

February 20, 2015

**VIA ECFS**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: *Protecting and Promoting the Open Internet*, GN Docket No. 14-28

Dear Ms. Dortch,

On Thursday, February 19, 2015, on behalf of Akamai Technologies, Inc. (“Akamai”), I spoke briefly and separately with Daniel Alvarez, Legal Advisor to Chairman Wheeler; Matthew DelNero, Deputy Chief of the Wireline Competition Bureau; and Rebekah Goodheart, Legal Advisor to Commissioner Clyburn. I discussed the issues raised in Akamai’s February 9, 2015, *ex parte* letter.<sup>1</sup>

Specifically, I reiterated that any action the Commission takes in this proceeding must not impede the vital role that Akamai and other content delivery networks (“CDNs”) play in the Internet ecosystem. I said that the Order in this proceeding should make it clear that ISPs may allow some but not all content providers or third parties distributing content (such as CDNs) access to any particular ISP facility. If the Order is unclear, ISPs may believe they must provide access to all. This is not technically feasible and the result could be access for none, which would decrease the performance, scalability, reliability and security of the Internet. This has happened overseas. I urged the Commission *clearly that the Order does not prevent ISPs from letting some but not all CDNs or content providers into an ISP facility.*

I also stressed that Order should make clear that the Open Internet rules prevent ISPs from giving better treatment to vertically integrated content providers or distributors, such as CDNs, than to third-party content providers or distributors, such as CDNs. Since the 2010 Open Internet Order, ISPs have begun to build and buy their own CDNs. It is appropriate for the Commission to address this change in the market. Thus, I suggested that the Commission simply reiterate the language of the 2010 Open Internet Order, set forth below, with the phrase that appears in bold inserted:

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<sup>1</sup> Letter from Scott Blake Harris, Counsel to Akamai, to Marlene H. Dortch, Secretary, FCC, GN Dkt. 14-28 (filed Feb. 9, 2015) (attached hereto).

“the practice of a broadband Internet access service provider favoring its own content, applications, or services, or those of its affiliates—**including with respect to the terms and conditions on which it provides access to CDNs or content providers to its network facilities or end users**—would raise the same significant concerns and would be subject to the same standards and considerations in evaluating reasonableness as third party pay-for-priority arrangements.”<sup>2</sup>

Please contact me if you have any questions.

Sincerely,

*Scott Blake Harris*

Scott Blake Harris  
*Counsel to Akamai Technologies, Inc.*

cc: Daniel Alvarez  
Matthew DelNero  
Rebekah Goodheart

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<sup>2</sup> *Preserving the Open Internet*, GN Docket No. 09-191, Report and Order, FCC 10-201, 25 FCC Rcd. 17905, ¶ 76 (2010) (“2010 Open Internet Order”).

February 9, 2015

**Ex Parte**

Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street SW  
Washington DC 20554

Re: *Protecting and Promoting the Open Internet*, GN Docket No. 14-28

Dear Ms. Dortch:

Akamai continues to support the Commission’s goal of finding the best approach to protecting and promoting Internet openness.<sup>1</sup> On whatever legal theories the Commission ultimately proceeds, the Open Internet Order should protect consumers and innovation at the edges without stifling or reversing important technological improvements in the Internet’s “middle mile” that have reduced congestion and benefited all Internet participants. Moreover, if the Order is unclear or ambiguous it could inadvertently frustrate the goal of ensuring that the Internet remains an engine of innovation and growth.

Recognizing the risks of ambiguity, in the *2010 Open Internet Order* the Commission expressly stated that the rules did not apply to services such as “content delivery network services.”<sup>2</sup> In the NPRM, the Commission “tentatively” concluded to maintain the same approach in this proceeding.<sup>3</sup> Akamai agrees with that tentative conclusion and submits that it should be adopted in the final order. As the Commission now prepares to address Open Internet issues even more broadly than it did in 2010, we have set forth below a number of other issues that we believe the Commission should explicitly address to avoid harmful ambiguity. Finally, since it appears that the Commission will apply its Open Internet Order to interconnection and data transmission arrangements, we believe it should take a cautious approach in setting policy and encourage ISPs

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<sup>1</sup> *Protecting and Preserving the Open Internet*, Notice of Proposed Rulemaking, FCC 14-61, GN Docket No. 14-28, ¶ 4 (rel. May 15, 2014) (“NPRM”).

