

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
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Protecting and Promoting the)	GN Docket No. 14-28
Open Internet)	
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**Comments of
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I. INTRODUCTION AND SUMMARY

The Communications Workers of America (“CWA”) and the National Association for the Advancement of Colored People (“NAACP”) support Commission action to adopt strong, legally enforceable rules to protect an open Internet. Preserving an open and free Internet consistent with the need to promote job-creating investment and closing the digital divide in our nation’s high-speed networks is critical to safeguard our nation’s economic, social, and democratic fabric and future.

CWA represents 700,000 workers in communications, media, airlines, manufacturing, and public service, including more than 300,000 employees who work in the communications industry. Founded in 1909, the NAACP is our nation’s oldest, largest and most widely-recognized grassroots-based civil rights organization. There are more than 2,200 NAACP units in every state in our nation and in Germany, Japan and Korea. CWA and the NAACP have long recognized that high-speed Internet is the essential communications infrastructure of the 21st century, providing a critical foundation for economic growth, job creation, and democratic communications.¹ CWA along with the NAACP and 46 other organizations launched our “Speed Matters: High-Speed Internet for America” campaign dedicated to promoting programs and policies that build universal, affordable high-speed networks and good jobs for workers in the industry.² CWA and the NAACP have consistently emphasized the importance of an open Internet to ensure the free and unimpeded flow of information among all Internet users.

¹ CWA Comments, *In the Matter of a National Broadband Plan For Our Future*, GN Docket No. 90-51, June 8, 2009 (“CWA Broadband Plan Comments”) at i.

² *Id.* at ii-iii; see also CWA’s Reply Comments, *In the Matter of A National Broadband Plan For Our Future*, GN Docket No. 09-41, Sept. 8, 2009, incorporating the Speed Matters August 2009 survey and data on Internet speeds. For a list of Speed Matters partners, see <http://www.speedmatters.org/content/partners>.

The urgent need to upgrade our nation's communications networks to world-class standards demand that the Commission give the highest priority to investment and job creation in formulating open Internet principles and rules. Therefore, the Commission must ensure that its Open Internet rules do not have the unintended consequence of dampening the private investment needed to build the next-generation broadband networks that will bring our nation's broadband capability up to global standards and create and maintain jobs. Broadband network providers create and maintain far more, and typically better-paying, jobs than the application and content sectors, particularly for people of color. The rules that the Commission adopts to ensure an open Internet must ensure that there is sufficient future investment and job creation to propel not only economic opportunity, but a permanent bridging of the digital divide.

The best Open Internet policy is quite simple: the Commission should create incentives for investment in truly high-capacity networks that provide everyone with the bandwidth and service quality they need to access the data-rich and video-intensive applications on the Internet. The Commission laid out such a vision in the National Broadband Plan, setting as a goal the deployment of networks capable of delivering 50 megabits per second (mbps) downstream/20 mbps upstream to 100 million households by the year 2015 (next year), rising to speeds of 100 mbps downstream/50 mbps upstream to 100 million households by the year 2010.³ With enough capacity, people do not have to worry about "fast lanes" and "slow lanes" or degradation of non-priority service. With truly high-bandwidth networks, consumers will be able to access the websites they want at the speed for which they are paying, with no fear of degraded service even

³ Federal Communications Commission, *Connecting America: The National Broadband Plan*, 2010 at xiv and 9 ("National Broadband Plan").

if some edge providers have negotiated commercially reasonable quality of service arrangements with broadband providers. Despite progress, U.S. network deployment continues to lag behind the goals set in the National Broadband Plan, and most disturbing, there is a persistent digital divide based on geography, race, and income.

CWA and the NAACP agree with the Commission that “FCC oversight is essential to protect the openness that is critical to the Internet’s success.”⁴ CWA and NAACP supported the Commission’s carefully crafted 2010 Open Internet rules,⁵ which have served over the past four years to achieve the dual goals of protecting a free and Open Internet and encouraging the “virtuous circle” of investment by broadband providers and application, content, and service providers (“edge providers”). The 2010 rules required broadband network providers to disclose network management practices (the transparency rule); prohibited network providers from blocking access to lawful websites (the no blocking rule); and allowed broadband providers to negotiate quality of service and other specialized services with edge providers, so long as the broadband providers make such contractual terms available to all edge providers on comparable terms (the no unreasonable discrimination rule). The transparency rule applied to wireline and wireless broadband providers. Recognizing the technical and capacity limitations of mobile

⁴ *Protecting and Promoting the Open Internet*, Notice of Proposed Rulemaking, GN Docket No. 14-28, May 15, 2014 (rel) at 11 (“*Open Internet NPRM*”).

