

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of:)

Fixed and Mobile Services in the Mobile) ET Docket No. 10-142
Satellite Service Bands at 1525-1559 MHz)
and 1626.5-1660.5 MHz, 1610-1626.5 MHz)
and 2483.5-2500 MHz, and 2000-2020 MHz)
and 2180-2200 MHz)

COMMENTS OF AT&T INC.

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EXECUTIVE SUMMARY

One of the most important and ambitious goals of the National Broadband Plan is the identification of 500 MHz of additional wireless broadband spectrum in the next ten years, including 300 MHz of spectrum for mobile broadband in the next five. The NPRM and NOI outline an appropriate framework for stimulating the deployment of terrestrial wireless broadband services in the MSS bands while also ensuring sufficient MSS capacity to meet the future needs for satellite services. Rationalizing the MSS bands for terrestrial wireless use is a good first step to implementing a comprehensive broadband spectrum strategy.

AT&T supports the NPRM's proposal to add primary fixed and mobile allocations to the 2 GHz MSS band. The 2 GHz MSS band has many of the technical characteristics that are essential to effective mobile broadband spectrum, including being available in large contiguous spectrum blocks, having sufficient uplink/downlink separation, and being in the frequencies between 450 and 4000 MHz that have appropriate propagation characteristics. Moreover, the existing Mobile and Fixed designations on the International Table of Allocations for this band make it an appropriate target for international harmonization.

The Commission should also move forward with its proposal to apply its secondary market rules to leases of rights to terrestrial use of the MSS frequencies. These rules would be an efficient means of moving spectrum to higher-valued uses, so long as there are no arbitrary restrictions placed on licensees' leasing rights. AT&T proposes that the MSS secondary market process should mirror the process in place for other wireless services. Moreover, to ensure accurate information is held by the public and in the marketplace regarding the current state of licensing and competition in the MSS bands, all existing leases of terrestrial rights to MSS frequencies should be subject to the standard disclosures specified in the secondary market rules.

As the Commission considers industry-wide secondary markets rules for the MSS bands, it should take the opportunity to declare moot and/or vacate the leasing and wholesaling conditions imposed in the SkyTerra/Harbinger transaction. There is no competitive or other policy basis for these conditions. Accordingly, the Commission should promptly grant AT&T's Petition for Reconsideration and eliminate the offending conditions.

AT&T also supports the Commission's efforts to unleash the potential value of terrestrial use of the MSS frequencies as reflected in the NOI. The incentive-based mechanisms for redistributing MSS spectrum identified in the NOI have merit and warrant further consideration. AT&T submits that whatever means the Commission chooses to put this spectrum into the market, it should strive to make large contiguous blocks of spectrum available, as such blocks are required to fully exploit the capabilities of next generation mobile broadband technologies. Moreover, as recognized in the NOI, the Commission should continue to explore opportunities to maximize the terrestrial utility of the MSS frequencies while ensuring that sufficient capacity is preserved for satellite services.

Finally, AT&T urges the Commission not to consider its various spectrum initiatives in isolation from each other. A comprehensive band plan, considering all the spectrum available for mobile broadband services as well as the interactions between the various bands and the interference challenges associated with particular spectrum pairings, would yield the greatest return for the public. In particular, such an effort should address important unresolved spectrum issues, including repurposing the 1755-1780 MHz band for pairing with the AWS-3 spectrum and reallocating the 1675-1710 MHz band for terrestrial mobile service. The complexities inherent in managing the interactions between multiple mobile broadband allocations make clear that the Commission's ongoing spectrum reallocation efforts must be integrated in a holistic way.

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COMMENTS OF AT&T INC.

AT&T Inc. (“AT&T”) hereby submits the following comments in response to the Federal Communications Commission’s (“Commission”) Notice of Proposed Rulemaking (“NPRM”) and Notice of Inquiry (“NOI”) regarding expanding terrestrial mobile broadband use of the Mobile Satellite Service (“MSS”) spectrum bands.¹

I. INTRODUCTION

The National Broadband Plan recognized the critical importance of identifying and reallocating spectrum for wireless broadband services. AT&T supports the Commission’s efforts to meet the rapidly increasing broadband needs of consumers through expanded terrestrial use of the MSS bands. As detailed below, AT&T submits that the NPRM and NOI outline an appropriate framework for stimulating the deployment of robust terrestrial wireless broadband

¹ See Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz, and 2000-2020 MHz and 2180-2200 MHz, ET Docket No. 10-142, *Notice of Proposed Rulemaking and Notice of Inquiry*, 25 FCC Rcd 9481(2010) (“*MSS NPRM & NOI*”).

services in these bands while also ensuring sufficient MSS capacity to meet the future needs for satellite services.

