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February 4, 2020

Ms. Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C., 20554

Re: Expanding Flexible Use of the 3.7 to 4.2 GHz Band, GN Docket No. 18-122

Dear Ms. Dortch:

AT&T Services, Inc., on behalf of itself and the affiliates and subsidiaries of AT&T Inc. (collectively, “AT&T”), files this *ex parte* letter to supplement the record regarding the transition of C-band spectrum from Fixed Satellite Service (“FSS”) use to mid-band flexible use (“MBX”). AT&T has previously urged the Commission to release a proposed transition plan that would be subject to public notice and comment and ultimate approval by the Federal Communications Commission (“Commission”).<sup>1</sup> Given the need to expedite the availability of MBX spectrum—and based on subsequent and significant developments in the record concerning transition planning—AT&T now believes the Commission could and should adopt a transition plan without additional rulemaking processes, as long as the Commission’s order approving the plan also addresses three key priorities: (i) guaranteeing band clearing within a fixed and prompt period of time, (ii) ensuring the continued viability and quality of the services provided to customers of C-band services, including those using these services to distribute video programming or to produce such programming on location (*e.g.*, sports competitions), and (iii) providing for fair and timely resolution of any transition disputes.

From its perspective as a leading mobile broadband provider, AT&T strongly supports an order that makes MBX spectrum available as soon as practicably possible, both to satisfy surging demand for wireless services and to ensure the United States continues to lead the world in next generation services.<sup>2</sup> Maximizing the benefits of 5G will require a broad range of spectrum—

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<sup>1</sup> Letter from Michael P. Goggin, AT&T Services, Inc., to Marlene H. Dortch, Secretary, Federal Communications Commission, GN Docket No. 18-122 (dated Oct. 23, 2019); Reply Comments of AT&T Services, Inc., GN Docket No. 18-122 at 7-9 (Dec. 11, 2018).

<sup>2</sup> See, *e.g.*, CTIA—The Wireless Association, “The Race to 5G”; available at: <https://www.ctia.org/the-wireless-industry/the-race-to-5g> (last visited Feb. 3, 2020); US. Senate Committee on Commerce, Science, & Transportation, “Wicker, Thune Introduce 5G Spectrum Act” (Nov. 18, 2019) (noting need to get “crucial mid-band spectrum into the market,” which will “benefit the American people and secure our position as the leader in the race to 5G”); Bloomberg, “Trump Says U.S. ‘Must Win’ Race to Develop 5G Infrastructure” (Apr. 12, 2019); available at: <https://www.bloomberg.com/news/articles/2019-04-12/fcc-to-auction-broadest-set-of-airwaves-yet-to-spur-5g-service> (last visited Feb. 3, 2020).

and mid-band spectrum like the C-band will play a crucial role. Among key transition priorities, then, must be a timeline that is as rapid as possible and effectively enforced.<sup>3</sup>

From its perspective as a leading video content producer and multichannel video program distributor (“MVPD”), AT&T also strongly supports the record evidence that the proposed transition of C-band spectrum from FSS use to MBX must be managed with exceptional care. What is at stake is nothing less than, among other things, preserving the successful transmission of video programming to over 100 million locations, while making deep and significant changes affecting all participants in the entire video content origination and distribution ecosystem, including WarnerMedia (“WM”).

AT&T, and specifically WM, has reviewed plans provided to it by the C-band Alliance and WM’s satellite vendors to address WM’s needs through, and after, a C-band spectrum transition. To accomplish the reduction in satellite transponder use required by these plans, WM must ensure the accomplishment of antenna repoints, dual illumination, filter installation, and potential antenna changes at its customer locations. WM must also completely eliminate its current C-band distribution of standard definition (“SD”) video and implement high efficiency video coding (“HEVC”) throughout its content distribution chain. To do so, WM will have to deploy conversion equipment to convert high definition (“HD”) video to SD and preserve the availability of an SD video stream at customer head ends where SD feeds are currently being used. Moreover, HEVC is the only encoding scheme that, based on prior experience, WM is confident offers video quality comparable to what is enjoyed today by its MVPD customers within the transponder bandwidth that will be available to WM post-transition. Implementing HEVC will require complex and tailored solutions to be configured and installed at client locations.

