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Response of Public Knowledge to the Questionnaire for the Public Consultation on the Open Internet and Net Neutrality in Europe

Public Knowledge (PK), a civil society organization based in the United States, respectfully offers its comments in the European Commission's consultation on the open Internet and net neutrality in Europe. PK commends the Commission on its wide-ranging and thoughtful questionnaire, and recommends that the Commission adopt a European net neutrality framework.

PK recognizes that market conditions differ between the United States and Europe, and necessarily offers an outside perspective. But Internet openness principles are of a general character, and should be applicable to broadband access providers in all countries. In this submission, PK will first offer a general overview of the competition issues affecting broadband networks, and how Commission policies support the regulation of this market. It will then offer a *minimum* set of policy prescriptions that it believes should be applicable to broadband access providers in all markets, followed by an illustrative list of "red flags" that signal that further regulatory scrutiny is warranted. It concludes by providing answers to specific questions in the questionnaire that were not adequately addressed in the previous discussion.

The broadband access market warrants heightened scrutiny

The social and economic importance of the Internet, and its use as a basic input to communication, culture, and commerce of all kinds, justifies careful scrutiny of the



broadband access market. In this section, PK offers a brief discussion of the special nature of broadband access, followed by an analysis of why broadband access meets the Commission's three-criteria test for electronic communications markets susceptible to *ex ante* regulation. See Commission Recommendation, 2003/311/EC, ¶ 9.

Like many basic inputs and infrastructure services, broadband access has many positive externalities. Broadband access provides opportunities small and large business to reach customers at a low cost. It enables innovative new services, allows families and friends to keep in touch, and gives citizens instant access to cultural and educational materials. These benefits have an incalculable value, and broadband providers have an economic incentive to capture as much of that value as they can. For instance, a broadband provider may charge an unreasonably high rate to consumers for its service, pricing some customers out of the market. It may leverage its intermediary position and exploit its "terminating access monopoly" over its customers by charging Internet content providers fees to refrain from blocking or degrading their content. In order to continue to reach their customers or readers, Internet content providers have no choice but to comply. These actions may benefit a broadband access provider's own business interests but harm the economy as a whole by reducing the positive externalities generated by broadband access. For similar reasons, the Commission has long recognized that "[i]n markets where there continue to be large differences in negotiating power between undertakings, and where some undertakings rely on infrastructure provided by others for the delivery of their services, it is appropriate to establish a framework to ensure that the market functions effectively." Access Directive, 2002/19/EC, ¶6.



Of course, if the broadband access market were *perfectly* competitive, *ex ante* regulation would *not* be necessary. In a perfectly competitive market, any access provider that attempted to leverage its intermediary position to charge excessive rates to either consumers or content providers would be immediately undercut by a competitor. Customers would be able to easily switch from one provider to another, and the market would be fully contestable—that is, a new provider would be able to enter the marketplace quickly, and attract customers. In a perfectly competitive market, customers would have knowledge of Internet access providers’ billing and network management practices, and would not be caught off guard by secret traffic management or fine print in user agreements. Market conditions of this kind reduce the need for *ex ante* regulation. But while there is a small degree of competition in broadband access markets, broadband access markets tend toward monopoly and concentration. “Perfect” competition is never anything more than a useful academic abstraction, but in broadband access markets it approaches the level of fantasy. In 2002, the Commission even predicted that there might be “new bottlenecks arising as a result of technological development, which may require *ex ante* regulation, for example in the area of broadband networks.” Access Directive, 2002/19/EC, ¶ 13. This has come to pass for several reasons. Physical, practical, and even legal barriers often stand in the way of those who want to enter the market. Broadband providers must have access to scarce resources such as public rights of way, utility pole or ductwork access, or spectrum. Without access to those resources, it is impossible to enter the market as a broadband provider. Significant switching costs can deter competition, and broadband access providers often bundle Internet access with other services where they enjoy market power (such as video, voice, or wireless), allowing them to effectively cross-subsidize



