Kathleen Grillo
Senior Vice President
Federal Regulatory Affairs

1300 I Street, NW, Suite 400 West
Washington, DC 20005

Phone 202 515-2533
Fax 202 336-7858
kathleen.m.grillo@verizon.com

August 1, 2014

The Honorable Thomas Wheeler
Chairman
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Dear Chairman Wheeler:

I am writing in response to your July 30 letter to Dan Mead, in which you inquired about Verizon Wireless' network optimization policy as it will apply to 4G LTE customers.

This policy, which was implemented nearly three years ago to manage congestion at specific cell sites on our 3G network, is narrowly tailored to apply (1) only at particular cell sites experiencing unusually high demand; (2) only for the duration of that high demand; and (3) only to a very small percentage of customers who are heavy data users and are on plans that do not limit the amount of data they may use during the month without incurring added data charges (and otherwise have no incentive to limit usage during times of unusually high demand) – and then only when the particular cell site serving those customers is subject to unusually high demand.

Our goal with our network optimization policy has always been to manage the shared and finite network resources in a manner that best serves our customers. We believe that the network optimization practice, which has already served our customers well on our 3G network for nearly three years, is a narrowly tailored and appropriately targeted practice that does just that. At the time that we implemented this network management practice, we disclosed it to our customers, reviewed it in detail with your agency, and discussed it with consumer and other interested third party groups. It is similar to, though in some cases more targeted than, network management practices commonly used throughout the industry. And it closely tracks the type of tailored network management practices that the Commission has endorsed as reasonable. In short, this practice has been widely accepted with little or no controversy.

The Commission Has Recognized the Reasonableness of this Form of Network Management. The type of network optimization policy that we follow has been endorsed by the FCC as a narrowly targeted way to ensure a fair allocation of capacity during times of congestion. In the *Open Internet Order*, the Commission endorsed precisely this type of practice, using wireline cable modem service as an example:

> Numerous commenters support permitting the use of reasonable network management practices to address the effects of congestion, and we agree that congestion management may be a legitimate network management practice. For example, broadband providers may need to take reasonable steps to ensure that heavy users do not crowd out others.... For example, if cable modem subscribers in a particular neighborhood are experiencing congestion, it may be reasonable for a broadband provider to temporarily limit the bandwidth available to individual end users in that neighborhood who are using a substantially disproportionate amount of bandwidth.[1]

Such Practices Are Widely Used Throughout the Industry and Have Been Widely Accepted. Since the time of the FCC's *Open Internet Order*, this type of network management practice has become a widely accepted and widely adopted industry practice to manage congestion. For example, at the time we announced our policy, a Free Press official was quoted as saying that his "first reaction is that it does not appear to be a form of discrimination that would trigger the rules," while Media Access Project similarly acknowledged that the practice was consistent with the rules.[2]

Similar practices are employed by competitors throughout the industry, sometimes in a less tailored manner:

Sprint: "To more fairly allocate network resources in times of congestion, customers falling within the top 5% of data users may be prioritized below other customers attempting to access network resources, resulting in a reduction of throughput or speed as compared to performance on non-congested sites."[i] *Open Internet Information*, http://www.sprint.com/legal/open_internet_information.html.

AT&T: "[C]ustomers on a 3G or 4G smartphone with an unlimited data plan who have exceeded 3 gigabytes of data in a billing period may experience reduced speeds when using data services at times and in areas that are experiencing network congestion. Customers on a 4G LTE smartphone will experience reduced speeds once their usage in a billing cycle exceeds 5 gigabytes of data." *Info for Smartphone Customers with Legacy Unlimited Data Plans*, http://www.att.com/esupport/datausage.jsp?source=IZDUel1160000000U.

T-Mobile: *Regardless* of whether customers are at a location experiencing congestion: "[W]e may take certain steps with our network, including, but not limited to, temporarily reducing data throughput for a subset of customers who use a disproportionate amount of network resources. In addition, if your total usage exceeds 5GB … or the amount specified in your Data Plan, during a billing cycle, we may reduce your data speed for the remainder of that billing cycle." *T-Mobile Terms &Conditions (Effective, March 27, 2014)*, http://www.t-mobile.com/Templates/Popup.aspx?PAsset=Ftr_Ftr_TermsAndConditions&print=true.

---

[1] *Preserving the Open Internet*; *Broadband Industry Practices*, Report and Order, 25 FCC Rcd 17905, ¶ 91 (2010) ("*Open Internet Order*").

[2] "Verizon Wireless: Heavy Data Users Subject to Reduced Throughput," TR Daily. Feb. 4, 2011.

Managing our 4G LTE to Ensure the Best Wireless Experience. While the network optimization policy has long been applied to customers on our 3G network, we recently began notifying our customers that we will apply this policy on our 4G LTE network beginning in October.[3] We are providing this notice several months in advance to be open and transparent with our customers about network management practices that could affect their service. Of course, this is only one of the steps we are taking to ensure that, as data usage on our networks continues to grow, our customers continue to receive the superior service that they have come to expect from us. For example, as you know, we also continue to invest billions of dollars annually in our network and have recently deployed additional spectrum that is powering our XLTE initiative.