⁵ See CWA Press Release, “CWA: FCC Vote Moves U.S. Forward on Broadband,” Dec. 21, 2010 (available at http://www.cwa-union.org/news/entry/fcc_vote_moves_u.s._forward_on_broadband); NAACP Statement (“As our nation’s oldest and largest grassroots based civil rights organization, the NAACP is encouraged by FCC Chairman Genachowski’s remarks concerning the proposal that reflect the FCC’s desire to promote rules that safeguard the civil rights, free speech and economic opportunity for our nation’s most vulnerable. We believe that the FCC’s proposal will help foster equal access to affordable and sustainable broadband and stimulate job creation in all communities, including underserved, rural, low-income, and racial and ethnic minority communities.”)

broadband, the Commission limited the no blocking rule to those applications that compete with a mobile broadband provider's voice or video telephony services.⁶

The 2010 Open Internet rules are working. The Commission notes that in the three and one-half years since it adopted the 2010 Open Internet rules, there has been only one case – a \$1.25 million settlement with Verizon over application tethering restrictions -- in which the Commission intervened to protect Internet freedom.⁷ As the Commission states, “while the number of existing cases (in violation of Internet openness) have been relatively few, we believe this to be primarily due to the fact that the Commission has had policies in place during the period in question that it has been ready to enforce.”⁸ CWA and the NAACP agree.

Moreover, over the past three years, the Internet ecosystem has thrived, with significant investment and job creation by both network and edge providers. The “virtuous circle” of investment in new online content, applications, services, and devices (the “edge”) driving network improvements which in turn enable new online content, applications, services, and devices has led to nearly \$230 billion in capital expenditures by the leading network and edge providers over the three-year period since the *Open Internet Order* took effect (2011 to 2013). Network providers were responsible for a full 84 percent of these capital expenditures, or \$193 billion. In addition, network providers continue to provide the vast majority of jobs in the Internet ecosystem. The 17 largest network providers employed 869,000 people in 2013, more

⁶ *Preserving an Open Internet*, GN Docket No. 09-191, WC Docket No. 07-52, Report and Order, Dec. 23, 2010 (rel) at 1 (“*Open Internet Order*”).

⁷ News Release, Federal Communications Commission, *Verizon Wireless to Pay \$1.25 Million to Settle Investigation into Blocking of Consumers' Access to Certain Mobile Broadband Applications*, July 31, 2012.

⁸ *Open Internet NPRM* at 40.

than three times the number of employees at the leading edge providers. In addition, network providers, unlike edge providers, employed people of color at rates comparable or exceeding their rates in the overall labor force (11 to 14 percent for network providers compared to one to four percent for edge providers). And while networks providers' jobs are almost all in the United States, many edge companies have a significant portion of their employees located overseas.⁹

Despite the successful track record of the 2010 Open Internet rules, the Commission today has no legally enforceable rules to protect Internet freedom. Earlier this year, the D.C. Circuit Court of Appeals in *Verizon v. FCC* vacated the no blocking and anti-discrimination rules. In that decision, the Court affirmed the Commission's authority under Section 706 of the Telecommunications Act of 1996 to regulate broadband Internet access, but ruled that the Commission in its 2010 *Open Internet Order* failed to provide an adequate legal basis for the no blocking and anti-discrimination rules.¹⁰ At the same time, the D.C. Circuit Court provided the Commission with a blueprint – based on Section 706 -- that would put the no blocking and anti-

⁹ CWA Calculations based on data from SEC Forms 10-K, various years, *WSJ Market Watch*, and company investor relations websites. The calculation for capital expenditures is based on the 14 largest publicly-traded network providers (AT&T, Verizon, Comcast, Time Warner, CenturyLink, T-Mobile, Sprint, DirecTV, Dish, Charter, Cablevision, Frontier, Windstream, US Cellular) and 11 of the largest publicly-traded edge providers (Google, Amazon, Microsoft, Facebook, eBay, Yahoo, Zynga, LinkedIn, Netflix, Twitter, Vonage) . The calculation for employment is based on the 17 largest publicly-traded network providers (AT&T, Verizon, Comcast, Time Warner, CenturyLink, T-Mobile, Sprint, DirecTV, Dish, Charter , Cablevision, Frontier, Windstream, US Cellular, MediaCom, FairPoint, Cincinnati Bell) and 16 of the leading publicly-traded edge providers (Google, Amazon, Microsoft, Facebook, eBay, Yahoo, Zynga, LinkedIn, Netflix, Twitter, Vonage, Mozilla, Etsy, Lyft, Tumblr, FourSquare.) See pages 7-12 below for more detail.

¹⁰ “The Commission...has reasonably interpreted section 706 to empower it to promulgate rules governing broadband providers' treatment of Internet traffic, and its justification for the specific rules at issue here – that they will preserve and facilitate the ‘virtuous circle’ of innovation that has driven the explosive growth of the Internet – is reasonable and supported by substantial evidence...Given that the Commission has chosen to classify broadband providers in a manner that exempts them from treatment as common carriers, the Communications Act expressly prohibits the Commission from nonetheless regulating them as such. Because the Commission has failed to establish that the anti-discrimination and anti-blocking rules do not impose *per se* common carrier obligations, we vacate those portions of the *Open Internet Order*.” *Verizon v. FCC*, 749 F.3d (D.C. Cir. 2014) at 4 (“*Verizon v FCC*”).