II. AT&T APPLAUDS THE COMMISSION’S EFFORTS TO IDENTIFY AND REALLOCATE NEW MOBILE BROADBAND SPECTRUM

One of the most important and ambitious goals of the National Broadband Plan was the determination that 500 MHz of additional wireless broadband spectrum should be made available in the next ten years, including 300 MHz of spectrum for mobile broadband in the next five.² AT&T applauds the Commission’s recognition of the important role the allocation of new mobile broadband spectrum will play in promoting investment and innovation and in keeping pace with surging consumer demand. Rationalizing the MSS spectrum bands for terrestrial mobile broadband use should be a key aspect of the Commission’s overall spectrum strategy. The *MSS NPRM & NOI* is a significant step toward accomplishing this larger goal.

As AT&T and the wireless industry have explained, the ever expanding demand for mobile broadband services is exhausting the capacity of wireless networks.³ As noted in the *Fourteenth Mobile Competition Report*, subscribers are increasingly transitioning to broadband uses and new devices, like smartphones and laptop aircards, that place unprecedented demands on wireless networks.⁴ Far from being a remote concern for the future, these changes in mobile broadband usage are already having a present-day impact on wireless networks. AT&T has seen

² See *Connecting America: The National Broadband Plan*, Recommendation 5.8.4, pp. 87-88 (2010) (“NBP”).

³ See, e.g., Comments of AT&T Inc., GN Docket Nos. 09-47, 09-51, 09-137 (filed Oct. 23, 2009) (“AT&T NBP PN #6 Comments”); Comments of CTIA—The Wireless Association, GN Docket Nos. 09-47, 09-51, 09-137 (filed Oct. 23, 2009).

⁴ Implementation of Section 6002 (b) of the Omnibus Budget Reconciliation Act of 1993; Annual Report and Analysis of Competitive Market Conditions with Respect to Commercial Mobile Services, Federal Communications Commission, Fourteenth Report, WT Docket No. 09-66, FCC 10-81, ¶¶ 181-184 (rel. May 20, 2010) (“Fourteenth Report”).

data traffic on its wireless network grow by 5,000 percent over a three year period.⁵ Other carriers have also reported dramatic increases.⁶ And, this trend is not unique to a few carriers or even to the United States. Cisco predicts that “[g]lobally, mobile data traffic will double every year through 2014, increasing 39 times between 2009 and 2014.”⁷

At current rates of growth, demand for mobile broadband services will exceed capacity. Some of this increased demand can be met through additional network build out and the use of more efficient technologies. To this end, AT&T and other wireless carriers continue to invest heavily in research, development, and infrastructure. However, the capacity of wireless networks is ultimately linked to the amount of spectrum available. As the Commission recognized in the National Broadband Plan, to support the growth in demand for wireless broadband services and to promote the economic and technological development it stimulates, additional spectrum must be made available for wireless broadband uses.⁸ Moreover, to be effective, this spectrum must have the physical and spectral characteristics necessary for use by mobile broadband services and must be made available in such a way that it can quickly and economically be put to use in a robust mobile broadband system.

⁵ See AT&T NBP PN #6 Comments at 7.

⁶ See, e.g., Letter from Kathleen O’Brien Ham, T-Mobile USA, to Marlene H. Dortch, Federal Communications Commission, GN Docket No. 09-51, WT Docket Nos. 06-150, 05-265, 00-193, PS Docket NO. 06-229, WC Docket No. 05-25 at 9 (filed Aug. 6, 2009) (“T-Mobile G1 customers use 50 times the data of the average T-Mobile customer”).

