

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

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

**COMMENTS
OF
AKAMAI TECHNOLOGIES, INC.**

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I. SUMMARY AND INTRODUCTION.

A. Summary.

Akamai Technologies, Inc. (“Akamai”) submits these comments in response to the above-captioned notice of proposed rulemaking (“*Notice*”) regarding the open Internet.¹ As a company dedicated to making the Internet function more efficiently, Akamai agrees with the Commission’s policy of preserving Internet openness. Akamai applauds the Commission for releasing a searching and comprehensive *Notice* and for conducting a series of public forums focusing on the open Internet.

Akamai strongly supports Chairman Genachowski’s view that:

An open Internet will benefit both consumers and businesses. The principles that will protect the open Internet are an essential step to maximize investment and innovation in the network and on the edge of it....²

¹ See *Preserving the Open Internet; Broadband Industry Practices*, Notice of Proposed Rulemaking, 24 FCC Rcd 13064 (2009) (the “*Notice*”).

² Hon. Julius Genachowski, Chairman, FCC, *Preserving a Free and Open Internet: A Platform for Innovation, Opportunity, and Prosperity*, prepared remarks for the Brookings Institution, Washington, D.C., at 7 (Sept. 21, 2009), available at http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-293568A1.pdf (last visited Jan. 11, 2010).

Akamai also endorses the expert recommendation of the nonpartisan Knight Commission in October 2009 to “[m]aintain the national commitment to open networks as a core objective of Internet policy.”³ Akamai participated in the Commission workshop of January 13, 2010 regarding the effect of the open Internet on innovation and investment (“Innovation and Investment Workshop”).⁴ In addition, Akamai participated in the Commission’s *Broadband Industry Practices* inquiry in 2007.⁵

As a pioneering Internet company, Akamai is proud to be a part of the continuing development of the Internet as a resource for all Americans. The *Notice* rightly describes the many benefits that an open Internet has provided to American society and the national economy, especially as “an engine for creativity, innovation, and economic growth.”⁶ Moreover, innovation, development, and investment *within the Internet itself* have contributed greatly to the Internet’s success in transforming American society. Akamai believes that, as the Commission seeks to promote Internet openness going forward, it should avoid taking regulatory actions that could limit innovation, development, and investment within the Internet itself.

³ See *Informing Communities: Sustaining Democracy in the Digital Age*, Knight Commission on the Information Needs of Communities in a Democracy (Oct. 2, 2009) at 50, available at <https://secure.nmmstream.net/anon.newmediamill/aspen/kcfinalenglishbookweb.pdf> (last visited January 11, 2010).

⁴ See FCC News Release, *Panelists Announced For January 13 Workshop On Innovation, Investment, And The Open Internet* (Jan. 6, 2010).

⁵ See Reply Comments of Akamai Technologies, Inc., *Broadband Industry Practices*, WC Docket No. 07-52 (July 16, 2007). *Broadband Industry Practices*, Notice of Inquiry, 22 FCC Rcd 7894 (2005). All comments and reply comments to *Broadband Industry Practices* hereinafter are short-cited.

⁶ See *Notice* ¶ 17; see also *id.* ¶¶ 17-23.

Akamai therefore urges the Commission to analyze carefully the record in this proceeding to discern the potential impacts of any proposed regulation on innovation and investment throughout the Internet, including companies like Akamai that do not provide broadband Internet access to end users and have never been subject to Commission jurisdiction. As the *Notice* observes, over four years ago the Commission “sought to safeguard and promote the open Internet by announcing four general Internet policy principles that would guide its interpretation of the Communications Act of 1934, as amended (the Act),”⁷ and Akamai believes that framework has been successful in helping the Internet benefit consumers and promote innovation since that time.

If the Commission deems an expanded open Internet regulatory framework to be necessary, those rules properly should apply at most to “provider[s] of broadband internet access service,” as defined in the proposed rules presented in the *Notice*,⁸ specifically providers of last-mile transmission such as cable companies (“cablecos”) and incumbent local exchange carriers (“ILECs”).⁹ The experience of consumers and the Commission to date indicates that threats to Internet openness, to the extent that they exist, occur from cablecos and ILECs that provide last-mile physical connections to consumers.

