

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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

COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.

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Qwest files these comments in response to the Commission's *Notice of Proposed Rulemaking (NPRM)* regarding the preservation of an open Internet.¹

I. INTRODUCTION AND SUMMARY

Qwest supports the reality of a robust and open Internet. Customers, content providers and applications providers alike rightly expect that broadband service providers will facilitate (and not impede) the transmission of all lawful Internet traffic without regard to the identity of the sender or recipient. As for Qwest, the value of its network is maximized by the continuing fulfillment of these expectations.

Despite the success of the Internet, some contend that regulation is necessary to prevent potential future market abuses which would jeopardize the openness that characterizes the Internet today. Because today's open and vibrant Internet has been achieved without intrusive regulation, it is incumbent upon those introducing regulation to demonstrate that such intervention is absolutely necessary and will not stifle the dynamic growth and innovation we have seen and expect.

Ultimately, completion of the *NPRM* will require a thoughtful and forward-

¹ *In the Matter of Preserving the Open Internet, Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064 (2009).

looking balancing of competing interests in three respects. *First*, the Commission must balance the potential for market imperfections with the desire for investment and growth. Because regulation might impede investment in broadband infrastructure, the better course is to deal with potential market imperfections on a case-by-case basis through enforcement of the Commission's 2005 Internet Policy Statement principles (FCC Internet Policy Principles). *Second*, the Commission must balance the ability of consumers to pay all the costs of tomorrow's network against concerns with allowing content and application providers to cover some of those costs. There is a limit to what consumers will pay for broadband services and a prohibition against charging content and application providers will likely not allow the economic deployment of the robust Internet that will be expected by consumers and content and application providers in the future. *Third*, the Commission must recognize the strong possibility that any prescriptive regulatory intervention will prevent development and deployment of a host of products and services, existing and yet-to-be-imagined. These products include, first and foremost, IP video services, which the Commission should strive to foster as a competitive alternative to cable television. Overly proscriptive rules could also potentially impact: other innovative IP video products and services such as video conferencing; next generation IP voice services; gaming and other "over-the-top" Internet applications and services; a multitude of business enterprise services; and telemedicine, smartgrid technology and other specialized services.²

² The **Factual Record Appendix** attached hereto discusses in detail the record with respect to two key factors relevant to this examination: (1) the competitive state of the broadband market and the growth of broadband services in the absence of intrusive regulatory intervention; and (2) the question of whether there is any market failure or any other demonstrated basis for further regulatory intervention. As discussed therein, this record cuts against intrusive regulatory intervention at this time and suggests that the

Given this, Qwest supports much of the Commission's regulatory framework proposed in the *NPRM*. But, certain components strike the wrong balance and certain aspects of the proposed framework should be clarified in important ways. Specifically:

Codifying the Existing Four FCC Internet Policy Principles. Qwest has long supported the FCC Internet Policy Principles and agrees they should be codified as rules. These principles have brought certainty to customers, content and application providers and broadband providers. The principles have been widely embraced and have proved to be an adequate policy tool for the Commission. Codification of those principles as formal rules in their current neutral form will allow more prompt and uniform enforcement. Thus, the Commission should codify the rules as follows:

- 1. Subject to reasonable network management, consumers are entitled to send or receive the lawful content of their choice over the Internet.**
- 2. Subject to reasonable network management, consumers are entitled to run the lawful applications or use the lawful services of their choice.**
- 3. Subject to reasonable network management, consumers are entitled to connect and use their choice of legal devices that do not harm the network.**
- 4. Subject to reasonable network management, consumers are entitled to competition among network providers, application providers, service providers, and content providers.**

Transparency. Qwest also supports more transparency with regard to customer information. Accordingly, the Commission should adopt a new, flexible end-user disclosure rule. The Commission should adopt the following specific end-user disclosure

Commission should, at the very least, proceed with an abundance of caution regarding any new regulatory intervention.

requirement for broadband providers:

Broadband providers must post in one central location on their website the publicly available information regarding their services (e.g., subscriber agreement templates, acceptable use policy, excessive use policy, online privacy policy, information regarding network functionality such as online speed tests) and must give a description of their network management practices. The latter should include, at a minimum, a description of any bandwidth caps, usage charges and throttling policies employed by the broadband provider.

The Commission should impose a similar requirement for all others in the Internet ecosystem with access to proprietary customer information obtained over the Internet -- for example, Internet service providers (ISPs) and search engine operators. On the other hand, the new rules proposed in the *NPRM* mandating specific additional broadband provider disclosures to content and application providers and the government are not necessary.³

Managed/Special Services. Qwest also supports the *NPRM's* proposed recognition of a distinct regulatory status for managed or special services. These services include, as noted in the *NPRM*, IP video delivery services, business enterprise services, facilities-based VoIP services, and specialized applications such as telemedicine and smartgrid technologies. While the Commission has yet to define managed/special services with any precision, it is clear that these services possess unique characteristics warranting a different public policy approach. Indeed, it is critical that they not be saddled with any new regulation. The Commission should also clarify that this

³ Whatever the Commission does with respect to new disclosure rules, managed/special services rules or a nondiscrimination rule, it should proceed with a clear understanding of its legal authority. Accordingly, Qwest includes a separate section at the end of its comments addressing the well-established constitutional and other legal requirements that apply in this area. The remainder of Qwest's comments assumes, *arguendo* and without waiving Qwest's constitutional and other arguments, that the Commission possesses jurisdiction and legal authority to take the action being discussed.

exemption includes but is not limited to wholly private network services. Additionally, it should clarify that public Internet versus private network functionality is defined by whether a given service creates a communications path enabling a user to access the public Internet, and not by whether public or private IP addresses are utilized. A clarification of these points would help avoid potential confusion in the future. It is also essential that the Commission leave an open-ended catch-all category of managed/special services. This will provide the flexibility necessary for potential future services that can not yet be defined with any precision.