discrimination rules on a solid legal footing. The D.C. Circuit suggested that the Commission could adopt no blocking and anti-discrimination rules so long as the Commission also allowed negotiated agreements between broadband and edge providers that meet a “commercially reasonable” standard.¹¹

In this proceeding, the Commission proposes to follow the D.C. Circuit Court blueprint by re-crafting the vacated Open Internet rules in a manner that would prohibit any “commercially unreasonable” blocking or discrimination by broadband providers.¹² The Commission seeks comment on how best to define what is “commercially reasonable” behavior.¹³ CWA and the NAACP support the Commission’s proposal as the best way forward to protect a free and open Internet while promoting job-creating investments to upgrade our nation’s broadband networks and close the digital divide. CWA and the NAACP do not believe that the Commission’s proposal would create Internet “fast lanes” and “slow lanes.” Rather, properly constructed, a “commercially reasonable” standard would allow edge providers to negotiate quality of service and content delivery network services with broadband providers, while promoting increased investment in broadband networks to benefit all Internet consumers. In these comments, we

¹¹ In discussing the no blocking rule, the D.C. Circuit Court wrote that “...if the relevant service that broadband providers furnish is access to their subscribers generally, as opposed to access to their subscribers at the specific minimum speed necessary to satisfy the anti-blocking rules, then these rules, while perhaps establishing a lower limit on the forms that broadband providers’ arrangements with edge providers could take, might nonetheless leave sufficient ‘room for individual bargaining and discrimination in terms’ so as not to run afoul of the statutory prohibitions of common carrier treatment.” *Verizon v FCC* at 658. In discussing the anti-discrimination rule and the validity of a “commercially reasonable” standard, the D.C. Circuit Court wrote: “...unlike the data roaming rule in *Cellco* - which set forth a ‘commercially reasonable’ standard...which spelled out ‘sixteen different factors plus a catchall...that the Commission must take into account in evaluating whether a proffered roaming agreement is commercially reasonable, thus building into the standard ‘considerable flexibility,’ the *Open Internet Order* makes no attempt to ensure that its reasonableness standard remains flexible.” *Verizon v. FCC*.

¹² *Open Internet NPRM* at 4.

¹³ *Id.* at 100-104 and 122-138.

respond to the Commission’s request for input on how best to define “commercially reasonable” behavior so that the regulations will protect Internet freedom and at the same time create the right incentives for investment in upgrading broadband networks to ensure that all Americans have access to quality, affordable high-speed Internet.

II. OPEN INTERNET RULES MUST PROMOTE JOB-CREATING INVESTMENT IN UNIVERSAL, HIGH-SPEED NETWORKS

The Commission seeks to refresh the record on the role the Open Internet rules have played in investment in the broadband marketplace by network and edge providers.¹⁴ As the Commission wrote in the 2010 *Open Internet Order*, the Internet’s openness enables a “virtuous circle of innovation in which new uses of the network – including new content, applications, services, and devices – lead to increased end-user demand for broadband, which drives network improvements, which in turn lead to further innovative network uses.”¹⁵ The D.C. Circuit Court affirmed the Commission’s description of the “virtuous circle of innovation” as one that is “reasonable and grounded in substantial evidence.”¹⁶

The evidence conclusively shows that the 2010 *Open Internet Order* got it right in balancing the two important policy goals of Internet openness and network/edge provider investment. CWA conducted an analysis of capital expenditures by 14 of the largest publicly-traded network providers and 11 of the largest publicly-traded edge providers for the years 2010 through 2014,

¹⁴ *Open Internet NPRM* at 34.

¹⁵ *Open Internet Order* at 14.

¹⁶ “The Commission’s prediction that the *Open Internet Order* regulations will encourage broadband deployment is, in our view, both rational and supported by substantial evidence.” *Verizon v. FCC*, 740 F.3d 623 (D.C. Cir. 2014).

using data provided by these companies to the U.S. Securities and Exchange Commission and other sources.¹⁷ As detailed in Table 1, the analysis concludes the following:

- **Network and Edge Providers Made \$229.8 Billion in Capital Expenditures, 2011-2013.** In the three-year period (2011-2013) after adoption of the *Open Internet Order*, capital investment by network and edge providers combined totaled \$229.8 billion.
- **Network Providers' Capital Investment at \$ 193.1 Billion Far Exceeded Capital Investment by Edge Providers.** Capital investment by network providers over the three-year period (2011-2013) dwarfed capital investment by edge providers. Network providers' total capital investment during this period was \$ 193.1 billion, or 84 percent of total capital spending by network and edge providers combined. In 2013 alone, network providers invested \$70.1 billion.
- **Edge Providers Made \$ 36.7 Billion in Capital Investment, 2011-2013.** Edge provider's total capital spending over this three-year period at \$ 36.7 billion represented 16 percent of total capital spending by network and edge providers. Capital investment by six companies -- Google, Amazon, Microsoft, E-Bay, Facebook, and Yahoo -- represented the lion's share of edge providers' capital spending. Capital investment by smaller edge providers represented only about one percent of total capital spending. During this period, Google Fiber began deployment of all-fiber networks in Kansas City and expanded its content delivery network. Amazon, Microsoft, Facebook, and Yahoo also built and expanded content delivery networks.¹⁸

