Before the
Federal Communications Commission
Washington, D.C. 20554

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

REPLY COMMENTS OF COMMUNICATIONS WORKERS OF AMERICA

Ms. Debbie Goldman
Telecommunications Policy Director and
Research Economist
Communications Workers of America
501 Third St., N.W.
Washington, D. C. 20001
(202) 434-1194

Gloria Tristani
Tillman L. Lay
SPIEGEL & MCDIARMID LLP
1333 New Hampshire Avenue, N.W.
Second Floor
Washington, D.C. 20036
(202) 879-4000

Counsel for Communications Workers of America

April 26, 2010

TABLE OF CONTENTS

SUMMARY ii

INTRODUCTION 1

I. COMMENTERS AGREE THAT THE COMMISSION'S OPEN INTERNET RULES SHOULD PROMOTE THE VIRTUOUS CYCLE OF JOB-CREATING INVESTMENT AND INNOVATION. 2

II. THE COMMENTS CONFIRM CWA'S VIEW THAT THE *NPRM*'S PROPOSED "BROADBAND INTERNET ACCESS" DEFINITION IS OVERBROAD IN THAT IT COULD REACH SPECIALIZED, LIMITED-SCOPE IP SERVICES THAT DO NOT, AND CANNOT ECONOMICALLY, PROVIDE GENERAL INTERNET ACCESS 6

III. CWA'S PROPOSED SECTION 202(a) "UNJUST OR UNREASONABLE" STANDARD STRIKES THE PROPER BALANCE BETWEEN PROTECTING CONSUMERS AND COMPETITION AND ALLOWING INNOVATION AND QoS OFFERINGS. 7

IV. THERE IS WIDESPREAD AGREEMENT ON A TRANSPARENCY RULE. 9

V. COMMENTERS LARGELY AGREE WITH CWA THAT REASONABLE NETWORK MANAGEMENT PRACTICES ARE ESSENTIAL 10

VI. MOST PARTIES AGREE THAT THE *NPRM*'S PROPOSAL CONCERNING "MANAGED AND SPECIALIZED SERVICES" IS TOO GENERALIZED AND VAGUE TO BE USEFUL. 12

VII. THE COMMISSION'S RULES MUST PRESERVE A TRULY OPEN INTERNET THAT PROMOTES FREE SPEECH BY ALL USERS. 13

CONCLUSION 15

Exhibit A

SUMMARY

The Commission's National Broadband Plan ("NBP") sets ambitious broadband deployment goals to bring our nation's communications infrastructure up to global standards. The NBP establishes a universality standard of networks capable of delivering at least 4 megabits per second (mbps) downstream to every American home, business, and community by 2020. The NBP also sets benchmarks for next-generation networks accessible to at least 80 percent of U.S. households with the capacity of 50 mbps downstream and 20 mbps upstream by 2015, and 100 mbps to 80 percent of U.S. households by 2020. The NBP plan acknowledges that private capital will largely finance this build-out of Internet infrastructure.

Therefore, as the Commission crafts rules in this proceeding, it can, and should, chart a middle-ground course, adopting rules that will ensure a free and open Internet while, at the same time, preserving adequate incentives to promote job-creating investment and innovation in broadband networks, applications and content. Although the initial comments submitted to the Commission in this rulemaking exhibit a divergence of opinion on several issues, they also reveal a course for the Commission to follow to balance those goals. CWA articulated a middle-ground position in its initial comments, one that we amplify in these reply comments.

The *Comcast* decision certainly may affect the legal reasoning that the Commission must employ to adopt the proposed rules at issue in this proceeding, but it does not affect the soundness of the policies supporting those proposed rules. The court's decision should not deter the Commission from developing an appropriate legal rationale to justify adopting such rules.

While the Commission develops a legal framework to achieve that result, CWA urges it in the interim to work with interested and affected parties to reach a voluntary agreement under which Internet ecosystem participants will continue to abide by the Commission's existing four Internet principles, with the addition of a fifth transparency principle.

Open Internet Rules Must Promote Investment and Innovation. The Internet must remain open, allowing anyone to communicate with anyone else free of interference from network providers or application and content providers, while at the same time, network providers must have adequate flexibility to invest in, and innovate over, their networks. The Commission's rules must foster the virtuous Internet cycle where expanded network capacity enables content and application innovations, which in turn stimulates demand, provides broadband providers a reasonable return on invested capital, and drives further network investment. To accomplish that objective, the Commission should follow the balanced approach that CWA advocates.

The record provides clear empirical evidence that network providers make far greater capital investments in the Internet ecosystem and create far more and better-paying jobs than application and content providers. Network providers made capital investments of more than *eighteen times* that of application providers in 2008 and 2009, and employed over *nine times* more persons than applications providers. Therefore, it is essential that the Commission's open Internet rules are sufficiently tailored and flexible so as to preserve network providers' incentives to continue to make robust, job-creating investments in their networks. It is important to emphasize that broadband network providers' network investments not only promote innovation

and job growth in the network sector; they also promote innovation and job growth by new-entrant application and content providers.

Proposed Revision to the "Broadband Internet Access" Definition. The *NPRM*'s proposed "broadband Internet access services" definition goes beyond traditional Internet access service providers to reach many popular single-purpose, web-enabled products and services – wireless "machine-to-machine" or "M2M" services (*e.g.*, remote heart monitoring, utility meter-reading, and the like), integrated e-reading devices, GPS navigational devices, and videoconferencing services, for example. The future viability of such services would be jeopardized unless the "broadband Internet access" definition is revised along the lines suggested by CWA so that it only reaches the provision of access to all or substantially all publicly accessible end points that have a IANA address.

A Section 202(a)-Based Nondiscrimination Rule. Many commenters supported adoption of an open Internet nondiscrimination rule. They differed, however, on what nondiscrimination standard should apply. CWA's recommended "unjust or unreasonable discrimination" standard, modeled after Section 202(a) of the Communications Act, protects consumers' ability to access all legal content on the Internet without foreclosing their ability to experience specialized services over the Internet that may require specialized quality of service (QoS) or other guarantees. The strict, absolute nondiscrimination standard proposed in the *NPRM* does not achieve that balance.