<sup>2</sup> *Preserving the Open Internet*, GN Docket No. 09-191, Report and Order, FCC 10-201, 25 FCC Rcd. 17905, ¶ 47 (2010) (“*2010 Open Internet Order*”).

<sup>3</sup> See NPRM ¶ 59.

and other market participants to develop voluntary principles that would help define what constitutes just and reasonable conduct and protect the open Internet.<sup>4</sup>

**APPLICATION OF THE OPEN INTERNET ORDER TO CONTENT PROVIDERS, INCLUDING CDNs**

*We do not believe that any of the positions set forth below are particularly controversial, and all are well supported in the record. We include them here only because we think that to avoid ambiguity it is important that they be explicitly noted in the final Open Internet Order.*

***1. CDNs do not sell, transport or offer any Title II services.***

The Order should clearly confirm that caching and related services offered by CDNs (including content providers that self-provision CDN services) are not Title II services. CDNs store popular content on servers within ISPs' networks at multiple points close to consumers, and use specialized mathematical algorithms to identify which servers can most efficiently respond to consumers' requests for content. Because the content server that is identified is physically close to the user and, in the estimation of the CDN, reachable via a relatively uncongested path, the user is often able to receive the desired content with improved performance, reliability, security and scale.<sup>5</sup> CDNs do not themselves transport any communications; consumer requests for content, as well as the content sent back, are transmitted over the best-efforts Internet to the consumer by others. Accordingly, the CDN services are not "telecommunications" within the meaning of the Communications Act.<sup>6</sup> Moreover, because CDN services agreements are individually negotiated with content provider customers, CDN services are not "telecommunication services" within the meaning of the Act.<sup>7</sup>

***2. CDN services do not constitute "prioritization."***

While there has been a lot of discussion in this proceeding over whether to ban or to permit "prioritization," there has been less said about what the term actually means. As noted, CDNs cache data near end users and use software and algorithms to identify preferred locations for users to access content in a way that avoids congestion on the Internet. This does not constitute prioritization. One data stream is not slowed to benefit another. Instead, caching and choosing an optimal server from which to request content reduces congestion *for all Internet users* by (1) reducing the distance content has to travel to the end-user and (2) reducing the amount of

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<sup>4</sup> See Letter from Vince Jesaitis, Information Technology Industry Council, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-28, at 1-2 (filed Jan. 15, 2015) ("[T]he Commission may conclude that voluntary industry principles are sufficient to ameliorate any concerns in the market.").

<sup>5</sup> Note, however, that it is the end user's ISP that ultimately determines the path by which the end user's request is routed to the identified content server, and how any content requested from that server is sent back to the end user.

<sup>6</sup> See 47 U.S.C. § 153(50) (defining "telecommunications" as "the transmission, between or among points specified by the user, of information of the user's choosing").

<sup>7</sup> See *id.* at § 153(53) (defining "telecommunication services" as services offered "for a fee directly to the public").

traffic at congestion points by identifying less congested pathways.<sup>8</sup> This reduction in congestion benefits both the users requesting the cached content and other users who experience reduced congestion. In other words, the network's transmission of that cached content is not only neutral, but also beneficial for the Internet ecosystem as a whole. Thus the final Open Internet Order should expressly state that CDN services do not constitute "prioritization" as that term has been used in this proceeding.

***3. ISPs that permit CDNs to cache data in their networks are not engaging in "prioritization."***

Most, if not all, ISPs allow some content providers and third parties distributing content (such as CDNs) to cache data in their networks. For the same reasons that CDN services do not constitute prioritization, an ISP allowing CDNs (or other content providers) to cache data on servers in its network is not engaging in prioritization. Thus the final Open Internet Order should expressly state that that ISPs are not engaging in prioritization by allowing third-party content distributors, such as CDNs, to connect their servers to points in the ISPs' networks closer to end users.

