

**BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554**

In the Matter of)	
)	
High-Cost Universal Service Support)	WC Docket No. 05-337
)	
Federal-State Joint Board on Universal Service)	CC Docket No. 96-45
)	
Lifeline and Link Up)	WC Docket No. 03-109
)	
Universal Service Contribution Methodology)	WC Docket No. 06-122
)	
Numbering Resource Optimization)	CC Docket No. 99-200
)	
Implementation of the Local Competition)	
Provisions in the Telecommunications Act of)	CC Docket No. 96-98
1996)	
)	
Developing a Unified Inter-carrier)	CC Docket No. 01-92
Compensation Regime)	
)	
Inter-carrier Compensation for ISP-Bound)	CC Docket No. 99-68
Traffic)	
)	
IP-Enabled Services)	WC Docket No. 04-36

To: The Commission

**REPLY COMMENTS OF
HUGHES NETWORK SYSTEMS, LLC, INMARSAT, INC., AND TELESAT**

I. INTRODUCTION

Hughes Network Systems, LLC, Inmarsat, Inc., and Telesat (the “Joint Satellite Commenters”) submit these reply comments in the above-captioned proceeding to respond to comments filed regarding the Further Notice of Proposed Rule Making in WC Docket No. 05-

337, *et al.* (“Notice”).¹ In the *Notice*, the Commission seeks comment on three attached proposals (Appendices A, B, and C, respectively) to reform high-cost and low-income universal service support and contributions to the universal service fund (“USF”).²

The Joint Satellite Commenters all operate satellite networks in the fixed-satellite service or mobile-satellite service that are used to provide broadband internet services in the United States and elsewhere. The Joint Satellite Commenters urge the Commission to take the points raised in the initial comments of Hughes Network Systems, LLC and Inmarsat, Inc., as augmented and expanded upon here by the Joint Satellite Commenters, fully into account in its deliberations in the instant proceedings. Specifically:

- The Joint Satellite Commenters support USF reform proposals that seek to broaden access to USF support conditioned on the provision of broadband internet access;³
- The Joint Satellite Commenters urge the Commission to determine that USF support should be available to eligible telecommunications carriers (“ETCs”) that offer broadband internet access by satellite, without the need for a waiver;⁴
- The Joint Satellite Commenters believe that consumers deserve the choice of a cost-effective broadband service, and contributors to the USF system should not have to

¹ *In the Matter of High-Cost Universal Service Support; Federal-State Joint Board on Universal Service; Lifeline and Link Up; Universal Service Contribution Methodology; Numbering Resource Optimization; Implementation of the Local Competition Provisions in the Telecommunications Act of 1996; Developing a Unified Intercarrier Compensation Regime; Intercarrier Compensation for ISP-Bound Traffic; IP-Enabled Services*; WC Docket No. 05-337; CC Docket No. 96-45; WC Docket No. 03-109; WC Docket No. 06-122; CC Docket No. 99-200; CC Docket No. 96-98; CC Docket No. 01-92; CC Docket No. 99-68; WC Docket No. 04-36; Order on Remand and Report and Order and Further Notice of Proposed Rulemaking, FCC 08-262 (rel. Nov. 5, 2008) (“*Notice*”).

² *Notice*, FCC 08-362, slip op. at ¶ 40.

³ See Comments of Hughes Network Systems, LLC (“Hughes”) and Inmarsat, Inc. (“Inmarsat”), WC Docket No. 05-537, *et al.*, at 2-3 (filed November 26, 2008) (“Hughes/Inmarsat Comments”). A number of other commenters support this objective of using USF contributions to help ensure that all Americans have access to broadband services. See, e.g., Comments of Commnet Wireless, LLC, at 10-11 (filed Nov. 26, 2008).