Google incorrectly claims that "paid prioritization" would be unlawful even under § 202(a). As long as prioritization is made available to all similarly situated users on a nondiscriminatory basis, it is, and should be, lawful under the § 202(a) standard. Otherwise, (1) QoS, and the applications and content for which it is needed, would become untenable; (2) end-user, retail broadband Internet access rates would be forced upward, dampening demand for broadband service and exacerbating the digital divide; and (3) small, new-entrant application and content providers would be unable to enter and compete effectively with large providers like Google. Google is therefore wrong in suggesting that the absolute discrimination prohibition proposed in the *NPRM* strikes the proper balance. Rather, CWA's proposed § 202(a) standard does.

The Section 202(a) standard also fits more comfortably within the case-by-case approach proposed in the *NPRM*. The flexibility, and case-by-case nature, of the "unjust or unreasonable discrimination" standard is a far better vehicle to address the necessary balancing than the *NPRM*'s proposed rigid, and simplistic, absolute nondiscrimination standard, which places far too much reliance on the inherently amorphous concepts of "network management" and "managed or specialized services."

Transparency Rule. With only rare exception, the vast majority of commenters agreed with CWA on the need for an open Internet transparency rule. Adequate consumer information is essential for a competitive market to function. The Commission should adopt broadband truth-in-billing rules that would require broadband operators and service providers to furnish consumers with their actual and advertised speeds, price, fees, reliability, latency, contract terms, service limits, privacy policies, and traffic management policies. Transparency and full disclosure of information concerning the actual capabilities of broadband Internet access

offerings would also create a "fish bowl effect," deterring unjust or unreasonable discrimination or other abuses at the outset, thereby reducing the number of occasions where more formal enforcement of the other open Internet rules would be necessary.

Reasonable Network Management Practices. Virtually all parties agree on the need to allow reasonable network management practices. They tend to disagree, however, on the proper scope of permissible network management practices. But CWA believes that some of these differences of opinion are not as great as they at first appear.

There is general agreement that traffic prioritization to address the unique QoS problems of latency-sensitive traffic is acceptable, if not essential. Many commenters also agree that tiered pricing is a reasonable network management practice to relieve congestion. Usage-based pricing is permissible even under Title II, and prohibiting it would send counterproductive market signals, leading to subsidization of heavy Internet users at the expense of smaller Internet users and creating a disincentive for efficient network use and investment. Network management practices should, however, be applied in a neutral and nondiscriminatory manner.

Many commenters also agree, as CWA urged, that standards bodies should play a prominent role in determining what is reasonable network management. CWA endorses the Verizon/Google Letter's approach. Relying on TAGs and standards-setting bodies in the first instance to define reasonable practices and to resolve disputes is much more consistent with the evolving and dynamic nature of Internet technology than having the Commission attempt to craft a detailed, but inherently static, definition of "reasonable network management." Moreover, because of their collaborative nature, TAGs are likely to be able to resolve disagreements more quickly and at lower cost than formal agency processes.

"Managed" or "Specialized" Services. Parties across the spectrum found the *NPRM*'s concept of "managed and specialized services" too vague and ill-defined. CWA agrees that it would be difficult to define "managed" or "specialized" services in a way that would draw a stable and predictable distinction between those services and other commercial broadband Internet access-related services provided over the Internet.

There are ways, however, to narrow significantly the scope of this definitional problem and the difficult issues it presents. First, revising the "broadband Internet access" definition as CWA has proposed would shrink the scope of the types of services that would have to be categorized as "managed" or "specialized" in order to be permitted under the open Internet rules. Second, applying Section 202(a) "unjust or unreasonable discrimination" standard to any services that are defined as "managed" or "specialized" would obviate much of the concern expressed by commenters, like Google, who fear that the concept of "managed" or "specialized" services could swallow up network capacity.

CWA believes that the proposals set forth in its opening comments, supplemented with the proposals set forth in the Verizon/Google Letter, provide the Commission with an appropriate balancing of interests to achieve its objectives in this proceeding. This middle course would enable the Commission to protect and preserve the truly open Internet that is essential to a free and informed society while, at the same time, ensuring that the rules the

Commission adopts will also promote job-creating innovation and investment in all sectors of the Internet ecosystem.

Before the
Federal Communications Commission
Washington, D.C. 20554

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

REPLY COMMENTS OF
COMMUNICATIONS WORKERS OF AMERICA

The Communications Workers of America ("CWA") submits these reply comments in response to the opening comments filed in response to the Commission's Notice of Proposed Rulemaking in this proceeding ("*NPRM*").[1]

INTRODUCTION

The Commission can, and should, chart a middle-ground course in this proceeding, adopting rules that will ensure a free and open Internet while, at the same time, preserving adequate incentives to promote job-creating investment and innovation in broadband networks, applications and content. Moreover, the Commission must make sure that the rules it adopts in this proceeding encourage the private investment needed to realize the National Broadband Plan ("NBP") deployment goals.[2] Although the comments exhibit a divergence of opinion on several issues, they also reveal a course for the Commission to follow to balance properly those goals. Our opening comments provide a guide for finding that balance.

We are, of course, aware of the D.C. Circuit's recent decision in *Comcast Corp. v. FCC*, No. 08-1291 (D.C. Cir. filed April 6, 2010), holding that the Commission failed adequately to

[1] *Preserving the Open Internet*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064 (Oct. 22, 2009).
[2] FCC, *Connecting America: The National Broadband Plan* (March 16, 2010). The National Broadband Plan set universality goals of networks capable of 50 mbps downstream and 20 mbps upstream to 80 percent of U.S. households by 2015, 100 mbps downstream to 80 percent of U.S. households and 4 mbps downstream to 100 percent of households by 2020, and 1 gigabyte capacity to community anchor institutions. *Id.* at 9-10 & 135.

justify its exercise of Title I ancillary authority over Comcast's Internet access network management practices in the order on review in that case. The *Comcast* decision certainly may affect the legal reasoning that the Commission must employ to adopt the proposed rules at issue in this proceeding, but it does not affect the soundness of the policies supporting those proposed rules. The court's decision should not deter the Commission from developing an appropriate legal rationale to justify adopting such rules. Moreover, while the Commission develops a legal framework to achieve that result, CWA urges it in the interim to work with interested and affected parties to reach a voluntary agreement under which Internet ecosystem participants will continue to abide by the Commission's existing four Internet principles, plus a fifth transparency principle.