¹⁷ Calculations based on data from SEC Forms 10-K, various years, WSJ Market Watch, and company investor relations websites. The 14 publicly-traded networks providers are AT&T, Verizon, Comcast, Sprint, T-Mobile, Time Warner, CenturyLink, DIRECTV, Charter, Dish, Cablevision, Windstream, US Cellular and Frontier. The 11 publicly-traded edge providers are Google, Amazon, Microsoft, Facebook, eBay, Yahoo, Zynga, LinkedIn, Netflix, Twitter, and Vonage.

¹⁸ For Google Fiber in Kansas City, see <https://fiber.google.com/cities/kansascity/>. For content delivery networks, see: "Google has a multi-tiered content delivery platform that reaches more than 100 countries," See <https://peering.google.com/about/ggc.html>; "Amazon CloudFront is a content delivery web service. It integrates with other Amazon web services to give developers and businesses an easy way to distribute content to end users with low latency, high data transfer speeds, and no commitments." See <http://aws.amazon.com/cloudfront/>; "The Microsoft Azure Content Delivery Network (CDN) offers developers a global solution for delivering content that's hosted in Azure. The CDN caches publicly available objects at strategically placed locations to provide maximum bandwidth for delivering content to users. See <http://msdn.microsoft.com/en-us/library/azure/ee795176.aspx>; Jamie Beach, "Facebook boosts edge network to speed content delivery," *iptv-news.com*, June 22, 2012 (available at <http://www.iptv-news.com/2012/06/facebook-boosts-edge-network-to-speed-content-delivery/>); Rachel King, "Yahoo Acquiring content delivery network PeerCDN," *ZDNet*, Dec. 17, 2013 (available at <http://www.zdnet.com/yahoo-acquiring-content-delivery-network-peercdn-7000024417/>).

- **Network Providers' 2013 Capital Investment at \$70.1 Billion Represents a \$13.5 Billion Increase over 2010 Capital Spending.** In 2013, network providers' capital investment was \$ 70.1 billion. In 2010, the year before the Open Internet rules took effect, networks providers' capital spending was \$ 56.6 billion. This represents an annual network provider cap ex spending increase of \$ 13.5 billion, or 24 percent growth.
- **Edge Providers 2013 Capital Investment of \$ 13.2 Billion Represents a \$ 4.2 Billion Increase over 2010 Capital Spending.** In 2013, edge providers' capital investment was \$13.2 billion. In 2010, the year before the Open Internet rules were adopted, edge providers' capital spending was \$ 9 billion. This represents an annual edge provider cap ex spending increase of \$ 4.2 billion, or 46 percent growth.

Not only did network providers' capital spending far exceed that of edge providers, network companies also account for a far greater number of jobs, at least three times as many. In 2013, the 17 largest network providers employed more than 869,000 people. Almost all of these employees are located in the United States. In contrast, 16 leading edge providers for which employment data is available employed 280,000 people in 2013. Many of these employees are located overseas. In 2013, these 33 leading network and edge providers combined employed 1.1 million people compared to 880,000 in 2010, the year before the *Open Internet Order* took effect. During this three-year period (2011 to 201), these 33 leading network and edge providers created 270,000 new jobs.¹⁹ (See Table 2).

¹⁹ SEC Forms 10-K for year ending 2013. The 17 publicly-traded network providers are AT&T, Verizon, Comcast, Time Warner, CenturyLink, T-Mobile, Sprint, DirecTV, Dish, Charter, Cablevision, Frontier, Windstream, US Cellular, MediaCom, FairPoint, and Cincinnati Bell. The 16 leading publicly-traded edge providers are Google, Amazon, Microsoft, Facebook, eBay, Yahoo, Zynga, LinkedIn, Netflix, Twitter, Vonage, Mozilla, Etsy, Lyft, Tumblr, FourSquare.