⁴ See *Hughes/Inmarsat Comments* at 4-5. See also Comments of National Rural Telecommunications Cooperative, at 5 (filed Nov. 26, 2008) (“NRTC Comments”) and Comments of CenturyTel, Inc., at 25 (filed Nov. 26, 2008) (“CenturyTel Comments”). Both commenters are among those that support waiver-free use of satellite broadband services as elements of ETC broadband offerings.

foot the bill for terrestrial “last mile” solutions that are prohibitively expensive, when far better satellite-based alternatives exist;⁵ and

- The Joint Satellite Commenters support the establishment of a contribution rate for business connections that is neither disproportionately nor overly punitive to non-wireline providers; satellite broadband internet access providers are prepared to pay their fair share, but do not want to be singled out for higher contributions in a way that has a negative competitive impact.⁶

II. DISCUSSION

The Joint Satellite Commenters support the general aims of the two proposals in the *Notice* that seek to require entities that receive high-cost USF support also to provide broadband internet access to their customers.⁷ The reality is, however, that there will be customers in areas that are difficult or impossible to serve with terrestrial broadband facilities that may not gain access to terrestrially-provided services in the foreseeable future, if ever. Satellite broadband providers reach nearly all of these broadband users today, and these customers deserve the option of being able to utilize satellite-delivered broadband.⁸ Satellite-delivered broadband services are provided at ever-increasing speeds that are more than ample for most users’ requirements – even without regard to the fact that access to some service providers is unquestionably a far superior alternative than access to none.⁹

There is support in the Comments for the proposition that the Commission was relying on outdated information when it wrongly asserted that satellite platforms, among all broadband

⁵ See *Hughes/Inmarsat Comments* at 5.

⁶ *Id.* at 13-15. A number of commenters expressed concerns with the impact on small businesses (in particular) of proposals to assess a monthly fee of \$35 for each business broadband connection. See, e.g., Joint Comments of Citynet, LLC, Granite Telecommunications, Inc., PAETEC, RCN Telecom Services, Inc. and U.S. TelePacific Corp., at 24-26 (filed Nov. 26, 2008) and Comments of COMPTTEL, at 25-28 (filed Nov. 26, 2008).

⁷ *Notice, Appendices A and C* at ¶¶ 19-27.

⁸ *Hughes/Inmarsat Comments* at 8.

⁹ *Id.* at 6-7.

delivery platforms, uniquely suffer from inherent deficiencies that render them ineligible for participation in ETC distribution arrangements other than on an ad hoc, waiver basis. The National Rural Telecommunications Cooperative, for example, explained that the Commission's asserted rain fade and latency limitations have been largely remedied, and they are negligible factors in comparison to the value and opportunity that satellite broadband brings to rural customers.¹⁰

The Commission's assertion simply is not currently accurate, and has not been for some time. Availability rates for satellite broadband services are high enough to earn high customer satisfaction ratings from all sorts of residential and business users, and improvements in the technology over the last few years have enabled operators to provide something that many satellite broadband customers desire even more than a further improvement in availability – improvements in data speeds.¹¹ The Joint Satellite Commenters thus call upon the Commission to reject its description of satellite technical capabilities in the Notice as outdated, and rely instead on conclusions such as the one it drew in its recent Eighth Report and Order in the *Part 25 Streamlining* proceeding, where it stated that “satellite facilities provide a competitive platform for delivery of broadband services, which is especially well suited for extending these services to rural and unserved areas. In other words, satellite services employ cost-effective technology to serve communities with low penetration rates, especially those in remote areas.”¹²

¹⁰ See NRTC Comments at 5.

¹¹ Hughes/Inmarsat Comments at 7. Availability levels are chosen by the satellite operator in consultation with its customers. Although such determinations are necessarily made on a case-by-case basis, and some customers may value a reliability rate that is higher than 99.7% over a marginal improvement in data speed, the point is that availability rates are not an issue for modern satellite broadband systems and operators have multiple options at their disposal for achieving and maintaining high customer satisfaction levels. See also NRTC Comments at 5-6 (stating that surveys of satellite broadband internet customers show they are satisfied with their internet service and able to perform all typical internet functions).