Nondiscrimination. The proposed prohibition of all discrimination, regardless of its reasonableness, is inappropriate and would impede potential investment in the network and potential growth of the very Internet infrastructure the rule is meant to preserve. Indeed, it strikes precisely the wrong balance on each of the critical issues highlighted above. To begin with, there is no demonstrated need for such a rule -- particularly if the Commission rules adopts rules that mandate openness and transparency. Since it effectively mandates an exclusively end-user funded network, this approach will also likely preclude the necessary investment and innovation to build next-generation networks as desired and have a negative impact on broadband adoption. A strict nondiscrimination rule also largely ignores the critical need of broadband providers to have flexibility in managing their networks to address growing bandwidth demand and otherwise provide a quality customer experience. It is also likely to have a harmful impact upon a broad array of new products and services.

If the Commission concludes that a nondiscrimination principle is essential to a properly functioning Internet, a far less intrusive regulatory approach can address

reasonable content and application provider concerns while reducing negative impacts on investment and innovation in the network. Specifically, the Commission could adopt a nondiscrimination principle mirroring that applicable to Title II telecommunications services. Such a rule would state:

Subject to reasonable network management, a provider of broadband Internet access service may not privilege or degrade lawful content, applications, and services on an unreasonably discriminatory basis.

Alternatively, the Commission could accomplish the same result by clarifying that it is a reasonable network management practice for broadband providers to charge content and application providers for enhancement or prioritization, except when broadband providers do so on an unreasonably discriminatory basis. Unlike a strict nondiscrimination standard, a reasonable discrimination rule would permit products and services that might require broadband providers and content and application providers to share up-front build-out cost in order to be deployed in the first place, services that would require a broadband provider to choose one preferred provider for marketing or technical reasons, services offered on discriminatory terms that merely reflect underlying cost differences, or services that implicate numerous other potential business realities where discrimination in some form would be legitimate and desirable.

In all cases, the Commission should make two important clarifications regarding any nondiscrimination rule. First, it should clarify that any new regulatory framework applies solely to activities performed on mass market last mile broadband access architecture -- defined as those facilities between but not including the network interface device (NID) or its equivalent and the port on the end-user side of a broadband provider's aggregation router or its equivalent -- and only to the extent such facilities physically

support the connection between an end user and the public Internet. The proposed rules do not appear to reach other aspects of Internet architecture such as Internet backbone facilities, access provided to content and service providers to the Internet backbone, or last mile infrastructure to the extent not supporting the mass market end user's connection to the public Internet. But, the Commission should confirm these important points. Second, the Commission should clarify that, even with a strict nondiscrimination rule, end-user directed enhancement or prioritization is always permitted.

Reasonable Network Management. Qwest also supports the flexible reasonable network management framework proposed in the *NPRM*. It is critical that the reasonable network management rules provide broad flexibility regardless of what other new rules the Commission adopts. But, this is particularly so if the Commission adopts a strict nondiscrimination obligation. Reasonable network management rules also account for the fundamental need of broadband providers to have flexibility in managing their networks and the potential for harmful impacts to products and services. Accordingly, the Commission should clarify two aspects of the proposed rules for network management. First and foremost, the Commission's network management rules should provide as much flexibility as possible to allow broadband providers to enhance or prioritize particular services to ensure quality of service. Second, the Commission should clarify that the universe of practices that may be deployed as quality of service reasonable network management is not limited solely to prioritization of packets.

Enforcement. Qwest also supports expedited enforcement rules in this area.

II. THE RELEVANT FACTUAL RECORD SUGGESTS THAT THE COMMISSION SHOULD PROCEED CAUTIOUSLY WITH ANY NEW REGULATORY INTERVENTION

As the Commission undertakes the balancing act necessitated by the *NPRM*, it must carefully weigh the record on certain factors relevant to whether greater regulatory intervention is needed at this time. Two key factors specifically raised in the *NPRM* are: (1) the competitive state and growth of broadband services in the absence of intrusive regulatory intervention; and (2) the question of whether there is any market failure or any other demonstrated basis for further regulatory intervention at this time.⁴ As is demonstrated in the detailed **Factual Record Appendix** to these comments, the record on each of these factors cuts against intrusive regulatory intervention and, at the very least, suggests that caution is in order as the Commission contemplates imposing further regulation. In the absence of intrusive regulatory intervention, competition is thriving in the broadband market and robust growth is evident.⁵ There is also no evidence in the record suggesting that the United States has experienced a market failure when it comes to broadband.⁶ All the evidence suggests that broadband providers do not possess undue market power.⁷ The *NPRM* identifies, at best, potential market imperfections,⁸ and the FCC Internet Policy Principles have proven to be an adequate regulatory tool to address any alleged market imperfections in the past.⁹

⁴ See *NPRM*, 24 FCC Rcd at 13086-98 ¶¶ 56-81.

⁵ **Factual Record Appendix** at 2-20.

⁶ *Id.* at 20-32.

⁷ *Id.* at 20-26.

⁸ *Id.* at 26-32.

⁹ *Id.* at 32-33.

III. QWEST SUPPORTS MUCH OF THE REGULATORY FRAMEWORK PROPOSED IN THE *NPRM*

Considering the competing interests that must be balanced in this proceeding and giving appropriate weight to these important factors and others outlined below, Qwest supports much of the Commission's regulatory framework proposed in the *NPRM*. But, certain components strike the wrong balance and certain aspects of the proposed framework should be clarified in important ways.

A. The Commission Should Codify The FCC Internet Policy Principles In Their Current Neutral Form

The Commission should codify the FCC Internet Policy Principles in their current neutral form. The current Internet Policy principles have been widely embraced and have proved to be an adequate policy tool for the Commission. They have brought certainty to customers, content and application providers and broadband providers. Codification of those principles as formal rules also will allow more prompt and uniform enforcement. And, the *NPRM's* other proposed minor changes to the language of the FCC Internet Policy Principles are also sensible.¹⁰ Such rules are appropriate and strike the right balance where, as in this case, no market failures exist.

Thus, the Commission should codify the rules as follows:

- 1. Subject to reasonable network management, consumers are entitled to send or receive the lawful content of their choice over the Internet.**
- 2. Subject to reasonable network management, consumers are entitled to run the lawful applications or use the lawful services of**

¹⁰ The *NPRM*, 24 FCC Rcd at 13102 ¶¶ 95-97 changes the language around "access to content" in the first principle to send and receive, inserts the word "lawful" into the second principle, and changes "legal" to "lawful" in the third principle. The Commission makes clear that none of these changes intend a substantive change in meaning. *Id.* at 13102-03 ¶¶ 97-98.

their choice.