Table 1. Capital Expenditures, 2011- 2013
\$ millions

	2010	2011	2012	2013	Three Year Total 2011, 2012, 2013	% of Industry Total
AT&T	\$20,302	\$20,110	\$19,465	\$20,944	\$ 60,519	26.3%
Verizon	\$16,458	\$16,244	\$16,175	\$16,604	\$ 49,023	21.3%
Comcast	\$ 4,961	\$ 5,307	\$ 5,714	\$ 6,596	\$ 17,617	7.7%
Sprint	\$ 1,935	\$ 3,130	\$ 4,261	\$ 6,987	\$ 14,378	6.3%
T-Mobile	\$ 2,837	\$ 2,752	\$ 3,288	\$ 4,406	\$ 10,446	4.5%
Time Warner	\$ 2,930	\$ 2,984	\$ 3,132	\$ 3,238	\$ 9,354	4.1%
CenturyLink	\$ 864	\$ 2,411	\$ 2,919	\$ 3,048	\$ 8,378	3.6%
DIRECTV	\$ 1,557	\$ 1,736	\$ 1,741	\$ 2,050	\$ 5,527	2.4%
Charter	\$ 1,209	\$ 1,311	\$ 1,745	\$ 1,825	\$ 4,881	2.1%
DISH	\$ 1,113	\$ 779	\$ 945	\$ 1,254	\$ 2,978	1.3%
Cablevision	\$ 823	\$ 726	\$ 992	\$ 952	\$ 2,669	1.2%
Windstream	\$ 412	\$ 702	\$ 1,101	\$ 841	\$ 2,644	1.2%
US Cellular	\$ 586	\$ 776	\$ 949	\$ 734	\$ 2,459	1.1%
Frontier	\$ 578	\$ 825	\$ 803	\$ 635	\$ 2,263	1.0%
Network Operators Total	\$56,565	\$59,793	\$63,230	\$70,114	\$ 193,136	84.0%
Google	\$ 4,020	\$ 3,440	\$ 3,273	\$ 7,358	\$ 14,071	6.1%
Amazon	\$ 979	\$ 1,811	\$ 3,785	\$ 3,444	\$ 9,040	3.9%
Microsoft	\$ 1,980	\$ 2,360	\$ 2,305	\$ 4,257	\$ 8,922	3.9%
Facebook	\$ 293	\$ 606	\$ 1,235	\$ 1,362	\$ 3,203	1.4%
eBay Inc.	\$ 724	\$ 964	\$ 1,260	\$ 1,250	\$ 3,474	1.5%
Yahoo	\$ 736	\$ 605	\$ 509	\$ 341	\$ 1,455	0.6%
Zynga	\$ 58	\$ 242	\$ 537	\$ 8	\$ 787	0.3%
LinkedIn	\$ 54	\$ 96	\$ 125	\$ 278	\$ 499	0.2%
Netflix	\$ 158	\$ 135	\$ 90	\$ 120	\$ 345	0.2%
Twitter	\$ 6	\$ 12	\$ 51	\$ 76	\$ 138	0.1%
Vonage	\$ 40	\$ 39	\$ 27	\$ 22	\$ 88	0.0%
Edge Providers Total	\$ 9,048	\$10,310	\$13,197	\$13,197	\$ 36,703	16.0%
Industry Total	\$65,613	\$70,103	\$76,426	\$83,310	\$ 229,840	100.0%

Network providers include 14 largest publicly-traded wireline, wireless, cable, and satellite companies.

Applications providers include publicly-traded signatories of letter to FCC Chairman dated May 7, 2014.

Sources: SEC Forms 10-K, WSJ Market Watch, Company Investor Relations websites

**Table 2. Jobs at Broadband Network Companies
Far Exceed Jobs at Applications Companies, 2013**

Network Providers	Employees	Applications (“Edge”) Providers	Employees
AT&T	246,730	Amazon	117,300
Verizon	176,900	Microsoft*	58,000
Comcast	136,000	Google	49,829
Time Warner Cable	51,400	YouTube	owned by Google
CenturyLink	47,000	eBay*	21,000
T-Mobile	40,000	Skype	owned by eBay
Sprint	36,000	Yahoo	12,200
DIRECTV	30,000	Flickr	owned by Yahoo
Dish Network	25,000	Facebook	6,818
Charter	21,600	LinkedIn	5,416
Cablevision	14,470	Twitter	3,000
Frontier	13,700	Netflix	2,175
Windstream	13,400	Zynga	2,034
US Cellular	6,700	Vonage	1,287
MediaCom	4,460	Mozilla	425
FairPoint	3,170	Etsy	243
Cinn Bell	2,900	Lyft	200
Total	869,430	Tumblr	95
		FourSquare	75
		Digg	N/A
		Meetup	N/A
		Kickstarter	N/A
		Reddit	N/A
		Total	280,097

Network providers include 17 largest telecom, video, wireless employers, excluding privately-held Cox for which data is not available. Network providers' employees are almost all in the U.S.

Applications (“Edge”) providers include signatories of letter to FCC Chairman dated May 7, 2014. Many applications providers' employees are located overseas. EBay and Microsoft employee numbers are for the US only. The other edge companies do not report U.S. only employment figures.

N/A = data not available

Source: SEC Forms 10-K for year ending 2013.