I. COMMENTERS AGREE THAT THE COMMISSION'S OPEN INTERNET RULES SHOULD PROMOTE THE VIRTUOUS CYCLE OF JOB-CREATING INVESTMENT AND INNOVATION.

Commenters generally agree that the Internet must remain open, allowing anyone to communicate with anyone else free of unreasonable interference from network providers or application and content providers, while at the same time, network providers must have adequate flexibility to invest in, and innovate over, their networks.[3] They disagree, however, on how best to achieve these twin goals, with network providers generally viewing any Commission open Internet rules as unnecessary,[4] while application and content providers and others generally argue that very strict rules are necessary to prevent abuses.[5]

The answer lies between these two poles.

---

[3] *See, e.g.*, AT&T Comments at 1-2; Verizon Comments at 9-12; Google Comments at i, 2, 24-26; Free Press Comments at 42-44; Amazon.com Comments at 1-2.
[4] *See, e.g.*, AT&T Comments at 140-156; Verizon Comments at 31-36, 84-86.
[5] *See, e.g.*, Google Comments at 4, 13-42, 50-67; Free Press Comments at 74-75, 78-90, 93-127; Center for Media Justice, *et al.* ("PIC") Comments at 23-24.

The rules that the Commission adopts in this proceeding must promote job-creating investment and innovation by both network providers *and* application and content providers. Those rules must therefore foster the virtuous Internet cycle where expanded network capacity and capabilities enable content and application innovations, which in turn stimulates demand, provides a reasonable return on capital expenditures, and drives further network investment. CWA Comments at 5-6. To accomplish that objective, the Commission should follow the balanced approach advocated by CWA and the Verizon/Google Letter. [6]

Some commenters, however, claim that non-network application and content providers, not network providers, are the key to increased innovation and job growth, and that rigid open Internet rules would have no adverse effect on network providers' investment and job-growth incentives.[7] These claims are belied by the record.

The record provides clear empirical evidence that network providers make far greater capital investments in the Internet ecosystem and create far more and better-paying jobs than application and content providers. CWA furnished ample evidence of that in its opening comments.[8] Updated data reveals that in 2008 and 2009, network providers made capital investments of more than *eighteen times* that of application providers, and employed nearly *nine times* more persons than application providers.[9] That evidence is further confirmed by a January 28, 2010, report by the American Consumer Institute ("ACI"), which concludes that, for every $1 billion in revenue, network providers create roughly *twice as many jobs* as application and

---

[6] January 14, 2010, letter to Chairman Julius Genachowski *et al.*, from Alan Davidson and Thomas J. Tauke, DN 09-51 ("Verizon/Google Letter").
[7] Google Comments at i, 5 & n. 5, 6 & n. 8, 7 & nn. 12&16, & 8 & n.20; Free Press Comments at 23-28, 62-64, & 69.
[8] CWA Comments at iii, 5-8 & Exh. A.
[9] *See* Exhibit A, attached hereto.

content providers.[10] Network providers also make far larger capital investments in their businesses than application providers, even though network providers are generally less profitable than application providers.[11] The report concludes: "Firms in the applications space tend to earn more, invest less, and create fewer jobs" than network providers.[12]

Free Press is similarly misguided in claiming that the strict nondiscrimination open Internet rule it endorses would not adversely affect network providers' levels of investment.[13] To the contrary, the Commission has before it an ACI study refuting Free Press' claim and rebutting Free Press' study on this issue.[14] To cite but one example, the *NPRM*'s proposal (at ¶ 106) to bar network providers from providing prioritized access for a fee –

> would prevent broadband network providers from adopting "two-sided" business [revenue] models that are widely used throughout the economy in general and by Internet content and applications providers in particular. That single regulatory constraint has negative impacts on all the drivers of operator investment – risk, earnings, growth prospects and the ability to explore new and innovative business models and market strategies.[15]

The study confirms what common sense would lead one to conclude: Overly constraining regulation of broadband network providers will in fact deter network investment.[16]

We do *not* mean to suggest, as some commenters do,[17] that, for fear of deterring network investment, the Commission should refrain from adopting any open Internet rules at all. We do

---

[10] L. Darby, J. Fuhr & S. Pociask, *The Internet Ecosystem: Employment Impacts of National Broadband Policy* at 1 & 16-19 (ACI, Jan. 28, 2010) *available at* http://www.theamericanconsumer.org/2010/01/28/jobsreleased.
[11] *Id.* at 10-13 & 19-22.
[12] *Id.* at 10.
[13] Free Press Comments at 23-28 & 62-64.
[14] L. Darby, *The Informed Policy Maker's Guide to Regulatory Inputs on Broadband Network Investment* (ACI), attached to Feb. 10, 2010, letter to Marlene H. Dortch from S. Pociask, DN 09-51, ("ACI Broadband Investment Study").
[15] *Id.* at 5. As noted in the *NPRM* (at ¶ 66), the "two-sided" revenue model refers to broadband providers' ability to serve, and receive revenue from, both end-users and content, application and service providers' simultaneously.
[16] ACI Broadband Investment Study. at 2 & 6-11.
[17] *See, e.g.*, AT&T Comments at 10-12; Verizon Comments at 69, 74, 80-81; PFF Comments at 2-3; Qwest International Comments at 1; Alcatel-Lucent Comments at ii-iii.

mean to suggest, however, that the Commission's open Internet rules should be sufficiently tailored and flexible so as to preserve network providers' incentives to continue to make robust, job-creating investments in their networks.[18] It is important to emphasize that broadband network providers' network investments not only promote innovation and job growth in the network sector. They also promote innovation and job growth by new-entrant application and content providers. Google (at 5-8) overlooks, for example, that unless network providers are permitted to provide content delivery network ("CDN") services and similar Quality of Service ("QoS") offerings, smaller and new-entrant application providers would be unable to compete with application giants like Google that have their own comprehensive and distributed server and network facilities.[19] Moreover, strict nondiscrimination rules could bar network providers from offering the specialized QoS and prioritization necessary for telemedicine, public safety, two-way real-time distance learning, and other services that benefit the public. Thus, unless the Commission's open Internet rules permit broadband network providers to make such offerings, those rules would fail to promote innovation and job growth throughout the Internet ecosystem, not only by network providers, but by new entrants in the content and application sectors as well.