3. Subject to reasonable network management, consumers are entitled to connect and use their choice of legal devices that do not harm the network.

4. Subject to reasonable network management, consumers are entitled to competition among network providers, application providers, service providers, and content providers.

The Commission should not limit the principles to broadband providers, as proposed in the *NPRM*. US Telecom stated it well in its prior statement noted in the *NPRM*: “More than three years of experience under that Policy Statement has demonstrated its successful balancing of interests among stakeholders -- consumers, broadband service providers, application and content providers and technology companies.”¹¹ If there are to be Internet openness requirements, they should be imposed equally on all providers in the Internet ecosystem. As discussed in the **Factual Record Appendix**, there is an extensive record of “non-neutral” practices already employed by content and application providers.¹² And, the record is clear that there is far more market concentration in other components of that ecosystem than at the physical layer provided by broadband providers. For example, Google handles roughly two-thirds of all Internet searches and owns the largest online video site, and YouTube is more than 10 times more popular than its nearest competitor.¹³ There is also extensive evidence regarding the

¹¹ *Id.* at 13100 n. 203.

¹² See **Factual Record Appendix** at 30-31, n. 103.

¹³ “Google Makes a Case That It Isn’t So Big,” (New York Times June 28, 2009), http://www.nytimes.com/2009/06/29/technology/companies/29google.html?_r=5&pagewanted=all. See also, “Google Stays at 72 Percent of U.S. Searches in February 2009,” <http://press.experian.com/documents/showdoc.cfm?doc=3455> (“Hitwise®, an Experian company, announced today that Google accounted for 72.11 percent of all U.S. searches conducted in the four weeks ending February 28, 2009. Yahoo! Search, MSN Search and Ask.com received 17.04 percent, 5.56 percent and 3.74 percent, respectively. The

advantages reaped by companies such as Google, Microsoft and Yahoo through their operation of extensive and unique Internet server infrastructures.¹⁴ In this context, there is no basis for imposing openness obligations on broadband providers without imposing similar obligations on providers at other layers of the Internet.

B. The Commission Should Also Adopt A New Flexible End-User Disclosure Rule

The Commission should also adopt a new broadly-applicable and flexible end-user disclosure rule like that described below. Any transparency rule should include two key features. First, it should impose basic, flexible disclosure requirements, rather than prescriptive, detailed disclosure requirements. Second, it should apply to content and application providers, as well as broadband providers. As detailed below, competitive market forces already supply consumers with extensive information about broadband services. In this context, a flexible disclosure rule would provide clear benefits to consumers and further the Commission's policy objectives. But, mandating disclosure of detailed information would provide little, if any, additional benefit to consumers and may actually be harmful. It would also impose unnecessary burdens on broadband providers.

Unlike the proposed additional transparency rules for end-users, the proposed new disclosure mandates for content and application providers and the government are wholly unnecessary. Content and application providers already benefit from the ubiquitous availability of information about broadband networks generally, as well as the extensive resources made available by numerous industry bodies. And, the government also

remaining 46 search engines in the Hitwise Search Engine Analysis Tool accounted for 1.56 percent of U.S. searches.”).

¹⁴ See, e.g., “The Internet Is Not Neutral (and No Law Can Make It So),” Reason Foundation (May 2009), <http://reason.org/files/d4adaa933bc0230b879323cbc4b164ff.pdf>.

already has the benefit of its existing complaint process, together with potential new expedited enforcement procedures as proposed in the *NPRM*.

Whatever the Commission does with respect to new disclosure rules, it should proceed with a clear understanding of its legal authority. Qwest includes a separate section below addressing the well-established constitutional and other legal requirements that apply in this area. In short, in addition to being a better policy approach, a more flexible end-user disclosure rule is arguably mandated by law.¹⁵

1. Competitive forces already supply consumers with extensive information about broadband services

Competitive forces already supply consumers with extensive information about broadband services. There is a new entrepreneurial environment where ever-increasing online tools and other services make it easier for consumers to compare and contrast their options. As the Commission's recent *Truth-in-Billing NOI* correctly notes, "technological advances may also make it easier to get needed information into the hands of consumers."¹⁶ As an example, earlier this year, Google and its partners launched a link to a family of network management monitoring tools.¹⁷ Additionally, Speedtest.net provides an online broadband speed analysis tool that allows anyone to test their Internet connection.¹⁸ The Speedtest.net tool measures download, upload, and latency. The

¹⁵ See *infra* at 51-54.

¹⁶ *In the Matter of Consumer Information and Disclosure, Truth-in-Billing and Billing Format, IP-Enabled Services*, Notice of Inquiry, 24 FCC Rcd 11380, 11396 ¶ 48 (2009) (*Truth-in-Billing NOI*).

¹⁷ <http://www.michaelsinsight.com/2009/01/google-and-partners-launch-network-management-monitoring-tools.html>.

¹⁸ <http://www.speedtest.net/> ("Ookla provides this service for free to anyone curious about the performance of their connection to and from hundreds of locations around the world. Whether you test just for fun or you really need to certify and validate the true speed of

CNET bandwidth meter online speed test is another such tool.¹⁹ Speed Matters.org, provides another speed test that “measures the last-mile speed of your connection -- the value promised by your service provider...”²⁰ Likewise, “there is a large industry of experts and other informational intermediaries from whom consumers can purchase valuable marketplace information.”²¹ Agents such as newspapers and shopping guides provide general information at low cost about a variety of competing products.”²² Third parties such as J.D. Power & Associates and Consumer Reports offer comparative and

your Internet connectivity, Speedtest.net is the place to be. You can view all of your historical results, share them easily, and even compare them to others in your immediate area or around the globe. Our technology is used to perform over one million tests every day, making it the world-wide standard in bandwidth testing. Speedtest.net is owned and operated by Ookla, a team of technology veterans who believe the Internet should always be an open network for the exchange of ideas and information across town and or around the globe.”).

