

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Preserving the Open Internet	)	GN Docket 09-191
	)	
Broadband Internet Practices	)	WC Docket 07-52
_____	)	

**COMMENTS OF LEVEL 3 COMMUNICATIONS, LLC**

**I. INTRODUCTION**

Level 3 Communications, LLC (“Level 3”) appreciates the efforts undertaken by the Federal Communications Commission (“Commission”) to craft simple and easily managed rules that will govern the delivery of Broadband Internet Access services. The proposed “Network Neutrality” rules also represent the first detailed effort into regulating the exchange of content, application and services on the Internet. And as a result, they have already drawn a great deal of attention from lawmakers, industry, public interest groups and citizens.

The debate comes down to a balancing act between the need of network operators to manage their networks and their economic interests, and the desire of Broadband Internet users to maintain unfettered access to content, applications and services of their choosing. As traditional industry silos collapse and communications of all forms converge on IP technology, many commentators have urged the Commission to act to prevent harm before it occurs, even though the potential harms may be difficult to identify or predict. It is in that environment, and armed with what the Commission sees as ‘cracks’ in the open nature of the Internet, that these rules have been proposed.

Level 3 does not own content or applications accessed by Broadband Internet users, and does not own or operate significant Broadband Internet “last-mile” facilities. It is a wholesaler of Internet protocol services and operates one of the largest backbones in world. As a result, Level 3 expresses no opinion on the fundamental issue addressed by most, whether “Network Neutrality” *mandates* are warranted or appropriate.

Level 3 does believe, however, that any Commission action with respect to Broadband Internet should focus on advancing deployment, adoption and use of Broadband Internet services.

These comments are broken into two parts. The first part provides a broader discussion of the goals that should be met in any Commission action respecting Broadband Internet service. The second part assumes that the Commission moves forward with some form of a Network Neutrality mandate, focusing on specific revisions to the proposed rules which are necessary to improve the application of those proposed rules.

## **II. ESTABLISHING UNIVERSAL ACCESS TO BROADBAND INTERNET SERVICES**

The Commission has undertaken its review of Net Neutrality rules while at the same time it is preparing a National Broadband Plan to submit to Congress by February 17, 2009.<sup>1</sup> Level 3 believes that the Commission should evaluate every regulatory action that it might consider respecting Broadband Internet based on the impact that such regulation might have on the goals to be included in the National Broadband Plan. Level 3 believes that the primary goal of the National Broadband Plan should be to establish the right of all Americans to participate in evolving online communities:

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<sup>1</sup> The Commission has sought a 30-day extension of this deadline from Congress. See Letter from Federal Communications Commission Julius Genachowski to Hon. John D. Rockefeller, Chairman, Committee on Science, Transportation and Communication, dated Jan. 7, 2010. [www.fcc.gov](http://www.fcc.gov).

*As soon as reasonably possible, all Americans, without regard to their economic means or geographic location, should have access to affordable Broadband Internet access service sufficient to enable effective participation in online political, educational, social and commercial communities.*

The Commission should avoid the temptation to focus on bandwidth speeds and other performance characteristics without first articulating and agreeing upon a National objective.

The statement of the “right” accorded to all Americans provides a guidepost for initial performance criteria, as well as criteria to be applied during periodic review and revision of Broadband Internet service characteristics. As online applications and content evolve, “effective participation” in online communities will require continuous improvement of Broadband Internet service performance characteristics.

Once there is agreement on the National objective, the Commission should turn to the details and define what level of Broadband Internet service is required for effective participation in online communities. Today, an affordable and universally available broadband Internet access service providing an effective downstream throughput of 1 Mbps to 2 Mbps and an effective upstream throughput of 250 kbps to 500 kbps is sufficient to meet initial goals. However, as consumer demand has shown time and time again, our country’s appetite for bandwidth is insatiable. That means the speed and performance required for participation in online communities will soar as visual and dynamic media replaces aural and static content. This rapid change defies any regime that attempts to define the sufficiency of Broadband Internet access service in static and unchanging technical terms.