[18] *See* Amazon.com Comments at 1-2.
[19] AT&T Comments at 13-14, 28, 35 & 96. *See also* Verizon Comments at 55.

II. THE COMMENTS CONFIRM CWA'S VIEW THAT THE *NPRM*'S PROPOSED "BROADBAND INTERNET ACCESS" DEFINITION IS OVERBROAD IN THAT IT COULD REACH SPECIALIZED, LIMITED-SCOPE IP SERVICES THAT DO NOT, AND CANNOT ECONOMICALLY, PROVIDE GENERAL INTERNET ACCESS.

CWA noted in its opening comments (at iv & 8-11) that the *NPRM*'s proposed "broadband Internet access services" definition (at ¶ 55) appears to go beyond traditional Internet access service providers to reach many popular single-purpose, web-enabled products and services – such as GPS navigational services or the Kindle e-book device – that are not designed to provide general Internet access. Applying the proposed open Internet rules to such services would render them infeasible.

AT&T (at 6-8 & 97-102) agreed with us on this issue. It elaborated on the scope of currently available end-user device services – wireless "machine-to-machine" or "M2M" services (*e.g.*, remote heart monitoring, utility meter-reading, and the like), integrated e-reading devices, GPS navigational devices, and videoconferencing services, for example –whose future viability would be jeopardized unless the "broadband Internet access" definition is revised and narrowed along the lines proposed by CWA. AT&T Comments at 97-102.

Neither the providers of these specialized, end-user device services, the subscribers who value those services highly, nor workers in our troubled economy need to suffer this loss in order for the Commission to achieve its open Internet objectives. Our opening comments (at 11) proposed to revise the "broadband Internet access" definition to reach the provision of access to all or substantially all publicly accessible end points that have an IANA address. This revised definition would not relieve the underlying broadband Internet access service provider (on whom these specialized, end-user device providers rely to deliver their services) of its obligation to comply with the Commission's open Internet rules. *Id.*

While not explicitly proposing any revisions to the *NPRM*'s "broadband Internet access service" definition, Google does appear to do so indirectly, stating (at 2 n. 3) that its comments refer to "broadband providers," "last-mile providers," and "broadband network providers" interchangeably as "all network providers of last-mile broadband transmission facilities when those providers offer retail or wholesale broadband Internet access service." Google's reference to "network providers of last-mile broadband transmission facilities" would presumably exclude most non-last mile network-owning providers of specialized, end-user device services, although Google nowhere clearly states that is its intent.

Google's indirect revision of the *NPRM*'s "broadband Internet access service" definition is, however, clearly crafted to exclude Google's own substantial server and network facilities from the reach of the proposed open Internet rules. As CWA and other commenters noted, such an exclusion fails to take into account Google's own "gatekeeper" status.[20] We agree with the Verizon/Google Letter (at 2) that "all providers in the Internet ecosystem should act in accordance with [open Internet] values."

III. CWA'S PROPOSED SECTION 202(a) "UNJUST OR UNREASONABLE" STANDARD STRIKES THE PROPER BALANCE BETWEEN PROTECTING CONSUMERS AND COMPETITION AND ALLOWING INNOVATION AND QoS OFFERINGS.

Like CWA, many commenters supported adoption of an open Internet nondiscrimination rule.[21] They differed, however, on what nondiscrimination standard should apply.

CWA (at v-vi & 14-21), along with AT&T (at 8-9 & 108), support Section 202(a)'s "unjust or unreasonable discrimination" standard rather than the strict, absolute

[20] CWA Comments at iv-v; AT&T Comments at 35, 118-19, 195-96 & 199); Verizon Comments at 36-39 & 133-134.

[21] Major broadband network providers disagreed. AT&T Comments at 123; Verizon Comments at 6, 66-77; NCTA Comments at 6-7.

nondiscrimination standard proposed in the *NPRM* (at ¶ 119). Google (at 34-37 & 57-64), on the other hand, supported the *NPRM*'s "simple" (and in our view, overly restrictive) nondiscrimination standard. Free Press (at 74-75) also supported the *NPRM*'s strict nondiscrimination standard, provided that "reasonable network management" and "nondiscriminatory manner" are properly defined.

Google goes even further, claiming (at 62-63) that "paid prioritization" would be unlawful even under § 202(a). That is incorrect. As long as prioritization is made available to all similarly situated users on a nondiscriminatory basis, it is, and should be, lawful under the § 202(a) standard.[22] Otherwise, (1) QoS, and the applications and content for which it is needed, would become untenable; (2) end-user, retail broadband Internet access rates would be forced upward, dampening demand for broadband service and exacerbating the digital divide; and (3) small, new-entrant application and content providers would be unable to enter and compete effectively with large providers like Google. *See, e.g.*, AT&T Comments at 11, 104-108, 114, 131 & 135-6. Google is therefore wrong in suggesting (at 61) that the absolute discrimination prohibition proposed in the *NPRM* strikes the proper balance. Rather, CWA's proposed § 202(a) standard does.