***4. It is reasonable for ISPs to differentiate and allow some but not all content providers and CDNs access to any particular facility.***

While ISPs routinely allow content providers and CDNs to place servers caching data in their facilities, it is not physically feasible to allow all those who wish to do so to place such servers in any particular facility. In other words, Akamai must often compete with others for access to ISP facilities. It cannot be otherwise. Thus the final Open Internet Order should explicitly state that rules banning ISPs from unreasonable discrimination do not prevent them from granting access to their facilities to some, but not all, third-party content providers and distributors, such as CDNs. In the absence of such an explicit statement in nondiscrimination rules overseas, some foreign ISPs have banned all such access, limiting the performance, scalability, reliability and security of their broadband infrastructure.<sup>9</sup> The Commission should be careful to avoid such an unintended result here.

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<sup>8</sup> See 2010 Open Internet Order ¶ 76 n.235 ("Moreover, CDNs typically provide a benefit to the sender and recipient of traffic without causing harm to third-party traffic. . . . [T]he record does not demonstrate that the use of CDNs has any material adverse effect on broadband end users' experience of traffic that is not delivered via a CDN.").

<sup>9</sup> The placing of servers in ISP facilities is not subject to Section 251(a) since that section applies only to interconnection between telecommunications carriers, and thus does not apply to connections to CDNs. See 47 U.S.C. § 251(a) ("Each telecommunications carrier has the duty . . . to interconnect directly or indirectly with the facilities and equipment of other telecommunications carriers.").

*5. It is unreasonable for ISPs to give better treatment to vertically integrated content or CDNs.*

Increasingly, through mergers and otherwise, ISPs own content providers and CDNs.<sup>10</sup> The economic incentive for ISPs to give an advantage to owned or vertically integrated content providers and CDNs, and their unconstrained ability to do so, is obvious. As a result, rules banning unreasonable discrimination by ISPs should prevent ISPs from giving better treatment to vertically integrated content providers, content distributors or CDNs than to third-party content providers, content distributors or CDNs. The Commission has before considered how the vertical integration of a content provider with an ISP could affect the incentives of the ISP to limit its subscribers' access to the content of unaffiliated providers. The *2010 Open Internet Order* thus cited the Commission's determination that "CDN providers unaffiliated with broadband providers generally do not compete with edge providers and thus generally lack economic incentives (or the ability) to discriminate against edge providers"<sup>11</sup> as the rationale for not applying its rules to third-party CDN arrangements. Conversely, the order noted that "delivery networks that are vertically integrated with content providers . . . have incentives to favor their own affiliated content."<sup>12</sup> The same incentive exists for ISPs to favor vertically integrated content delivery services. Third-party content providers and distributors, including third-party CDNs, would thus be disadvantaged in reaching the customers who access the Internet through the vertically integrated ISPs. Consumers, in turn, would experience worse performance when trying to reach the content stored on third-party CDNs.

To avoid this outcome, rules banning unreasonable discrimination should also prevent ISPs from giving better treatment to vertically integrated content or CDNs than to third-party content providers or distributors such as CDNs. The Commission, thus, should simply reiterate the language of the *2010 Open Internet Order*, set forth below, with the phrase that appears in bold inserted:

"the practice of a broadband Internet access service provider favoring its own content, applications, or services, or those of its affiliates"—**including with respect to the terms and conditions on which it provides access to CDNs or content providers to its network facilities or end users**—"would raise the same significant concerns and would be subject to the same standards and considerations in evaluating reasonableness as third-party pay-for-priority arrangements."<sup>13</sup>

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<sup>10</sup> See, e.g., Verizon, Press Release "Key Acquisition Position Verizon Digital Media Services as One-Stop Shop" (Jan. 6, 2014), available at <http://www.verizon.com/about/news/key-acquisitions-position-verizon-digital-media-services-onestop-shop/>.

<sup>11</sup> *2010 Open Internet Order* ¶ 76 n.235.

<sup>12</sup> *Id.* at ¶ 23.

<sup>13</sup> *Id.* at ¶ 76. The additional language in bold would appropriately address the changes in the market for CDN services, including the increased vertical integration, that have occurred since the *2010 Open Internet Order*.