With that goal in mind, the Commission should implement Net Neutrality mandates carefully and only if necessary in the face of a market failure to preserve effective consumer access to applications, content and services. In taking any regulatory actions affecting the Internet, the Commission should preserve the technological innovation and collaborative

industry problem-solving that has been a hallmark of the Internet to date. Given the rapid development of the Internet ecosystem, there is a tension between market-based innovation and the pace of legal and regulatory processes. That conflict is a theme that will reappear throughout these comments. The Commission should avoid efforts to predict and proscribe specific conduct through rulemaking, and should prefer “*ex post*” to “*ex ante*” regulation.

### III. THE COMMISSION SHOULD CLARIFY ITS PROPOSED RULES

In Proposed Rule § 8.3, the Commission introduces four new definitions that will be used to determine to whom and when these proposed rules would apply. If the Commission elects to adopt a Network Neutrality mandate, Level 3 believes that these definitions require modification. First, the language indicates that Broadband Internet Access<sup>2</sup> is the path between the end user’s premises and where their IP transmission enters the Internet. The problem here is to determine at what point the service reaches “the Internet”. As the definition contemplates, the Internet is a worldwide network of computers that allows for the exchange of information. Various companies play different roles in the delivery of Broadband Internet services to consumers. Some companies are strictly backbone providers focusing on long-haul transport services. Others connect to content and applications. Any given transmission may cross multiple networks once it leaves the network of the provider of the last-mile connection.

Assume an end user purchases Broadband Internet service from Carrier A. The end user requests content from a sports website that is not directly connected to Carrier A’s network. That end user’s request travels across the transmission path provided by Carrier A, reaches an interconnection point where the packets request delivery of the content from a network that is

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<sup>2</sup>**Broadband Internet Access:** Internet Protocol data transmission between and end user and the Internet. For purposes of this definition, dial-up access requiring an end user to initiate a call across the public switched telephone network to establish a connection shall not constitute broadband Internet access.

connected to the sports website (in this instance, Carrier B's network). The packets containing the requested content are delivered back to Carrier A's network by one or more networks having connectivity to the applications or content that has been requested.

Due to the likelihood that multiple networks are involved in any transmission, it would be impossible to apply Net Neutrality rules to every transmission that gathers elements from a particular site or page once that transmission leaves the network providing the initial connection to the end user. The Commission should revise its definition to read, "Internet Protocol data transmission *service used to connect* an end user *to* the Internet *over the facilities of the end user's provider of Broadband Internet service.*" By clarifying the scope of term "Internet Access Service" Level 3 believes this rule will better reflect the Commission's intent, as no evidence has been provided showing that multiple network providers are able to impair or degrade the ability of an end user to access lawful content of its choice.

In addition, Level 3 urges the Commission to replace the word "access" following "dial-up" with "services." Making this change will clarify that the FCC is not stating that access charges are due on dial-up internet services. The question of intercarrier compensation for dial-up Internet services rages on. There is a high probability that a party would argue that the FCC's use of the word "access" signifies that the FCC intends for access charges to apply. There is no need to create such an opportunity and waste everyone's time debating what that phrase means when the Commission can make the same point with "services" which does not carry any connotation as to the type of compensation due for the call.

For the Commission's convenience, a revised definition of Broadband Internet Access that reflects the changes discussed in this section:

**Broadband Internet Access:** Internet Protocol data transmission service used to connect an end user to the Internet over the *facilities of the end user's provider of Broadband Internet service*. For purposes of this definition, dial-up *service* requiring an end user to initiate a call across the public switched telephone network to establish a connection shall not constitute broadband Internet access

Of all the definitions, “reasonable network management” raises the greatest concern for a network operator or their counsel.<sup>3</sup> Since it represents the standard against which a provider’s actions will be judged to determine rule violations, it is imperative that the Commission provide clear, concise guidance on prohibited conduct. This definition fails to meet that standard.

As a threshold matter, the Commission’s definition of “reasonable network management” is circular in that it defines that term to include “other reasonable network management practices.” Subsection (b) does not offer any new or useful guidance on prohibited conduct and requires actors to already know the meaning of “reasonable network management practices.” It is hard to see how the Commission can say that it has provided adequate notice of acceptable or unacceptable network practices under subsection (b).