Network companies also have a far better track record for employment of African Americans and Hispanics. The share of African American workers in wireline (14 percent) and wireless (12 percent) communications exceeds the overall share of employed African Americans in the U.S. labor force (10 percent). Similarly, the share of Hispanic workers in wireline (11 percent) and wireless (12 percent) communications is just slightly below the share of employed Hispanics in the U.S. labor force (16 percent). In contrast, the share of African Americans and Hispanics employed at four leading edge providers (Facebook, Google, Yahoo, and LinkedIn) ranges from one to four percent, appalling statistics in the year 2014, and fifty years after passage of the landmark Civil Rights Act.²⁰ (See Table 3)

Table 3. Employment of African Americans and Hispanics Network Providers Compared to Edge Providers Percent Share of Workforce		
	African American	Hispanic
Wireline Communications	14%	11%
Wireless Communications	12%	12%
Facebook	2%	4%
Google	2%	3%
Yahoo	2%	4%
LinkedIn	1%	4%
All U.S. Workers	10%	16%
<i>Current Population Survey, pooled 2012 and 2013 data Facebook, "Building a More Diverse Workforce," July 8, 2014 (available at http://newsroom.fb.com/news/2014/06/building-a-more-diverse-facebook); Google: Getting to Work on Workforce Diversity (available at http://googleblog.blogspot.com/2014/05/getting-to-work-on-diversity-at-google.html) Yahoo: Workforce Diversity at Yahoo (available at http://yahoo.tumblr.com/post/89085398949/workforce-diversity-at-yahoo) LinkedIn: LinkedIn's Workforce Diversity (available at http://blog.linkedin.com/2014/06/12/linkedin-workforce-diversity)</i>		

²⁰ Current Population Survey, pooled 2012 and 2013 data; Facebook, "Building a More Diverse Workforce," July 8, 2014 (available at <http://newsroom.fb.com/news/2014/06/building-a-more-diverse-facebook>); Google: Getting to Work on Workforce Diversity (available at <http://googleblog.blogspot.com/2014/05/getting-to-work-on-diversity-at-google.html>); Yahoo: Workforce Diversity at Yahoo (available at <http://yahoo.tumblr.com/post/89085398949/workforce-diversity-at-yahoo>); LinkedIn: LinkedIn's Workforce Diversity (available at <http://blog.linkedin.com/2014/06/12/linkedin-workforce-diversity>).

Despite the significant capital investment that broadband providers have made in upgrading infrastructure, hundreds of billions of dollars of additional investment are needed to build the robust high-speed broadband capability needed for the video and data intensive applications on the Internet today and in the future, and to create a permanent bridging of the digital divide. The U.S. is far from achieving the goals set in the National Broadband Plan of 50/20 mbps (up/downstream) networks by 2015, which is next year, much less the 100/50 mbps target for 2020.²¹ According to the Commission's latest *Internet Access Report*, only 12.2 percent of U.S. households have residential Internet connections at speeds greater than 25 mbps downstream. A full one-third (30 percent) of residential connections do not even connect at speeds that meet the Commission's definition of broadband at 4/1 mbps, and another 25 percent connect at speeds below the 10 mbps downstream speed that the Commission is considering as a minimum broadband definition benchmark.²² And despite progress, there is a persistent digital divide based on geography, race, and income. According to the Pew Research Center, 36 percent of African Americans, 47 percent of Hispanics, 38 percent of rural households, and a full 46 percent of households earning less than \$30,000 per year do not subscribe to broadband at home.²³ According to speedtest.net, the U.S. ranks 28th in global download speeds.²⁴

²¹ *National Broadband Plan* at xiv and 9.

²² Federal Communications Commission, *Internet Access Report: Status as of June 30, 2013*, Table 10 at 30, June 2014. The Commission is currently seeking comment on raising the broadband performance requirements to a minimum speed of 10 mbps downstream. See *In the Matter of Connect America Fund, Report and Order, Declaratory Ruling, Order, Memorandum and Order, Seventh Order on Reconsideration, and Further Notice of Proposed Rulemaking*, WC Docket No. 10-90, June 10, 2014 (rel) at 10.

²³ Pew Research Center, *Home Broadband 2013*, Aug. 26, 2013 (available at <http://www.pewinternet.org/2013/08/26/home-broadband-2013/>).

²⁴ <http://www.netindex.com/download/allcountries/> (visited on July 15, 2014).

In sum, the 2010 Open Internet rules have worked to protect Internet freedom and spur job-creating investments in broadband infrastructure and Internet applications, content, services, and devices. The Commission got it right with its open Internet rules: full transparency, no blocking, and no unreasonable discrimination. The task before the Commission in this proceeding is to follow the D.C. Circuit Court’s road map to put these same rules on a sound legal footing. This will preserve the grand compromise of the 2010 *Open Internet Order*, one that has fostered continued investment by broadband providers while protecting Internet freedom. The U.S. still has a long way to go to upgrade our broadband networks to meet the capacity demands of a 21st century Internet. Big broadband is the best Open Internet policy and critical to the economic, social, and democratic future of our nation.

III. THE COMMISSION’S PROPOSED NO BLOCKING AND ANTI-DISCRIMINATION RULES WILL PROTECT AN OPEN INTERNET AND JOB-CREATING INVESTMENT IN THE INTERNET ECOSYSTEM

The D.C. Circuit Court upheld the Commission’s policy arguments for its Open Internet regulations and affirmed the Commission’s authority based in Section 706 of the Telecommunications Act of 1996 to regulate broadband Internet access.²⁵ However, the D.C. Circuit vacated the no blocking and anti-discrimination rules because the Commission did not provide a legal rationale that would not subject broadband providers to common carriage regulation.²⁶ In this proceeding, the Commission proposes to follow the D.C. Circuit’s road map in redrafting the no blocking and anti-discrimination regulations based on a “commercially

²⁵ *Verizon v FCC* at 4.