As noted above, our goal with our network optimization policy is to manage the shared and finite network resources in a manner that best serves our customers. The vast majority of our subscribers – including those on unlimited plans – will not be affected by this practice, except to the extent that their services may work better than they otherwise may during times of high demand. While this narrow practice will only be applied to customers on plans that do not limit the amount of data they can use in a month without incurring added data charges (and then only when those customers are on cell sites subject to high demand), that reflects the fact that a small percentage of the customers on these plans use disproportionately large amounts of data, and, unlike subscribers on usage-based plans, they have no incentive not to do so during times of unusually high demand. Rather than an effort to "enhance [our] revenue streams," our practice is a measured and fair step to ensure that this small group of customers do not disadvantage all others in the sharing of network resources during times of high demand. And except for the times when these heavy users are connected to a cell site that is currently experiencing high demand, they too will to continue to get all of the speeds that the 4G LTE network is capable of providing and will not be limited in the total amount of data they can use during a month.

Below are the answers to the specific questions you have posed:

1. *What is your rationale for treating customers differently based on the type of data plan to which they subscribe, rather than network architecture or technological factors? In particular, please explain your statement that, "If you're on an unlimited data plan and are concerned that you are in the top 5% of data users, you can switch to a usage-based plan as customers on usage-based plans are not impacted."*

The rationale is to provide the best possible network experience for customers, given the realities that network resources are finite and shared and that occasional states of unusually high demand on particular cell sites are unavoidable in the case of wireless networks. We also know that a very small percentage of customers are extremely heavy users who use a disproportionate amount of network resources and have an out-sized effect on the network. Not surprisingly, many of these heaviest users of the network are on unlimited data plans.

Under these circumstances, we believe that it serves our subscribers as a whole better if these heavy users are temporarily slowed to allow more of the shared and in-demand capacity to be available for other users of the network during times when a particular cell site is subject to

[3] *See* Tom Pica, "Ensuring the Optimal Wireless Experience," Verizon Wireless News Center (July 25, 2014), http://www.verizonwireless.com/news/article/2014/07/network-optimization.html.

heavy demand. These heavy users can continue to access the network and use their service, even during these times of heavy demand. And as soon the customer moves to a cell site not experiencing high demand or when the demand abates, he or she will continue to get the same speeds as everyone else.

As your question notes, this Network Optimization practice does not apply to customers on usage-based plans. Such customers have incentives to moderate their usage that customers on "unlimited" data plans do not, and such customers are less likely to engage in the forms of extremely heavy usage that we see from customers on unlimited data plans. Our statement quoted above informs customers of the differences among plans and the options available to them.

2. *Why is Verizon Wireless extending speed reductions from its 3G network to its much more efficient 4G LTE network?*

Verizon Wireless is focused on ensuring that our 4G LTE network is robust, and operates efficiently. We continually invest and add capacity to this network. In fact, we have doubled the capacity available for 4G LTE customers in many parts of the country over recent months through our XLTE initiative. As a result, independent testing consistently confirms that Verizon Wireless has the largest and most reliable wireless network.

While our 4G LTE network has great advantages over 3G or earlier technologies, the network's capacity remains a shared and limited resource that we must manage to provide the best network experience for all of our customers. Even in a 4G LTE environment, at certain times high demand can affect the performance of particular cell sites. When that happens, we believe that the best experience for the most subscribers is possible through the use of narrow and targeted practices such as network optimization.

3. *How does Verizon Wireless justify this policy consistent with its continuing obligations under the 700 MHz C Block open platform rules, under which Verizon Wireless may not deny, limit, or restrict the ability of end users to download and utilize applications of their choosing on the C Block networks; how can this conduct be justified under the Commission's 2010 Open Internet rules, including the transparency rule that remains in effect?*

Network optimization is a form of reasonable network management that is consistent with both the C Block rules and the Commission's 2010 Open Internet rules. The *Open Internet Order* and the *700 MHz C Block Order* both recognize the continuing need to engage in reasonable network management practices, and, as noted above, the FCC has expressly endorsed the type of targeted congestion management practice that we employ as a form or reasonable network management.[4] Providers throughout the industry have employed similar (and often less tailored) versions of this same practice.

[4] *See Open Internet Order*, ¶ 91 (quoted above); *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, Second Report and Order, 22 FCC Rcd 15,289, ¶ 206 (2007) ("Specifically, a C Block licensee may not block, degrade, or interfere with the ability of end users to download and utilize applications of their choosing on the licensee's C Block network, *subject to reasonable network management*.") (emphasis added).

With network optimization, our customers continue to be free to go where they want on the Internet and to use the applications, services and devices of their choice. Although the policy may result in slowed throughput under the very limited circumstances described above, neither the C Block rules nor the Open Internet rules requires any particular minimum speeds, so long as providers are transparent with their customers. And here, Verizon Wireless is clearly apprising our customers of that under certain circumstances, the speeds of a few heavy users may be temporarily slowed at congested cell sited in order to provider a great wireless experience to all of our customers.

Sincerely,