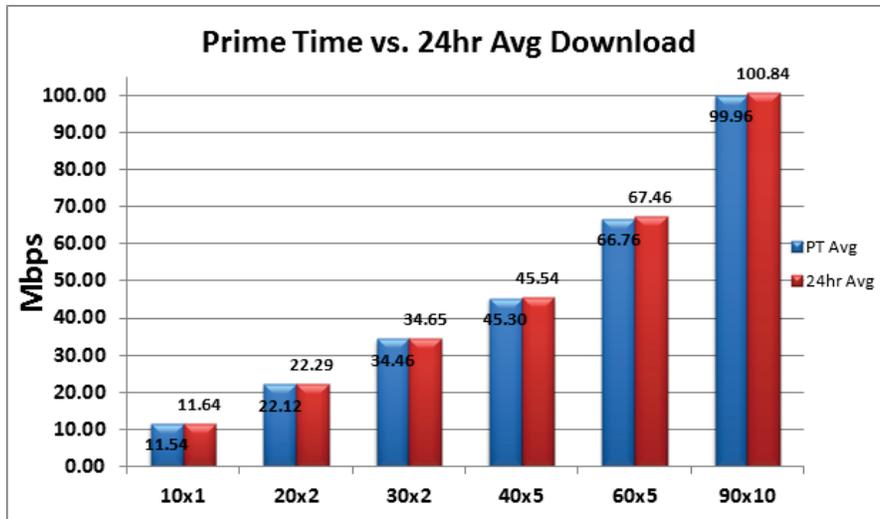
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<sup>1</sup> *Protecting and Preserving the Open Internet*, Notice of Proposed Rulemaking, 29 FCC Rcd. 5561 (2014) (hereinafter “*Notice*”).

demonstrated the wisdom of limiting FCC rules to a “light touch” conducive to continued investment.

BHN has continuously upgraded its systems and enhanced broadband offerings. We upgraded from pre-DOCSIS to DOCSIS 1.0, then to DOCSIS 2.0, and we were then among the first to upgrade to DOCSIS 3.0 throughout our footprint. With DOCSIS 3.0, we can bond multiple channels for improved capacity, greater reliability, more efficient use of bandwidth and network capacity, and support for IPv6 Internet addressing. In the past 10 years, we have increased our network capacity more than 20x, from 45Mb (OC-3) to 10Gb. We have raised our downstream capacity from 25 Mbps to 90 Mbps. We have increased network capacity for upstream transmissions from 2 Mbps to 20 Mbps. BHN is now in the initial phases of another 10x increase in baseline optical bandwidth, by increasing from 10G to 100G, and is also actively assessing DOCSIS 3.1 (Gigasphere) for incorporation into its networks.

To the consumer, this means that BHN continues to meet and beat its ever-rising advertised speeds despite skyrocketing Internet traffic. The table below illustrates our performance using the measurement techniques used in the Commission’s *Measuring Broadband America* reports.



We also continue to enhance the entire broadband offering. We added access to thousands of WiFi hotspots nationally at no extra charge. J.D. Power continues to rank BHN at or near the top in customer satisfaction with residential Internet service providers in our region.<sup>2</sup> There has obviously been no starvation of resources devoted to the Internet, and we do not believe that there have been any instances of blocking or discrimination.

BHN has also been a leader in investing aggressively in broadband facilities and services for schools. Almost every large school system in our footprint has moved its broadband business to BHN. We provide fiber connections and very robust voice, data, Internet, and managed services, protection against malware, and managed content filtering for students. In Florida alone, more than 550 unique educational sites rely on BHN for advanced communications services. Our aggressive investments have allowed schools to put technology at the center of the classroom and build teaching curriculum around it.

<sup>2</sup> Press Release, J.D. Power & Assocs., 2012 U.S. Residential Internet Service Provider Satisfaction Study (Oct. 15, 2012), <http://www.jdpower.com/press-releases/2012-us-residential-internet-service-provider-satisfaction-study#sthash.XXfkE13b.dpuf>; Press Release, J.D. Power & Assocs., 2013 U.S. Residential Internet Service Provider Satisfaction Study (Sept. 26, 2013), <http://www.jdpower.com/press-releases/2013-us-residential-internet-service-provider-satisfaction-study>

BHN continues to invest in these continuous improvements not because of regulatory mandates, but in response to a competitive marketplace. Consumers in homes passed by BHN also have broadband service available from a wide variety strong competitors: AT&T U-Verse or DSL, Verizon FiOS or DSL, CenturyLink Fiber or DSL, WOW!, Frontier, Windstream, Fairpoint, and other providers. Wireless is also ubiquitous. Eighty-nine percent (89%) of U.S. consumers have mobile broadband subscriptions,<sup>3</sup> more than 60% of them use their phones for online browsing,<sup>4</sup> and 50 million of them watched video on them last year.<sup>5</sup> One-third of mobile phone users mostly use their cell phones to access the Internet.<sup>6</sup> There are now more than 62.5 million connected 4G LTE devices in the U.S.<sup>7</sup> Top 4G LTE speeds already exceed 50 Mbps, and the average mobile data connection speed is projected to reach 14.4 Mbps by 2017.<sup>8</sup> By 2018, aggregate smartphone traffic will be 11 times greater than it is today, with a cumulative annual growth rate of 63 percent.<sup>9</sup> In 2018, traffic from wireless and mobile devices will exceed traffic from wired devices.<sup>10</sup> Both AT&T and Verizon are now marketing 4G LTE products like AT&T's "Wireless Home Phone and Internet" as a complete substitute for wireline access, with

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<sup>3</sup> CTIA Resource Library, *89 Percent of US Are Mobile Broadband Users* (Nov. 13, 2013), <http://www.ctia.org/resource-library/facts-and-infographics/archive/us-mobile-broadband-versus-oecd>.

<sup>4</sup> Maeve Duncan & Aaron Smith, Pew Research Center, *Cell Internet Use 2013: Main Findings*, Sept. 16 2013, <http://www.pewinternet.org/2013/09/16/main-findings-2/>.

<sup>5</sup> CTIA Resource Library, *50 Million Americans Watched Video via Mobile Phones in 2013* (Apr. 16, 2014) (citing Business Insider), <http://www.ctia.org/resource-library/facts-and-infographics/archive/50-million-video-via-mobile>.

<sup>6</sup> Duncan & Smith, *supra* note 4.

<sup>7</sup> CTIA Ex Parte Comments in FCC GN Dkt. 09-51, WT Dkt. 13-135 (filed Nov. 13, 2013) at 2, <http://www.ctia.org/docs/default-source/default-document-library/networks.pdf?sfvrsn=0> ("CTIA Comments").

<sup>8</sup> Sascha Segan, *Fastest Mobile Networks 2013*, PC Magazine, June 17, 2013, available at <http://www.pcmag.com/article2/0,2817,2420333,00.asp> (top speeds for VZ LTE and AT&T LTE); CTIA Comments at 2.

<sup>9</sup> Cisco, *Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2013-2018*, [http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white\\_paper\\_c11-520862.html](http://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white_paper_c11-520862.html).