With this language, the Commission can achieve end user protection without expanding beyond the scope of the *2010 Open Internet Order* and reaching to regulate interconnection and inter-network traffic-exchange issues generally in the wholesale broadband market.<sup>14</sup>

### **VOLUNTARY INDUSTRY PRINCIPLES OR BEST PRACTICES IN THE WHOLESALE MARKET**

The likely application of the Open Internet Order and Title II to interconnection and traffic-exchange arrangements raises many issues that were not addressed in the *2010 Open Internet Order* or by the proposed rules in the NPRM. Akamai believes it is not now necessary for the Commission to adopt any rules implementing Title II in the wholesale broadband market. Thus, under Title II, what constitutes “just and reasonable” charges and practices when it comes to interconnection or the exchange of traffic among carriers will—of necessity—be unclear for some time to come.

Akamai believes that there is much the industry can do, itself, to fill in the outlines of the final Open Internet Order. In other settings, the Commission has encouraged market participants to develop and enforce voluntary industry principles. In the wireless context, for example, the Commission has successfully worked with carriers to improve practices in providing consumers with data usage information,<sup>15</sup> and in enabling consumers to unlock their devices,<sup>16</sup> without the need for additional regulation.

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<sup>14</sup> Peering and interconnection arrangements present issues distinct from the regulations proposed in the NPRM, and Akamai has taken the position that the record was insufficient to adopt regulations governing those arrangements. See Letter from Scott Blake Harris, Counsel for Akamai Technologies Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-28, at 1 (filed Dec. 16, 2014). Comcast has suggested that this position is inconsistent with Akamai’s view that ISPs should not be permitted to discriminate in favor of vertically integrated content providers or CDNs. See Letter from Kathryn A. Zachem, Comcast Corp., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket Nos. 14-28, 10-127, at 2 & n.6 (filed Jan. 30, 2015). In so doing, Comcast conflates two unrelated issues. The Commission can and should enact consumer protection rules without also adopting specific rules governing interconnection. The question of whether ISPs discriminate against content providers that compete with an affiliate of the ISP in a way that is harmful to consumers and Internet innovation has always been a core concern in this proceeding. See NPRM ¶ 126 (“[W]e propose to adopt a rebuttable presumption that a broadband provider’s exclusive (or effectively exclusive) arrangement prioritizing service to an affiliate would be commercially unreasonable.”); *2010 Open Internet Order* ¶ 23 (“If broadband providers had historically favored their own affiliated businesses or those incumbent firms that paid for advantageous access to end users, some innovative edge providers that have today become major Internet businesses might not have been able to survive.”).

<sup>15</sup> See *Improving the Resiliency of Mobile Wireless Commc’ns Networks, Notice of Proposed Rulemaking*, FCC 13-125, 28 FCC Rcd. 14,373 (2013) (describing the course of events, and including citations to rulemaking and agreement with CTIA).

<sup>16</sup> See, e.g., Letter from Tom Wheeler, Chairman, Federal Communications Commission, to Steve Largent, President, CTIA, (Nov. 14, 2013), available at [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-324166A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-324166A1.pdf) (“Let’s set a goal of including the full unlocking rights policy in the CTIA Consumer Code before the December holiday season.”).

The broadband market for interconnection and inter-network traffic exchange is characterized by business-to-business arrangements and negotiations, rather than consumer-facing retail transactions. In this context, Akamai believes that the final Open Internet Order should encourage ISPs and other participants in this market to develop, adopt and enforce voluntary principles or best practices to guide future behavior.<sup>17</sup> It should also indicate an intention to give deference to any such principles or best practices in making future decisions about what practices are just and reasonable.

Sincerely,

*Scott Blake Harris*

Scott Blake Harris  
*Counsel to Akamai Technologies, Inc.*

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<sup>17</sup> See Letter from Vince Jesaitis, Information Technology Industry Council, to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-28, at 1-2 (filed Jan. 15, 2015) (“[T]he Commission may conclude that voluntary industry principles are sufficient to ameliorate any concerns in the market.”); Letter from Scott Blake Harris, Counsel for Akamai Technologies Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 14-28, at 1-2 (filed Dec. 16, 2014).