The Section 202(a) standard also fits more comfortably within the case-by-case approach advocated in the Verizon/Google Letter (at 8). "[D]ifferential treatment of Internet traffic by network operators may be either beneficial or harmful to users . . . depending on their effect on competition and on users." *Id.* The flexibility, and case-by-case nature, of the "unjust or unreasonable discrimination" standard is a far better vehicle to address the necessary balancing

[22] *See* Verizon Comments at 66 & 73 (no one would suggest the Postal Service's Priority Mail Service is unjust or unreasonably discriminatory); *Orloff v. FCC*, 352 F.3d 415, 420 (D.C. Cir. 2003) (§ 202(a) discrimination occurs in markets that are "inadequately competitive" or where there are "other market failures limiting consumers' abilities to protect themselves").

than the *NPRM*'s proposed rigid, and simplistic, absolute nondiscrimination standard, which places far too much reliance on the inherently amorphous concepts of "network management" and "managed or specialized services." CWA Comments at 14 & 19-21.

IV. THERE IS WIDESPREAD AGREEMENT ON A TRANSPARENCY RULE.

With only rare exception,[23] the vast majority of commenters agreed with CWA on the need for an open Internet transparency rule.[24] Adequate consumer information is essential for a competitive market to function. As CWA pointed out in its opening comments and elsewhere,[25] the Commission should adopt broadband truth-in-billing rules that would require broadband operators and service providers to furnish consumers with their actual and advertised speeds, price, fees, reliability, latency, contract terms, service limits, privacy policies, and traffic management policies. CWA is pleased that the Commission's recently-released National Broadband Plan contains recommendations consistent with this objective,[26] and we urge the Commission to move forward expeditiously in adopting these recommendations. This rulemaking proceeding presents an appropriate forum for the Commission to carry out the Plan's recommendations by including truth-in-billing rules for broadband operators and service providers in the open Internet rules it adopts, if it does not adopt such rules prior to its decision in this proceeding.

In addition to the obvious benefit of enabling broadband consumers to make informed choices, transparency and full disclosure of information concerning the actual capabilities of broadband Internet access offerings would have an additional important benefit: It would create

---

[23] *E.g.* Verizon Comments at 49-50 & 131.
[24] *See, e.g.*, AT&T Comments at 168; Google Comments at ii-iii & 64-67; PIC Comments at 63-38 & 67-72; Free Press Comments at 112-119.
[25] CWA Comments at 21-23; Reply Comments of CWA on NBP Public Notice #30, GN Docket No. 09-51, at iii & 6-7 (filed Jan. 27, 2010).
[26] NBP at 44-47.

a market-disciplinary effect that "decreases the chances of bad acts or harmful practices on the Internet."[27] Indeed, the "fish bowl effect" of full and adequate disclosure could well have the self-policing effect of deterring unjust or unreasonable discrimination or other abuses at the outset, thereby reducing the number of occasions where more formal enforcement of the other open Internet rules is necessary.[28]

V. COMMENTERS LARGELY AGREE WITH CWA THAT REASONABLE NETWORK MANAGEMENT PRACTICES ARE ESSENTIAL.

Virtually all parties agree on the need to allow reasonable network management practices. They tend to disagree, however, on the proper scope of permissible network management practices. Broadband network providers believe that the scope of reasonable network management should be broad and flexible,[29] while application providers and public interest groups believe its scope should be narrow and clearly defined.[30]

CWA believes, however, that some of these differences of opinion are not as great as they at first appear. There is general agreement that traffic prioritization to address the unique QoS problems of latency-sensitive traffic is acceptable, if not essential.[31] Although there is less consensus, many commenters also agree that tiered pricing is a reasonable network management practice to relieve congestion.[32] As we noted in our comments, usage-based pricing is permissible even under Title II, and prohibiting it would send counterproductive market signals,

---

[27] Verizon/Google Letter at 8.

[28] Google Comments at 67. *Cf.* D. Brenner, "*Creating Effective Broadband Network Regulation*," 62 Fed. Comm. L.S. 13, 75 (2010) (if disclosed QoS terms are "so one-sided or hard-headed" that they cannot be reasonably defended from public criticism, that may deter a provider's offering of such one-sided terms in the first place).

[29] *See, e.g.*, AT&T Comments at 12-13, 26, 56, 69 & 184-87; NCTA Comments at 3-4, 13; Qwest International Comments at 5, 7, 34-37, 48-50.

[30] *See, e.g.*, Google Comments at 68-74; Free Press Comments at 83-85; PIC Comments at 36.

[31] *See, e.g.*, Google Comments at 71; AT&T Comments at 12-13, 26, 56 & 187; Cisco Systems Comments at 6-7, 9-10; Covad Comments at iii.

[32] *E.g.*, Google Comments at 70 n. 218; AT&T Comments at 187; Verizon Comments at 56-57; Qwest International Comments at 15. *But see* Free Press Comment at 101; PIC Comments at 47-48.

leading to subsidization of heavy Internet users at the expense of smaller Internet users and creating a disincentive for efficient network use and investment. CWA Comments at 17-19. Network management practices should, however, be applied in a neutral and nondiscriminatory manner. CWA Comment at 15-16 & 24-25.

Many commenters also agree, as CWA urged, that standards bodies should play a prominent role in determining what is reasonable network management.[33] The Verizon/Google Letter goes further, proposing that expert technical advisory groups ("TAGs"), composed of representatives from all sectors of the Internet ecosystem, should develop best practices and other norms of behavior to give guidance to all Internet ecosystem participants and to serve in the first instance as the forum for dispute resolution, with governmental agencies serving as a "backstop" where this self-governance and collaboration process fails. Verizon/Google Letter at 4-6.

CWA endorses the Verizon/Google Letter's approach. Relying on TAGs and standards-setting bodies in the first instance to define reasonable practices and to resolve disputes is much more consistent with the evolving and dynamic nature of Internet technology than having the Commission attempt to craft a detailed, but inherently static, definition of "reasonable network management." Moreover, because of their collaborative nature, TAGs are likely to be able to resolve disagreements more quickly and at lower cost than formal agency processes.