⁷ Cisco, *Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2009-2014* at 1 (Feb. 9, 2010) available at http://www.cisco.com/en/US/solutions/collateral/ns341/ns525/ns537/ns705/ns827/white_paper_c11-520862.pdf.

⁸ NBP Recommendation 5.8, p. 84.

AT&T previously has described to the Commission the ideal characteristics of spectrum for mobile broadband services.⁹ To achieve the full benefits of wireless broadband growth, new mobile allocations should be made available: (1) in large contiguous blocks capable of efficiently supporting new modulation schemes, (2) with reasonable uplink and downlink separation and in a rational spectrum location so as to coexist efficiently with other commercial bands, (3) in the spectrum range between 450 MHz and 4000 MHz to ensure appropriate propagation characteristics, and (4) in internationally harmonized allocations to take advantage of the concomitant ease of deployment and economies of scale made possible by harmonization. Spectrum allocations matching each of these characteristics can most efficiently and effectively be put to use for mobile broadband use.

The Commission should look carefully and holistically at all potential spectrum reallocations to ensure that the most effective and efficient band plan is produced. As described in further detail below, the Commission should ensure that all spectrum identified and reallocated for mobile broadband services is considered as part of an overall spectrum band plan that minimizes interference concerns while ensuring extensive contiguous blocks of spectrum for use by next generation wireless technologies.¹⁰ As the Commission recognized in the National Broadband Plan, the process of reallocating spectrum and deploying commercial networks takes significant time.¹¹ Thus, while this effort should be deliberative and strategic, the Commission should continue its spectrum reallocation activities on multiple fronts, including through the processes begun in this proceeding.

⁹ See AT&T NBP PN #6 Comments at 16-17.

¹⁰ See *infra* Section VI.

¹¹ See NBP at 79.

III. AT&T SUPPORTS THE PROPOSALS IN THE NPRM TO ALLOW FOR GREATER USE OF THE MSS SPECTRUM

The NPRM puts forth two proposals intended to promote greater terrestrial use of the MSS spectrum. First, the Commission proposes to add primary fixed and mobile allocations to the 2 GHz MSS allocation (2000-2020 MHz/2180-2200 MHz) in the United States Table of Allocations.¹² Second, the Commission proposes to extend to the MSS bands the secondary market transaction rules that currently apply to the commercial terrestrial wireless spectrum bands. AT&T supports both proposals in the NPRM as sensible approaches to opening the MSS bands for terrestrial use.

A. AT&T Supports the Addition of Primary Fixed and Mobile Allocations to the 2 GHz MSS Band.

The NPRM proposes to add primary fixed and mobile allocations to the 2000-2020 MHz and 2180-2200 MHz bands on a co-primary basis with the existing mobile satellite allocation.¹³ The Commission correctly identifies this addition as an appropriate first step to bringing additional flexibility to the band and to expanding terrestrial use of the MSS frequencies. AT&T supports this proposal and urges the Commission to move forward with the adoption of final rules to this effect.

The 2 GHz MSS band has the technical characteristics, described above, necessary for mobile broadband. The 2 GHz MSS band is a 40 MHz paired (20 MHz + 20 MHz) nationwide allocation, wide enough to support a robust mobile broadband deployment over a next generation “4G” protocol such as LTE or WiMAX. Moreover, this band is located in the heart of the 450-4000 MHz spectrum range that has propagation characteristics best-suited for mobile broadband

¹² See 47 C.F.R. § 2.106.

¹³ *MSS NPRM & NOI*, ¶ 10.

use. The 2 GHz MSS band is also an attractive target for reallocation because, as indicated in the NPRM, it is currently largely unused by consumers.¹⁴

As the Commission recognizes, the 2 GHz band already has primary fixed and mobile allocations in the International Table of Allocations.¹⁵ Thus, any mobile broadband services eventually introduced in this band will be entitled to international interference protection and the other benefits of a primary allocation. This protection provides potential investors with important certainty that new broadband deployments will not be hindered by unforeseen interference problems. Moreover, harmonization of the U.S. allocation with the international fixed and mobile allocation and the subsequent development of mobile broadband equipment to operate in this band could promote standard-setting and global use of this spectrum for mobile broadband services. Such advances, in turn, would ultimately lead to the development of economies of scale and further innovation.

