



August 14, 2019

**VIA ECFS**

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

Re: Potential Reallocation of the 3.7-4.2 GHz band  
GN Docket No. 18-122; RM-11791; RM-11778

Dear Ms. Dortch:

Altice USA, Inc. (“Altice USA” or the “Company”) files this letter in response to the Commission’s July 19, 2019 Public Notice.<sup>1</sup> The Commission’s consideration of the issues around reallocating the 3.7-4.2 GHz band (the “C-Band”) from video to mobile broadband offers the FCC a unique opportunity to advance simultaneously important priorities in telecommunications policy:

- 5G and Competitive Wireless Choice: The reallocation of a substantial portion of the C-Band for wireless broadband using a public auction structured to give smaller carriers a realistic chance at buying spectrum would facilitate additional wireless options for consumers and accelerate the deployment of wireless broadband.
- Prevent Disruption in Video Service: Reallocation of the band can be accomplished without disrupting video service or imposing costs on multichannel video programming distributors (“MVPDs”) that would ultimately be borne by their customers.
- Rural Broadband: The reallocation – when accomplished through a transition to fiber-based contribution of video – can yield the ancillary benefit of connecting additional households to broadband, including in some of the most rural areas.

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<sup>1</sup> See *Wireless Telecommunications Bureau, International Bureau, Office of Engineering and Technology, and Office of Economics and Analytics Seek Focused Additional Comment In 3.7-4.2 GHz Band Proceeding*, Public Notice, GN Docket No. 18-122, DA 19-678 (rel. July 19, 2019).

Accordingly, Altice USA supports reallocation of the C-Band for wireless use, but only if done in a manner aligning with the above principles. In our view, the structure of the proposal introduced by ACA Connects – America’s Communications Association, the Competitive Carriers Association, and Charter Communications, Inc. (the “Industry Coalition” proposal) is far preferable to the plan of the C-Band Alliance, which appears to be designed to concentrate valuable mid-band spectrum in the hands of large mobile network operators (“MNOs”).

Altice USA’s views are informed by the Company’s unique perspective as a:

1. *Wireless Provider*: An infrastructure-based Mobile Virtual Network Operator (“iMVNO”) with plans to: (a) launch a disruptive, consumer-friendly service later this summer, and (b) bid for mid-band spectrum, to further its goal of becoming a full MNO;
2. *Broadband Provider*: A broadband company with recent and ongoing experience in building fiber to provide 1 Gbps and above speeds, including to rural areas; and
3. *Video Provider*: An innovator in video, with a strong interest in avoiding both disruption of its video service and additional costs to offer video, and with experience receiving and transmitting video over fiber, as envisioned under the Industry Coalition proposal.

Below we provide the Company’s relevant perspective and operational experience. Specifically, we elaborate on two key aspects:

- The C-Band’s importance to wireless broadband, and Altice USA’s interest in bidding for the spectrum, as part of the Company’s planned evolution from iMVNO to an MNO; and
- The need to ensure seamless video service, and the feasibility of transitioning video from the C-Band to fiber, as Altice USA has done.

### **C-Band Spectrum for Wireless Broadband**

Mid-band spectrum – including the C-Band – promises to be an important component in offering nationwide 5G service. In comparison to millimeter wave spectrum, the C-Band offers the potential for larger bandwidth licenses and better propagation characteristics, both of which are necessary to support advanced wireless services and applications. As with the 3550-3700 MHz band,<sup>2</sup> spectrum licenses in the C-Band would complement Altice USA’s infrastructure-based model for wireless entry, leveraging the Company’s substantial investment in WiFi.

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<sup>2</sup> Letter from Altice USA, Inc., American Petroleum Institute, Frontier Communications, Motorola Solutions, Inc., NCTA – The Internet & Television Association, Windstream, and Wireless Internet Service Providers Association, to Marlene H. Dortch, Secretary, FCC, GN Docket No. 17-258 (June 4, 2019).

Altice USA has an interest in bidding for C-Band spectrum, given the Company's facilities-based approach to wireless. The Company has chosen to enter the wireless market as an iMVNO, meaning it has constructed core infrastructure, limiting its reliance on MNOs' Radio Access Networks ("RANs"). Altice USA chose this path rather than resale, which increases roaming (and therefore retail) costs, restricts feature and handset innovation, and gives consumers largely another "me too" version of existing wireless products. Instead, Altice USA is constructing its own wireless network and handling nearly all aspects of its wireless offering. The Company's imminent entry is facilitated through its partnership with Sprint Corporation ("Sprint"), which affords access to Sprint's RAN. But Altice USA will use its own fixed network and mobile core to supply all other aspects of the mobile offering, including the SIM, roaming and network partners, data and Internet access, voice messaging, rate charging, customer care, and billing. This essential set of assets affords the Company the independence necessary to bring true price and product competition to MNOs, benefiting retail consumers.

To ensure its long-term position as a durable, sustainable wireless competitor, the Company is interested in acquiring its own spectrum licenses – including in the C-Band – given its attractive technical characteristics. We therefore respectfully request that any reallocation be designed to create a realistic opportunity for smaller carriers to bid for and secure licenses in the C-Band.

#### **MVPD Video Service Must Not Be Disrupted, and Transitioning to Fiber Is the Best Approach**

The reallocation of C-Band spectrum for wireless use must ensure that services provided by incumbent receive-only earth station operators are not adversely impacted. For cable operators, that protection may be best provided by transitioning video contribution from satellite to a fiber-based model. Although the transition of video programming operations to fiber will require significant investment, fiber backhauling offers comparable, if not superior, transmission quality and reliability to that of the legacy television receive-only ("TVRO") model occupying much of the C-Band today. Fiber can also better handle the data transmission demands of future generations of video transmission standards.<sup>3</sup>

#### **Altice USA's Experience Demonstrates that Fiber Is a Workable Substitute for the C-Band**

Altice USA's own operational experience with the transportation of video over fiber and its success in fiber deployment support a key underpinning of the Industry Coalition proposal: that fiber represents a viable, reliable substitute to the C-Band for backhaul video.