¹⁹ <http://reviews.cnet.com/Internet-speed-test/> (“Need to use your PC for VOIP and other high speed uses? The CNET Bandwidth Meter speed test will check the bandwidth of your Internet connection against top quality DSL, cable modem, and other broadband services....When you click Go, a file is downloaded from our servers that will calculate your bandwidth speed from the CNET Internet Services site. Your bandwidth speed may be affected by the following factors: being located outside of the United States, performing other downloads and this test simultaneously, or executing programs that use your bandwidth to monitor other resources. The CNET Bandwidth Meter speed test does not currently list Internet access services outside of the United States. Therefore, area codes are optional for international users.”).

²⁰ <http://www.speedmatters.org/pages/test-your-speed> (stating that its speed test “measures the last-mile speed of your connection -- the value promised by your service provider -- using a server that is geographically closest to you. It does not measure the actual transfer speed of a file over the Internet. That would introduce a host of variables into the test that are not under the service provider’s control, such as the content provider's server load and bandwidth.”).

²¹ See, e.g., <http://www.allconnect.com>, <http://www.broadbandnational.com>, <http://www.bundlemyservice.com>, <http://www.cabledealfinder.com>, <http://www.cheapest-service.com>, <http://www.connectmycable.com>, <http://www.digitallanding.com>, <http://www.highspeed-Internet-providers.com>, <http://www.saveology.com>, <http://www.shopbroadband.com>, <http://www.telbay.com>, <http://www.whitefence.com>, <http://www.theispguide.com>, <http://www.dslreports.com>, and <http://www.gobroadband.com>.

²² See e.g. Beales, Efficient Regulation, 24 J.L. & Econ. at 508-09.

rating information for interested reviewers.²³

In short, there is, today, extensive information already available to consumers regarding how to choose a service provider or plan, how to manage their use of the plan, and whether to switch to a competing provider or plan.

2. Disclosure in a central location of certain key information will further the Commission's policy objectives

Given this context, disclosure in a central location of certain key information will best promote the Commission's policy objectives. Specifically, the Commission should impose the following rule for broadband providers:

Broadband providers must post in one central location on their website the publicly available information regarding their services (e.g., subscriber agreement templates, acceptable use policy, excessive use policy, online privacy policy, information regarding network functionality such as online speed tests) and must give a description of their network management practices. The latter should include, at a minimum, a description of any bandwidth caps, usage charges and throttling policies employed by the broadband provider.

But, application of this rule should not be limited to broadband providers. Rather, the Commission should adopt similar rules for all others in the Internet ecosystem with access to proprietary customer information obtained over the Internet -- for example, ISPs and search engine operators.

Such a disclosure strikes the right balance in this context. First and foremost, it easily satisfies the proposed sixth "principle of transparency" requiring that broadband providers disclose "such information concerning network management and other practices as is reasonably required for users and content, application, and service

²³ See, e.g., OECD Report at 37. See also *id.* at 13 ("The media in the United States frequently compare and publicise differences in service, quality and price.").

providers to enjoy the protections specified in this part.”²⁴ This rule would also provide clear benefits to consumers and thereby further the Commission’s policy objectives. If consumers have this information from different providers, they will be able to make informed choices regarding service providers and offerings. These disclosures will also help further broadband provider efforts to distinguish themselves based not just on price, but on quality of service and other features. With regard to network management generally, some broadband providers may offer more expansive disclosures, while others may offer less expansive disclosures. To the extent that such information is valuable to a given customer, consumers can choose an offering based upon the level of detail, generally, in a broadband provider’s various disclosures. Broadband providers could also distinguish themselves in areas where specific disclosures would be mandated - bandwidth caps, usage charges and throttling policies. For example, some providers may offer less expensive broadband services with lower bandwidth caps, while others provide higher-tier services at a higher price. Similarly, some broadband providers may offer aggressive throttling policies and others may not. In all events, consumers can then choose the offering that best meets both their budget and their service needs. All evidence suggests that the broadband market is robustly competitive, and, thus, if a wireline broadband provider were to raise prices to a supracompetitive level or provide unacceptable service quality, it would lose customers to both wireline and wireless rivals.²⁵ The proposed rule would provide customers with easy reference to relevant market information and thereby further reinforce this market discipline. This

²⁴ *NPRM*, 24 FCC Rcd at 13108 ¶ 119.

²⁵ See **Factual Record Appendix** at 20-26.

transparency requirement will also facilitate the Commission's enforcement activities.²⁶

3. Mandating disclosure of detailed information will provide no additional benefit, may be harmful and will impose unnecessary burdens on broadband providers

The Commission should not adopt the potentially more rigid and detailed disclosure mandates discussed in the *NPRM*. For example, the *NPRM* suggests the possibility of specifically requiring disclosure of “information to users concerning network management and other practices that may reasonably affect the ability of users to use the devices, send or receive the content, use the services, run the applications, and enjoy the competitive offerings of their choice” or of “information concerning actual (as opposed to advertised) transmission rates, capacity, and any network management practices that affect their quality of service.”²⁷ These and any other suggestions for more detailed end-user disclosure rules are unnecessary given the ubiquitous information already available to end users in this area. They would also be potentially harmful and impose unnecessary burdens on broadband providers.

A highly detailed or strict information mandate could well produce an overload of information that will only serve to confuse consumers. For ordinary Internet users without special expertise, statistical measures of download rates and technical descriptions of various network management tools will not be meaningful information. Hence, any disclosures must be simplified in order to make them comprehensible, and broadband access providers should be afforded meaningful latitude in designing such

²⁶ As discussed at 44-45, *infra*, the Commission could also consider an additional requirement specific to prioritization or other enhancement practices should it, as Qwest suggests, adopt a reasonable discrimination standard rather than a strict nondiscrimination standard.