As discussed in detail below, Akamai primarily offers services to enterprises that operate websites or run sophisticated applications and seek to improve the performance, security, and/or scalability of the delivery of their content or applications. In fact,

⁷ See *id.* ¶ 5.

⁸ See *id.* at App. A, Proposed Rules §§ 8.1-8.23 (“*Proposed Rules*”).

⁹ Although the *Notice* discusses the possible imposition of new rules on wireless platforms, see *id.* ¶¶156-174, these comments address only wired physical transmission providers, not wireless providers, because wired providers’ facilities currently provide the higher-speed broadband Internet access that most readily permits full use of the Internet.

Akamai helps even the smallest entrepreneurs to expand their presence on the Web by offering a better and faster customer experience. Akamai enables entities of all sizes to scale the capacity of their online operations without the need to invest in a costly hardware build-out. Akamai's services, some of which use a form of caching, are beneficial to the operation of the Internet as a whole. Akamai agrees with the National Telecommunications and Information Administration ("NTIA") and the Rural Utilities Service ("RUS") that caching is a "generally accepted technical measure[] to provide acceptable service levels to all customers."¹⁰ However, because Akamai is not a provider of broadband Internet access service as defined in the *Proposed Rules*, its services should not be subject to such rules.

Moreover, Akamai offers Internet services that, among other things, permit enterprise customers to engage in cloud computing by efficiently operating applications on the Internet. These services pose none of the policy or competitive issues that the *Notice* raised in its discussion of "managed or specialized services."¹¹ Although Akamai markets some of these services as "managed services," and did so long before the Commission issued the *Notice*, these Akamai services rely on the public Internet – they do not "supplant or otherwise negatively affect" the traditional open Internet.¹²

Accordingly, the Commission should not consider regulating them.

¹⁰ See *Notice* ¶ 45, quoting NTIA/RUS Broadband Initiatives Program; *Broadband Technology Opportunities Program Notice*, 74 Fed. Reg. 33104, 33110-11 (July 9, 2009) ("*Broadband NOFA*").

¹¹ See *Notice* ¶¶ 148-153.

¹² See *id.* ¶ 149.

B. Overview of Akamai.

Akamai was founded in 1998 by a group of computer scientists at the Massachusetts Institute of Technology and has been providing content delivery and related services to customers on the Internet since 1999. Akamai's customers include U.S. and international businesses and government agencies. Akamai is headquartered in Cambridge, Massachusetts.

Since its creation, Akamai has operated its business as an Internet company not regulated by the Commission or state public utility commissions. Akamai stock is publicly traded on NASDAQ and is included in the S&P 500 Index. Akamai executives and technologists actively participate in discussions concerning science and technology policy issues. In addition to the Innovation and Investment Workshop,¹³ an Akamai representative also testified at the Staff Workshop on Technology – Applications and Devices in the Commission's National Broadband Plan proceeding on August 27, 2009.¹⁴ Akamai leaders have served on federal engineering and security panels¹⁵ and have presented testimony on Internet issues before Congressional committees.¹⁶

¹³ See *supra* note 4.

¹⁴ See National Broadband Plan Workshop Transcript: Technology/Applications and Devices, GN Docket No. 09-51, at 11-16 (Aug. 27, 2009) (Comments of Tim Napoleon, Akamai).

¹⁵ For example, George Conrades, Akamai's Executive Chairman, was a member of the National Infrastructure Advisory Committee ("NIAC") from 2002 to 2009 and chaired NIAC's Internet Hardening Working Group. Dr. Tom Leighton, Co-Founder and Chief Scientist of Akamai, was a member of the President's Information Technology Advisory Committee ("PITAC") from 2003 to 2005, and chaired PITAC's Subcommittee on Cybersecurity.

