

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

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

**REPLY COMMENTS TO PUBLIC NOTICE  
OF  
AKAMAI TECHNOLOGIES, INC.**

**I. INTRODUCTION AND SUMMARY.**

Akamai Technologies, Inc. (“Akamai”) replies to initial comments filed in response to the above-captioned public notice on two under-developed issues in the *Open Internet* proceeding (“*Notice*”).<sup>1</sup> Akamai applauds the Commission’s care in exploring the many important issues raised in this proceeding,<sup>2</sup> and focuses this reply on the first of the two complex issues raised in the *Notice*: the regulatory treatment of so-called “specialized services.”<sup>3</sup>

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<sup>1</sup> See *Further Inquiry into Two Under-Developed Issues in the Open Internet Proceeding*, Public Notice, GN Docket No. 09-191, WC Docket No. 07-52, DA 10-1667 (Sept. 1, 2010) (the “*Notice*”). Hereinafter, comments filed on or about October 12, 2010 regarding the *Notice* are short-cited.

<sup>2</sup> Akamai has participated multiple times in this proceeding. See, e.g., Reply Comments of Akamai, GN Docket No. 07-52 (Jul. 16, 2007) (“Akamai Broadband Practices Reply Comments”); Comments of Akamai, GN Docket No. 09-191, WC Docket No. 07-52 (Jan. 14, 2010) (“Akamai Open Internet Comments”); Reply Comments of Akamai, GN Docket No. 09-191, WC Docket No. 07-52 (Apr. 26, 2010) (“Akamai Open Internet Reply Comments”).

<sup>3</sup> See *Notice* at 2-4.

As one of the many unregulated companies that help enterprises deliver Internet applications and content more efficiently to end users, Akamai supports the continued growth of an open, innovative public Internet. Akamai's customers are enterprises, ranging from small entrepreneurs to some of the largest companies in the world, that use Akamai's content delivery services<sup>4</sup> to accelerate the delivery of their websites' content and applications to end users. Akamai's business depends on end users having unrestricted access through the public Internet to its customers' websites. At the same time, Akamai is well aware of the challenges that network operators face in carrying ever-increasing volumes of Internet traffic to end users.

Akamai also offers services to enterprise customers that are designed to help power the customers' advanced websites, stream high-definition video, conduct transactions, and improve the performance of their Web-based applications.<sup>5</sup> Akamai's services pose none of the issues that the Commission raises in its discussion of "specialized services." Thus, there is no reason for the Commission to even consider extending regulation to touch Akamai or similar Internet companies that provide such services. Because of the apparent lack of problems involving specialized services, the Commission should not adopt rules regarding specialized services at this time.

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<sup>4</sup> Although Akamai and its competitors are often referred to as "content delivery networks" or "CDNs," Akamai does not own or operate transmission facilities like traditional network operators. Instead, Akamai helps its customers meet the challenges of promptly and securely delivering content over the Internet by enabling 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. *See Reply Comments of Akamai, GN Docket 10-127 at 6-9 (Aug. 12, 2010) ("Akamai Reclassification Reply Comments")* (describing Akamai's content delivery operations and noting that of the more than 25,000 networks operated by Internet service providers and others that constitute the Internet, Akamai has arranged to locate its servers in about 1,000 of those networks).

<sup>5</sup> *See Akamai Open Internet Comments at 8.*

## **II. THE PUBLIC INTERNET MUST REMAIN OPEN AND INNOVATIVE.**

Akamai has a major stake in the continued open and innovative functioning of the public Internet. Akamai's content delivery services make the public Internet run more quickly and efficiently. The success of Akamai's content delivery services depends on its ability to assure its customers – enterprises with content-rich websites – that end users can access the content and applications of their choice through the public Internet without delay. Akamai accelerates and facilitates the delivery of its customers' content and applications over the public Internet, without regard to the substance of the content. Content and application delivery services like those of Akamai are used to improve traffic flow throughout the Internet. In fact, Akamai's services contribute to a better end-user experience for consumers accessing Internet content not delivered by Akamai because Akamai reduces "long distance" traffic across the Internet, helping to relieve congestion throughout the Web.

To promote the smooth functioning of the public Internet, the Commission should permit the services of Akamai and its content delivery competitors to develop freely, without regulation. The practices of greatest concern in this proceeding – possible discrimination and blocking by broadband Internet access providers – limit end users' ability to access the Internet. In contrast, Akamai caches its customers' content and uses sophisticated techniques to retrieve and interact with dynamic content and applications from its customers' origin servers so that end users can access what they seek more quickly and efficiently.<sup>6</sup>

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<sup>6</sup> See Akamai Reclassification Reply Comments at 6-9.

Akamai therefore agrees with several commenters<sup>7</sup> that the Commission should not broaden the definition of broadband Internet access service.<sup>8</sup> That definition has been well-established for a variety of technological platforms in both Commission and court decisions since at least 2002.<sup>9</sup> It thus provides a degree of regulatory certainty for the entire Internet community in an area where the Commission's authority is in a state of flux.<sup>10</sup>

The Commission also should disregard those few comments that seek to lump together broadband Internet access service and CDNs.<sup>11</sup> As Akamai has demonstrated at length, its services cannot be equated with either broadband Internet access service or telecommunications service.<sup>12</sup> The Commission's General Counsel recognized this fact

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<sup>7</sup> See, e.g., Verizon Comments at 56-57; Time Warner Cable Comments at 16-18.