²⁷ *NPRM*, 24 FCC Rcd at 13109 ¶ 121, 13110 ¶ 125.

disclosures. Otherwise, a barrage of unwanted detail could result in “information overload” for consumers. The OECD Report on telecommunications policy (which was cited by the Commission in its recent *Consumer Information NOI*)²⁸ warns that:

information disclosure may have its limits. A demand-side -- behavioral -- perspective warns that if consumers have limited cognitive abilities, either generally or in a particular situation, then adding more information may result in information overload and hence in worse decision making. Excessive disclosure can confuse consumers (as evidenced in the case of mobile phone and Internet tariffs options) and can also discourage firms from providing useful information through their advertising.²⁹

Other social science literature reinforces the point. For example, a study in the health care area found that, “[i]n a good-faith effort to be comprehensive,” disclosures relating to health insurance financial responsibility “are likely to fail to communicate because of simple information overload effects. Consumers have difficulty encoding and using information when too much information is densely presented.”³⁰ Likewise, a

²⁸ *Truth-in-Billing NOI*, 24 FCC Rcd at 11382 ¶ 5 n.8.

²⁹ OECD Report at 40.

³⁰ Paula Fitzgerald Bone, *et al.*, “On Break-up Clichés Guiding Health Literacy’s Future,” 43 *Journal of Consumer Affairs* 185 (Summer 2009). *See also* Barry Schwartz, *THE PARADOX OF CHOICE* 133 (2004) (noting a retailer who sold more jam by offering six varieties instead of twenty-four); Katherine E. Jocz and John A. Quelch, “An Exploration of Marketing’s Impacts on Society: A Perspective Linked to Democracy,” *Journal of Public Policy & Marketing*, p. 202 (Fall 2008) (“An aggregate marketing system that provides free flows of information is desirable, but information overload may impede consumer decision making.”); Maureen Morrin, *et al.*, “Saving for Retirement: The Effects of Fund Assortment Size and Investor Knowledge on Asset Allocation Strategies,” 42 *Journal of Consumer Affairs* 206 (2008) (“Researchers have found that large assortments can create confusion and information overload for consumers, some of whom delay their choice, or simply decide not to make a decision, and walk away from the choice task at hand.”); Anjala Krishen, “Perceived Versus Actual Complexity For Websites: Their Relationship To Consumer Satisfaction,” *Journal of Consumer Satisfaction, Dissatisfaction & Complaining Behavior* (2008), p. 104 (“In empirical settings, many researchers have explored how the presentation of too many choices or product attributes leads to negative outcomes for individuals, such as suboptimal decisions or negative subjective mental states (frustration or dissatisfaction) due to information overload.”); John Gourville and Dilip Soman, “Overchoice and Assortment

nutrition labeling researcher has found, “[e]ven the knowledgeable, educated, and skeptical consumer’s desire to be fully informed can come into conflict with information overload.”³¹

Further, an information mandate could create the false impression that an access provider’s network management practices are the sole or primary determinant of the speeds that a customer will experience in downloading or uploading information on the Internet. To the contrary, an individual customer’s particular experience will depend on a variety of factors, including the website he or she visits and the computer equipment he or she is using.

Next, an information mandate could well have anti-competitive effects if it required detailed disclosure of network management practices. Broadband access providers have invested substantial resources in developing tools for the efficient operation of their networks, principally in order to better serve consumers and offer better service. Providers will have little incentive to continue to do so if an information mandate requires that they turn over innovative methods to their competitors. The

Type: When and Why Variety Backfires,” 24 *Marketing Science* 382 (Summer 2005) (citing danger of “cognitive overload”); N.K. Malhotra, “Information Load And Consumer Decision Making,” 8 *Journal of Consumer Research* 419-30 (1982) (“[I]f consumers are provided with ‘too much’ information at a given time, such that it exceeds their processing limits, overload occurs leading to poorer decision making and dysfunctional performance. This proposition derives considerable theoretical and empirical support from several disciplines. It is now well accepted that the processing capacity of the human memory is limited.”); Jacob Jacoby *et al.*, “Brand Choice Behavior as a Function of Information Load,” 11 *J. Marketing Res.* 63 (1974) (describing an experiment tending to show that consumers make poorer purchase decisions with more information).

³¹ Herbert Rotfeld, “Health Information Consumers Can’t or Don’t Want to Use,” 43 *Journal of Consumer Affairs* 373 (Summer 2009).

Commission itself appears to recognize this issue.³² By way of analogy, in ordering the de-tariffing of wireline long-distance service in 1996, the Commission effectively found that a requirement that operators publicly file tariff changes with the FCC chilled competition in the market.³³ The same anti-competitive effects are possible here.

Finally, unless Internet access providers are given substantial latitude in presenting this information to consumers, a disclosure mandate will prove unduly burdensome and expensive. The Commission seeks comment “on how disclosure can be tailored not to unduly burden broadband Internet access service providers.”³⁴ A service provider’s network management practices will vary according to time of day, the number of users on the network, and whether those users are engaged in peer-to-peer file sharing, video downloads or other activities consuming large amounts of network capacity. Hence, it is not possible to disclose to consumers in advance precisely what network management practices will be employed at any given time, and any information must necessarily be tentative and general. Similarly, any disclosures regarding “actual (as opposed to advertised) transmission rates”³⁵ would need to take into account the numerous factors influencing those rates and the variation in rates by time of day.

4. There is no need for additional disclosure to content and application providers and the government

There is no need for the new rules proposed in the *NPRM* mandating specific

³² See *NPRM*, 24 FCC Rcd at 13111 ¶ 130 (referring to “competitive harm concerns”).

³³ See *In the Matter of Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended*, Second Report and Order, 11 FCC Rcd 20730, 20754-55 ¶ 45, 20760-61 ¶¶ 52-53 (1996).

³⁴ *NPRM*, 24 FCC Rcd at 13110 ¶ 126.

³⁵ *Id.* ¶ 125.

additional broadband provider disclosures to content and application providers and the government. These entities already benefit from the ubiquitous availability of information from broadband providers or third parties. They will also benefit from the proposed new, flexible end-user disclosure rule discussed above. Additionally, content and application providers already have access to the extensive resources of numerous well-established international industry bodies. These include:

The Internet Engineering Task Force (“IETF”)³⁶ -- The mission statement for the IETF is to “make the Internet work better by producing high quality, relevant technical documents that influence the way people design, use, and manage the Internet.” The IETF adheres to five main principles to achieving their mission: 1) Open process; 2) Technical competence; 3) Volunteer core; 4) Rough consensus and running code; and 5) Protocol ownership. The goal of the IETF’s “Internet Standards Process” is: technical excellence; prior implementation and testing; clear, concise, and easily understood documentation; openness and fairness; and timeliness. Current active charters for working groups cover the following areas: Applications, General, Internet, Operations and Management, Real-time Applications and Infrastructure, Routing, Security, and Transport.