¹⁶ See, e.g., *The Future of Computer Science Research in the U.S.: Hearing before the Comm. on Sci.*, 109th Cong. 67 (2005) (testimony of Dr. Tom Leighton, Co-Founder and Chief Scientist, Akamai); *You've Got Mail- But Is It Secure? An Examination of Internet Vulnerabilities Affecting Business, Governments and Homes: Hearing Before the*

C. Akamai Products, Services, and Technology.

Akamai does not serve end user consumers directly. Akamai's services are designed to help its customers – companies, government agencies, and other enterprises – improve Internet communications with people they are trying to reach. Akamai's content delivery services facilitate the delivery of information from its customers to end users over the Internet. Other Akamai services germane to this proceeding are designed to enhance the performance of customers' Web-based applications – assisting in effective and secure cloud computing – and in optimizing customers' Web presence. Akamai competes with numerous other unregulated Internet firms in providing these types of services.

Content Delivery Services: By accelerating the delivery of information from its customers to end users over the Internet, Akamai's content delivery services improve the online experiences of its customers' end users, many of whom are individual consumers. These services use dynamic caching of content at Akamai servers located at the so-called "Edge" of the public Internet. End users do not pay Akamai for these services. Instead, enterprises with websites that serve end users pay Akamai to optimize and accelerate the delivery of their content and applications.

Akamai helps its customers meet the challenges of promptly and securely delivering content over the Internet through solutions that enable these customers to distribute Web content via Akamai servers that are located close to end users at the Internet Edge, rather than by relying on the customer's origin server. When an end user

Comm. on Gov't Reform, 108th Cong. 33 (2003) (testimony of Dr. Tom Leighton, Co-Founder and Chief Scientist, Akamai).

visits an Akamai customer's website, Akamai automatically selects an optimal Akamai server, such as one that is likely to contain the desired content while being close to the end user, to distribute the selected content. The selected server may be located in the network of the same Internet service provider ("ISP") as the end user requesting the content. But typically the server is located in another network, because Akamai relies on Internet traffic conditions and the customer's individualized delivery instructions and/or needs for content distribution, as well as other factors, to select an appropriate Akamai server. Once the appropriate Akamai server has been selected, the end user accesses the server, and that server delivers a stored or "cached" copy of the desired customer content efficiently and quickly, without having to communicate across the entire Internet back to the customer's origin servers. Content that is not available in the server's cache is retrieved from the customer's origin servers by the Akamai server, generally using the public Internet. In all instances, it is Akamai's customer, and not Akamai, that controls what is delivered and the rules by which it is delivered. End users access Akamai servers via last-mile broadband Internet access services and facilities owned by entities other than Akamai, such as cablecos or ILECs.

By caching its customers' content in servers at the Internet Edge, Akamai can reduce the impact of traffic congestion, bandwidth constraints, and capacity limitations on its customers' websites and on end user consumers accessing information from those websites. By reducing "long distance" traffic across the Internet, Akamai's services help relieve congestion throughout the Web. In fact, of the more than 25,000 networks (operated by ISPs and others) that constitute the Internet, Akamai has arranged to locate its servers in about 1,000 of those networks. While website owners maintain a source

copy of their content, Akamai can use its servers to help website owners manage global delivery, storage, and load balancing of such content.

Streaming Media; Application and Site Performance Solutions: Akamai also offers services to enterprise customers that are designed to help power their advanced websites, stream high-definition video and other media, conduct dynamic transactions, and improve the performance of their Web-based applications, such as online reservation systems, training tools, and human resources applications. For dynamic sites and application content, Akamai will serve cached portions of a Web page as described above. Additionally, through route optimization, Akamai identifies the fastest, most reliable path back to the customer's origin servers to retrieve any dynamic or interactive content. Using proprietary techniques to optimize the communications between the Akamai Edge server and the customer's origin servers, Akamai is able to retrieve and deliver dynamic content to the user quickly and reliably. As with content delivery services, however, the Akamai server and the customer rely on transmission capabilities provided by public Internet backbone providers, including cablecos and ILECs, to communicate and retrieve the requested content. Using these services, Akamai's customers can realize performance improvements without having to incur the significant costs associated with internal infrastructure buildout.