The Commission also seeks comment on the treatment of cancelled 2 GHz licenses or other 2 GHz MSS spectrum that might potentially be returned to the Commission in the future. The NPRM proposes that in the event a 2 GHz MSS license is returned or cancelled, the spectrum covered by the license would not be made available for MSS, but instead used for terrestrial mobile broadband.¹⁶ AT&T endorses the Commission's decision to focus on mobile broadband uses if any of the existing, exclusively licensed spectrum in this band were to be returned in the future. In light of the pressing need for additional mobile broadband capacity and

¹⁴ See *MSS NPRM & NOI*, ¶ 6.

¹⁵ *Id.*, ¶ 10; see also 47 C.F.R. § 2.106.

¹⁶ See *MSS NPRM & NOI*, ¶¶ 14-15.

the currently undeveloped state of the 2 GHz MSS band, any future action in this band should emphasize terrestrial use of the spectrum.

In short, the 2 GHz MSS band represents a promising target for reallocation and the Commission should move forward with the proposal set forth in the NPRM. Although there are challenges inherent in opening up any new band for mobile broadband uses, the 2 GHz MSS band's attractive spectral location makes it highly useful for next generation mobile broadband technologies. The actions contemplated by the NPRM would constitute a significant step towards making 40 MHz of additional spectrum available for mobile broadband use.

B. Application of the Commission's Secondary Market Rules Will Promote Efficient Use of the MSS Spectrum.

The NPRM's second proposal is to extend the applicability of the Commission's secondary market spectrum leasing policies to leasing arrangements between a S-band, Big LEO, or L-band MSS operator and a third party entity regarding terrestrial use of the MSS frequencies.¹⁷ This leasing proposal would leave the MSS service rules otherwise intact. The terrestrial rights being leased would be identical to those held by the MSS operator, including any limitations or "gating criteria" imposed on Ancillary Terrestrial Component ("ATC") operations.¹⁸ As proposed, the parties to a spectrum lease would be required to submit limited specified information and certifications to the Commission prior to commencing operations pursuant to the transaction. In most cases, these transactions would be subject to immediate processing. However, in cases where public interest concerns were raised, the transactions would be subject to streamlined evaluation procedures.

¹⁷ See *id.*, ¶ 17.

¹⁸ See, e.g., 47 C.F.R. § 25.149.

Application of the secondary market rules to leases of terrestrial rights in the MSS bands is an efficient means of moving spectrum to higher-valued uses, so long as there are no arbitrary restrictions placed on licensees' leasing rights. In adapting the secondary market rules to the MSS bands, the Commission should strive for uniformity in application and for the broadest possible participation in secondary markets. As such, AT&T suggests that the MSS secondary market process be subject to the same sorts of application filings and disclosures as are present in the terrestrial wireless context. Specifically, the Commission should require a limited public informational filing disclosing the basic characteristics of the leases—*i.e.*, who leased what spectrum, and for how long—and provide immediate processing for most transactions. Moreover, to ensure accurate information is held by the public and in the marketplace regarding the current state of licensing and competition in the MSS bands, all existing leases of terrestrial rights to MSS frequencies should be subject to similar disclosures. Such a process is consistent with the terrestrial wireless leasing regime as well as the Commission's efforts to ensure openness and transparency with respect to licensing information.¹⁹ The Commission's proposed action will reduce transaction costs and simplify the existing leasing process, ultimately stimulating additional innovative arrangements for mobile broadband services and promoting the optimum use of the MSS frequencies in the public interest.

As noted in the NPRM, the acquisition of SkyTerra Communications Inc. ("SkyTerra") by Harbinger Capital Partners Fund ("Harbinger") was conditioned upon certain "voluntary commitments" restricting the types of commercial arrangements the combined company could

¹⁹ See, e.g., Spectrum Dashboard Launched in "Beta", *Public Notice*, 25 FCC Rcd 2734 (2010) (announcing the launch of the "Spectrum Dashboard" application, which "represents an important step toward increased transparency into how radio spectrum is being used in the United States.").

enter into with AT&T and Verizon Wireless.²⁰ In light of the instant proceeding to set industry-wide rules for leasing of terrestrial rights to the MSS spectrum, the Commission should immediately grant AT&T's Petition for Reconsideration of the *SkyTerra/Harbinger Order* and eliminate the discriminatory and unlawful conditions placed on that transaction.²¹ The current NPRM and NOI, which will have the benefit of public comment and the development of a full record, is the appropriate forum to adopt appropriate and nondiscriminatory secondary market rules for the MSS bands.