At the same time, however, we also agree with the Verizon/Google Letter (at 6-7) that, where self-regulatory and collaborative efforts are not successful, there must be a mechanism for

[33] *See, e.g.*, AT&T Comments at 12-13 & 187; Google Comments at 71; PIC Comments at 38.

federal authorities to address and resolve disputes and to enforce the open Internet rules against bad actors.

VI. MOST PARTIES AGREE THAT THE *NPRM*'S PROPOSAL CONCERNING "MANAGED AND SPECIALIZED SERVICES" IS TOO GENERALIZED AND VAGUE TO BE USEFUL.

Parties across the spectrum found the *NPRM*'s concept of "managed and specialized services" too vague and ill-defined.[34] Google, PIC (at 32) and Free Press (at 111) go so far as to urge the Commission to refrain from making any determinations on managed or specialized services until more information is available on the nature of these services.

As noted in our opening comments (at 24), CWA agrees that it would be difficult to define "managed" or "specialized" services in a way that would draw a stable and predictable distinction between those services and other commercial broadband Internet access-related services provided over the Internet. But CWA also suggested ways to narrow significantly the scope of this definitional problem and the difficult issues it presents.

First, CWA's proposed "broadband Internet access" definition would shrink the scope of the types of services that would have to be categorized as "managed" or "specialized" in order to be permitted under the open Internet rules. *See* Part II *supra*; CWA comments at 24; AT&T Comments at 7. Second, CWA's proposal to apply the Section 202(a) "unjust or unreasonable discrimination" standard to any services that are defined as "managed" or "specialized" would obviate much of the concern expressed by commenters, like Google,[35] who fear that the concept of "managed" or "specialized" services could swallow up network capacity. The reason is that, under CWA's proposal, a broadband network provider's offering of managed or specialized

[34] *See, e.g.*, Google Comments at 4 & 74-77; AT&T Comments at 101; PIC Comments at 32-34; Free Press Comments at 110-11.
[35] Google Comments at 74-77.

services to enterprise customers or other end users would have to be made available to other similarly-situated customers or users.

VII. THE COMMISSION'S RULES MUST PRESERVE A TRULY OPEN INTERNET THAT PROMOTES FREE SPEECH BY ALL USERS.

Virtually all parties agree that, in principle, preserving an open Internet – "when a person accesses the Internet, he or she should be able to connect with any other person that he or she wants to," and "that other person should be able to receive his or her message" – is essential.[36] CWA agrees with Free Press (at 134-36) that, properly framed, open Internet rules will, and must, promote free speech.

CWA has concerns, however, about the arguments of AT&T (at 235-48) and, especially, Verizon (at 112-118 & 119-23) that codifying any open Internet rules at all would violate network owners' First Amendment rights and/or constitute a Fifth Amendment "taking" of their property. Broadband truly is the "dial tone of the 21st century"[37] – it will be the primary means used by Americans to communicate with one another, whether by voice, text, data or video. If broadband network owners, unlike their telephone network owner predecessors, have a First or Fifth Amendment right to control, and to favor and choose, the content that flows over their networks, the free speech of everyone other than network providers will be at risk.

Verizon's argument (at 113) that broadband network providers have First Amendment editorial discretion over broadband content they choose to carry and to promote and feature the content they prefer "in accordance with their own judgment," proves too much. It would mean

[36] Verizon/Google Letter at 2. *Accord* CWA Comments at 4-5; AT&T Comments at 1-2; Verizon Comments at 1; Free Press Comments at 2; Google Comments at i; PIC Comments at 24-25, 27; Ad Hoc Telecommunications Users Comments at i; American Library Association Comments at 5; Open Internet Coalition Comments at i-ii; Center for Accessible Technology Comments at 1.
[37] Google Comments at 2.

that Title II of the Act is unconstitutional, because, according to Verizon's logic, telephone service providers should have a First Amendment right to decide whose messages they will carry and to prefer the messages of those who, in the carrier's "judgment," they favor. If that were to become the "dial tone of the 21st Century," rather than an open Internet, all Internet communications would be subject to the filter of network owners' editorial judgment. That would frustrate broadband's ability to play its role in the lifeblood of democracy.[38]

CWA does not mean to suggest that broadband network providers should be treated as Title II common carriers (CWA takes no position on that issue). We also do not mean to suggest that network providers should be prevented from providing their own content, or from providing CDN or other QoS offerings, or from managing their network capacity. Likewise, broadband network providers should be entitled to provide managed or specialized services such as proprietary video service offerings, like AT&T's U-verse and Verizon's FiOS video service, over their broadband networks. CWA has made clear its view that the open Internet rules adopted in this proceeding should permit broadband network providers to engage in all of these activities.[39]

But the Commission should reject the simplistic notion that broadband network providers are like newspapers, bookstore owners or printing presses, with the First Amendment right to edit, pick and choose, and favor whatever Internet content they wish that flows over their networks. That would essentially mean that First Amendment rights in the 21st Century dial tone world belong only to broadband network providers, and no one else. Verizon's position is also inconsistent with precedent. The law is clear that cable television operators, who are First Amendment speakers with respect to their provision of one-way multichannel video services, can

[38] *See* NBP at 299.
[39] Parts 1, II & III, V and VI *supra*. *See also* CWA Comments at 14-20 & 23-25.

be subject to reasonable access and consumer protection regulation under the Communications Act and Commission rules, consistent with the First Amendment.[40] That cannot be any less true of broadband network providers' carriage of Internet communications, which bears far more resemblance to dial tone service permitting everyone to communication with one another than to one-way forms of mass media such as cable and broadcasting.

CONCLUSION

CWA believes that the proposals set forth in its opening comments, supplemented with the proposals set forth in the Verizon/Google Letter, provide the Commission with an appropriate balancing of interests to achieve its objectives in this proceeding. This middle course would enable the Commission to protect and preserve the truly open Internet that is essential to a free and informed society while, at the same time, ensuring that the rules the Commission adopts will also promote job-creating innovation and investment in all sectors of the Internet ecosystem.