II. IN SEEKING TO PRESERVE AN OPEN INTERNET, THE COMMISSION SHOULD ALSO PERMIT ONGOING INTERNET INNOVATION, DEVELOPMENT, AND INVESTMENT.

A. Last-Mile Transmission Is The Area Of Greatest Concern Regarding An Open Internet.

When discussing the dangers that the open Internet faces as it continues to develop, the *Notice* focuses on the availability of robust “residential broadband Internet access service”¹⁷ as well as the actions of some Internet access service providers in “blocking or degrading Internet traffic, and doing so without disclosing those practices” to end users.¹⁸ The broadband Internet access service providers involved in those incidents were a cableco and an ILEC, each of which was providing last-mile broadband Internet access service to end user consumers.

Akamai believes that the *Notice* properly focuses on the activities of last-mile transmission providers, especially cablecos and ILECs. The *Proposed Rules* in the *Notice*¹⁹ apply specifically to providers of “broadband Internet access service,”²⁰ and define “broadband Internet access” as:

¹⁷ *Notice* ¶ 48.

¹⁸ *Id.* ¶ 50 and n. 113, citing *Madison River Communications, LLC and affiliated companies*, Order, 20 FCC Rcd 4295 (EB 2005) (“*Madison River Order*”); *Formal Complaint of Free Press and Public Knowledge Against Comcast Corporation for Secretly Degrading Peer-to-Peer Applications; Broadband Industry Practices; Petition of Free Press et al. for Declaratory Ruling that Degrading and Internet Application Violates the FCC’s Internet Policy Statement and Does Not Meet an Exception for “Reasonable Network Management,”* Memorandum Op. and Order, 23 FCC Rcd 13028 (2008) (“*Comcast Network Management Practices Order*”).

¹⁹ See *Notice* at App. A, *Proposed Rules* §§ 8.1-8.23.

²⁰ See *id.* § 8.3 (defining “broadband Internet access service” as “[a]ny communication service by wire or radio that provides broadband Internet access directly to the public, or such classes of users as to be effectively available directly to the public.”).

Internet Protocol [“IP”] data transmission service *between an 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.²¹

By applying only to those service providers that offer IP transmission between an end user and the Internet, the *Proposed Rules* address the types of last-mile broadband Internet access service providers that have caused the most serious issues with Internet openness to date. Akamai itself is not a provider of broadband Internet access service because it does not offer IP data transmission service between end users and the Internet.

Focusing the *Proposed Rules* on providers of broadband Internet access service also properly reduces the risk that the Commission’s actions could have unintended negative consequences for other portions of the Internet or other Internet participants. In particular, overbroad rules or vague rules that cause regulatory uncertainty could stifle innovation, development, and investment in the Internet. Such rules therefore would harm consumers who rely on the Internet for multiple social, educational, and commercial uses. Precisely because large portions of the Internet, including the operations of Akamai and its competitors, have developed successfully far outside the Commission’s jurisdiction, the Commission should be especially careful not to adopt regulations that, while nominally promoting an “open Internet,” have such unintended negative consequences.

Accordingly, if the Commission decides to adopt rules governing the open Internet, those rules should apply, at most, to “providers of broadband Internet access services” as defined in the *Proposed Rules*, specifically cablecos and ILECs. The Internet is composed of thousands of networks, website providers, and applications

²¹ See *id.* (emphasis added).

providers, with low barriers to entry and intense competition through much of the Internet ecosystem. However, providers of “IP data transmission service” between end users and the Internet, and specifically cablecos and ILECs, by controlling consumers’ critical last-mile infrastructure, effectively determine whether end users reach the Internet at all.

B. The Commission Should Not Extend the Reach of New Regulations to Other Entities.

The Commission should not apply new rules adopted in this proceeding to entities other than providers of broadband Internet access service.²² As discussed above, the Commission’s focus on these last-mile providers both addresses the Internet openness issues that the Commission has faced with cablecos and ILECs and limits the unintended negative consequences of new rules in this area.