<sup>10</sup> Cisco, *Cisco Visual Networking Index: Forecast & Methodology, 2013-2018*, [http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white\\_paper\\_c11-481360.html](http://www.cisco.com/c/en/us/solutions/collateral/service-provider/ip-ngn-ip-next-generation-network/white_paper_c11-481360.html)

broadband speeds of up to 12 Mbps downstream by 5 Mbps upstream.<sup>11</sup> Whatever the rationale may have been for exempting wireless from non-discrimination rules, it no longer makes sense for consumers or for competition in today's market. If consumers may have non-discriminatory Internet access on their smartphone while on their home WiFi and wireline connection, they should have non-discriminatory Internet access when they step outdoors and use their smartphones on the 4G LTE networks that are surging in capacity and consumer use.

## **II. INTERNET BLACKOUTS FROM THE EDGE CALL FOR THE FCC TO HOLD EDGE-BASED CONTENT PROVIDERS AS ACCOUNTABLE FOR INTERNET OPENNESS AS ISPS**

BHN believes that these market imperatives, with the backstop of ordinary competition laws, should be sufficient to protect and preserve the open Internet. But we are realistic about the current call for some set of well-balanced rules to provide both comfort and an assured path for innovation. If a balanced principle of non-discrimination is to be restated in regulation, then the principle should be crafted to address the new challenge of Internet blackouts perpetrated from the edge.

One of the most troubling developments since the Commission adopted its Open Internet rules has been the rise in blocking by edge service providers. Video program suppliers have repeatedly blacked out consumers from receiving their Internet feeds simply because of programming or retransmission consent battles with MVPDs over terms and conditions for

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<sup>11</sup> AT&T Wireless Home Phone and Internet Frequently Asked Questions, AT&T offers download speeds of approximately 5-12 Mbps in most LTE covered areas, [http://www.att.com/shop/en/Upper\\_Funnel\\_Promo\\_Modals/home\\_phone\\_promo\\_modals/wireless-home-phone-internet-faqs.html](http://www.att.com/shop/en/Upper_Funnel_Promo_Modals/home_phone_promo_modals/wireless-home-phone-internet-faqs.html). Originally offered in major East Coast markets, it is now offered nationwide. Judy Cavalieri, AT&T Consumer Blog, *AT&T Wireless Home Phone & Internet Goes Nationwide, and So Can You* (May 22, 2014), <http://blogs.att.net/consumerblog/story/a7795364>. Verizon's 4G LTE Broadband Router offers download speeds of 5 to 12 Mbps and upload speeds of 2 to 5 Mbps, <http://www.verizonwireless.com/wcms/consumer/home-services.html?tab=2>.

distributing *channels* over cable, satellite and telephone pay TV networks. During a 2010 retransmission showdown between Fox and Cablevision, Fox blocked Cablevision's Internet customers from accessing Fox's online content on Fox.com and Hulu.<sup>12</sup> During a 2012 dispute with DirecTV, Viacom blocked access to full episodes of numerous shows that had been available on the web, including *The Daily Show*, *The Colbert Report*, and *SpongeBob SquarePants*, "[a]ccording to a Viacom spokesman, ... because DirecTV is marketing the Internet video destinations as an alternative to the full networks."<sup>13</sup> During its negotiations over retransmission consent in 2013, CBS blocked Internet customers of Time Warner Cable and BHN from accessing online episodes of its programming, sweeping in even Internet-only customers having nothing to do with the programming dispute.<sup>14</sup> Now, in 2014, Viacom is blocking Cable One and Liberty

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<sup>12</sup> Brian Stelter, *Internet Is a Weapon in Cable Fight*, N.Y. Times, Oct. 19, 2010, available at [http://www.nytimes.com/2010/10/20/business/media/20hulu.html?\\_r=0](http://www.nytimes.com/2010/10/20/business/media/20hulu.html?_r=0) ("In disputes between television programmers and distributors, the new battleground is the Internet. In its continuing contract showdown with Cablevision, the News Corporation tried to extend its blackout of the Fox Broadcasting network to Fox.com and to Hulu, the popular Web site for free TV viewing.").

<sup>13</sup> Todd Spangler, *Viacom Yanks Free TV Shows From Web Amid DirecTV Impasse*, Multichannel News (July 11, 2012), available at <http://www.broadcastingcable.com/news/technology/viacom-yanks-free-tv-shows-web-amid-directv-impasse/49389> ("Viacom on Wednesday disabled access to dozens of free full-length episodes on its websites -- from shows including Comedy Central's *The Daily Show* with Jon Stewart and MTV's *Jersey Shore* -- after the media company's networks went dark on DirecTV in a carriage-fee dispute.... According to a Viacom spokesman, the company is still offering hundreds of free episodes online but chose to pare back the number of full-length shows available because DirecTV is marketing the Internet video destinations as an alternative to the full networks.").

<sup>14</sup> Ryan Lawler, *CBS Blocks Time Warner Cable Subscribers From Watching Full Episodes On CBS.com*, TechCrunch.com (Aug. 2, 2013), <http://techcrunch.com/2013/08/02/cbs-blocks-time-warner-cable-subscribers-from-watching-full-episodes-on-cbs-com/> ("A dispute between CBS and Time Warner Cable over retransmission fees for its broadcast content has spilled over onto the web, with a blackout of television programming also being extended to CBS' online properties. In the wake of Time Warner Cable dropping the CBS and Showtime signals in most major markets, the broadcaster has decided to block access to full-episode viewing on CBS.com."); *Compulsory Video Licenses of Title 17: Hearing Before the H. Subcomm. on Courts, Intellectual Property, and the Internet*, 113th Cong. 7 (2014) (statement of Matthew M. Polka, President and CEO, American Cable Association) ("For years, the primary consumer harms associated with the broken retransmission consent regime were blackouts and higher subscription-TV fees. However, more recently, there are indications that the broken retransmission consent regime is spreading onto the Internet. During last year's TWC/CBS dispute, CBS not only pulled its owned and operated stations from TWC's customers, CBS additionally prevented all Internet subscribers of TWC and BHN ... from accessing CBS online content that is otherwise freely available. CBS's action even harmed TWC-BHN Internet customers who take video service from another provider, such as DISH Network or DIRECTV.").

Cablevision of Puerto Rico subscribers from accessing online content on Viacom websites due to a carriage dispute with Cable One.<sup>15</sup> Such blackouts are antithetical to an Open Internet.

Blackouts are already needlessly disruptive to consumers of cable and other MVPD services. They serve as a sobering reminder that interposing regulations on dynamic markets can effect serious harm to consumers in unexpected and unintended ways, particularly as technology and the marketplace changes more rapidly than rules. Imposing one-sided obligations that only Internet service providers have a responsibility to keep the Internet open will fuel precisely the same dynamic in broadband. Video program suppliers' repeated blackouts of the Internet should serve as a warning sign that just as pay television evolved from a "must carry" regime to a world of unchecked blackouts in the name of retransmission consent, the Internet can replicate those same consumer harms.