In the *SkyTerra/Harbinger Order*, the Commission placed restrictions on the combined company's ability to enter into spectrum lease agreements or wholesale agreements with the two largest terrestrial providers based on revenue, AT&T or Verizon Wireless. The NPRM's proposal to apply the secondary market rules to all MSS terrestrial spectrum leases clearly subsumes the leasing condition of the *SkyTerra/Harbinger Order*, which prevented the combined company from "enter[ing] into any agreement to make its spectrum used by its terrestrial network" available to AT&T without prior Commission approval.²² Under the instant proposal, spectrum lease agreements between SkyTerra/Harbinger and AT&T and Verizon Wireless would be treated identically to any other such agreements. Accordingly, the Commission should immediately declare the leasing condition moot.

The Commission should likewise declare void and without precedential value the wholesaling condition imposed in the *SkyTerra/Harbinger Order*. The wholesaling condition

²⁰ See *MSS NPRM & NOI*, ¶ 21 (citing Applications for Consent to Transfer Control of SkyTerra Subsidiary LLC, IB Docket No. 08-184, *Memorandum Opinion and Order and Declaratory Ruling*, 25 FCC Rcd 3059, ¶ 72, and Attachment 2 (2010) (*SkyTerra/Harbinger Order*)).

²¹ See Petition for Reconsideration of AT&T Inc., IB Docket No. 08-184 (filed Mar. 31, 2010) ("AT&T Petition for Reconsideration").

²² *SkyTerra/Harbinger Order* at Attachment 2.

prohibits the combined company from providing to any combination of the largest and second largest wireless providers traffic accounting for more than 25 percent of the total bytes of data carried on its network in a given area without prior Commission approval.²³ Neither the NPRM nor the expansive NOI seeks comment on, or even suggests, the need for wholesaling restrictions on MSS licensees offering terrestrial mobile service. AT&T submits that the NRPM and NOI have it right in this regard—there is no possible basis for wholesaling restrictions in the MSS bands or anywhere else in the competitive wireless marketplace. Moreover, as explained in AT&T’s Petition for Reconsideration²⁴ and in AT&T’s Reply Comments in support of its petition,²⁵ the Commission should eliminate the *SkyTerra/Harbinger* wholesaling condition because it is procedurally and substantively defective.

The wholesaling condition is procedurally infirm because it was adopted without any identification of, or record evidence to support the existence of, any potential competitive harm from the merger that needed remediation through such a commitment. Indeed, there was no notice at any point in the proceeding that such conditions were being proposed, and as such, AT&T never had an opportunity to respond to this *de facto* rule change before it was adopted. Moreover, the condition impermissibly singles out AT&T and Verizon Wireless for punitive treatment despite the greater potential for anticompetitive conduct with respect to other possible lessees. For example, Clearwire has greater spectrum holdings than either of the two largest carriers, and Sprint Nextel is partly owned by Harbinger itself.

²³ *SkyTerra/Harbinger Order* at Attachment 2.

²⁴ See AT&T Petition for Reconsideration.

²⁵ See Reply Comments of AT&T Inc., IB Docket No. 08-184 (filed Apr. 19, 2010).

The wholesaling condition is also defective as a matter of substance. The condition undermines competition in the market for terrestrial use of the MSS spectrum by limiting the scope of LightSquared's (formerly SkyTerra) potential customer base. Moreover, the condition is logistically unworkable. It is not reasonably possible to determine ahead of time how much traffic will be carried on the network and thus how much is permitted to be carried for the two largest carriers. Similarly, fluctuations in usage by other customers will determine what percentage of its overall traffic LightSquared is carrying for AT&T, making compliance with the 25 percent restriction impossible to assure. Under these circumstances, the only rational business decision for LightSquared might be to refuse to enter into any agreements with the two largest carriers, meaning that the Commission has essentially locked AT&T out of these opportunities completely.