The *Notice* discusses in detail that the Commission’s treatment of Internet openness traditionally has focused on providers of broadband Internet access service.²³ However, the *Notice* points out that AT&T has suggested the Internet openness obligations should apply to “content, applications, and service providers in addition to broadband Internet access service providers.”²⁴ AT&T’s suggestion attempts to equate the “content, applications, and service[s]” offered by other entities with AT&T’s broadband Internet access service. Such comparisons are inaccurate at best and could be interpreted as misleading.

AT&T made similar fallacious arguments in 2007 with respect to Akamai’s services in the *Broadband Industry Practices* inquiry.²⁵ As Akamai demonstrated in that

²² See *id.* ¶ 101.

²³ See *id.* n. 223.

²⁴ See *id.* ¶ 101.

²⁵ See, e.g., Comments of AT&T at 9-19, WC Docket No. 07-52 (June 15, 2007).

proceeding, services provided by Akamai and other content distribution providers on the Internet Edge are far different from the last-mile broadband Internet access services that are at the heart of the policy issues raised in the *Notice*.²⁶ In general, Akamai distributes Internet content in a manner that is significantly different from the IP transmission offered by providers of broadband Internet access services. For example, Akamai does not operate at the physical transmission layer, like AT&T and other providers of broadband Internet access service to consumers. Akamai neither operates its own transmission facilities, nor does it control last-mile broadband access as the ILECs and cable companies do.

In business contexts, Akamai's offerings have been aptly compared to software and hardware vendors that sell technology that enables content providers' websites to run faster and more reliably, except that Akamai provides its technology as a service. As explained above, Akamai serves its customers by arranging with ISPs and other network operators to locate Akamai-operated servers within such operators' networks at the Internet Edge. Akamai's Edge servers generally are connected to the public Internet through leased bandwidth. Akamai customers – small and large enterprises and government agencies – can then utilize Akamai's services to provide their end users with faster and more reliable access to the customers' content and applications.²⁷ Akamai

²⁶ See Reply Comments of Akamai at 5-7, WC Docket No. 07-52 (July 16, 2007).

²⁷ AT&T recently appeared to assume that services provided by Akamai and its competitors are only available to large, well-established enterprises. See Letter from James W. Cicconi, Senior Executive V.P., External and Legislative Affairs, AT&T, to Chairman Julius Genachowski, FCC, WC Docket No. 07-52, at 2-3 (Jan. 12, 2010). To the contrary, as discussed in Section I.A., *supra*, Akamai's services are available to even the smallest enterprises, and can help fledgling companies grow by harnessing the power of the Internet and offering scalability of online operations without the need to invest in a costly hardware build-out.

empowers its customers to identify which portions of their websites require more accelerated access or need to be available during anticipated periods of peak demand. Akamai itself is agnostic as to what data its customers select to have delivered by Akamai. Some Akamai customers choose to have their entire website delivered by Akamai, while others opt to have only certain content or applications delivered by Akamai, with other portions delivered by themselves or other third-party delivery companies. Akamai's content control system gives its customers the ability to establish these rule sets and thereby determine which content should be delivered.

Akamai enables online businesses and government agencies to make more efficient use of existing infrastructure, thereby decreasing the need for ISPs to build additional facilities with more capacity, the costs of which would be passed on to end user consumers. In making its services available to its enterprise and government customers, Akamai has neither the incentive nor the ability to block, degrade or impair content transmission over the Internet. In fact, Akamai has no ability to block or impair access to any website that has not agreed to become an Akamai customer. It is worth noting that Akamai's focus is on handling Web content and thus there is a vast amount of Internet traffic (such as e-mail and public peer-to-peer communications and other forms of Internet communication) that, like Web traffic from its non-customers, Akamai can neither "see" nor "touch."