Now is the time to contain these destructive blackouts from spreading to the Internet. If consumers have the right to reach all end points of the Internet free of discriminatory blocking by the core, then they should have the right to reach all end points of the Internet free of discriminatory blocking by the edge. No doubt, an online publisher may adopt a business model requiring an individual subscription to access content. But if the online publisher offers its content free to the web, then it should not be permitted to impose discriminatory blackouts on Internet customers. If the Commission intends to adopt principles of no blocking and of non-discrimination, then it should apply the same principles to online publishers. Keeping the

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<sup>15</sup> Joe Flint, *FCC Chairman Expresses Concern about TV Networks Blocking Websites*, L.A. Times, May 20, 2014, available at <http://www.latimes.com/entertainment/envelope/cotown/la-et-ct-fcc-chairman-expresses-concern-about-tv-networks-blocking-websites-20140520-story.html> ("Currently, Viacom is blocking access to some of its online content to customers of Cable One, a pay-TV distributor it is having a fight with over regarding fees for its networks, including MTV and Comedy Central. 'Cable One has chosen to no longer carry Viacom programming and, as a result, it is no longer available to Cable One customers in any form,' A Viacom spokesman said."). Shalini Ramachandran, *Viacom, 60 Cable Firms Part Ways in Rural U.S.*, Wall St. J., June 17, 2014, available at <http://online.wsj.com/articles/viacom-60-cable-firms-part-ways-in-rural-u-s-1403048557>.

Internet open should mean that while content providers may adopt non-discriminatory pay walls, they may not blackout, surcharge, or otherwise discriminate against a targeted ISP or its customers. If the content is available to some ISPs and their customers, it must be available to all.

### **III. OPEN INTERNET RULES SHOULD NOT BE EXPANDED IN SCOPE**

The Notice suggests a number of ways in which the Open Internet rules could be expanded in requirements and scope. The Notice seeks comment on a variety of proposed “enhancements” to consumer-facing transparency rules. It tentatively proposes that ISPs report “the source, location, timing, speed, packet loss, and duration of network congestion;”<sup>16</sup> “any instances” of blocking or throttling;<sup>17</sup> and “packet loss,” “packet corruption,” and “jitter” in addition to the speed and latency covered under current transparency rules.<sup>18</sup> It seeks comment on condensing selected terms and conditions into a standardized nutrition-style label suggested by the Open Internet Advisory Committee.<sup>19</sup> It also seeks comment on additional disclosures augmented and tailored to edge providers, the “Internet community,” and possibly CDNs and cloud service providers.<sup>20</sup> Among such possible disclosures, the Commission seeks comments on proposals by Cogent for access to a wider variety of ISP information, including monthly raw monitoring data for each localized cable system.<sup>21</sup>

As we will describe below, BHN already provides clear and comprehensive consumer disclosures under the current transparency rules. In addition, consumers have ready access to

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<sup>16</sup> Notice, 29 FCC Rcd. 5561 ¶ 83.

<sup>17</sup> *Id.* ¶ 78.

<sup>18</sup> *Id.* ¶ 73.

<sup>19</sup> *Id.* ¶ 72.

<sup>20</sup> *Id.* ¶¶ 75-83.

<sup>21</sup> *Id.* ¶ 83.

online tools for additional performance measurements. The suggested enhancements to ISP’s transparency will generate more confusion than clarity, and imposing burdensome new rules for “tailored” notices and data for the edge will do much to fuel misleading campaigns of questionable charges, but will not advance an open Internet.

**A. The Suggested Enhancements to Transparency will Create More Confusion**

**1. ISP’s augmented descriptions will generate more customer confusion and customer care calls over causes of congestion or jitter outside of an ISP’s control.**

BHN provides extensive transparency disclosure on its web site, in its marketing materials, and in its posted network management policy. BHN presents consumers with clear Internet options showing download and upload speeds (provisioned and actual sustained speeds at peak and over 24 hours, measured using the techniques used in the Commission’s *Measuring Broadband America* reports), prices in unbundled and bundled options, and other features we consider important to competition and consumer choice, including nationwide WiFi access. The graphics below illustrate the clarity of just some of these disclosures.

	NOW AVAILABLE LIGHTNING 90 High Speed Internet	LIGHTNING 60 High Speed Internet	TURBO 30 High Speed Internet	STANDARD 10 High Speed Internet
Download Speeds	90 Mbps	60 Mbps	30 Mbps	10 Mbps
Upload Speeds	10 Mbps	5 Mbps	2 Mbps	1 Mbps
Free Email Accounts and Mail Storage	30 Email Accounts with 10GB Mailbox Storage	25 Email Accounts with 5GB Mailbox Storage	25 Email Accounts with 5GB Mailbox Storage	10 Email Accounts with 2GB Mailbox Storage

**Features**

- Speeds up to 90 Mbps
- Access to thousands of FREE WiFi HotSpots
- Advanced Wireless Networking available
- Optional static IP which will allow you to host a website or other server
- Free advanced features like spam blockers, personal firewall and anti-virus protection
- Up to 30 email accounts
- Free access to McAfee Antivirus
- No annual contracts to sign

### \$54.00 – STANDARD INTERNET + PHONE

Combine Phone and Standard Internet for just \$54 per month for 12 months, plus tax, fees and equipment.

- Anytime unlimited nationwide calling.
  - Free anti-virus protection.
  - Up to 10 Mbps download speed.
  - One bill convenience.
  - 24/7 local customer service.
  - Plus let Bright House Networks provide and maintain the affordable converter, High Speed Internet and Phone modem that best fit your needs. View our [modem policy](#) and [support article](#).
  - This offer is for new customers only.
- [view details](#)

**\$54.00** | Month  
for 12 months  
[Add to Cart](#)

[Compare Offers](#) [Solutions for your Business](#)

We post changes if we change prices, network management techniques, or if actual sustained speeds change. We have not received complaints of any deficiency in this disclosure. The generalized, anonymous complaints collected in the Notice appear not to differentiate between billing, pricing and performance.<sup>22</sup> They may reflect dissatisfaction that could be addressed through ordinary customer care, but not with the transparency requirements of the Open Internet order.

In addition to BHN’s disclosures, consumers may also supplement this information with performance measurements using a variety of online tools to measure speed, packet loss, and other elements of service without any additional equipment or metrics from their service provider.<sup>23</sup> In fact, so transparent is the Internet that consumers can use tools to see the path of their data, providing a readily-available system of built-in checks and balances. The Internet has been swift to offer choices of tools, tests, and feedback without the need for FCC disclosure mandates on Internet service providers.

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<sup>22</sup> *Id.* ¶¶ 69-70.