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<sup>3</sup> See Letter from Ross Lieberman, ACA Connects - America's Communications Association, Alexi Maltas, Competitive Carrier's Association, and Elizabeth Andrion, Charter Communications, Inc., to Marlene H. Dortch, Secretary, FCC, GN Docket No. 18-122 at 3 (July 2, 2019).

### *Eastern Footprint—Working, Successful Model for Fiber-Based Video Distribution*

Fiber-Based Video Transport in the NYMA. In much of its Optimum service territory in the New York Metropolitan Area (“NYMA”), Altice USA receives and transports video through direct fiber connections with programmers. Altice USA then transports the programming over a redundant fiber backhauling network to its three master headends. From there, the content is encoded and transported over the Company’s hybrid-coaxial cable fiber plant<sup>4</sup> to regional hubs, and then, finally, to customers’ homes.

This method has proven highly reliable in providing consistent delivery of video service to customers, which is critical in a hypercompetitive market like the Optimum footprint. Because the Company’s network is built with multiple redundant paths to mitigate fiber cuts and other network problems, Altice USA has achieved a high degree of network reliability, including video.

### *Western Footprint—Successful, Timely Fiber Deployment*

While the Company’s Eastern service territory comprises mostly dense urban and suburban markets in the NYMA, Altice USA’s Western footprint includes many small to mid-sized markets, including rural areas of Texas, West Virginia, Louisiana, Oklahoma, Kansas, and Arkansas. The Company already offers 1 Gbps to a significant portion of its Western footprint. However, Altice USA is executing on an ambitious plan to connect more households – including those in extremely rural, remote areas – to the network through fiber deployment akin to that contemplated by the Industry Coalition.

As context, today, the Company serves a majority of the households it passes in its Western footprint from fiber connected back to two master headends. For these customers, the Company receives its video services via satellite at the two headends and then transports the content over various fiber networks – either built and maintained by Altice USA or leased from network service providers – and then ultimately over last mile fiber or coaxial cable to customers’ homes. Were Altice USA able to build and/or lease fiber to pick up video programming at one of the 40-50 “meet points” contemplated under the Industry Coalition proposal, use of the C-Band would be unnecessary to serve almost all of the Company’s homes in its Western footprint.

In the remaining parts of its Western footprint, the Company receives video either via C-Band delivery to earth stations at the disparate market headend locations or from local off-air broadcast antennas to these smaller, standalone headends serving much less dense populations (and for which direct fiber connections have proven cost-prohibitive). To connect these households to the Company’s master headends and subsequent product offerings available over the fiber network, the Company would likely construct fiber or lease circuits to the disparate market headend locations – much as it has done for the majority of its Western

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<sup>4</sup> As the Company has informed the Commission in other contexts, Altice USA is building a fiber-to-the-home network to provide 10 Gbps broadband and other advanced services – including 4K video delivered in IP format – to its customers. See, e.g., Reply Comments of Altice USA, Inc. at 1, MB Docket No. 05-311 (Dec. 14, 2018).

footprint. The Company has extensive experience in this area, as evidenced by the substantial amount of fiber it has constructed or leased to connect the majority of its households in the west to the master headends. Importantly, Altice USA's fiber deployment and leased circuit purchases demonstrate that the fiber deployment premise of the Industry Coalition proposal is built on a solid foundation.

*Ancillary Benefit – Rural Broadband Deployment.* One ancillary benefit of transitioning signal delivery to fiber would be the ability to use such a fiber network to improve wireline broadband service to those service areas. Today, there are some areas for which the return on investment makes fiber deployment challenging as an economic matter. Allocating a portion of the projected sizable auction revenues of the C-Band to fiber backhauling would make possible the benefits of broadband connectivity in the most rural areas, consistent with Commission goals.

France's Satellite Independence Experience: An example on a smaller scale of a successful transition of video from satellite to fiber is that of SFR Numericable ("SFR"), which offers a suite of communications services including fixed and mobile broadband and video, and with whom Altice USA shares common origins.<sup>5</sup> SFR recently completed transitioning its video contribution from satellite to fiber. Even considering the different scale and scope of the U.S. market, this "satellite independence" initiative is a promising precedent for transitioning video from satellite to fiber.

## **Conclusion**

Altice USA urges the FCC to ensure that reallocation of the C-Band aligns with the following core principles:

- More Spectrum for 5G, Foster Competitive Entry: A substantial portion of the band should be reallocated to wireless use and made available under an FCC auction structured to make spectrum realistically available to smaller carriers, not simply to existing MNOs.
- Transition Video Contribution to Fiber, with No Disruption to Video Service: Video service should not be disrupted, and MVPDs should not bear costs associated with reallocation. As Altice USA's experience demonstrates, fiber is a proven, reliable, and indeed advantageous means of transporting video. The promise of additional fiber deployment paid for by a portion of auction proceeds provides further support for the structure of the Industry Coalition proposal.

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<sup>5</sup> Though formally separated from Altice N.V. (the ultimate parent of SFR), Altice USA is leveraging the global experience and R&D from subsidiaries of N.V. to benefit U.S. consumers.

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We appreciate the Commission's consideration of the Company's views in this matter.

Respectfully submitted,

/s/ Paul Jamieson

Paul Jamieson

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Government Affairs & Policy