²⁶ *Id.* at 4.

reasonable” standard, while strengthening the no transparency rule. With this modification, the Commission correctly concludes that Section 706 provides a sound legal grounding for its Open Internet rules, rules that will continue the successful track record of the 2010 rules in protecting Internet freedom and encouraging investment by in network and edge providers.

A. The Commission Should Strengthen the Transparency Rule

CWA and the NAACP support the Commission’s proposal to strengthen the transparency rule, requiring disclosure of specific broadband provider network practices, performance characteristics (such as download and upload speeds, latency, and packet loss) and terms and conditions of service to end users (such as data caps).²⁷ CWA has consistently advocated for disclosure of actual rather than advertised broadband transmission speed data to inform both consumer decisions and broadband policymaking, and has supported the New America Foundation’s truth-in-labeling proposals.²⁸ CWA and the NAACP support Commission adoption of the Open Internet Advisory Committee’s (OIAC) recommendation for a standardized label for Internet services that would include basic information such as actual performance speed (upload and download), price (for example, monthly averaged over the past year), and usage restrictions (such as services changes, data usage caps and charges, speed reductions, or other penalties for exceeding a cap).²⁹ The strengthened transparency rule should apply to both mobile and fixed broadband providers.

²⁷ *Open Internet NPRM* at 72.

²⁸ CWA Comments, In the Matter of Preserving the Open Internet, Broadband Industry Practices, GH Docket No. 09-191, WC Docket No. 07-52, Jan. 14, 2010 at 21-22 (“CWA 2010 Open Internet Comments”).

²⁹ See 2013 OIAC Annual Report at 82-88; see also New America Foundation, Broadband Truth-in-Labeling, Open Technology Initiative, 2009 (citations in Open Internet NPRM at para 72).

B. The Commission Should Adopt No Blocking and Anti-Discrimination Rules That Taken Together Ensure Everyone Has Access to the Internet Content They Want When They Want It, Without Degradation of Service

The 2010 Open Internet rules allowed broadband providers to negotiate quality of service (QoS) and other specialized service offers with edge providers, as long as all edge providers could negotiate similar arrangements on comparable terms. This is considered a prohibition against *unreasonable* discrimination. In the 2010 *Open Internet Order*, the Commission specifically rejected a more narrow definition of discrimination, recognizing that there can be substantial consumer benefits from negotiated quality of service and other arrangements between broadband and edge providers. As the Commission noted, consumers and end users benefit from the ability to “choose among different broadband offerings based on such factors as assured data rates and reliability, or to select quality-of-service enhancements on their own connections for traffic of their choosing.”³⁰ Because the Commission recognized that “some forms of discrimination...can be beneficial,” the Commission adopted an anti-discrimination rule that would provide “broadband providers sufficient flexibility to develop service offerings and pricing plans, and to effectively and reasonably manage their networks.”³¹ The Commission’s 2010 prohibition against “unreasonable discrimination” therefore allowed individual negotiation of quality of service and other arrangements so long as the broadband provider made such arrangements available on comparable terms to everyone.

As CWA explained in our 2010 Open Internet comments, such practices can provide substantial consumer benefit. *First*, they enable new, small-entrant content, application, or

³⁰ *Open Internet Order* at 71.

³¹ *Id.* at 77.

service providers to purchase content delivery network services and quality of service (QoS) offerings from a broadband provider, giving them the ability to compete against large content, application, or service providers like Google, Microsoft, Yahoo, and others that have built their own geographically dispersed networks of servers that enable them to prioritize their own services to end users. *Second*, allowing broadband providers to provide content delivery services and QoS offerings provides the broadband providers with a revenue stream, encouraging increased infrastructure investment by increasing the return on that investment, and shifting the cost of broadband transport from end users to edge providers, potentially lowering end-user subscriber rates for broadband service, thereby reducing cost barriers to adoption of broadband services. *Third*, allowing broadband providers to charge edge providers for content delivery network services and QoS offerings sends efficient market signals, and avoids subsidizing heavy users of broadband access at the expense of lighter users (such as small new-entrant edge providers and residential consumers).³²

In the current proceeding, the Commission proposes to adopt the text of the 2010 no blocking rule, with a clarification that the rule does not bar broadband providers from negotiated QoS and other arrangements with edge providers.³³ As the Commission explains, the no blocking rule would work together with its proposed anti-discrimination rule. That rule would permit broadband providers to negotiate QoS and other arrangements with edge providers, but only if they are “commercially reasonable.”³⁴ The D.C. Circuit suggested that the 2010 anti-

³² *CWA 2010 Open Internet Comments* at 16-17.

³³ *Open Internet NPRM* at 89.