<sup>23</sup> Some of the online tools are <http://www.cnet.com/internet-speed-test/> ; <http://www.speedtest.net/> ; and <http://www.pingtest.net/>

We believe that the Notice’s suggestions for augmenting these disclosures will confuse, rather than enlighten consumers. For example, BHN’s network management approach has been to add network capacity as needed so that its network delivers to customers the bandwidth and data speeds they are paying for, even when many customers are using the network at the same time. But, as recent studies have explained, a customer may experience stutter in video streamed movies due to the user’s device processing capabilities, the capacity and configuration of the home WiFi system, video quality settings elected by the user, the adaptive bit rate algorithms of the edge provider, the capacity of the source CDN server, the physical geography of the CDN, and the interconnections between the CDN and another party’s ISP network -- all factors unrelated to the ISP network.<sup>24</sup> An ISP can only describe the congestion it can control, not all sources end-to-end. An augmented description of congestion from an ISP is not going to match individual consumers’ experience, if every other manufacturer, service provider, and source involved in rendering the experience is silent about their own performance. As consumer experiences depart from the posted description of congestion that an ISP can control, we will receive the blame (and probably the calls for customer care) over matters not within our control.

The other proposals are equally unhelpful. “Jitter” is a specialized metric for variability in latency that is inconsequential even to applications such as VoIP or video streaming. Some small set of commercial customers may monitor jitter, but expanding that to cover all users would entail new network costs for no discernible benefit. Likewise, “packet loss” is part of the ordinary TCP protocol, under which packets are retransmitted. To a typical consumer, the

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<sup>24</sup> Peter Sevcik, *How the Netflix ISP Speed Index Documents Netflix Congestion Problems*, Netforecast, June 2014, [http://www.netforecast.com/wp-content/uploads/2014/06/NFR5117\\_How\\_the\\_Netflix\\_ISP\\_Speed\\_Index\\_Documents\\_Netflix\\_Congestion\\_Problems.pdf](http://www.netforecast.com/wp-content/uploads/2014/06/NFR5117_How_the_Netflix_ISP_Speed_Index_Documents_Netflix_Congestion_Problems.pdf); MIT Information Policy Project, *Measuring Internet congestion: A preliminary report*, <https://ipp.mit.edu/sites/default/files/documents/Congestion-handout-final.pdf>.

dynamic is captured within existing download speed metrics which are already included in SamKnows reports and disclosed under existing transparency rules. Those consumers who are interested in measuring other attributes can make use of online resources. Consumers who are not so interested are more likely to be alarmed than informed by a mandatory separate disclosure of “packet loss.”

The augmented information from an ISP will neither inform consumers nor reduce confusion.

**2. Further research and refinement is required before standardized nutrition-style labels should be considered.**

The Commission also suggests that consumer understanding and choice may be enhanced if Internet offerings and performance are presented in a standardized nutrition-style label as recommended by the Open Internet Advisory Committee (OIAC). OIAC suggests that all offers should be displayed as downstream speed, upstream speed, price (monthly fee averaged over three years, including all taxes and fees), and usage restrictions. This portends even more confusion for consumers: the suggested label omits key information of importance to consumers and to competition; it is not sufficiently adaptable to new technologies and new elements of service; and it ignores a statute designed to inform consumers by separate line itemization that their local governments are responsible and accountable for franchise fees imposed on service providers.

BHN’s offer of Internet access goes far beyond uploads and downloads for a fee. At no extra charge, most offers include, for example, access to thousands of WiFi hotspots nationally, email accounts, and anti-virus protection. We offer Internet access at a variety of price points depending on the package or bundle purchased, with no contract required. Additionally, BHN offers home networking service to provide in-home WiFi for greater use of the Internet access.

These are all valuable parts of the service. Other ISPs may include other competitive features, such as an offer to pay early termination fees if a customer feels trapped in another contract. The OIAC ignores all such features in its suggested standard label, effectively limiting competition and innovation in service features.

The omission of these features is symptomatic of a larger failure of a standardized label. The label presumes that we know all aspects of the technologies for delivering broadband Internet access, which features are important and how to measure them. But just as the proposal did not anticipate a new, valuable feature like national WiFi access, it cannot anticipate and adapt to the new technologies and features that will surely come in this dynamic market.

The OIAC also proposes that the label include a price inclusive of all taxes and fees. This is inconsistent with well-established methods for distinguishing service prices from local fees and taxes. On a bundled cable bill including video and Internet service, for example, cable operators typically separately state the service price and local franchise fees. Congress adopted a statute so that consumers could be informed by separate line itemization that their local governments are responsible and accountable for franchise fees imposed on service providers.<sup>25</sup> The OIAC proposal to mandate consolidation of franchise fees with service prices ignores the statute and its goal.

OIAC also proposes that the label include a three year average rate, after promotional discounts may expire. BHN would not be able to predict what the next three years of Internet or bundled prices might be in order to implement such a disclosure.

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<sup>25</sup> Implementation of Sections of the Cable Television Consumer Protection & Competition Act of 1992: Rate Regulation, *Report & Order*, 8 FCC Rcd. 5631 ¶¶ 545, 551-52 (1993) (“Section 622(c) has to do with increasing political accountability for regulatory costs imposed, by permitting subscribers to be informed that a portion of their bills are related to governmental imposed obligations.”); *City of Pasadena Petitions for Declaratory Ruling*, Memorandum Opinion & Order, 16 FCC Rcd. 18192 (2001), *aff’d*, *Texas Coalition of Cities for Util. Issues v. FCC*, 324 F.3d 802 (5th Cir. 2003).

These and other limitations may be the reason why OIAC did not recommend a mandate but a voluntary, limited pilot with feedback.<sup>26</sup>

**3. Imposing new rules for “tailored” notices to the edge and burdensome data mining requirements will produce misleading accusations but not solutions.**

The Notice seeks comment on tailored disclosures to edge providers and others, including the suggestion by Cogent that the public should have continuous access to monthly raw performance metrics collected by each cable system. It recounts its view of Netflix’s interconnection experience with Comcast, from which it advocates for a massive monthly monitoring system imposed on all ISPs to have each one prove, local system by local system, that they are not throttling down video competition.

BHN does not believe it has ever received a request from any edge provider, CDN, or cloud service provider for more detailed technical Open Internet information than we have already provided to our customers. We question the feasibility of creating disclosures tailored to the varied and potentially unique needs of the hundreds of such providers, particularly with no reciprocal obligation. We also question the need for undertaking such an extraordinary (and one-sided) burden, considering that edge providers, CDNs, cloud computing and software-as-a-service have flourished without such a regulatory mandate.

We question how we would create a report for the edge that describes, as the Notice suggests, congestion, “any” instance of throttling and other performance metrics at the localized system level. Low quality user experiences can arise from overloaded content servers, home

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<sup>26</sup> FCC, Open Internet Advisory Committee, *2013 Annual Report*, at 87-88, Aug. 20, 2013, <http://transition.fcc.gov/cgb/oiac/oiac-2013-annual-report.pdf>.

WiFi limitations, the user's display device, and other sources not in the control of an ISP.<sup>27</sup> We have already seen the results of focusing on one small part of this complex interaction. Netflix told consumers that Verizon's network was slow, and only backed down when pressed to present its proof or cease and desist.<sup>28</sup> The Netflix-Comcast dispute turns out to be more about Netflix changing its providers in the middle than with the ISP's network or interconnections.<sup>29</sup> Netflix chose not to use a CDN which offered sufficient peak and interconnection capacity, and instead to use middle mile transit providers that did not provide enough capacity to serve Netflix's traffic requirements. Netflix could have avoided its manufactured congestion with readily available solution providers that it chose not to use. Experts who studied the Netflix ISP Speed index confirm the point: the index turns out not to be a measure of last-mile bandwidth but a reflection of the user's device processing capabilities, the capacity of the home WiFi system, the video quality settings set three clicks deep in the Netflix app, Netflix's adaptive bit rate algorithms, and the CDN or middle mile chosen by Netflix.<sup>30</sup> Netflix's decision to create artificial congestion and a political campaign over widely-accepted interconnection practices should not be confused with the policy debate over net neutrality.

