

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

In the Matter of)
)
Inquiry Concerning the Deployment of)
Advanced Telecommunications Capability)
to All Americans in a Reasonable and)
Timely Fashion, and Possible Steps to)
Accelerate Such Deployment Pursuant to)
Section 706 of the Telecommunications)
Act of 1996)
_____)

GN Docket No. 04-54

REPLY COMMENTS OF ECHOSTAR SATELLITE LLC

EchoStar Satellite LLC (“EchoStar”) hereby submits its reply comments in response to the above-referenced Notice of Inquiry.¹ The NOI begins the Commission’s fourth inquiry under section 706 of the Telecommunications Act of 1996 into “whether advanced telecommunications capability is being deployed to all Americans in a reasonable and timely fashion.”² The Commission seeks comment on, among other things, various market, investment, and technological trends in order to analyze whether infrastructure capable of supporting advanced services is being made available to all Americans, and actions that can be taken to accelerate broadband deployment.³

¹ *In the Matter of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, Notice of Inquiry, GN Docket No. 04-54 (rel. Mar. 17, 2004) (“NOI”).

² See Telecommunications Act of 1996, Tit. VII, § 706(b), Pub. L. No. 104-104, 110 Stat. 56 (1996), reproduced in the notes following 47 U.S.C. § 157 (Supp. 2001) (“Telecommunications Act of 1996”).

³ See NOI at 1, 4, ¶¶ 1, 10.

Other comments submitted in the proceeding support EchoStar's view that satellite broadband is a potential efficient means of eliminating the gap in broadband access that exists between urban and rural areas.⁴ With a national footprint available to satellite providers, deployment of satellite broadband service will also bring an additional broadband competitor in every market. Further, broadband over satellite can play a unique role in supporting homeland defense. An economical broadband over satellite solution could uniquely enable much more widespread remote monitoring and control of sensitive infrastructure than can reasonably be accomplished with other technical approaches. However, the successful deployment of broadband service via satellite -- a spectrum intensive endeavor -- will only occur with the availability of additional spectrum resources. As explained in EchoStar's initial comments in this proceeding and discussed *infra*, EchoStar urges Commission action on a number of matters that can help relieve the spectrum constraints that have hindered the development of satellite broadband service in order to make it a reality in the near future.⁵ Finally, to the extent the Commission or Congress decide to promote the expansion of broadband service to rural areas through a support mechanism, as suggested by MCI, any such mechanism should not exclude satellite broadband.⁶

⁴ See *e.g.*, Comments of the National Rural Telecommunications Cooperative at 5 (“...NRTC is convinced that Ka-band satellite service will be an essential tool in achieving universal broadband deployment.”).

⁵ See Comments of EchoStar Satellite LLC, GN Docket No. 04-54 (May 10, 2004) (“EchoStar Comments”).

⁶ See Comments of MCI, Inc. at 16-20 (“MCI Comments”).

I. THE CONCLUSIONS OF ANOTHER RECENT STUDY ARE CONSISTENT WITH THE COMMISSION'S FINDING THAT BROADBAND DEPLOYMENT TO RURAL AREAS LAGS FAR BEHIND DEPLOYMENT TO URBAN AREAS

In the Commission's most recent status report regarding high-speed services for Internet access, it found that in 9% of U.S. zip codes broadband service is still not available.⁷ The majority of these "no broadband service" zip codes are in rural areas.⁸ In contrast, some of the country's most densely populated states like Massachusetts, Connecticut, Maryland, and Florida, have ten or more broadband service providers in at least 23% of the state's zip codes.⁹ The Commission's findings regarding the lag in broadband deployment to rural areas are consistent with that of another study recently conducted by the Pew Internet & American Life Project.¹⁰

The Pew Internet & American Life Project study found that while the number of Americans with access to high-speed Internet connections either at home or work is growing,

⁷ See "High-Speed Services for Internet Access: Status as of June 30, 2003," Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission (Dec. 2003) ("2003 Broadband Report"), Table 12.