Subsection (a) provides some guidance in that it sets out conduct that the Commission finds will be reasonable. Based on the plain language of subsection (a), the Commission is applying this section to a Broadband Internet Access Service provider. Since that definition focuses on an entity providing services to the “public,” the rule would only apply to that transmission path from the end user to where the Internet facilities of the Broadband Internet

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<sup>3</sup> **Reasonable network management:** Reasonable network management consists of :

- a. reasonable practices employed by a provider of broadband internet access service to:
  - i. reduce or mitigate the effects of congestion on its network or to address quality-of-service concerns
  - ii. address traffic that is unwanted by users or harmful
  - iii. prevent the transfer of unlawful content; or
  - iv. prevent the unlawful transfer of content; and
- b. other reasonable network management practices.

Access provider end. Level 3 urges the Commission to clarify that this is its intent with the rule in order to avoid future disputes over the scope of these rules.

In subsection (a)(ii), the proposed rule allows parties to address traffic that is unwanted by users. Since Broadband Internet Access providers will not be in a position to know what traffic its customers find harmful until notified, the Commission should clarify that this obligation will not arise until the provider has been notified by the customer that it does not want to receive such content. In addition, the Commission must provide further guidance on what is meant by “harmful” content.

As a network management concept, “harmful” is a nebulous concept when it relates to an end user. Merriam Webster’s on-line dictionary defines harmful as “of a kind likely to be damaging: Injurious.”<sup>4</sup> The Commission should provide greater definition around this concept so that parties can understand who decides whether the traffic is “harmful.” Does this rule allow Broadband Internet Access providers to predetermine as part of their reasonable network practices what types of traffic, applications or content are “harmful” to end users? Or does it require an end user to notify a provider of traffic that it deems to be harmful?

The inclusion of the phrase “harmful” adds confusion to the interpretation and applicability of the rules. A better approach would be to delete “harmful” since it falls into the subset of traffic that is “unwanted by end users.” Level 3 believes that any reference to “harmful” traffic should deal with traffic that causes technical or other network performance issues. Level 3 recommends inserting such a reference to subsection (a)(i) since that provision covers actions taken by a network operator regarding its facilities.

Subsections (a)(iii) and (a)(iv) deal with the transfer of content. The first includes as part of reasonable network management preventing the transfer of “unlawful” content. Level 3

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<sup>4</sup> See: <http://www.merriam-webster.com/dictionary/harmful>

supports this objective. In order to eliminate any confusion, Level 3 urges the Commission to revise this section and state that the controlling law is “applicable law of the United States and the individual states.” This clarification is necessary because the Internet is a global communications platform.

A few years ago, Level 3, which has a German affiliate, received a notice from the German government directing it to block a website that was providing National Socialist political propaganda so that German citizens could not access it. While such speech is protected in the United States, it is illegal in Germany and involves criminal sanctions. Upon investigation, Level 3 learned that the website was created by a United States citizen living in Nebraska and was hosted by a company in Taiwan.

When confronted with such a situation, the first thing any network operator will have to do is determine its legal obligations. Once it has done that, it will turn its attention to possible technical solutions. For example, can it block an entire country’s access to a website? If not, must it block all access to that content and if it does, will it violate any other laws or regulations?

In the example above, if it is not feasible to block an entire country’s access to a website, when a provider receives such a notice from a foreign government it may determine that it must block all access to the content. Could a United States citizen file a complaint against the provider because they cannot access a website with the “lawful” content of their choosing? Which law would the Commission apply in determining whether the decision to block that content was legal or not?

If the Commission applied these proposed rules, it could find that the provider was blocking access to lawful content. Yet, that seems to be a perverse response to make such a finding when a provider with worldwide operations is straddling the laws of multiple nations.

Although such cases are rare, they highlight the tension that could arise over blocking “unlawful” content when traffic is exchanged over a worldwide communications platform.

Proposed Rule § 8.23 appears to provide an avenue for the Commission to consider the application of other laws. That rule states, “Nothing in this part is intended to prevent a provider of broadband Internet access service from complying with other laws.” However, in the discussion in the NPRM in ¶¶ 142 to 147, the Commission focuses its discussion on compliance with the laws of the United States such as the Communications Law Enforcement Assistance Act (“CALEA”) or the Foreign Intelligence Surveillance Act (“FISA”).