Cogent proposes a massive monitoring system imposed on all ISPs at the local system level, to *prove that they are innocent* of throttling down video competition. Apart from its unfounded and untenable presumption of guilt, the proposal creates a massive burden with no

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<sup>27</sup> Sevcik, *supra* note 23.

<sup>28</sup> Lisa Richwine & Marina Lopes, *Netflix to stop messages blaming Verizon for slow streaming*, Reuters, June 9, 2014, <http://www.reuters.com/article/2014/06/10/netflix-verizon-idUSL2N0OQ24Z20140610>.

<sup>29</sup> An expert analysis of the Netflix-Comcast interconnection experience demonstrates that congestion arose when Netflix redirected its traffic from CDNs (with capacity) to middle mile ISPs (with less capacity). When Netflix skipped the middle mile and connected directly to Comcast, congestion was relieved nationwide—even to ISPs having nothing to do with that interconnect. Sevcik, *supra* note 23.

<sup>30</sup> Sevcik, *supra* note 23; Dan Deeth, *Conflicting Reports: Canadian ISP Rankings*, Sandvine, June 4, 2014, <http://www.internetphenomena.com/>.

countervailing benefit. To add such capability will require either an investment in recruiting and managing an army of new volunteers (as are used in SamKnows) or an investment in probes, installation of upgraded modems, specialized control platforms to manage the probes, integration with other management systems, and analytics. Even that would not capture elements (largely beyond ISP control) that define the actual user experience.

Compared to what is available today, there is no justification for such a program. Hundreds of whiteboxes are already collecting data on download/upload speed, web browsing, UDP latency and packet loss, video streaming, voice over IP, DNS resolution and failures, ICMP latency and packet loss, latency under load, availability and consumption. The resulting 2014 *Measuring Broadband America* Report confirms that cable-based services are delivering 102 percent of advertised download speeds and 111 percent of upload speeds, measuring the very elements that Internet service providers can control.<sup>31</sup> Using the same metrics, BHN also meets and beats its promises, as shown in the earlier table on page 3. Academics have been able to study Internet congestion in great detail from existing information and have concluded that congestion at interconnection points is not widespread, and that where it occurs it is transient and shifting.<sup>32</sup> ISPs that use congestion management tools already disclose the circumstances and criteria under which traffic might be managed to address localized network congestion, but these tools are automated and last for only short periods.

Imposing a new one-sided data mining and publishing requirement on ISPs will not enlighten consumers and will do nothing to reveal the actual end-to-end operation that defines a consumer's experience unless content servers, CDNs, middle mile ISPs, home routers and edge

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<sup>31</sup> FCC, *Measuring Broadband America 2014, A Report on Consumer Wireline Broadband Performance in the U.S.*, June 18, 2014, <http://www.fcc.gov/encyclopedia/measuring-broadband-america-measuring-fixed-broadband>.

<sup>32</sup> MIT Information Policy Project, *supra* note 23.

devices all log and report their real time performance in transport and sessions. But such new requirements will do much to fuel misleading accusations, fiery campaigns that flood ECFS with questionable charges, and even more confusion, rather than solutions.

A better path is to take stock of the great advances we have in performance and resolution of disputes, and recognize that there is no need to impose burdensome new rules for “tailored” notices and data for the edge. SamKnows confirms that ISPs are meeting and beating their promises. Online tools provide ready measurement of additional performance metrics. Congestion at interconnection points is not widespread and where it occurs it is transient and shifting. Researchers have been quite successful in studying Internet traffic with existing information. Businesses have been quick to create and change business-to-business relations through the private negotiations the Commission has long encouraged. Broadband is also rich in multi-stakeholder forums for socializing practices that optimize networks and user experiences. Rather than singling out just one player in this complex and dynamic system for stringent and one-sided regulation, it is a far better to address concerns over performance and practices by making use of these existing feedback mechanisms – which are the very tools under which the Internet has developed, expanded and thrived.

**B. Specialized services have not constrained or limited broadband internet access service.**

The Notice rightly proposes to maintain the limited scope of the rules to exclude specialized services. To their credit, the 2010 rules allowed specialized services to serve as an enterprise zone in which new models of IP service could be explored. The Commission offered examples of “specialized telemedicine, smart grid, or eLearning applications,”<sup>33</sup> and the record

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<sup>33</sup> *Preserving the Open Internet; Broadband Internet Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd. 13064 ¶ 150 (2009).

was replete with other examples of potential specialized services: real-time “telepresence” applications for professional business meetings; immersive online gaming; appliances sold with energy monitoring features and Internet connectivity built into the purchase price, like Kindle; stock research and trading firms using “certified” P2P clients and managed IP networks for secure distribution; government agencies and training facilities managing applications or desktop clients remotely using managed IP; and more models yet unforeseen. The Commission recognized the potential benefits, including the potential to “drive additional private investment in broadband networks.”<sup>34</sup> It left specialized services open for such development, and committed to monitor the market.<sup>35</sup>

Continuing to allow specialized services is essential for the continued evolution of a healthy, innovative, and efficient Internet and IP ecosystem. As we continue to invest in our networks and services, we will be managing our spectrum, migrating to IP, and experimenting with different architectures. These are not simple processes susceptible to uniform solutions. If new rules are to be observed for the broadband Internet product, specialized services provide an IP enterprise zone for the continued development of technologies and services.

In this round, we hear a refrain of concerns that specialized services will unfairly consume bandwidth and capacity at the expense of Internet access. But we have experience belying these perennial predictions. For example, a growing segment of our business is providing point-to-point private network connections for business and enterprise customers. These data networks have stringent uptime and quality of service requirements that can only be met by dedicating network capacity to these services and devoting substantial resources to monitoring and maintaining their performance. But there have been none of the ill effects the

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<sup>34</sup> *Preserving the Open Internet; Broadband Internet Practices*, Report & Order, 25 FCC Rcd 17905 ¶ 112 (2010).

<sup>35</sup> *Id.* ¶¶ 113-114.

Commission was watching for when it excluded specialized services from the Open Internet rules. We have grown business services and simultaneously grown our residential Internet product. No specialized services “are in any way retarding the growth of or constricting capacity available for broadband Internet access service.”<sup>36</sup> None are marketed as “a substitute for broadband Internet access service.”<sup>37</sup> The Commission should certainly be free to continue monitoring specialized services, but there is no basis for expanding the scope of the rule to cover specialized services.

