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January 17, 2024

United States Federal Communications Commission
45 L Street, N.E.
Washington, D.C. 20554

**Re: WC Docket No. 23-320, Reply Comment from the Center for Individual Freedom
Opposing Proposed Rule "Safeguarding and Securing the Open Internet"**

Dear Commissioners:

On behalf of over 300,000 grassroots supporters and activists across the nation, and pursuant to our mission of advocating public policies that advance internet, technological and broadband development most freely, effectively and efficiently, the Center for Individual Freedom ("CFIF") hereby submits this Reply Comment regarding the Federal Communications Commission ("FCC") Proposed Rule entitled "Safeguarding and Securing the Open Internet."¹

As set forth in CFIF's Comment of December 14, 2023, the Proposed Rule (1) fails as a matter of objective and measurable market realities and history, (2) it violates the United States Supreme Court's "Major Questions" Doctrine and (3) it violates the First Amendment to the United States Constitution.²

CFIF submits this Reply Comment to highlight an additional grave peril that the Proposed Rule poses to American innovation and a more free, effective and efficient internet. Specifically, the Proposed Rule's blanket command that service providers must treat all traffic identically would create a chilling effect on the burgeoning concept of "network slicing."

"Network slicing" constitutes a key feature of emerging 5G technology, as it allows for division of a network's infrastructure into multiple virtual networks, or "slices." Each slice can in turn be tailored to meet specific requirements and characteristics, allowing them to be optimized to serve different uses, applications or entire industries. Each slice creates a virtualized, isolation portion of the overall network, and can be customized to support diverse customer needs, such as low latency for applications like autonomous vehicles, high bandwidth for video streaming or massive device connectivity for the "internet of things." It further enables the coexistence of various services and applications, each with distinct performance and reliability requirements on a single physical network infrastructure.

Network slicing thus enhances the versatility of networks, allowing service providers to offer far more specialized and targeted services to different consumers or industries. As the FCC Technological Advisory Council 5G IoT Working Group highlighted in its "5G Network Slicing Whitepaper," it offers a

¹ <https://www.federalregister.gov/documents/2023/11/03/2023-23630/safeguarding-and-securing-the-open-internet>

² <https://cfif.org/v/images/pdfs/CFIF-Comment-to-FCC-Re-Safeguarding-and-Securing-the-Open-Internet.pdf>

pivotal innovation in the nation's broader transition to 5G technology, providing the flexibility needed to support an infinitely wider array of applications and services expected in the future:

Slicing is not a new concept. Virtual network capabilities have been part of packet networking for decades. However, 5G deployments will extend this virtualization to an end-end/top-to-bottom functional scope and imbed slicing as a core functioning part of the network. The benefits include internal service provider network management uses; the ability to differentiate broad classes of services that require certain characteristics or resource parameters; providing a virtual service provider network across another physical network operator; providing customers the ability to customize a virtual network to support their operations; traffic splitting across 5G, 4G and Wi-Fi networks; etc. Operators will utilize slicing to optimize network management from core to customer.³

That more fluid form of network differentiation, customization and optimization, however, is precisely what the Proposed Rule threatens to stifle by crudely requiring that providers treat all traffic identically.

If the Proposed Rule were to be interpreted and applied according to its overly broad terms, and enforced without tolerance of the unique technical requirements of network slicing, it would freeze the ability to engage in resource allocation and prioritization.

As just one illustration among many, the Proposed Rule by its own language suggests a blanket, one-size-fits-all, inflexible approach that would have that effect:

A person engaged in the provision of broadband internet access service, insofar as such person is so engaged, shall not engage in paid prioritization. "Paid prioritization" refers to the management of a broadband provider's network to directly or indirectly favor some traffic over other traffic, including through use of techniques such as traffic shaping, prioritization, resource reservation, or other forms of preferential traffic management, either (a) in exchange for consideration (monetary or otherwise) from a third party, or (b) to benefit an affiliated entity.⁴

Market innovators and service providers would possess no ability to reasonably ascertain which elements of network slicing would be deemed to violate such provisions. Slicing seeks to provide more customized virtual networks tailored to specific applications, each with its own differing set of requirements for bandwidth, latency and other requisites, and the potential negative impact of the Proposed Rule would arise in scenarios where certain applications within network slices demand prioritization for optimal performance. If the Proposed Rule is applied in the rigid manner that its own terms foretell, service providers would face limitations in allocating resources differentially among slices based upon their needs.

Indeed, the FCC Technological Advisory Council referenced above anticipated that very threat in its Whitepaper:

³ <https://transition.fcc.gov/bureaus/oet/tac/tacdocs/reports/2018/5G-Network-Slicing-Whitepaper-Finalv80.pdf>

⁴ Proposed Rule, Paragraph 144.

By definition, network slicing is intended to provide service differentiation. Mobile services in the 5G era can be highly specific to the level of specific applications and even industrial processes. These may require critical levels of reliability and low latency for example. Regulations defined for best effort mobile broadband may not have anticipated these sorts of applications. Operators should be able to define network slices to meet market needs and offer new services without fear that they will run afoul of regulations.⁵

Unfortunately, the Proposed Rule by its terms creates precisely that fear.

The Proposed Rule superficially attempts to mitigate that potential harm by stating that the FCC may waive any part of the Rule “for good cause shown.”⁶ That slim caveat, however, provides no assurance to market innovators, creating a “Mother May I?” regime that promises only protracted litigation, wasted resources and hesitancy to invest and innovate.

Accordingly, the Proposed Rule disregards the unique characteristics of network slicing, thereby creating needless challenges for resource allocation and prioritization, undermining the viability and promise of network slicing itself. For that additional reason, CFIF respectfully urges rejection or modification of the Proposed Rule.

Sincerely,

Timothy Lee
Senior Vice President of Legal and Public Affairs

⁵ FCC Whitepaper, page 24.

⁶ Proposed Rule, Paragraph 147.