For each of these reasons, the Commission should grant AT&T's Petition for Reconsideration and should eliminate the offending conditions immediately. Moreover, neither of these conditions should have any precedential value in this proceeding.

IV. THE COMMISSION SHOULD EXPLORE OPTIONS FOR UNLEASHING THE VALUE OF TERRESTRIAL USE OF THE 2 GHZ MSS SPECTRUM

As discussed above, AT&T strongly supports the Commission's desire to make MSS spectrum available for commercial mobile services. The Notice of Inquiry ("NOI") seeks comment on ways to facilitate the voluntary transition of exclusive spectrum rights from existing 2 GHz MSS services to new terrestrial mobile licenses.²⁶ The NOI describes two potential methods of creating incentives for incumbent licensees to relinquish some or all of their spectrum rights. First, the Commission mentions the use of incentive auctions.²⁷ Second, the

²⁶ See *MSS NPRM & NOI*, ¶¶ 27-30.

²⁷ *Id.*, ¶ 28.

Commission suggests another alternative where incumbent licensees would relinquish a portion of their licensed spectrum in exchange for increased flexibility of use of the spectrum they retain.²⁸ The approaches described by the Commission both have merit, and the Commission should consider these proposals further and provide additional details as to how they would be implemented.

Incentive auctions present an opportunity to determine the market valuation of the new terrestrial spectrum while also compensating incumbent licensees. Under this approach, as described in the National Broadband Plan, licensees would voluntarily forfeit some or all of their spectrum rights in exchange for a portion of the revenue generated by a subsequent auction of those rights.²⁹ Such an approach would ensure that the government is compensated for the new spectrum rights and that significant value is obtained for the public, while still enabling incumbents to recover at least a portion of their sunk investment costs and share in the commercial value created by their forfeiture.

The success of any incentive auction will depend heavily on the rules and processes put in place to govern it. If properly structured, incentive auctions can provide the most flexibility for licensees while also creating a real incentive for putting spectrum to a higher-valued use. Moreover, incentive auctions provide the only clear way to determine the commercial value of the new spectrum rights created. The potential value to be realized from an incentive auction of 2 GHz spectrum with full terrestrial rights is substantial. To illustrate, even though it is still limited by the Commission's integrated service MSS gating criteria, Harbinger has already invested nearly \$2 billion in its proposed 4G ATC network to be built through the recently-

²⁸ *Id.*, ¶ 29.

²⁹ *See* NBP, Recommendation 5.4, at 81-82.

acquired SkyTerra.³⁰ However, to best unlock the market value of repurposed spectrum, incentive auctions should be open to all would-be participants. So, for example, incumbent MSS licensees should be permitted to participate in the incentive auction for spectrum they themselves forfeit to gain full terrestrial rights unconstrained by the MSS gating criteria. Any onerous participation restrictions will only skew the results of the auction and fail to unleash the full value of the repurposed spectrum for the public interest.

Currently, the Communications Act only permits auction revenues to be deposited in the U.S. Treasury, and there is no mechanism in place for channeling a portion of the commercial value of repurposed spectrum rights to the former licensees.³¹ Thus, legislative action will be required before the Commission can move forward with the incentive auction proposal. Although there have been proposals put before Congress to grant this authority to the Commission,³² none have yet been put to a vote. The NOI suggests that in the absence of receiving authority from Congress to pursue incentive auctions, the Commission could permit licensees to forfeit a portion of their spectrum holdings in exchange for increased flexibility of use on their remaining holdings. This suggestion warrants further exploration and consideration.

Regardless of which mechanism the Commission ultimately selects as a means of distributing new spectrum rights, it should ensure that any such process makes available a substantial amount of new mobile broadband spectrum in large contiguous blocks. Mobile broadband spectrum is most valuable, economically and practically, in large, contiguous blocks because next generation air interfaces operate most effectively over wider bandwidths. Indeed,

³⁰ See Jenny Strasburg and Spencer E. Ante, *Wireless Network Races for Funds*, WALL STREET JOURNAL (July 19, 2010).