**C. There is no basis for expanding the rules to cover managed multichannel services or interconnection ports.**

The Notice rightly proposes to maintain the limited scope of the rules to exclude managed services (like multichannel video programming),<sup>38</sup> but some early comments seem designed to blur the line between an open Internet and a set of rules that would allocate a wireline network’s spectrum usage. For example, Cogent suggests an extensive reporting and monitoring regime in which residential Internet access is benchmarked against the handling of all other traffic on other parts of the network—whether that traffic is managed video-on-demand services offered as part of the MVPD video subscription<sup>39</sup> or traffic carried across the interconnection ports used by one CDN versus another.<sup>40</sup> This is far beyond the scope of open Internet rules addressing the fair handling of Internet access data over last mile networks. There is no sound basis on which to expand the reach of the rules to govern MVPD video services or

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<sup>36</sup> *Id.* ¶ 114.

<sup>37</sup> *Id.*

<sup>38</sup> *Notice*, 29 FCC Rcd. 5561 ¶ 57.

<sup>39</sup> Comments of Cogent Communications Group, Inc., GN Dkt. No. 14-28 (filed Mar. 21, 2014), at 21 (proposed data metric 3).

<sup>40</sup> *Id.* at 21-23 (proposed data metrics 4, 6-8).

interconnection ports. The rules should continue to be confined to best efforts residential Internet access.

**D. There is no basis for restricting usage based billing.**

The Notice also seeks comment on usage based billing. Although BHN has not adopted usage based billing, the Commission should preserve the opportunity for service providers to price services proportionally to use. Studies indicate that the top 15% of users account for the majority of all bandwidth use.<sup>41</sup> Variable pricing can serve as a useful technique for reducing prices for low usage (as Time Warner Cable has done) as well as for fairly apportioning greater costs to the highest users. If any concerns arise over usage-based billing, they can be addressed in the context of a specific case.

**IV. “LIGHT TOUCH” RULES ATTRACT MORE INVESTMENT AND INNOVATION THAN COMMON CARRIER RULES**

Some are calling for the Commission to apply to Internet Service Providers the Title II common carrier regime used 80 years ago for monopoly telephone networks. But a Title II common carrier regime is particularly ill-suited for and harmful to broadband services.

However effective Title II regulation may have seemed in decades ago, it also has a long history of problems. Academic and government studies catalog that common carrier regulation comes at a high cost of underinvestment, delayed offerings, constraints on innovation, inefficient structural separations, and high compliance costs.<sup>42</sup> The Commission has recognized that common carrier rules prevented broadband providers from meeting market demands and kept

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<sup>41</sup> Sandvine, <https://www.sandvine.com/trends/global-internet-phenomena/>.

<sup>42</sup> Christopher S. Yoo, *Is There a Role for Common Carriage in an Internet-Based World?*, 51 Hous. L. Rev. 545, 545 (2013-2014), [http://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=1566&context=faculty\\_scholarship](http://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=1566&context=faculty_scholarship); NTIA, U.S. Dep’t of Commerce, *NTIA Regulatory Alternatives Report* 13–31, NTIA Report 87222 (July 1987) (compliance costs of about \$8-10 per access line for the PSTN), available at <http://www.its.bldrdoc.gov/publications/87-222.aspx>.

them from being innovative first movers.<sup>43</sup> The market valuation of ISPs plunged when the Commission just considered Title II reclassification in 2011.<sup>44</sup> Other comments have explained the impracticality of forbearance proceedings and their inability to offer the assurance or stability that has enabled investment to date. Others have reminded us that classifying services as Title II removes broadband marketing and practices from FTC jurisdiction.

BHN wishes to focus on one under-recognized problem: reclassification of broadband will spawn new state taxes on the Internet that consumers will eventually bear in higher retail prices or reduced investment. There is ample and instructive history demonstrating that a lighter touch yields more benefits to consumers, to investment and to innovation.

**A. Title II would raise taxes on the Internet**

Reclassification of broadband as a telecommunication common carrier offering has a significant effect under state law, generally increasing state taxes and encouraging local franchising authorities to apply new requirements on “telecommunications” facilities and services.

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<sup>43</sup> In evaluating the impact of *Computer III* filing procedures on broadband innovation, the Commission learned that such requirements “prevent[ed] [broadband providers] from altering business priorities in response to changing market demands, imped[ed] their ability to take advantage of business opportunities due to ‘time to market’ issues, and provid[ed] competitors with advance notice of innovative service enhancements, thus eliminating any potential wireline broadband competitive advantage *vis-à-vis* cable modem or other platform providers.” *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities*, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd. 14853 ¶ 71 (2005). The Commission also found that “[t]he inherent regulatory delay that occurs through the network change disclosure process, the web posting requirements, and tariffing requirements, which a BOC must comply with before making *any* change to its network that enhances or upgrades its Internet access services” presented serious obstacles to new offerings. *Id.*

<sup>44</sup> Letter from ISP CEOs to FCC, May 13, 2014, [http://www.ctia.org/docs/default-source/Legislative-Activity/ceo-  
nn-letter-to-fcc.pdf?sfvrsn=0](http://www.ctia.org/docs/default-source/Legislative-Activity/ceo-<br/>nn-letter-to-fcc.pdf?sfvrsn=0).

Changes in service classification can trigger higher service taxes. In Florida, for example, BHN estimates that the communications services tax would effectively double if broadband is classified as a telecom service.<sup>45</sup>

Reclassification can also trigger increases in state property taxes because of differences in property tax assessment methods. State property taxing authorities generally assess taxes on cable, broadband and other non-telecommunications property on a local assessment basis, with valuation based only on the property residing within the state. Utility and telecommunications property can be on a central assessment basis, with valuation including the imputed value of an entire enterprise and its intangible assets, typically resulting in higher tax burdens.

A municipality may also argue that such reclassified services, and the facilities that support them, are subject to telecommunications regulations at the local level. Federal circuits are not aligned with each other or with the Commission on permissible local management of rights-of-way and taxation of telecommunications service providers.<sup>46</sup> Some will sustain taxes and tax loads on services unless service providers show that they would be completely unable to render service if they charge more—an approach quite different from what the Commission envisioned.<sup>47</sup>

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<sup>45</sup> This increased tax burden is independent of the federal USF assessment that would apply to the “telecom” service that once was Internet access, raising Internet access costs by about 17%.

<sup>46</sup> Compare *Sprint Telephony PCS, L.P. v. San Diego Cnty.*, 543 F.3d 571 (9th Cir. 2008) (reversing 2001 *City of Auburn v. Qwest Corp.*, 260 F.3d 1160 (9th Cir. 2001), to now require that a telecommunications provider demonstrate that a local ordinance act as an “actual or effective prohibition, rather than the mere possibility of prohibition” for the provision of telecommunications service), with *Qwest Corp. v. City of Santa Fe*, 380 F.3d 1258 (10th Cir. 2004) (citing *White Plains* for proposition that a prohibition need not be complete or “insurmountable”); *TCG N.Y., Inc. v. City of White Plains*, 305 F.3d 67 (2d Cir. 2002); *RT Commc’ns, Inc. v. FCC*, 201 F.3d 1264 (10th Cir. 2000). See also *Silver Star Tel. Co.*, 12 FCC Rcd. 15639 (1997), *recon. denied*, 13 FCC Rcd. 16356 (1998), *aff’d*, *RT Commc’ns* (finding that any “insurmountable barrier to [competitive] entry” represents a “disparity in the treatment of classes of providers [which] violates the requirement of competitive neutrality [of Section 253(c)]”).