Although the foregoing processes will be complicated and effort-intensive, they can be successfully implemented if the Commission adopts the following fundamental policies:

***A successful transition will require a clear governance structure driven by the core principle that current users should be left un-harmed.***

First, the transition should be managed and coordinated by a single entity, a “Transition Administrator” (“TA”), subject to Commission oversight. It is true that the actual work of launching new satellites and planning transponder moves can only be done by the satellite operators; and other tasks, such as the installation of filters at earth stations, conducting an inventory of earth station equipment and requirements, and even bursar-type accounting functions, might be performed by any number of entities. But a single entity must be responsible to coordinate these activities for a seamless transition. Tasks such as ensuring content services occupy the same satellite orbital neighborhood, coordinating dual illumination, and sequencing

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<sup>3</sup> See, e.g., Letter from Bill Tolpegin, Chief Executive Office, C-Band Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission (dated Jan. 14, 2020) (noting “Each year of delay [in transitioning the C-band] is value lost forever—here, about \$50 billion or more per year in consumer surplus”).

of upgrades for MVPDs receiving programming from multiple satellite vendors, will require centralized administration to ensure that they are efficiently and effectively planned and completed. Moreover, the TA should be incentivized to work quickly, including allowing for discretionary spending reasonably calculated to accelerate the process—*e.g.*, providing earth stations owners a modest premium for completing transition steps promptly, if appropriate. While some financial controls on the TA would be appropriate to ensure that funds are distributed promptly, without bias and to ensure that sufficient funds remain available to complete the transition, the Commission should be careful to avoid adopting policies that artificially incentivize the TA to avoid fully compensating C-band users for necessary upgrades and other reasonable expenses.

Second, the Commission should adopt clear and comprehensive rules: (i) regarding what expenditures are compensable and (ii) implementing a rapid process for payment of reimbursements and adjudication of disputed reimbursement claims. The Commission must state unambiguously that incumbent users are, at a minimum, entitled to equivalent or better facilities and services post-transition.<sup>4</sup> For video content distribution, this should include a requirement that C-band earth station owners should have available the same output streams, each with the same or better video quality, that they enjoyed pre-transition (*i.e.*, HD provided at same video quality regardless of bandwidth used, SD provided through down-conversion of HD at prior SD quality if SD is eliminated).

With respect to compensation, the FCC should also confirm that preparatory expenditures undertaken prior to the C-band/MBX auction are reimbursable if the expenses are otherwise qualifying. This would incentivize C-band users potentially to take steps now that, if delayed until after the auction, might otherwise slow the final transition. In addition, the Commission's

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<sup>4</sup> CBA has noted that “customers and earth station operators [should] be reimbursed for their transition-related expenses, such as filters and other equipment necessary to clear spectrum,” but cautioned that “[c]ustomers and earth station operators should not, however, be allowed to divert such funds to pay for technology upgrades or other initiatives not directly related to and necessary to continue FSS-based operations in a smaller portion of the C-band while minimizing the possibility of customer disruption,” Letter from Bill Tolpegin, Chief Executive Office, C-Band Alliance, to Marlene H. Dortch, Secretary, Federal Communications Commission at 6 (dated Jan. 24, 2020) (“*CBA Transition Ex Parte*”). While AT&T concurs that funding for transition-related equipment modifications should not be used to fund service upgrades that are more costly than budgeted C-band transition costs, AT&T does believe technological neutrality policies should permit earth station licensees to apply C-band funding to alternative media deployments as long as they make up the difference between the compensable C-band upgrade costs and, for example, what might be a much more expensive fiber optic upgrade. By the same token, the Commission must ensure that reasonable transition expenses are promptly compensated. While CBA has argued that operators should not receive “gold-plated” equipment or “bespoke transitions,” precedent is clear that the reimbursed costs are not limited to the value of the earth station or users’ equipment today, *Teledesic v. Fed. Comm. Comm’n*, 275 F.3d 75 (D.C. Cir. 2001) (noting Commission’s view that it is “essential that the process not disrupt the communications *services* provided by the existing ... operations”) (emphasis added) (citing *Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, Third Report and Order and Memorandum Opinion and Order*, 8 FCC Rcd 6589, 6594 (1993)). The ultimate touchstone of whether an expense is compensable is thus whether the expenditure was necessary to ensure that the *service* the incumbent will receive in the future is equivalent to, or better than, what it previously had, regardless of the cost of the equipment to achieve that end.

transition rules should define an expedited dispute resolution procedure for reimbursement claims. Those expedited procedures might, as an initial step, require third party dispute resolution, but ultimately the claimant/TA should have a final appeal to the Commission itself. Finally, the transition process should permit self-deployment by entities willing to undertake the work—*e.g.*, WM or DIRECTV—with pre-payment of estimated deployment costs and subsequent true up. Allowing stakeholders to self-deploy necessary upgrades or equipment at their own facilities supports the principle that, ultimately, technology choices should not be imposed on stakeholders by the Commission or TA. We acknowledge that permitting stakeholders to make alternative technology choices might raise questions if the benchmarks we discuss below are not met. While the TA should not ordinarily be responsible for a third party's failure to implement some non-C-band alternative, at the same time the TA should not have immunity from the transition timeline benchmark penalties discussed below if it takes reimbursement actions that impede a party's ability to self-install technology.<sup>5</sup>