The International Telecommunication Union (“ITU”)³⁷ -- Since its inception in 1865, the ITU has been brokering industry consensus on telecommunications technologies and services. In 2007 alone, ITU’s Telecommunication Standardization Sector (ITU-T) produced over 160 new and revised standards (ITU-T Recommendations), covering everything from core network functionality and broadband to next-generation services like IPTV. The ITU-T membership includes most of the world’s telecommunication service providers and major manufacturers of equipment and software. Their representatives meet regularly to “thrash out the intricate technical specifications that ensure that each piece of a communications system can interoperate seamlessly with the myriad elements that make up today’s complex [information and communication technology] ICT networks and services.”

The Institute of Electrical and Electronics Engineers (“IEEE”)³⁸ -- Founded in 1884, IEEE is “a leading authority on a wide variety of technical areas ranging from biomedical engineering, clocks, telecommunications, computing and

³⁶ <http://www.ietf.org/>.

³⁷ <http://www.itu.int/en/Pages/default.aspx>.

³⁸ <http://www.ieee.org/>.

robotics to power, software, consumer electronics and defense.” Their standards arm is the IEEE Standards Association (“IEEE-SA”) and “is a leading developer of industry standards in a broad-range of industries. Current working groups include Communications (Dynamic Spectrum Access Networks, Next Generation Service Overlay Networks (NGSON), and, Ubiquitous Green Community Control Network Protocol) and Information Technology (ATLAS (Abbreviated Test Language for All Systems), Delay and Power Calculation, Diagnostic and Maintenance Control, etc.).

The Alliance for Telecommunications Industry Solutions (“ATIS”)³⁹ -- ATIS “prioritizes the industry’s most pressing, technical and operational issues, and creates interoperable, implementable, end to end solutions -- standards when the industry needs them and where they need them.” “ATIS develops standards and solutions addressing a wide range of industry issues... that support the rollout of new products and services into the information, entertainment and communications marketplace. Its activities provide the basis for the industry’s delivery of: existing and next generation IP-based infrastructures; reliable converged multimedia services, including IPTV; Enhanced Operations Support Systems and Business Support Systems; and greater levels of service quality and performance. ATIS has 20 committees and forums with over 600 representatives from over 250 different member companies. The committees which focus on open Internet issues include: the Wireless Technologies and Systems Committee (WTSC, which develops and recommends standards and technical reports related to wireless and/or mobile services and systems, including service descriptions and wireless technologies; the Packet Technologies and Systems Committee (PTSC, which develops and recommends standards and technical reports related to packet services and packet service architectures, in addition to related subjects under consideration in other North American and international standards bodies.); the Industry Numbering Committee (INC, which provides an open forum to address and resolve issues associated with the planning, administration, allocation, assignment and use of resources and related dialing considerations for public telecommunications within the North American Numbering Plan (NANP) area.); and the Network Interconnection Interoperability Forum (NIIF, which provides an open forum to encourage the discussion and resolution, on a voluntary basis, of industry-wide issues associated with telecommunications network interconnection and interoperability which involve network architecture, management, testing and operations and facilitates the exchange of information).

These entities, which include content and application provider membership, develop a wealth of data about the operations of broadband networks and publish that information.

The government also already has the benefit of its existing complaint process,

³⁹ <http://www.atis.org/>.

together with potential new expedited enforcement procedures as proposed in the *NPRM*. Tools, such as letters of inquiry (LOIs), that the Commission can use to gather information, will both serve as a deterrent generally and enable it to police any perceived problems.

In light of the above, adequate transparency clearly already exists for content and application providers and the government alike. Any new disclosure mandates would only impose unnecessary costs on broadband providers -- both monetary costs and other costs such as those associated with a delay in introducing new products and services.

C. Qwest Supports The *NPRM*'s Recognition Of A Distinct Regulatory Status For Managed Or Special Services

Qwest also supports the *NPRM*'s recognition of a distinct regulatory status for managed or special services. As the Commission notes in the *NPRM*, "some services, such as . . . IP-enabled 'cable television' delivery, . . . may be provided to end users over the same facilities as broadband Internet access service, but may not themselves be an Internet access service and may instead be classified as distinct managed or specialized services."⁴⁰ "For example, AT&T offers its U-verse multi-channel, Internet-Protocol-based video service through the same network as its fiber-based broadband Internet access offering."⁴¹ The *NPRM* correctly recognizes that these managed or special services have a distinct regulatory status. These services include, as noted in the *NPRM*, IP video delivery services, business enterprise services, facilities-based VoIP services, and other specialized applications such as telemedicine and smartgrid technologies. It is critical that the Commission create a broad exemption for these services and that they be

⁴⁰ *NPRM*, 24 FCC Rcd at 13105-06 ¶ 108.

⁴¹ *Id.* at 13116-17 ¶ 150.

saddled with no new regulation.⁴² The Commission should also clarify that this exemption includes but is not limited to wholly private network services. Further, public Internet access versus private network functionality should be defined by whether a given service creates a communications path enabling a user to access the public Internet, and not by whether the service utilizes public or private IP addresses. Finally, in response to the specific question raised in the *NPRM*, there is no evidence of incentives for broadband providers to disadvantage their broadband Internet access customers *vis-à-vis* any managed/special services they may provide.

As with the proposed disclosure rules, Qwest includes a separate section below addressing the legal requirements that apply with respect to the managed/special services exemption discussed in the *NPRM*.⁴³ As discussed in that section, a broad private network and managed/special services exemption is likely mandated by law.⁴⁴

1. Managed/specialized services should remain unregulated

The *NPRM* recognizes that managed/specialized services “may differ from broadband Internet access services in ways that recommend a different policy approach, and it may be inappropriate to apply the rules proposed here to managed or specialized services.”⁴⁵ The Commission has yet to define managed/special services with any precision. However, it is clear that these services possess unique characteristics warranting a different public policy approach. Indeed, it is critical that they not be

⁴² This is true in all events, but particularly so if the Commission adopts more intrusive regulation for public Internet access services, such as a strict nondiscrimination obligation.