<sup>47</sup> Under the current trend in section 253 cases (the 9th and 8th Circuits in particular), to challenge a local ordinance, a provider would have to prove that a franchise fee imposed on broadband, for example, literally prevents a provider from being able to provide service, rather than focusing on the Commission’s goals of greater affordability, adoption and use. See, e.g., *Sprint Telephony PCS, L.P. v. San Diego Cnty.*, 543 F.3d 571 (stating that “[a] plaintiff must

Once broadband is classified as telecommunications, the FCC may have little control over the state and local tax burdens that follow.<sup>48</sup> This new tax load represents money that could otherwise be allocated to broadband research, development, investment and deployment, and consumers will eventually bear the costs in higher retail prices or reduced investment. The risk of higher cost, uncertainty, and local burdens on broadband is antithetical to the Commission’s goal of a stable investment climate, greater deployment, and greater adoption.

**B. Consumers enjoy the full benefit of investment, innovation and competition when providers are freed of carrier-style regulation**

In each earlier technology wave, consumers enjoyed the full benefit of investment, innovation and competition once providers were freed of legacy carrier-style regulation. This has held true in satellite, cable services, broadband, voice, wireless and spectrum.

**Satellite.** Satellite’s potential had been constrained when it was regulated as a common carrier offering in which investments in high-risk satellite launches were supposed to be funded by at-cost transponder leases. When the Commission dropped common carriage and allowed satellite to be offered on a non-common carrier basis,<sup>49</sup> the DBS industry emerged, produced new digital choices for consumers, and became a formidable competitor to cable.

**Cable services.** Cable services flourished after the Commission took a “hands off” approach—and created bulwarks against local, state and federal regulation—to promote

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establish either an outright prohibition or an effective prohibition on the provision of telecommunications services.”). Section 621(b)(3) of the Communications Act provides that a franchised cable operator is not required to obtain a franchise for telecommunications services, but a classification of Internet access service as a separable telecommunications service would introduce regulatory uncertainty. Cable operators would be simultaneously confronted with claims under section 621 and under section 253.

<sup>48</sup> There is no uniform interpretation of section 253, and federal courts have left many claims against city fees to be resolved by state courts on the ground that the Tax Injunction Act prohibits federal courts from addressing state taxes.

<sup>49</sup> See *National Ass’n of Broadcasters v. FCC*, 740 F.2d 1190, 1195 (D.C. Cir. 1984).

premium channels, tiers, and new cable technologies.<sup>50</sup> Consumers have been rewarded with innovative networks and offerings, more selections, ad-free premium choices, and the \$210 billion cable investment in infrastructure that revolutionized broadband.

**Broadband.** In broadband, the Commission declined to impose common carriage on cable broadband service.<sup>51</sup> Cable investments spurred ILECs to bring DSL out of hiding, the Commission freed DSL of legacy rules, and consumers now enjoy broadband in more than 98% of the market, with 85% offered DOCSIS 3.0 speeds. By contrast, attempts to impose legacy carrier regulations led to the demise of video dial tone and open video systems.<sup>52</sup> European regulators now envy the rate of U.S. broadband investment and many EU leaders are questioning their regulatory approach and looking to the American model of infrastructure-based broadband competition and private investment.<sup>53</sup>

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<sup>50</sup> See *Amendment of Part 76 of the Commission's Rules and Regulations*, Notice, 46 F.C.C.2d 175 ¶¶ 91-95 (Apr. 17, 1974) (revenue from premium channels exempted from franchise fees); *Community Cable TV, Inc.*, Memorandum Opinion and Order, 98 F.C.C.2d 1180 ¶¶ 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 N.Y. v. FCC*, 486 U.S. 57, 65 (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.”).

<sup>51</sup> *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).

<sup>52</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 Michael Botein, *Open Video Systems: Too Much Regulation Too Late?*, 58 Fed. Comm. L.J. 439, 439 (2006).

<sup>53</sup> Roslyn Layton, *According to the EU, the US is leading in broadband*, Tech Policy Daily, Feb. 19, 2014, <http://www.techpolicydaily.com/communications/according-eu-us-leading-broadband/>. Neelie Kroes, Vice President of the European Commission, has called for a less regulatory environment that will induce greater investment. *Enhancing the broadcast investment environment –policy statement*, by Vice President Kroes, July 12, 2012, [http://europa.eu/rapid/press-release\\_MEMO-12-554\\_en.htm](http://europa.eu/rapid/press-release_MEMO-12-554_en.htm).

**Voice.** In voice, the Commission declined to extend legacy monopoly regulations to VoIP, and consumers gained the first large scale facilities-based voice competition.<sup>54</sup>

**Wireless.** In wireless, the Commission affirmatively chose not to prescribe standards or to micromanage wireless,<sup>55</sup> and now the U.S. leads the world in high-speed LTE deployment and subscribership.

**Spectrum.** In spectrum, the Commission used to parcel out all spectrum with top-down licensing by uses and licensees. When it relaxed regulatory constraints on spectrum, Wi-Fi emerged. The same philosophy of letting consumer demand shape innovative spectrum use is the bedrock of the White Spaces order and the basis for allocating more bandwidth in the 5-Gigahertz band to unlicensed uses.

Consumers will continue to enjoy the full benefit of investment, innovation and competition in broadband if it is kept free of carrier-style regulation.

**C. Broadband Can Thrive Under “Light Touch” Rules, disciplined by mutual dependencies among Internet enterprises and by multi-stakeholder forums**

Today, some argue that the unique and transformational importance of the Internet requires that broadband Internet access must be subjected to the very common carrier rules that had to be relaxed in order to free up earlier technology revolutions. BHN agrees that broadband is exceptional, but in a very different way that points, once again, to the consumer benefit of a lighter touch.

First, broadband is disciplined by the mutual dependencies in the Internet. An Internet service provider cannot block an edge-based content provider without diminishing the value of

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<sup>54</sup> *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).

<sup>55</sup> *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, Second Report and Order, 8 FCC Rcd. 7700 ¶¶ 135-138 (1993). *See also* *Amendment of the Commission’s Rules to Establish New Personal Communications Services*, Memorandum Opinion and Order, 9 FCC Rcd. 4957, 5020-22, ¶¶ 159-165 (1994).

Internet access and suffering competitive consequences in the market. Consumers have immediate choices available in BHN markets, and cable ISPs like BHN stand to lose not just an Internet access subscription but a customer to the entire bundle of data, video, and voice. This competitive environment is part of what has driven continuous investment, innovation and augmentation of service, and a race for higher and higher speeds.