³¹ See 47 U.S.C. § 309(j)(8).

as Qualcomm pointed out in comments submitted to the Commission in response to National Broadband Plan Public Notice # 6, although LTE will allow more spectral reuse to increase overall network capacity, it also “is optimized for wider bandwidths—a minimum of 20 MHz of paired spectrum, and ideally at least 40 MHz of paired spectrum per operator, for initial deployments.”³³ For LTE, larger contiguous spectrum blocks enable higher overall data rates and more active users per sector compared to smaller channels. Thus, to maximize the potential value for the public, the Commission should ensure that any incentive auction or other spectrum redistribution technique make available sufficiently large contiguous spectrum blocks to take advantage of the full capabilities of next generation mobile broadband platforms.

V. AT&T SUPPORTS THE COMMISSION’S FOCUS ON INCREASING TERRESTRIAL USE IN THE MSS BANDS WHILE STILL PROTECTING ESSENTIAL SATELLITE SERVICES.

Although the identification of additional mobile broadband spectrum is of paramount importance, AT&T also shares the belief articulated by Commissioner Copps in “the need to preserve satellite capability—especially in those bands where systems are operating on a globally or regionally harmonized basis.”³⁴ As discussed above, the 2 GHz MSS band is a good target for the creation of new terrestrial mobile services because of its excellent technical characteristics and the potential for international harmonization. However, the Commission appropriately recognizes that the various MSS bands are in different stages of development and deployment.³⁵

³² See, e.g., S.3610, 111th Cong. (2010); S.3756, 111th Cong. (2010); H.R.5947, 111th Cong. (2010).

³³ Comments of Qualcomm Incorporated, GN Docket Nos. 09-47, 09-51, 09-137 at 10 (filed Oct. 23, 2009).

³⁴ *MSS NPRM & NOI*, 25 FCC Rcd at 9509 (Separate Statement of Commissioner Michael J. Copps).

³⁵ See *id.*, ¶¶ 6-8.

For example, as noted in the NOI, the Big LEO band MSS licensees currently offer consumer voice and data services on a worldwide basis.³⁶ As Commissioner Clyburn noted, the NOI appropriately “underscores the importance of maintaining MSS to provide services for the needs of public safety and federal government agencies, for rural areas, and for those areas that have suffered severe damage during natural disasters.”³⁷

The cautious approach taken by the Commission’s NPRM and NOI advances the public interest in identifying additional terrestrial mobile broadband capacity while also preserving sufficient mobile satellite functionality to serve societal needs. As suggested in the NOI, there may be opportunities to “meet future [MSS] needs with less allocated spectrum in some or all of the bands.”³⁸ The questions posed by the NOI related to the actual use of and demand for MSS will be key to identifying these opportunities.³⁹

VI. THE COMMISSION SHOULD FOCUS ITS EFFORTS ON ESTABLISHMENT OF A COMPREHENSIVE MOBILE BROADBAND SPECTRUM BAND PLAN

Opening the MSS bands to expanded terrestrial wireless broadband use is an important goal, but to promote rational spectrum policy in the future, the Commission should not consider the various current and potential mobile broadband bands in isolation from each other.

Accordingly, AT&T appreciates the Commission’s willingness, as expressed in the NOI, to consider potential synergies between the 2 GHz MSS band and the adjacent currently unassigned AWS-2 J Block spectrum at 2020-2025 MHz and 2175-2180 MHz. The NOI clearly indicates a desire by the Commission to be forward-looking in its approach to spectrum planning, a process

³⁶ *Id.*, ¶ 8.

³⁷ *Id.* at 9512 (Separate Statement of Commissioner Mignon L. Clyburn).

³⁸ *Id.*, ¶ 34.

³⁹ *See id.*, ¶ 33.

that AT&T strongly supports. To enable this effort, AT&T suggests that, concurrently with moving forward with the proposals contained in the *MSS NPRM & NOI*, the Commission should engage in a broader reexamination of spectrum use in and around the 2 GHz range in an attempt to develop a new band plan to promote wireless broadband services.