¹² 2000 Biennial Regulatory Review -- *Streamlining and Other Revisions of Part 25 of the Commission's Rules Governing the Licensing of, and Spectrum Usage by, Satellite Network Earth Stations and Space Stations*, Eighth Report and Order and Order on Reconsideration, FCC 08-246 at ¶ 1 (rel. October 17, 2008).

Satellite broadband internet access must be treated on an equal basis with other technologies as a means for ETCs to meet their universal service obligations to provide broadband internet access. The proposal from Hughes and Inmarsat that satellite broadband services be deemed appropriate for use by ETCs without a waiver was reflected in several parties' comments.¹³ The Joint Satellite Commenters urge the Commission to determine that USF support should be available to ETCs that offer broadband internet access by satellite, without the need for a waiver. At the very least, there is no basis for the Commission to shrink the broadband coverage requirement to less than 100%.¹⁴ Satellites are necessarily part of the universal service answer.

Next, the Joint Satellite Commenters oppose the Commission's proposal to set minimum speed thresholds of 768 kbps for downloads and 200 kbps for uploads to qualify as broadband internet access eligible for USF support.¹⁵ Consumers and businesses that would otherwise have no affordable broadband service have demonstrated that they are satisfied with a broadband offering that may not meet such an arbitrary data-speed threshold. Complacency on the part of satellite networks and broadband providers is not an issue. Satellite operators and their

¹³ See, e.g., CenturyTel Comments at 25, NRTC Comments at 5, and Comments of Texas Statewide Telephone Cooperative, at 9-10 (filed Nov. 26, 2008). Several parties also emphasized the importance of using satellite broadband to provide maximum coverage and supported expanding the use of satellite broadband by ETCs without a waiver beyond the Commission's proposed limited automatic exception to reach more of their highest cost customers. See Comments of Minnesota Independent Coalition at 5 (filed Nov. 26, 2008), Comments of National Exchange Carrier Association at 15 (filed Nov. 26, 2008), Comments of Oklahoma Rural Telephone Coalition at 3, (filed Nov. 26, 2008), and Comments of OPASTCO and WTA at 11, n.24 (filed Nov. 26, 2008).

¹⁴ See, e.g., CenturyTel Comments at 25 (calling for reduction in mandatory coverage to 90%). Section 254 of the Communications Act sets forth the principle that universal service means providing service to *all* parts of the United States. 47 U.S.C. § 254(b)(3) ("Consumers in *all regions of the Nation, including low-income consumers and those in rural, insular, and high cost areas*, should have access to telecommunications and information services...")(emphasis added). Providing broadband internet access to less than 100% of the nation as some commenters propose is not permissible, especially in light of the fact that satellite broadband has nationwide coverage and is available today. The presence of satellites as part of the service equation renders any reduction in coverage requirements both unnecessary and contrary to the public interest.

¹⁵ See Hughes/Inmarsat Comments at 9-11.

customers are continually striving to improve the services they provide, both in urbanized population centers and in rural areas, and are fully incentivized through intermodal and intramodal competition to keep expanding the state-of-the-art for their current and future systems.

A flexible, evolving approach to the question of data speed is prudent given Congress's mandate to the Commission to address universal service by "taking into account advances in telecommunications and information technologies and services."¹⁶ It must be a national priority to bring broadband service to the unserved. More than 10 million Americans live and/or work in areas not served by any terrestrial wireless or fixed broadband networks. Many millions more live in areas that are underserved by terrestrial broadband networks, where service could be improved through the competitive pressure of satellite broadband offerings. The most efficient and cost-effective means of providing competitive broadband offerings to these consumers is satellite-delivered broadband. Creating an arbitrary speed threshold that has the effect of depriving consumers of the choice of satellite broadband will delay the availability of broadband to these populations – and unnecessarily increase the cost of delivering broadband to all.