⁸ See 2003 Broadband Report, Table 13.

⁹ *Id.* (demonstrating that 27% of the zip codes in Massachusetts, 23% of the zip codes in Connecticut, 25% of the zip codes in Maryland, and 28% of the zip codes in Florida, report having ten or more broadband service providers).

¹⁰ See Pew Internet Project Data Memo by John B. Horrigan, Ph.D., Senior Research Specialist, Apr. 19, 2004 ("Pew Memo"). According to its website, the Pew Internet & American Life Project's mission is to create and fund original, academic-quality research that explores the impact of the Internet on children, families, communities, the work place, schools, health care and civic/political life. The Project aims to be an authoritative source for timely information on the Internet's growth and societal impact, through research that is scrupulously impartial. The Project is an initiative of the Pew Research Center, a project of the Tides Center, and fully funded by the Pew Charitable Trusts. See <http://www.pewinternet.org/about/about.asp?page=4> (last visited May 24, 2004).

“rural users lag in broadband adoption, and infrastructure availability is a reason for this.”¹¹ According to the Pew Memo, only 10% of rural Americans go online from home with high-speed connections, about one-third the rate for non-rural Americans.¹² In addition, when dial-up users living in rural areas were asked whether high-speed Internet service to the home was available where they live, 27% said it was not, 37% said it was available, and 35% did not know. Among non-rural residents, only 11% of dial-up users say broadband is not available where they live, 64% said it is, and 24% did not know. The Pew Memo concluded that “the large gaps in self-reported availability of broadband connections suggest that lack of high-speed infrastructure has something to do with lower home broadband use in rural areas,”¹³ confirming that lower broadband usage in those areas is not merely a function of demographic factors such as income.

II. SATELLITE BROADBAND IS WELL-SUITED TO SERVE RURAL AND OTHER UNDERSERVED AREAS AND CAN PLAY A UNIQUE ROLE IN SUPPORTING HOMELAND DEFENSE

While cable modems and digital subscriber lines (“DSLs”) provide service to the vast majority of broadband subscribers, numerous commenters note that satellite could emerge as a competitor in the broadband market¹⁴ and is theoretically well-suited for the provision of broadband service to rural and other underserved areas.¹⁵ Consistent with Presidential,

¹¹ See Pew Memo at 1.

¹² *Id.* at 2.

¹³ *Id.* at 7.

¹⁴ See *e.g.*, Comments of Comcast Corp. at 6, 13-14; Comments of SBC Communications, Inc. at 10; Comments of the United States Telecom Association at 4; Comments of Verizon at 1 & Exhibit A at 22. (“Verizon Comments”).

¹⁵ See *e.g.*, Comments of the California Public Utilities Commission at 36 (stating that satellite “has little terrain restriction since it only require[s] a line-of-sight of the sky, similar to satellite TV.”); Comments of the National Rural Telecommunications Cooperative (“NRTC”) at 8 (“NRTC Comments”) (“NRTC believes that extending broadband service to those harder-to-

Congressional and Commission policy objectives of providing affordable, high-speed Internet access to all Americans, satellite systems could in the right set of circumstances make broadband a reality for the millions of homes that may never have access to cable modem or DSL service,¹⁶ and foster competition in those regions served by one or more broadband service providers.

Broadband over satellite can also play a unique role in supporting homeland defense. Many critical elements of the nation's infrastructure are located in remote areas (*i.e.*, water supply, dams, bridges, electric grid, gas and oil pipelines, etc.). An economical broadband over satellite solution could uniquely enable much more widespread remote monitoring and control of this infrastructure than can reasonably be accomplished with other technical approaches. This provides an additional compelling reason why the Commission should take steps to foster the launch and success of the emerging generation of broadband over satellite technologies and services.