services and making new entry difficult. Broadband access markets also tend toward natural monopoly, where high fixed costs and economies of scale can make new entry uneconomic even when there are no other barriers to entry. The marginal cost of adding one subscriber to a built-out network is significantly less than adding the first few customers to a new network. It is true that there is some competition in some markets. But what facilities-based competition exists today is largely a historical anomaly: cable and telephone networks were built for different purposes that later converged. And while wireless and satellite broadband access is useful in mobile devices and for areas that due to population or geographic conditions cannot support a wired broadband network, it is not a full substitute for the high-bandwidth, low-latency connections that are available over fiber or copper. In any event, competition is not an on/off switch; the relevant question is not whether there is *any* competition in a given market but whether there is sufficient competition to keep abuses in check. For instance, a market with limited competition and only a handful of players lends itself to parallel behavior. In the concentrated and non-contestable United States mobile telephony and wired broadband access markets, “early termination fees” keep rising despite the proclaimed “competition” in those markets. This is because providers find it more profitable to adopt similar practices as their competitors than to try to win new customers by charging lower or no such fees, and because they know they are protected from competition from new providers who may adopt such a strategy. Indeed, the Commission recognizes that an undertaking may have significant market power “jointly with others” when it possesses a “position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers, and ultimately consumers.” Framework Directive, 2002/21/EC, Art. 14, ¶ 2. Consequently,



competition is not merely a matter of counting market participants, and by itself cannot be relied on to reduce consumer harm, or to eliminate the incentive for broadband access providers to engage in activities that harm the economy as a whole.

For these reasons, the market for broadband access easily meets the Commission's three-criteria test for markets that are susceptible to *ex ante* regulation, referenced in the questionnaire. *See* ¶ 3. Under this test, regulators act when there is not effective competition in specified markets. The first criterion is met because high and non-transitory structural barriers prevent entry. Not only is it usually uneconomic to overbuild an access network, but rights of way and spectrum are scarce for physical, regulatory, and legal reasons. The second criterion is met because the market does not tend toward effective competition in a relevant time horizon—the most significant cost barrier involves the expense and difficulty of laying fiber or wire over the “last kilometer” to homes. These costs are not affected by advances in electronics technology or increases in bandwidth. Finally, the third criterion is met because competition law does not suffice to address the consequences of competition in the broadband access market. Competition law is usually designed to prevent anti-competitive combinations that artificially restrict competition, or to prevent a monopolist from using its market power to limit new entry. While competition law may be relevant where a broadband monopolist uses its position to attempt to monopolize an adjacent market, broadband markets are subject to abuses that may be too subtle for the blunt tool of competition law to deal with effectively. An intelligent regulatory policy can create market conditions that reduce the ability of a monopolist to take advantage of its position to begin with.



Line-sharing is valuable, but is not the only tool to protect broadband consumers

EU nations have usually responded to the competition problems in electronic communications infrastructure markets by requiring line-sharing. Most commonly, broadband infrastructure providers are required to offer non-discriminatory wholesale access to their facilities to competitors who then provide retail services to consumers. This creates an additional level of competition that can serve to keep some anti-competitive behaviors in check. In fact, the most successful form of line-sharing in history arose in the context of Internet access. Though not usually thought of as a form of line-sharing, the widespread requirement that telephone networks offer non-discriminatory access to their services set the regulatory baseline that allowed for the flourishing of dial-up ISPs in the 1990s. Telephone companies of the time were not enthusiastic about the use of their networks by independent, often for-profit communications companies. It is conceivable that, were they allowed, they would have blocked access to their networks by ISPs and offered their own Internet access service, or charged discriminatory rates to customers that generated a high level of data traffic. But traditional telecommunications law principles foreclosed that outcome. The high level of competition between ISPs that was enabled by regulation of the physical infrastructure of the communication network made regulation of ISPs themselves largely unnecessary.