In another situation, Level 3 was notified that United States citizens could access a website associated with the government of Iran. Level 3 was warned that it might be in violation of certain Treasury trade regulations if it was doing business with countries that are on the list of terrorist nations. Upon investigation, Level 3 learned that the website was hosted by a customer’s customer. When Level 3 shared the notice it received with the customer’s customer, that party acted to block the content. If the same situation happened with a Broadband Internet Access provider, Level 3 believes that would be a reasonable network management practice since it involves compliance with trade regulations.

These two examples highlight the uncertainties that can be created by a broad “compliance with laws” provision. If the Broadband Internet Access provider is acting to ensure compliance with trade sanctions, its conduct would be excused under Proposed Rule § 8.23. The same can’t be said if the provider is acting in response to a foreign legal requirement, especially if the lawful nature of the content is at dispute. In order to eliminate confusion and to provide future Commissions with the ability to consider those situations, Level 3 recommends that the Commission revise Proposed Rule 8.23 to read: “Nothing in this part is intended to prevent a

provider of broadband Internet access service from complying with other laws *of the United States, its states or any other country.*”

In Proposed Rule § 8.7, the Commission prohibits a provider of broadband Internet Access from “preventing any of its users from running the lawful applications or using the lawful services of the user’s choice.” On its face, this rule restricts the ability of Broadband Internet Access providers from taking steps in advance that restrict an end user’s ability to send or receive lawful content. Level 3 interprets this section to mean that an Internet Access provider might take reactive steps to protect its network from immediate threats but that they cannot decide in advance and then take steps to deny certain lawful content to its end users. The application of this section turns on whether the Broadband Internet Access provider’s actions are reactive as compared to proactive. Level 3 seeks clarification on this point.

In addition, Level 3 believes the Commission should provide further guidance around what is deemed to be “lawful” content or a lawful “application”. Other than content expressly prohibited by law or for which carriers have an obligation to restrict access (such as copyrighted material), Level 3 believes that this rule should establish a presumption that all content is lawful. If that’s the case, Level 3 believes that the exceptions for preventing access to content under the definition of “reasonable network management” address the circumstances under which a carrier can prevent access to content. The inclusion of the word “lawful” is duplicative and raises another concern over who will determine whether the content is lawful. Because of the circular use of the phrase in the definition of reasonable network management and then again in the rest of the rule, the Commission should clarify its intent in this section and delete the phrase “lawful” before content.

The same argument should be made to delete the phrase “lawful” prior to applications. The phrase “lawful applications” is problematic since applications are software-based programs that provide access to service, features or content. No standards organizations or other regulatory body determine whether an application is lawful before that application is released into the market. It may not be until substantial litigation has occurred before there is a determination if that application is “lawful.” If Broadband Internet Access providers are left to decide whether they view an application as lawful, many applications may be strangled. If carriers had insisted on a determination from the FCC that Skype’s services were “lawful”, the regulatory battle leading to a decision would have only delayed or harmed the introduction of that revolutionary application. As discussed, Level 3 believes that “lawful” before applications injects uncertainty that could be abused by a Broadband Internet Access provider to prevent access to an application. The only time access to an application should be blocked is when required by reasonable network management. That definition already includes an exception for applications or services that harm the network. The Commission should revise this section to read: “Subject to reasonable network management, a provider of broadband Internet access service may not prevent any of its users from running the applications or using the services of the user’s choice.”

In Proposed Rule § 8.9, the Commission purports to prevent a Broadband Internet Access provider from preventing “any of its users from connecting to and using on its network the user’s choice of lawful devices that do not harm the network.” With this rule, the Commission is trying to avoid future disputes such as the Hushaphone case where AT&T fought to prevent its users from attaching any devices to the network other than AT&T approved devices. Level 3 supports this goal but recommends the Commission delete this rule and instead include it as a subsection in the definition of “reasonable network management.”

In a recurring theme in these comments, the inclusion of the word “lawful” is problematic in an economy where network devices do not need government approval before they are offered to the public. Instead of a command and control structure that dictates what devices are used, the FCC opened the customer premise equipment business to competition. The result was a plethora of new equipment providing more features and at lower costs. By including the phrase “lawful,” Broadband Internet Access providers will have an incentive to say that devices or some functionality they provide are “unlawful” and will then take action to thwart their use on the networks. The presumption should be that all devices are lawful so that providers are not making subjective decisions on a “lawful” device or functionality. Nor should Broadband Internet Access providers be allowed to base that decision on whether that device has been approved by an industry organization or a standards body.