⁴³ *See infra* at 71-72.

⁴⁴ *Id.*

⁴⁵ *NPRM*, 24 FCC Rcd at 13116 ¶ 149.

saddled with new regulations. Managed/specialized services are, by definition, unregulated and should remain so. Among other reasons, this is the case because these are “new services” that are by definition competitive services. Thus, they reflect the ongoing struggle on the part of providers to achieve a transitory competitive advantage over their rivals in the Schumpeterian tradition of “creative destruction.”⁴⁶ There is perhaps no greater example of this than IP TV and other IP video services, where there is a strong public interest in ensuring the Commission does all it can to foster a competitive alternative to cable television. But, the same is true of other managed/special services such as business enterprise services and facilities-based VoIP.

2. The managed/specialized services exemption should include but not be limited to wholly private network services

The Commission should also clarify that the managed/specialized services exemption includes but is not limited to wholly private network services.

Wholly Private Network Services. The managed/specialized services exemption should include wholly private IP network services. This follows from the inherent assumptions underlying the new regulatory framework proposed in the *NPRM*. The *NPRM* proposes to apply the proposed new Internet openness rules to a universe of services falling within a new definition of broadband Internet access service defined as “[a]ny communication service by wire or radio that provides broadband Internet access directly to the public, or to such classes of users as to be effectively available directly to the public.”⁴⁷ The “Internet,” for purposes of this definition, is further defined as “[t]he system of interconnected networks that use the Internet Protocol for communication with

⁴⁶ See Joseph Schumpeter, “Creative Destruction” originally published in 1942.

⁴⁷ *NPRM*, 24 FCC Rcd at 13086 ¶ 55.

resources or endpoints reachable, directly or through a proxy, via a globally unique Internet address assigned by the Internet Assigned Numbers Authority.”⁴⁸ However, the *NPRM* also clarifies that “[t] be considered part of the “Internet” for this proceeding, an Internet end point must be identified by a unique address assigned through the Internet Assigned Numbers Authority or its delegate registry, not an address created by a user for its internal purposes. We do not intend for this definition of the Internet to encompass private intranets generally inaccessible to users of the Internet.”⁴⁹ Thus, only those services falling within the *NPRM*’s definition of public Internet access functionality would be covered by the new rules proposed in the *NPRM*. It also follows that services that are entirely private -- *i.e.*, private from an end-to-end perspective -- would fall entirely outside that definition and would thus be exempted managed\special services. AT&T’s U-Verse product is an example of an entirely private service. It not only utilizes private IP connections between the end user and the video content, but the underlying distribution functionality for the video content utilizes entirely private IP connections. Specifically, video content is delivered to AT&T’s last mile broadband network via a private head-end. Other wholly private IP video services may utilize different private transport for content distribution, such as a virtual private network (VPN).

Other Managed/Special Services. Certain other services should also be included within the definition of managed/special services even though they may utilize some public Internet functionality:

IP Video Services. Certain IP video services may utilize private IP connections between the end user and the video content located in the broadband provider’s private

⁴⁸ *Id.* at 130 n. 103.

⁴⁹ *Id.*

network, but transport content to that network in whole or in part via the public Internet rather than a head-end, satellite, VPN or other private transport mechanism. Such services should still qualify as managed/special services. There is no reason to distinguish between these services and other IP video services that are purely private from an end-to-end perspective. In either case, the service is easily distinguishable from public Internet access functionality. As noted above, there is perhaps no greater public interest case for a hands-off regulatory approach than for IP video products that serve as a potential substitute for cable television. Relatedly, the Commission should take a broad view of the many different types of IP video delivery services that potentially fit into that category. These may include subscription IP video products with hundreds of channels in the traditional cable TV model, a la carte IP TV products and a host of other new and disruptive IP video products.⁵⁰ In all cases, the Commission should strive to permit as many models of high quality video delivery to consumers as possible.

IP Business Enterprise Services. Similarly, a vast array of existing IP business enterprise services may utilize either private or public IP connections or a combination of both. These business enterprise offerings may include public Internet access functionality either on a stand-alone basis or as part of a bundled package of services. However, these services should still qualify as managed/special services. Even where they may provide public Internet connectivity, business enterprise services are customized services both from a contracting and build-out perspective and, thus, are easily distinguished from the mass market public Internet access services targeted by the proposed new rules.

⁵⁰ See, e.g., Creating a New Age of Television, Sezmi is Live, Here and Now! Sept. 3, 2009 NBP Workshop.

Other Specialized Services. Telemedicine, smartgrid technologies, public safety and distance learning are the examples most often discussed of what is a large potential group of specialized IP services that also have the characteristics of managed/special services. Like the other services discussed above, these products and services may or may not be deployed using wholly private network functionality. Regardless, they are easily distinguished from public Internet access services and should also qualify as managed/special services.

Consistent with the above discussion, the Commission should craft a definition for managed/special services that adequately captures all of the services described above, as well as other types of managed or special services.

3. The Commission should also clarify the *NPRM*'s stated concepts of public Internet versus private network functionality

The Commission should also make important clarifications regarding the *NPRM*'s stated concepts of public Internet versus private network functionality. The basic framework contained in the *NPRM*, in which private network functionality is excluded from the definition of last mile broadband Internet access facilities to be covered by any new rules, is the right approach. And, the *NPRM* appears to recognize that private network functionality should be defined by whether a given facility is used to create a communications path for the purpose of accessing the public Internet and not whether public or private IP addresses are utilized. However, the Commission should clarify this important point. Both public IP addresses, correctly defined in the *NPRM* as those addresses assigned by the Internet Assigned Numbers Authority, and private IP addresses can be used as part of communications for the purpose of accessing the public Internet. Public IP addresses generally come with this capability though it can be repressed. And,

private IP addresses generally do not have this capability, but can be given this capability through a gateway or similar “proxy.” Similarly, both public and IP addresses may be used as part of communications for purposes other than accessing the public Internet. Thus, IP traffic that travels on a communications path between IP addresses, be they public or private, for the purpose of accessing the public Internet would be broadband Internet access and fall within the Commission’s proposed new rules. Conversely, IP traffic that travels on a path between IP addresses, be they public or private, for another purpose other than accessing the public Internet would be wholly private. These distinctions will be even more important as the next generation of Internet protocol -- Internet Protocol Version 6 (IPv6) -- arrives and distinctions between private and public IP addresses further erode.