In the United States, the net neutrality debate began after the transition to broadband largely brought to an end the era of the independent ISP, and the market power of the network operators became apparent. Because of the extension of line-sharing requirements to broadband operators in Europe, there is often more competition and thus less ability for a broadband operator to engage in anti-



competitive or anti-consumer conduct. Higher levels of competition and a more active regulatory culture have kept the debate in Europe lower-key. But line-sharing in the broadband context does not lead to the level of competition that is sufficient to make regulation of ISPs wholly unnecessary. Offering a competing retail broadband service requires more coordination with the network operator and costs more than offering a dial-up ISP service. Cable and fiber technologies that only allow for bitstream access (which often is regulated under different rules) rather than unbundled local loop access can affect the character of competition enabled by line-sharing. For this reason, despite the fact that European line-sharing policies are generally successful, some level of *ex ante* regulation of retail ISPs is still necessary.

While understanding that the two are linked, the Commission draws a line between the regulation of content and the regulation of transmission services. See Framework Directive, 2002/21/EC, ¶ 2. While net neutrality is important to protect media pluralism and cultural diversity, it is also important to promote competition in the delivery of electronic communication services. Indeed, many services delivered over the Internet, such as Skype, Dailymotion, or Spotify, are similar to the “electronic communications services” discussed throughout the Framework Directive, and regulation to protect those services from unfair discrimination is similar to regulation designed to protect the interconnection rights of a telecommunications company. In the Directive, the Commission found that national regulatory authorities shall “promote competition in the provision of ... electronic communications services” by, among other things, “ensuring that users ... derive maximum benefit in terms of choice..., ensuring that there is no distortion or restriction of competition in the electronic communications sector..., removing ... obstacles to the provision of ... electronic



communications services at the European level..., and ensuring that, in similar circumstances, there is no discrimination in the treatment of undertakings providing electronic communications networks and services.” 2002/21/EC, Art. 8, ¶¶ 2-3. This analysis is directly relevant to the net neutrality question.

As the Commission explained in its Universal Service Directive, “[i]n a competitive market, certain obligations should apply to all undertakings providing publicly available telephone services...and others should apply only to undertakings enjoying significant market power....” 2002/22/EC , ¶ 5. The same reasoning applies to broadband Internet access, which is joining and supplanting basic telephone service as an indispensable communications tool. Fundamentally, the same general principles should govern the analysis of all broadband networks, and certain obligations should apply to *all* broadband Internet access providers, regardless of market conditions. Other obligations would only come into effect where broadband undertakings enjoy significant market power.

PK believes that a modified version of the rules proposed by the Federal Communications Commission (in Preserving the Open Internet, *Notice of Proposed Rulemaking*, GN Docket No. 09-191, FCC 09-93 (rel. Oct. 22, 2009), App. A) can provide a baseline for future regulatory action. These principles take into account both that, even with line-sharing, broadband markets tend towards concentration, and that certain obligations of fairness ought to apply to all broadband providers even in environments where line-sharing has increased competition beyond the natural baseline. PK further provides a few key “red flags” that would signal that greater scrutiny is warranted.



Proposed regulatory principles.

Content.

A provider of broadband Internet access service may not prevent any of its users from sending or receiving the lawful content of the user's choice over the Internet.

Applications and Services.

A provider of broadband Internet access service may not prevent any of its users from running the lawful applications or using the lawful services of the user's choice.

Devices.

A provider of broadband Internet access service may not prevent 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.

Competitive Options.

A provider of broadband Internet access service may not deprive any of its users of the user's entitlement to competition among network providers, application providers, service providers, and content providers.

Just and Reasonable Behavior.

A provider of broadband Internet access service must treat lawful content, applications, and services in a just and reasonable manner.

Transparency.

A provider of broadband Internet access service must disclose such information concerning network management and other practices as is reasonably required for users and content, application, and service providers to enjoy these protections.

Exceptions for Legal Obligations.

These consumer protections are not intended to prevent a provider of broadband Internet access service from complying with other laws.

Red flags

What is "just and reasonable" may vary from market to market, depending on competitive conditions, or according to the delivery technology. In a highly concentrated market, any discrimination against lawful content, applications and services may be unreasonable, because consumers have limited bargaining power and Internet application and content providers have no alternative way to reach consumers



in the market. In a more competitive environment, broadband access providers may have more flexibility to offer “managed services” or engage in certain network management practices. But in all environments, it would be unreasonable for a carrier to discriminate against its direct competitors (for example, in the video or voice market) or to block access to lawful content or applications. Certain “red flags” should trigger a greater level of scrutiny of broadband access provider practices that may affect what is “reasonable” in a given market. These red flags include,

- Whether, in addition to offering a communications service, a broadband access provider offers content or application services that may compete with over-the-top services (such as video, voice, or hosting services delivered over the Internet);
- Whether a broadband access provider appears to benefit more from underprovisioning bandwidth and rationing access to it, or from expanding capacity;
- Whether a broadband access provider has other financial or political interests that would benefit from a more controlled or censored Internet.