Respectfully submitted,

Gloria Tristani
Tillman L. Lay
SPIEGEL & MCDIARMID LLP
1333 New Hampshire Avenue, N.W.
Second Floor
Washington, D.C. 20036
(202) 879-4000

Counsel for Communications Workers of America

Ms. Debbie Goldman
Telecommunications Policy Director and
Research Economist
Communications Workers of America
501 Third St., N.W.
Washington, D. C. 20001
(202) 434-1194

April 26, 2010

[40] *See, e.g.*, *Turner Broadcasting System, Inc. v. FCC*, 512 U.S. 622 (1994); *Time Warner Entertainment, L.P. v. FCC*, 93 F.3d 957 (D.C. Cir. 1996).

EXHIBIT A

The U.S. Broadband Industry

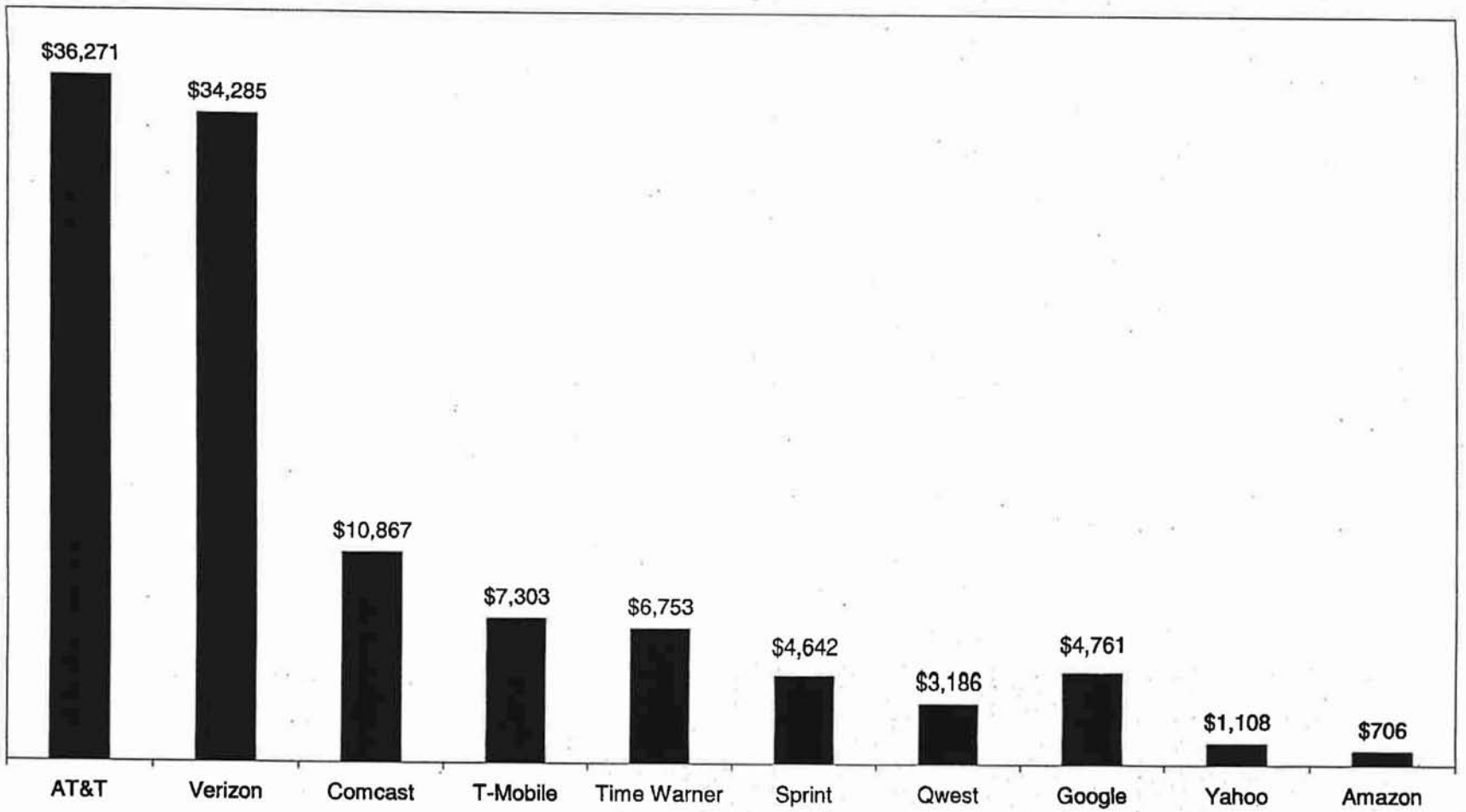
Investment and Employment

Communications Workers of America

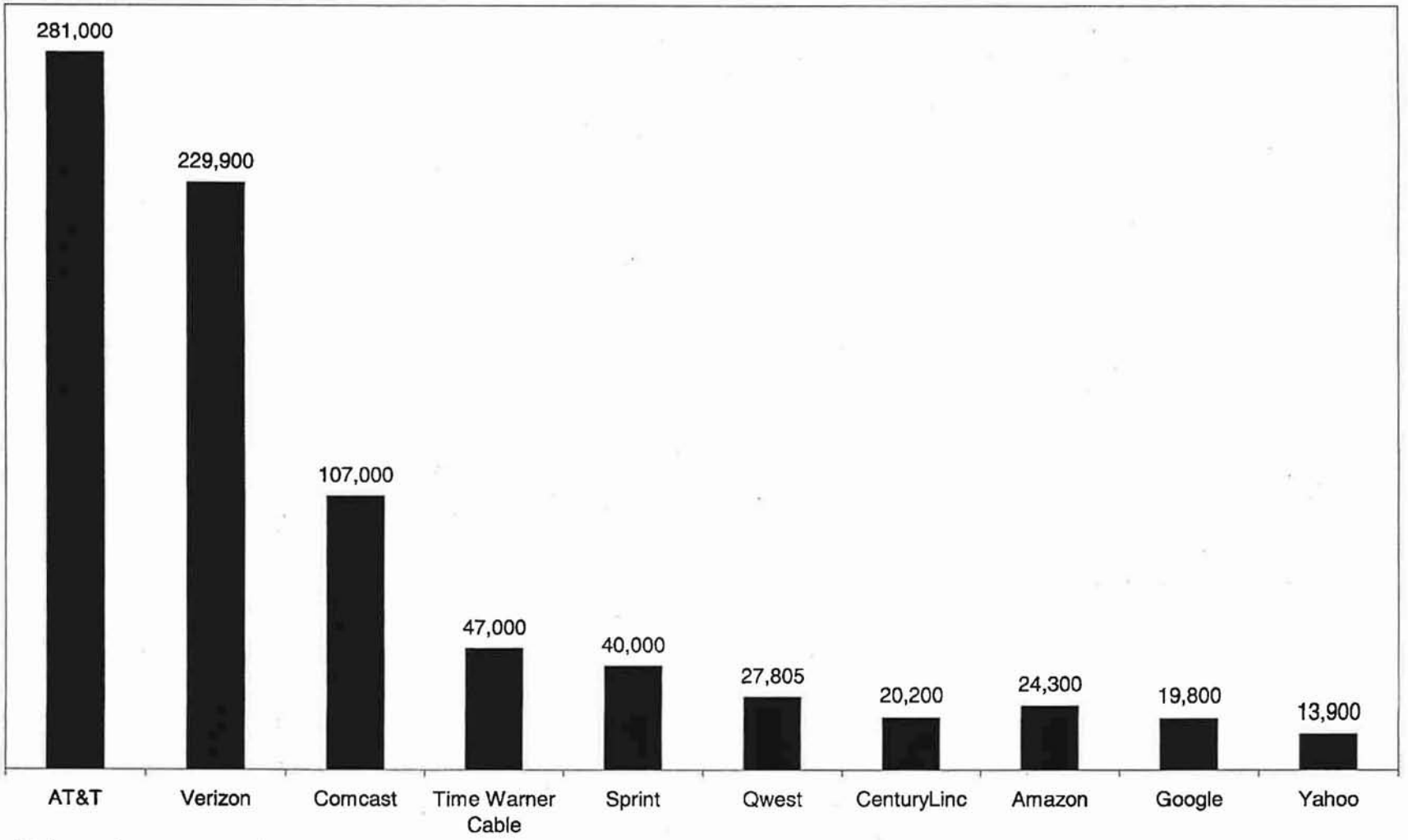
April 2010

Capital Expenditures - 2008 and 2009

$ millions



Global Employees - 2009*



* Network companies' employees are primarily in the U.S., unlike the application companies.

Jobs at Broadband Network Companies Far Exceed Jobs at Applications Companies

Network Providers	Employees	Applications Providers	Employees
AT&T	281,000	Amazon	24,300
Verizon	229,900	Google	19,800
Comcast	107,000	Yahoo	13,900
Sprint	40,000	Ebay Inc.	16,400
Time Warner Cable	47,000	Expedia	7,960
Qwest	27,800	IAC	3,200
CenturyLinc	20,200	Cbeyond	1,680
Cablevision	16,800	Facebook	800
Windstream	7,400	TiVo Inc	510
Frontier	5,400	Linkedin	320
MediaCom	4,500	Zynga	250
Cinn Bell	3,200	Craigslist	30
Total	**790,200**	Digg	18
		Flickr	Owned by Yahoo
		Meetup	24
		Mozilla	58
		OpenDNS	NA
		Skype	Owned by Ebay
		Twitter	140
		Vuze	30