4. The Commission should include an open-ended catch-all category of managed/special services

It is also essential that the Commission include a catch-all category of managed/special services that will provide the flexibility necessary for potential future services that cannot be defined with precision. Any new rules threaten to derail the very innovation that the Commission seeks to foster in the *NPRM*. This risk is compounded by the impossibility of identifying the full range of products and services, existing and yet-to-be-imagined, that will be impacted by the *NPRM*. For this reason, any definition of managed/special services should be open-ended to allow for managed/special services that are not currently contemplated.

5. There is no evidence of broadband provider incentive to disadvantage their broadband Internet access customers

The *NPRM* also asks, in connection with these managed/special services whether those services “increase or reduce investment in broadband network deployment and

upgrades?” and whether network providers will “provide sufficient capacity for robust broadband Internet access service on shared networks used for managed or specialized services?”⁵¹ With respect to the first question, under a framework where managed/special services remain unregulated, these services will increase investment in broadband network deployment and upgrades. As noted in the *NPRM*, these services are provided over the same networks that provide broadband Internet access. These services will provide an essential revenue source for broadband providers in at least some circumstances and, thus, will help increase broadband investment. As to the second question, there is no evidence of a broadband provider incentive to disadvantage their broadband Internet access customers. Indeed, broadband providers will be incented to allocate adequate bandwidth capacity to all categories of services to maximize potential revenue recovery. This is further demonstrated by the discussions of two-sided markets in the **Factual Record Appendix**, pages 27 to 28, and in the *NPRM*.⁵²

D. The Commission Should Impose, At Most, A Reasonable Discrimination Standard And Should, In All Cases, Make Important Clarifications Regarding Any Nondiscrimination Rule

The proposed prohibition in the *NPRM* of all discrimination, regardless of its reasonableness, is inappropriate. The Commission should impose, at most, a reasonable discrimination standard. Indeed, a strict nondiscrimination standard strikes precisely the wrong balance on each of the critical issues the Commission must weigh in determining whether a given regulatory intervention here is justified. It will effectively mandate an exclusively end-user funded network. Experts have opined that this approach would impede investment generally in broadband networks. It would also likely preclude the

⁵¹ *NPRM*, 24 FCC Rcd at 13117 ¶ 153.

⁵² *Id.* at 13091 ¶ 66.

necessary investment and innovation to build next-generation networks as desired and have a negative impact on broadband adoption. It also would largely ignore the need of broadband providers for flexibility in managing their networks. Additionally, such a rule will likely prevent development and deployment of a broad array of innovative IP products and services.

Regardless of what standard the Commission employs, it should make two important clarifications. First, it should clarify that any new regulatory framework applies solely to activities performed on mass market last mile broadband Internet access architecture. Second, the Commission should clarify that, even with a strict nondiscrimination rule, end-user directed enhancement or prioritization is always permitted.

As with the discussion of the proposed disclosure and managed/special services rules, Qwest includes a separate section below addressing the well-established constitutional and other legal requirements that apply with respect to the potential imposition of a nondiscrimination obligation on the services at issue.⁵³ Notably, among these legal requirements, applicable constitutional protections arguably mandate a reasonable discrimination standard rather than the strict nondiscrimination standard proposed in the *NPRM*.⁵⁴

1. A strict nondiscrimination standard is unnecessary

Unlike the proposed codification of the FCC Internet Policy Principles and increased transparency, both of which Qwest supports as described above, there is no demonstrated need for the strict nondiscrimination requirement proposed in the *NPRM*.

⁵³ See *infra* at 54-71.

⁵⁴ *Id.* at 71.

This is true particularly if the Commission rules already mandate openness and transparency consistent with the discussion above. As is detailed in pages 2 through 20 of the **Factual Record Appendix**, today's open and vibrant Internet has been achieved without intrusive regulation. Nor is there any evidence of a market failure or of any other justification for intrusive regulatory intervention.⁵⁵ And, any potential perceived market imperfections are dealt with adequately by codification of the FCC Internet Policy Principles together with added transparency.⁵⁶ It is therefore incumbent upon those introducing any regulation to demonstrate that such intervention is absolutely necessary and will not stifle the dynamic growth we have seen and expect. Indeed, the guiding principle of any form of government regulation must be to "first, do no harm."⁵⁷ Because regulation might impede investment in broadband infrastructure, the better course is to deal with potential market imperfections on a case-by-case basis through enforcement of the FCC Internet Policy Principles.⁵⁸ Here, the case has not been made for a strict nondiscrimination obligation.

⁵⁵ **Factual Record Appendix** at 20-32.

⁵⁶ *See infra* at 9-16, *see also* **Factual Record Appendix** at 32-33.

⁵⁷ *See, e.g.*, Dennis L. Weisman and Glen O. Robinson. "Lessons for Modern Regulators from Hippocrates, Schumpeter and Kahn," In *NEW DIRECTIONS IN COMMUNICATIONS POLICY*, ed. by Randolph J. May, Durham, NC: Carolina Academic Press, 2009, pp. 3-37.

⁵⁸ A recent and instructive overview of net neutrality, what it means and what, if anything, should be done about it is provided by Jonathan E. Nuechterlein, "Antitrust Oversight of an Antitrust Dispute: An Institutional Perspective on the Net Neutrality Debate," AEI Center for Regulation and Market Studies, Working Paper 08-07, February 2008. (Arguing that the net-neutrality issue is best viewed as an antitrust dispute over vertical leveraging that could most efficiently be addressed by the Justice Department or the Federal Trade Commission.)