There is universal agreement, however, that network operators must have the ability to take action if their networks are being harmed by a specific device that has been attached to the network. That harm, for example, may be coding that is inoperable with the network and causes the performance on the network to degrade. In those instances, a network operator should be able to act under the “reasonable network management” exception to protect the network. Level 3 believes that since the most probable scenario will be one in which a device is impacting the network’s performance, this proposed rule should be included in the definition of “reasonable network management”:

**Reasonable network management:** Reasonable network management consists of :

- (a) reasonable practices employed by a provider of broadband internet access service to:
- i. reduce or mitigate the effects of congestion on its network or to address quality-of-service concerns
  - ii. address traffic that is unwanted by users or harmful
  - iii. prevent the transfer of unlawful content; or
  - iv. prevent the unlawful transfer of content;

- v. *reduce or mitigate the harmful effects on its network caused by the use of a device on the network; and*  
(b) other reasonable network management practices.

In proposed rule § 8.15, the Commission establishes public notification requirements for “information concerning network management and other practices as is reasonably required for users and content, application, and service providers to enjoy the protections specified in this part.” Level 3 supports this transparency requirement so that end users can make the most knowledgeable decisions concerning their use of Broadband Internet Access service. In addition, Level 3 believes that such standards must be set at the federal level so that consumers and providers can apply a uniform standard and are not required to develop separate disclosure statements for individual states or localities.

As Commission staff recognizes, there is a large difference between the marketing information provided to Broadband Internet consumers and the actual performance of the service they purchase. There is no consensus on how to measure the effective throughput of any Broadband Internet Access service. The federal government has a role in establishing uniform standards to measure the performance of Broadband Internet Access services, and in assuring that such performance information is provided to consumers in an effective, uniform and understandable format. Requiring all Broadband Internet Access providers to reveal accurate and standardized performance statistics will (a) provide consumers with information that is essential to make purchasing decisions, and (b) encourage competition between Broadband Internet Access providers to improve the performance characteristics of the service they provide.

#### **IV. THE COMMISSION IS CORRECT TO REJECT THE STANDARD ANNOUNCED IN THE COMCAST CASE.**

In the NPRM,<sup>5</sup> the Commission states that it will not adopt the standard invoked in the *Comcast Network Management Practices Order*<sup>6</sup> it used to evaluate whether Comcast's practices were lawful. Level 3 agrees that the Commission set the bar too high when it said "reasonable" practices "should further a critically important interest and be narrowly or carefully tailored to serve that interest." Reasonable network management practices are evolving as technology, content and applications drive greater usage of the Internet. As networks grow, the potential for events that will have a negative impact on a network's performance or integrity will increase. Network operators must have the flexibility to take steps to protect their networks and to meet their contractual obligations. They need to do so free of an unnecessarily high standard of review. Setting a restrictive standard may make operators less willing to take prophylactic actions when problems begin out of fear of being sanctioned for not meeting this strict test.

If the Commission determines that it must set a standard for review, it should avoid requiring Broadband Internet Access providers to "narrowly or carefully tailor" their responses. How a company deals with an issue on its network will have a technological and economic component as well. Take the example cited above respecting access to content in Germany. Even if it was technically feasible to block a country's access to a specific website, should the Broadband Internet Access provider be required to make such adjustments if they are cost prohibitive? Providers should not be put in a position where they must deploy unproven, uneconomic technological solutions in order to meet a "narrowly or carefully" tailored standard.

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<sup>5</sup> See NPRM ¶ 137

<sup>6</sup> See *Comcast Network Management Practices Order*, 23 FCC Rcd at 1305-56, para. 47.

## V. CONCLUSION

There is no question that no matter how the Commission proceeds, its deliberations will have a far-ranging impact on the deployment of Broadband Internet Access and the ability of end users to reach content, applications and services. Level 3 looks forward to working with the Commission on this important issue.

Respectfully submitted



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