***A successful transition should impose enforceable progress milestones linked to financial incentives on the Transition Administrator.***

The Commission's transition rules should provide a detailed implementation schedule with benchmarks that will have to be met by the TA to ensure that the transition is completed on schedule. Missing these milestones should have significant financial consequences for the TA, and, because of the deeply integrated role played by satellite operators in the transition, any incentive payments to the incumbent satellite companies should be withheld until transition completion.<sup>6</sup> In addition, the milestones should be designed to provide an early warning of any potential to miss the final deadline, so minimally at 6-month intervals (and potentially with a higher cadence near key deadlines like the end of the 18-month early tranche clearing and the final 36-month deadline). Benchmarking the transition will be effective tool only if the Commission has sufficient time to take remedial action to bring the transition back on track.

Completion of any milestone should be confirmed by requiring certifications from key impacted stakeholders including, depending upon the benchmark, satellite service providers, satellite services customers, licensed earth station owners, receive-only registered earth station owners, as well as mobile service providers, sports venues and other stakeholders involved in the continued use of C-band services to produce video programming on location. Furthermore, it would be appropriate to have percentage or numeric milestones for satellite operator upgrades necessary for the transition, including both new satellite launches and the transition of TT&C facilities to consolidated locations. With respect to the earth station filter installation and transponder

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<sup>5</sup> *CBA Transition Ex Parte* at 6. For example, the availability of reimbursement funds might affect an earth station operator's ability to secure and self-install new equipment. Although the TA should have the power to deny compensation for costs unrelated to the C-band transition, TA denials of reasonable reimbursement claims could delay self-installations, and those delays should be the responsibility of the TA.

<sup>6</sup> It is critical that the TA should have a financial incentive to complete the transition in a timely manner if it is charged with the oversight role. Obviously, if the satellite operators who are seeking an incentive payment from the TA, those financial incentives will exist. If the TA and the satellite operators do not have an identity of interest, a question arises about the division of financial incentives between the entities involved.

changes, the Commission should require benchmarks concerning: (i) validating that all earth stations transmitting and receiving C-band data streams have established the equipment/configurations at their sites to establish baseline for transition, which should be certified by licensed earth station owners and all satellite service customers; (ii) completing filter installation, which should be certified by the earth station owner; (iii) repointing of earth stations, if needed, which should be certified by both the earth station owner and impacted satellite service customers; (iv) replacing or reconfiguring receivers for MVPDs, which should be certified by both the earth station owner and the satellite service customers; (v) completion of transponder clearing to complete repacking for each satellite customer, including appropriate dual illumination resources where needed; and (vi) completion of efforts to develop and implement technical solutions to enable the continued use of C-band services to produce video programming on location. As to compression upgrades, affected content providers will need to certify completion and reimbursement of compression upgrades on the uplink side, and satellite customers will need to certify that earth stations receiving C-band content have completed necessary decoding upgrades and performance tests.

Finally, the Commission should mandate that the transition process recognize the customer relationships that exist today in the C-band.<sup>7</sup> In particular, the upgrade/configuration process should be structured to provide transparency and opportunity to coordinate—for each entity receiving video content—between the TA, the satellite provider, the content provider and the owner. Today, when significant upgrades are undertaken or transponders moved, content distributors, like WM, typically participate in discussions with the satellite operator as well as the MVPD users to ensure that the delivery of services is uninterrupted and all consumer needs are met. That process should be mirrored in any transition. In addition, content distributors, like WM, should be afforded the opportunity, within reason, to initiate contact with affiliated earth station operator clients and to be included on correspondence with their earth station operator clients. From a client perspective, typical safeguards usually employed in major C-band shifts should also be employed—for example, in cases where dual illumination is employed, dual illumination should continue for as long as needed to ensure all client earth stations have been fully transitioned. And, all work performed on client earth stations should be undertaken only after reasonable notice to the earth station owner, at times coordinated with the earth station owner to minimize any potential impacts, and without any destructive work undertaken until validation and testing of proper output has occurred.

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<sup>7</sup> Unlike in many prior incumbent transitions where licensees operated their facilities in isolation as part of a private networks, C-band services have more complex contractual implications. For example, a video content producer may contract with a satellite operator for transponder capacity, while C-band earth station operators typically only contract with the content provider, not the satellite operator, even though they are typically the owners of the facilities. Thus, not only should the Commission avoid decisions that force adoption of specific technology choices by satellite operators and their customers, the Commission should recognize that some technology choices (and how those technology choices are deployed) may also be regulated by private contracts, including those between video content producers and their affiliates/customers.

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If there are any questions concerning this *ex parte*, please contact me at (202) 457-2055.

Sincerely,

*/s/ Michael P. Goggin*

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Michael P. Goggin