But the economic drivers are more complex than mere competition among providers of last mile Internet access, as should be evident from the economic performance of ISPs. ISP investment and output (adoption rates) are rising more quickly than any other technological revolution. Increases in speed and throughput produce a rapidly decreasing price per megabit. There is no blocking. Economists reports that profit margins for ISPs are well below the margins for edge providers.<sup>56</sup> ISPs exhibit these competitive behaviors because they are part of a very competitive and complex multi-sided market. Economic studies have recognized that the broadband market is not an updated telephone wire, or even a “layer” on which value is added by others. Broadband is a market of networks, devices, content and apps, mutually dependent on one another to increase their value through interoperability and network effects.<sup>57</sup> How value is distributed changes from time to time, as when AT&T – a wireless carrier supposedly all-powerful over the handset market – gave control and margins to the iPhone. No single player can control the ecosystem, because they are all co-dependents in a complex market.

Second, broadband is also rich in multi-stakeholder forums for socializing practices that optimize networks and user experiences. The standards and protocols embodied in Requests for

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<sup>56</sup> Everett Ehrlich, Progressive Policy Institute, *The State of U.S. Broadband: Is It Competitive? Are We Falling Behind?* (June 2014), available at [http://www.progressivepolicy.org/wp-content/uploads/2014/06/2014.06-Ehrlich\\_The-State-US-Broadband\\_Is-it-competitive-are-we-falling-behind.pdf](http://www.progressivepolicy.org/wp-content/uploads/2014/06/2014.06-Ehrlich_The-State-US-Broadband_Is-it-competitive-are-we-falling-behind.pdf).

<sup>57</sup> Jonathan Sallet, *The Creation of Value: The Broadband Value Circle and Evolving Market Structures*, April 4, 2011, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1821267](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1821267); Jeffrey A. Eisenach, *Theories of Broadband Competition*, June 20, 2011, [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1868381](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1868381).

Comment (or RFCs) are developed by consensus, via groups such as the Internet Engineering Task Force (IETF). Recommendations can emerge from new multi-stakeholder forums like the Open Internet Advisory Committee (OIAC) and the Broadband Internet Technical Advisory Group (BITAG). Singling out just one player for stringent regulation, among all of the participants in this complex and flexible system, does not advance a process that has operated successfully through mutual dependence and multi-stakeholder discussions.

## **V. THE COMMISSION SHOULD NOT PROHIBIT ALL FUTURE USE OF PAID PRIORITIZATION**

Those calling to reclassify Internet Service Providers as Title II common carriers are especially hopeful that the reclassification will prohibit “paid prioritization.” There are two problems with this reasoning. First, Title II common carriage does not prohibit “paid prioritization.” And second, while BHN has no plans for paid prioritization of Internet access service, we would caution against erecting regulatory prohibitions given the history of the Internet of evolving in unpredictable yet beneficial ways.

### **A. Title II common carriage does not prohibit “paid prioritization.”**

Title II common carriage includes a prohibition against unjust and unreasonable discrimination, but adopting that classification and that standard would not mean that “paid prioritization” and two-sided markets would be illegal. Title II local exchange carriers long charged both end users and long distance carriers for access to their networks. They distinguished business lines from residential service and used payments from business to help keep down charges to residential users. End users and long distance carriers could choose DS-0 or T-1 lines, different levels of service, and differences based on bandwidth and on negotiated service level agreements. A vendor could order “choke trunks” to limit the number of inbound calls from a “call now” promotion. LAN and WAN operators could order special access service

(point-to-point circuits) to connect their private networks upstream to the Internet. And vendors could pay for 800 number service to offer free calling to consumers—a prelude to AT&T’s current approach to “sponsored data” that would not count against wireless caps. Title II reclassification would not bind the Internet to a flat model of moving undifferentiated bits at the sole expense of consumers.

**B. Although BHN has no plans for paid prioritization, the Internet has a history of evolving in unpredictable yet beneficial ways.**

Nor would that be a desirable result under any classification. The Internet has continuously evolved to transcend the assumptions and limitations of the moment. Not very long ago, the National Science Foundation opposed the use of the fledgling Internet for commercial content, fearful that a new model would overwhelm network capacity for academic and research uses. Later, the foundational TCP/IP protocol that worked well enough for file transfer and electronic mail delivery proved inadequate for handling mass audiences for web browsing, gaming, and video streaming. New streaming techniques worked their way around TCP congestion and flow management algorithms by opening more capacity flows. Content Delivery Networks (CDNs) and data centers and servers connecting directly to Internet backbones emerged to bypass original traffic models. Likewise, as general purpose browsers proved insufficient for rendering all the rich experiences providers sought to offer, developers used apps to bypass the browser.

BHN does not presume to know how the Internet will evolve, but it does believe that it needs to keep evolving. Just as commercial customers have purchased specialized IP services and need QoS models for certain business applications,<sup>58</sup> as we move into the Internet of Things

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<sup>58</sup> Public Notice, *Wireline Competition Bureau Seeks Comment On Business Broadband Marketplace*, 25 FCC Rcd. 13138 (Sept. 15, 2010).

more businesses will use the Kindle model of rolling pre-paid connectivity into devices and connected machine-to-machine networks, and more specialized models will emerge. We expect that prioritization will be desirable for 911, telemedicine, and applications yet unknown. It would be a mistake to assume that the Internet has stopped evolving, and to try to constrain all Internet offerings within today's models by forbidding paid prioritization.

BHN reiterates that has no plans for paid prioritization of Internet access service. We do not assume, nor need the Commission assume, that all such arrangements are good. But neither should all possible future models be assumed to be incurably evil. The Commission can readily address today's concerns by requiring transparency if and when such models are developed. The current transparency rules require disclosure of any departure from protocol agnosticism and disclosure of whether and how any specialized services may affect last-mile capacity available for, and the performance of, broadband Internet access service. The same standard could be applied to any prioritization, and could even be coupled with an expectation or requirement that a service provider specifically alert FCC staff of such an arrangement. Such a balanced approach would assure both the continued evolution of Internet services and a mechanism for review by the FCC and the Internet community.

## **CONCLUSION**

BHN is a supporter of the open Internet and of a constructive role for the Commission to help assure both. Broadband investment, speed, features and competitive choices have been able to flourish under "light touch" Open Internet rules, with the notable exception of Internet blackouts perpetrated from the edge. If a balanced principle of non-discrimination is to be restated in regulation, then online publishers should not be permitted to blackout, surcharge, or otherwise discriminate against a targeted ISP or its customers. As we have explained above, other suggestions for enhancing or expanding the rules will generate more confusion than clarity.

Reclassification of broadband as a Title II telecommunication common carrier offering would have particularly harmful effects, including increasing new state taxes and burdens on the Internet that consumers will eventually bear in higher retail prices or reduced investment. Broadband investment, speed, features and competitive choices have been able to flourish under “light touch” Open Internet rules. The Commission should retain that light touch, and avoid erecting new barriers to the Internet’s continued evolution in unpredictable yet beneficial ways.

Respectfully submitted,

/s/ Paul Glist

Paul Glist  
Chris Savage  
Davis Wright Tremaine LLP  
1919 Pennsylvania Avenue, N.W.  
Washington, DC 20006-3402

Arthur J. Steinhauer  
Cody Harrison  
Sabin, Bermant & Gould LLP  
Four Times Square  
New York, NY 10036

Counsel for Bright House Networks, LLC

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