Answers to some particular issues in the questionnaire

Question 3: Is the regulatory framework capable of dealing with the issues identified...?

The current regulatory framework contains principles and frameworks that support net neutrality rules, but its focus is on line-sharing and infrastructure competition issues. It should be updated to more directly address concerns related to discrimination content and applications.

Question 4: To what extent is traffic management necessary from an operator’s point of view? []

Traffic management may be necessary, but only as a temporary measure until a broadband access provider expands its bandwidth capacity. It must be carried out in a just and reasonable way. For instance, it may be reasonable to prioritize latency-



sensitive traffic on a temporary basis, until new capacity can be added that removes such need. But this is not a long-term solution because, among other reasons, an access provider has no certain way to determine which traffic is latency sensitive and which is not, and prioritizing only certain kinds of traffic (e.g., one voice protocol and not another) could distort technological development.

Question 5: To what extent will net neutrality concerns be allayed by the provision of transparent information to end users, which distinguishes between managed services on the one hand and services offering access to the public internet on a “best efforts” basis, on the other? & Question 14: What should transparency for consumers consist of? []

Transparency is important, but is not enough to allay all the harms that may be caused by limited competition in some markets. Additionally, some behaviors are so unjust they should not be allowed altogether, even if a provider is “transparent” about its intention to undertake them. Due to switching costs most information about network management practices needs to be available before a customer signs up for service, and those practices should not be subject to change at the whim of the provider. Regulators also need to take into account information costs and varying levels of consumer sophistication. PK recommends the excellent work done by The New America Foundation on this issue.¹

Question 6: Should the principles governing traffic management be the same for fixed and mobile networks?

Yes, the same principles should apply, although what is a reasonable practice in one medium may not be a reasonable practice in another.

¹ See http://www.newamerica.net/publications/policy/broadband_truth_in_labeling.



Question 7: What other forms of prioritisation are taking place? Do content and application providers also try to prioritise their services? If so, how—and how does this prioritization affect other players in the value chain?

Yes, content providers enter into “paid peering” arrangements with broadband access providers, or use “content delivery networks.” These arrangements do not raise net neutrality concerns, because they involve collocation of facilities and other means to reduce the distance a communication must travel, rather than selling prioritized access to scarce bandwidth. If there are competitive concerns with these arrangements (for example, a broadband access provider might agree to peer with one content provider but not another on equal terms), competition law would probably suffice to address them.

Question 8: In the case of managed services, should the same quality of service conditions and parameters be available to all content/application/online service providers which are in the same situation? May exclusive access agreements between network operators and content/application/online service providers create problems for achieving that objective?

The answer to this question depends both on particular market conditions and the understanding of “managed services.” Communication services such as cable television may also be offered by broadband access providers much as they are offered today. The question is whether the access provider has an incentive to discriminate against the Internet *per se* in favor of its legacy businesses. If “managed service” is nothing more than another name for paid priority access by third-party content providers, then these arrangements would only be reasonable in highly competitive markets, and if offered on equal terms to all willing payers. Exclusive arrangements would almost always be unreasonable. This is in line with the Commission’s past reasoning, which found that “[t]he principle of non-discrimination ensures that undertakings with market power do not distort competition, in particular where they



are vertically integrated undertakings that supply services to downstream undertakings with whom they compete on downstream markets.” Access Directive, 2002/19/EC, ¶ 17.

Conclusion

For the reasons above, the European Commission should adopt a European net neutrality framework.

Along with this filing PK has included an appendix consisting of regulatory submissions and white papers that the Commission may find relevant. Please contact John Bergmayer (john@publicknowledge.org, +1-202-861-0020 x113) for questions on this contribution.