Users of satellite technologies to provide broadband internet access for low-income customers should be able to receive USF disbursements through the proposed Lifeline/Link Up Pilot Program.¹⁷ USF support is needed for subsidies to low-income customers for the costs of broadband Internet access installation, including a broadband Internet access device, and increases in the monthly subsidy to offset the cost of broadband Internet access service. The

¹⁶ See Notice, Appendices A and C at ¶ 21 (citing 47 U.S.C. § 254(c)(1)); *Development of Nationwide Broadband Data to Evaluate Reasonable and Timely Deployment of Advanced Services to All Americans, Improvement of Wireless Broadband Subscriberhip Data, and Development of Data on Interconnected Voice over Internet Protocol (VoIP) Subscriberhip*, Report and Order and Further Notice of Proposed Rule Making, 23 FCC Rcd 9691, 9701, ¶ 21, n. 66 (2008) (noting that its assigned terms for the speed tiers of internet access "are evolving definitions that could change over time based on advances in technology").

¹⁷ See Hughes/Inmarsat Comments at 11.

Commission should ensure that the proposed Link Up Pilot Program does not have any minimum speed thresholds, and is applicable to additional equipment such as satellite dishes for internet access for low-income customers in hard-to-reach areas where satellite broadband is available.

Finally, the Joint Satellite Commenters support a contribution rate for business connections that is neither disproportionately nor overly punitive to non-wireline providers.¹⁸ The Commission's business connection proposal could substantially impact vulnerable small businesses that rely on satellites for their broadband connections.¹⁹ The Joint Satellite Commenters note further that, as written, none of the proposals in the *Notice* take account of the unique aspects of satellite, as opposed to terrestrial, broadband networks. In particular, many satellite broadband networks employ point-to-multipoint architecture where the same information is transmitted across the entire downlink footprint covering most of North America. This is typically the case for VSAT networks, which also often are characterized by relatively low average data requirements. Under Proposal B, each downlink location would be assessed a separate "connection" charge. Yet, new customer premises are routinely added to point-to-multipoint VSAT networks without any change to the outbound link. Accordingly, the Commission should consider a point-to-multipoint satellite distribution network for each related customer to be a single connection for contribution purposes.

The Joint Satellite Commenters emphasize that satellite broadband internet access providers are prepared to pay their fair share. They urge the Commission to be careful to ensure

¹⁸ *Id.* at 13-15. One potential way to achieve this objective is for the Commission to base all contributions – whether from business or residential users – on a telephone number system, as Verizon and other commenters propose. *See, e.g.*, Comments of Verizon and Verizon Wireless at 32-35.

¹⁹ Hughes/Inmarsat Comments at 11. Other commenters express the same point about the disproportionate impact a \$35 monthly fee per business connection over 64 kbps would have on small businesses (*see, e.g.*, Comments of Megapath Inc., at 1 (filed Nov. 26, 2008)), and some also pick up the point that it may be difficult for some operators to distinguish between residential and business customers. *See, e.g.*, Comments of Cincinnati Bell, Inc. at 19-20 (filed Nov. 26, 2008) (noting that is the case for most terrestrial wireless companies), and Comments of Global Crossing North America, Inc., at 12-13 (filed Nov. 26, 2008) (stating it is particularly hard to identify small offices and home offices).

that these important broadband providers are not singled out for higher contributions in a way that has a negative competitive impact on them and the customers they are uniquely and most cost-effectively capable of serving.

III. CONCLUSION

On the basis of the foregoing discussion, the Joint Satellite Commenters urge the Commission to reform the universal service program to meet the goal of bringing broadband internet access to all parts of the U.S. in a manner that fairly places all broadband internet access providers, including satellite providers, on equal footing. The Joint Satellite Commenters emphasize that the Commission should adopt reforms that do not impose arbitrary and unrealistic limitations that would discourage the use of cost-effective satellite technologies with nationwide service to provide universal service.

Respectfully submitted,

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