A comprehensive band plan, considering all the spectrum available for mobile broadband services as well as the interactions between the various bands and the interference challenges associated with particular spectrum pairings, would yield the greatest returns for the public. Commissioner Baker highlighted the importance of a long-term spectrum strategy in a recent speech before the National Science Foundation.⁴⁰ Such strategic planning will allow existing providers and potential new entrants to best forecast future spectrum needs and opportunities. It will also provide certainty as to the interference scenarios with respect to current and contemplated spectrum holdings. A comprehensive band plan is essential to ensuring that future spectrum reallocations proceed efficiently and rationally. As Commissioner Baker explained, “[w]ithout it, all of our efforts are handicapped.”⁴¹

This effort should, at a minimum, address important unresolved spectrum proceedings. The Commission recently took an important step by removing from circulation the AWS-3 draft item, which would have made available spectrum at 2155-2175 on an unpaired basis.⁴² The Commission has announced its intention to seek a suitable pairing for the AWS-3 spectrum and

⁴⁰ See Remarks of Commissioner Meredith A. Baker at 3, Workshop on Enhancing Access to the Radio Spectrum, National Science Foundation (Aug. 4, 2010) *available at* http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-300693A1.pdf (stressing the formulation of a long-term spectrum plan as one of her “key priorities”).

⁴¹ *Id.*

⁴² See Nancy Gohring, *FCC Strikes Down Free Broadband Plan*, ComputerWorld.com, http://www.computerworld.com/s/article/9183220/FCC_strikes_down_free_broadband_plan (Sept. 1, 2010).

the Commission should conduct further investigation into the feasibility of repurposing the federal spectrum at 1755-1780 MHz for this purpose. As expressed elsewhere by AT&T others, this pairing would make available a substantial new block of internationally harmonized mobile broadband spectrum that, once cleared of incumbent users, could be efficiently put to use for great public benefit.⁴³ Additionally, the Commission should move forward with proposals to repurpose the 1675-1710 MHz band.⁴⁴

With reallocation and licensing for terrestrial mobile broadband services in these bands being considered, AT&T strongly recommends that the Commission consider any newly repurposed spectrum as part of a comprehensive band plan. The band plan should take into account potential interference concerns raised by the creation of new mobile broadband services adjacent to the incumbent commercial broadband networks. The addition of new broadband capacity will ultimately be ineffective if it comes at the expense of increased interference to the users of existing commercial broadband services.⁴⁵ The complexities inherent in managing the interactions between multiple mobile broadband allocations make clear that the Commission's ongoing spectrum reallocation efforts must be done in the context of an integrated and holistic band plan.

⁴³ See, e.g., Comments of AT&T Inc., ET Docket No. 10-123 at 2-4 (filed June 28, 2010); Comments of CTIA—The Wireless Association, ET Docket No. 10-123 at 4-7 (filed June 28, 2010); Comments of T-Mobile USA, Inc., ET Docket No. 10-123 at 7-9 (filed June 28, 2010).

⁴⁴ See Office of Engineering and Technology Requests Information On Use of 1675 – 1710 MHz Band, ET Docket No. 10-123, *Public Notice*, 25 FCC Rcd 7285 (2010)

⁴⁵ For example, the AWS-2 H Block spectrum may need to be limited in use to protect against harmful interference. Because of the potential for interference between terrestrial mobile uplink transmissions in the 2 GHz band and the Broadband PCS devices designed to receive downlink transmissions in the upper portion of the 1900 MHz band, any rational band plan adopted by the Commission for the 2 GHz MSS spectrum will likely require a guard band between these new services and existing PCS operations. The AWS-2 H block may be able to serve this role.

VII. CONCLUSION

AT&T applauds the process begun by the Commission's NPRM and NOI that will promote expanded terrestrial broadband services in the MSS bands. The addition of primary fixed and mobile allocations to the 2 GHz MSS band is an important first step towards making this band available for robust mobile broadband services. The Commission should build upon this step, as contemplated in the NOI, by exploring opportunities to repurpose spectrum for terrestrial use. The proposal to apply the Commission's secondary market rules to the MSS bands is also a sensible approach to moving terrestrial rights in these bands to higher-valued uses in mobile broadband deployment, within the confines of the existing licensing regime. Finally, as the Commission pursues these and other spectrum repurposing efforts, it should attempt to do so in the context of a broader reexamination of its band plan to rationally promote mobile broadband services.

Respectfully submitted,

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