³⁴ *Id.* at 90.

discrimination rule would have withstood judicial review if the Commission had adopted a “commercially reasonable” standard similar to the one it adopted (and the Court accepted) in the *Cellco* data roaming case. Further, the D.C. Circuit indicated that the no blocking and anti-discrimination rules would pass muster if they articulated a discrete, flexible standard that prohibited certain practices while at the same time permitting “commercially reasonable” individualized negotiations.³⁵ That is what the Commission proposes to do in this proceeding, and seeks comment on the benchmarks it should use to ensure continued protection of a free and Open Internet.

No Blocking Rule. CWA and the NAACP support the Commission’s proposal to adopt the 2010 no blocking rule, with the clarification that individual arrangements between broadband and edge providers are permitted, subject to the “commercially reasonable” restrictions. The Commission proposal explains that the no blocking rule would *not* permit broadband providers to degrade service “below a minimum level of access”³⁶ and seeks comment on the criteria it should use to clarify “minimum level of access” to ensure that “all users have access to an Internet experience that is sufficiently robust, fast, and effectively usable.”

CWA and the NAACP encourage the Commission to adopt all three criteria that it has suggested in the NPRM to clarify the “minimum level of guaranteed service”. These include 1) a “best effort” that represents what is “typical” level of service for the type of traffic; 2) minimum quantitative performance, which could be defined as the level and speed of service that the end user purchases; and 3) an objective, evolving “reasonable person” standard that satisfies the

³⁵ *Id.* at 59-62.

³⁶ *Open Internet NPRM* at 89 and 98.

expectations of a typical end user for the kind of service or application the person is using on the Internet. At a minimum, the Commission must ensure that end users receive the connectivity speeds for which they are paying and which are commercially available. By setting a minimum level of access that will increase as the “best effort” and “reasonable person” expectation also increases, the Commission will be able to protect an Open Internet while at the same time fostering the “virtuous circle” of investment and innovation by broadband and edge providers. As we have explained, continued investment in truly high-speed networks that provide sufficient capacity for all users will ensure that no one experiences “degraded” service, even if some users negotiate specialized quality of service or other arrangements.

Commercially Reasonable Anti-Discrimination. CWA and the NAACP support the multiple criteria the Commission has proposed to clarify the meaning of “commercially reasonable” practices that do not violate Internet openness. These include 1) a rebuttable presumption against a vertically-integrated broadband provider favoring its own applications, content, services, or devices; 2) the impact of the behavior on the exercise of free speech and civic engagement; 3) whether providers have engaged in “good faith” negotiations with all parties; 4) the impact on consumers; 5) the technical feasibility of the service; and 6) compatibility with industry practice, and other factors.³⁷

Reasonable Network Management and Case-by-Case Adjudication. Recognizing that broadband providers need the ability to differentiate traffic in order to manage their networks, the 2010 *Open Internet Order* appropriately inserted a subject to “reasonable network management”

³⁷ *Id* at 126-135.

carve-out into the no blocking and anti-discrimination rules, with adjudication of any purported violations on a case-by-case basis.³⁸ We concur with the Commission’s tentative conclusion to adopt the same approach in this proceeding.

In summary, the Commission’s proposal to adopt no blocking and anti-discrimination rules based on a “commercially reasonable” standard is both legally sound and consistent with Open Internet policy goals. In this regard, the Commission follows the D.C. Circuit Court’s roadmap, grounding legal authority in Section 706 of the Telecommunications Act of 1996, while clarifying that the Open Internet rules do not constitute *per se* common carriage regulation. The Commission’s proposal provides broadband providers flexibility to negotiate quality of service arrangements with edge providers, so long as those arrangements do not degrade consumers’ experience on the Internet; do not favor vertically integrated broadband providers; and ensure continued investment in upgrading our nation’s broadband infrastructure.

IV. CONCLUSION

CWA and the NAACP urge the Commission to protect a free and Open Internet consistent with the need to maintain and promote job-creating investment in broadband infrastructure and closing the digital divide. Despite much progress, our nation needs hundreds of billions of dollars of investment to build the high-capacity networks we need for the data and video rich Internet applications of today and the future. With high-speed networks, there is enough capacity for everyone, and concerns about “fast lanes” and “slow lanes” disappear.

The 2010 Open Internet rules that require transparency and prohibit blocking and unreasonable discrimination are working. There has been only one instance in the past three years

³⁸ *Open Internet Order* at 55, 82-83.

in which the Commission intervened to enforce its Open Internet rules. The leading network and edge providers have invested \$193.1 billion dollars in the past three years in capital expansion, with 84 percent of that investment from network companies. Together, network and edge providers have created 270,000 new jobs during this same three-year period. Yet, there is still much work to be done to bring U.S. broadband networks to global standards.

The Commission can continue down this successful path by following the D.C. Circuit Court's road map. The Court affirmed the Commission's legal authority to ground its Open Internet rules in Section 706 of the Telecommunications Act, and suggested that no blocking and anti-discrimination rules based on a "commercially reasonable" standard would be legally sound. The Commission should take this approach to protect a free and Open Internet while ensuring continued job-creating investment to upgrade our nation's infrastructure, maintain and grow jobs, and close the digital divide.

Respectfully Submitted,

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