<sup>8</sup> See Notice at 3.

<sup>9</sup> See *Inquiry Concerning High-Speed Access to the Internet over Cable and Other Facilities*, 17 FCC Rcd 4798 (2002) (cable modem service), *aff'd National Cable & Telecommunications Association, et al. v. Brand X Internet Services, et al.*, 545 U.S. 967 (2005) (intermediate history omitted); *Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities et al.*, 20 FCC Rcd 14853 (2005), *aff'd sub nom. Time Warner Telecom, Inc. v. FCC*, 507 F.3d 205 (3d Cir. 2007) (DSL service); *United Power Line Council's Petition for Declaratory Ruling Regarding the Classification of Broadband over Power Line Internet Access Service as an Information Service*, 21 FCC Rcd 13281 (2006) (broadband over power line service); *Appropriate Regulatory Treatment for Broadband Access to the Internet over Wireless Networks*, 22 FCC Rcd 5901 (2007) (mobile broadband Internet access service).

<sup>10</sup> See *Framework for Broadband Internet Service*, Notice of Inquiry, 25 FCC Rcd 7866 (2010); *Comcast Corp. v. FCC*, 600 F.3d 642 (D.C. Cir. 2010) ("*Comcast Decision*") (vacating *Formal Compl. of Free Press & Public Knowledge Against Comcast Corp. for Secretly Degrading Peer-to-Peer Applications*, 23 FCC Rcd 13028 (2008)).

<sup>11</sup> See, e.g., Time Warner Cable Comments at 28-29.

<sup>12</sup> See, e.g., Akamai Open Internet Reply Comments at 7-10; Akamai Reclassification Reply Comments at 6-9.

when explaining that the Commission’s broadband reclassification proposal would not affect the legal status of CDNs, stating “[i]t’s a server, not a transmission.”<sup>13</sup>

### **III. COMMISSION ACTION ON SPECIALIZED SERVICES IS NOT WARRANTED AT PRESENT.**

The discussion in the *Notice* of “specialized services” focuses on the creation of private, high speed networks or other offerings that pose issues of bypassing Open Internet protections, supplanting the open Internet, and anti-competitive conduct.<sup>14</sup> As described above, in addition to content delivery services, 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.

Akamai’s services pose none of the issues that the Commission raises in its discussion of “specialized services.” Akamai is not a broadband Internet access provider and does not otherwise own or operate transmission facilities on which an Internet “fast lane” could be constructed.<sup>15</sup> Rather, for its customers’ dynamic sites and application content, Akamai uses route optimization techniques to identify the fastest, most reliable paths through the public Internet back to the customer’s origin servers to retrieve dynamic or interactive content. By using proprietary techniques to optimize the communications, provided via public Internet backbone providers, between Akamai’s servers and the customer’s origin server, Akamai’s services retrieve and deliver dynamic

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<sup>13</sup> Lynn Stanton, “*Third-Way*” *Broadband Proposal Won’t Affect Internet Caching, Backbone, FCC’s GC Says*, TR Daily, May 13, 2010, at 3.

<sup>14</sup> See *Notice* at 1-2.

<sup>15</sup> See, e.g., Akamai Open Internet Reply Comments at 7-8; Akamai Reclassification Reply Comments at 9.

content to end users quickly and reliably. Using these services, Akamai's customers can realize performance improvements without incurring the significant costs associated with infrastructure build-out. Therefore, there is no reason for the Commission to consider extending regulation to touch Akamai or similar Internet companies that provide such services.

Because of the uncertain scope of this area and the apparent lack of problems involving it, the Commission should not adopt rules regarding managed services at this time. Multiple regulatory alternatives presented in the *Notice*,<sup>16</sup> including non-exclusivity, guaranteeing channel capacity, advertising limitations, unbundling, and limits on service offerings, in addition to broadening the definition of broadband Internet access service, should not be undertaken at this time. Rather, the interests of end users and content providers are advanced by continued investment and innovation in this aspect of the Internet, which the Commission can best encourage by monitoring closely the development of specialized services and their relationship to the public Internet.<sup>17</sup> As these services evolve, the Commission can and should evaluate whether further steps are needed.

#### **IV. CONCLUSION.**

The Commission should be commended for its commitment to Internet openness and to the health of the public Internet. As it considers its course in this area, the Commission should continue to be sensitive to any potential negative effects of its actions on Internet innovation, development, and investment. Recognizing that the focus

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<sup>16</sup> See *Notice* at 2-3.

<sup>17</sup> See Alcatel-Lucent Comments at 2 (recommending that the impact of the Commission's rules not interfere with the development of the nascent specialized service market); *id.* at 6-10 (analyzing regulatory alternatives presented in the *Notice*).

of Commission attention has been on broadband Internet access service, the Commission should not seek to extend regulation to services further in the Internet, including those provided by Akamai, and it should not seek to regulate specialized services that do not “supplant or otherwise negatively affect” the public Internet..

Respectfully submitted,

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