Thus, Akamai performs no gatekeeper role on the Internet, and does not prevent or deter content providers from reaching consumers, prevent speakers from reaching listeners, or block, impair or degrade Internet traffic based on ownership, destination, type, or affiliation of content. Rather, Akamai's business is based on delivering as much

of its customers' content as possible. Akamai has every incentive to continue to innovate in improving the speed, reliability and security of transmissions over the Internet.

Akamai's services do not and cannot substitute for the "IP data transmission service between end users and the Internet" that constitutes broadband Internet access. As discussed above, the Commission should continue to focus on providers of broadband Internet access service as it considers whether to adopt Internet openness rules.

The Commission's interest in preserving the open Internet should be considered holistically with the national policy of promoting competition and limiting regulation in the Internet, embodied in Section 230(b)(2) of the Act.²⁸ Akamai is not a telecommunications provider, a provider of telecommunications services, a carrier, a VoIP provider, or, as seen above, a provider of broadband Internet access service. Akamai's business has never been subject to Commission regulation, and there is no reason for the Commission to extend such regulation over Akamai or similar Internet companies.²⁹

²⁸ See 47 U.S.C. § 230(b)(2).

²⁹ The Commission's ancillary jurisdiction over companies operating on the Internet is limited, and previous Commission efforts to stretch its ancillary jurisdiction to regulate emerging technologies have been largely unsuccessful. See, e.g., *Am. Library Ass'n v. FCC*, 406 F.3d 689 (D.C. Cir. 2005) (finding that the Commission exceeded its statutory authority when it attempted to extend its Title I ancillary jurisdiction to regulate digital television receiver apparatus after a transmission is complete); *FCC v. Midwest Video Corp.*, 440 U.S. 689, 700-09 (1979) (invalidating FCC attempt to impose Title I common carrier regulation on cable companies, because the Communications Act would prohibit such regulations if the parties had been broadcasters rather than cable companies); *Motion Picture Ass'n of Am. v. FCC*, 309 F.3d 796 (D.C. Cir. 2002) (invalidating Commission reliance on Title I to impose constitutionally problematic "video description" rules).

III. AKAMAI'S SERVICES ARE OUTSIDE THE SCOPE OF THE PROPOSED NETWORK MANAGEMENT RULES.

While Akamai agrees as an initial matter with NTIA and RUS that caching is a measure that can be used to provide acceptable service levels to all customers,³⁰ the Commission should not conflate the use of caching by Akamai and its competitors with “network management” by providers of broadband Internet access service. Many of Akamai’s services rely on caching on Akamai servers at the Internet Edge to enable content providers to enhance end users’ ability to access the content and applications of their choice. For example, where a customer requests an object such as an image file that is not located at an Edge server (e.g., because it has never before been requested), Akamai will retrieve the object from the customer’s origin servers, serve the object to the end user, and then keep a copy of the object in the server’s cache. The image file now is available at that Edge server for any subsequent end user request that Akamai directs to that server, thus reducing the total number of times the object needs to travel across various servers and networks to reach its requestor.

The practices of greatest concern in this proceeding – discrimination and blocking by providers of broadband Internet access services – *limit* end users’ ability to access the Internet. In contrast, Akamai caches its customers’ content on the Internet Edge and uses sophisticated techniques to retrieve interactive and dynamic content from its customers’ origin servers so that end users can access what they seek more *quickly and efficiently*. Akamai’s services do not degrade any Internet user’s experience in order to service Akamai’s customers. Akamai accelerates and facilitates the delivery of its customers’ content and applications, without regard to the substance of the content. Akamai’s

³⁰ See Notice ¶ 45, quoting *Broadband NOFA* at 33110-11.

success depends on its ability to assure customers that end users can access the content and applications of their choice, without delay.