		Youtube	owned by Google
		Total	**89,420**

Network providers include 12 largest telecom, cable, wireless employers, excluding privately-held Cox Cable for which data is not available. Employees are almost all in the United States.
Applications providers includes signatories of letter to FCC Chairman Julius Genachowski on open Internet policies, dated Oct. 19, 2009. Many employees are based overseas.

Source: yahoo.com; Craigslist.com; Lexis/Nexis; SEC Forms 10-K for year ending 2009

Capital Expenditure, 2008 - 2009				
	2008	2009	2 Yr. Total	% of Industry Total
AT&T	$ 19,676	$ 16,595	$ 36,271	28.7%
Verizon	$ 17,238	$ 17,047	$ 34,285	27.2%
Qwest	$ 1,777	$ 1,409	$ 3,186	2.5%
CenturyLinc	$ 287	$ 755	$ 1,042	0.8%
Windstream	$ 317	$ 298	$ 615	0.5%
TWT	$ 277	$ 275	$ 552	0.4%
Cinn Bell	$ 231	$ 195	$ 426	0.3%
Comcast	$ 5,750	$ 5,117	$ 10,867	8.6%
Time Warner	$ 3,522	$ 3,231	$ 6,753	5.4%
Cablevision	$ 909	$ 810	$ 1,719	1.4%
Cox	N/A	N/A	N/A	N/A
DirectTV	$ 1,765	$ 1,485	$ 3,250	2.6%
DISH	$ 1,130	$ 1,037	$ 2,167	1.7%
Sprint	$ 3,039	$ 1,603	$ 4,642	3.7%
T-Mobile	$ 3,603	$ 3,700	$ 7,303	5.8%
MetroPCS	$ 955	$ 832	$ 1,787	1.4%
Clearwire	$ 575	$ 1,540	$ 2,115	1.7%
Leap	$ 796	$ 700	$ 1,496	1.2%
US Cellular	$ 586	$ 547	$ 1,133	0.9%
Network Operators Total	**$ 62,433**	**$ 57,175**	**$ 119,608**	**94.8%**
Google	$ 2,358	$ 2,403	$ 4,761	3.8%
Yahoo	$ 674	$ 434	$ 1,108	0.9%
Amazon	$ 333	$ 373	$ 706	0.6%
Applications Providers Total	**$ 3,365**	**$ 3,210**	**$ 6,575**	**5.2%**
Industry Total	**$ 65,798**	**$ 60,385**	**$ 126,183**	**100.0%**

Source: SEC Forms 10-K