The Commission should permit Akamai's services to develop freely. If the Commission decides to adopt regulations governing Internet openness, it should recognize that content and application delivery services like those of Akamai are used to improve traffic flow throughout the Internet – a “network of networks.”³¹ As recently as 2007, in the *Broadband Industry Practices* inquiry, several parties – including proponents of some types of Internet openness regulation – acknowledged the difference between Akamai's beneficial services and the anticompetitive practices for which, they claimed, regulation may be needed. For example, the Center for Democracy & Technology (“CDT”), which was concerned about blocking and discrimination by transmission providers, considered Akamai's provision of “caching services” to be unobjectionable

³¹ If the Commission nevertheless were to find that Akamai's services are some form of network management, any such services would constitute “reasonable network management practices” because of their ability to reduce or mitigate the effects of congestion throughout the Internet. As defined in the *Proposed Rules*, “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.

See Notice at App. A, *Proposed Rules* § 8.3. Because Akamai is not a provider of broadband Internet access service, clause (a) of the definition does not apply to Akamai directly. Although clause (b) is open-ended, there is no policy reason to extend it to Akamai. Moreover, if a broadband Internet access service provider incorporates Akamai's services into its strategy for managing congestion on its network, the Commission should find that such activity by the provider would constitute “reasonable network management.”

because “caching services do not cause some packets to be prioritized over others during the transmission process; rather, they speed delivery by storing certain content closer to potential recipients.”³²

IV. AKAMAI’S ENTERPRISE SERVICES EITHER PROMOTE OR RELY ON THE OPEN INTERNET.

The *Notice*’s discussion of “managed or specialized” services appears to focus on the “risk that the growth of managed or specialized services might supplant or otherwise negatively affect” the traditional open Internet.³³ The *Notice* describes “managed or specialized services” very broadly, as:

[IP]-based offerings (including voice and subscription video services, and certain business services provided to enterprise customers), often provided over the same networks used for broadband Internet access service, that have not been classified by the Commission.³⁴

The *Notice*’s examples of such services include “specialized telemedicine, smart grid, or eLearning applications that may require or benefit from enhanced quality of service rather than traditional best-effort Internet delivery.”³⁵

As discussed above, in addition to services that use caching, Akamai provides a variety of services to enterprise customers that are designed to improve streaming video and other media, advanced websites, dynamic transactions, and a variety of online enterprise applications.³⁶ These services either rely on the public Internet or promote

³² Comments of CDT at 9, WC Docket No. 07-52 (June 15, 2007).

³³ *See Notice* ¶149.

³⁴ *See id.* ¶ 148.

³⁵ *See id.* ¶ 150.

³⁶ *See supra* at 5-8.

public Internet development by making online applications like reservation systems and training tools more accessible to remote end users.

Akamai has long described some of these services as “managed services,”³⁷ which is a relatively widely used term in the Internet industry for services that a provider manages on behalf of a customer, often as contrasted with hardware or software that is purchased and managed by the customer. However, Akamai’s services pose none of the issues that the Commission raises in its discussion of “managed or specialized services.” Akamai’s “managed services,” which help enterprise customers use the Internet more efficiently, do not “supplant or otherwise negatively affect” the open Internet. Therefore, there is no reason for the Commission to even consider extending regulation to touch Akamai or similar Internet companies that provide such services.

As with the *Proposed Rules*, the Commission should focus its analysis of “managed or specialized services” on those offered by transmission providers like cablecos or ILECs, because these firms are consumers’ principal entry points to the Internet. Akamai suggests that the Commission review the record it gathers regarding the *Notice*’s discussion of “managed or specialized” services and release a notice of inquiry or further notice of proposed rulemaking on this topic before taking action regarding these services.

V. CONCLUSION.

The Commission should be commended for acting to preserve Internet openness. As it considers adopting new regulations in this area, the Commission should mitigate any potential negative effects of such regulations on Internet innovation, development,

³⁷ See, e.g., *Akamai Investor Relations*, available at <http://www.akamai.com/html/investor/index.html> (last visited Jan. 11, 2010).

and investment. The Commission should adopt any such regulations only for providers of broadband Internet access services, and it should not seek to regulate enterprise services, including those provided by Akamai, that do not “supplant or otherwise negatively affect” the public Internet.

Respectfully submitted,

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