III. THE COMMISSION CAN HELP ACCELERATE THE DEPLOYMENT OF SATELLITE BROADBAND SERVICE BY INITIATING OR APPROVING SEVERAL PENDING PROPOSALS

The NOI asks what can be done to accelerate the deployment of advanced services.¹⁷ As described in detail in EchoStar's initial comments,¹⁸ the Commission can help

reach sections of the nation will allow homes and businesses in rural areas to 'make more and better use of the Internet.' Satellite services will be the cost effective only [sic] way to reach many of these areas."); Verizon Comments at 12 ("Broadband delivered via satellite may be particularly attractive to customers located in rural areas, where the costs of deploying new wireline or cable facilities are high.").

¹⁶ See *e.g.*, *A New Generation of American Innovation*, Apr. 2004, at 2 (stating that "[t]he President has called for universal, affordable access for broadband technology by the year 2007 and wants to be sure Americans [are given] plenty of technology choices when it comes to purchasing broadband.")

¹⁷ NOI at 12-13, ¶¶ 36-37.

¹⁸ See EchoStar Comments at 6-9.

accelerate the deployment of advanced services by initiating or approving several pending proposals. First, the Commission should grant EchoStar's petition for rulemaking to re-designate the 28.6-29.1 GHz and 18.8-19.3 GHz bands as spectrum that can be used both by geostationary satellite orbit ("GSO") and non-geostationary satellite orbit systems in the Fixed-Satellite Service on a co-primary basis.¹⁹ Second, the Commission should initiate a proceeding to analyze the use of the underused Cable Television Relay Service ("CARS") spectrum for the deployment of advanced services. Furthermore, the Commission should consider the proposal for reduced orbital spacing of DBS satellites,²⁰ which in EchoStar's view is feasible subject to appropriate safeguards, and should initiate a rulemaking on the use of foreign orbital slots for the provision of advanced services to ensure that evenhanded standards are developed for all satellite operators desiring access to the U.S. market this way.²¹

Access to additional spectrum will be an essential step forward, but will certainly not be a panacea. EchoStar has extensively discussed the other obstacles that satellite broadband must still overcome to attain commercial viability and success. In that regard, to the extent the Commission or Congress decide to promote the expansion of broadband service to rural areas

¹⁹ See Petition of EchoStar Satellite Corp. for Rulemaking to Designate the Non-Geostationary Fixed-Satellite Service Bands to Allow Geostationary Fixed-Satellite Service Operations on a Co-Primary Basis, RM No. 10767 (filed Aug. 27, 2003); see also Public Notice, Report No. 2628 (rel. Sept. 25, 2003) (announcing that interested parties may file statements opposing or supporting the Petition within 30 days).

²⁰ See *International Bureau Seeks Comment on Proposals to Permit Reduced Orbital Spacings Between U.S. Direct Broadcast Satellites*, Public Notice, Report No. SPB-196 (rel. Dec. 16, 2003).

²¹ See e.g., Comments of EchoStar Satellite LLC, *In the Matter of DIRECTV Enterprises, Inc., Application for Special Temporary Authority to Relocate DIRECTV 5 to 72.5° W.L. and to Conduct Telemetry, Tracking and Command Operations for an Interim Period*, File No. SAT-STA-20040107-00002 (filed Feb. 17, 2004).

through a support mechanism, as suggested by MCI, any such mechanism should not exclude satellite broadband.²²

IV. THE COMMISSION SHOULD NOT IMPOSE MORE ONEROUS DATA COLLECTION REQUIREMENTS ON BROADBAND PROVIDERS

The NOI reveals the Commission's intention to initiate a separate proceeding to revise FCC Form 477 in order "to obtain more detailed understanding of the provision of services with greater bandwidth than 200 kpbs and the availability of the broadband technologies that have achieved the greatest mass market acceptance to date, cable modems and DSL connections, which should facilitate future 706 inquiries."²³

EchoStar believes that the Commission should proceed with the utmost caution in imposing additional data collection burdens on broadband providers and releasing such information would will be coveted by competitors. Providing such granular information to the Commission is a time-consuming process for employees whose time could be better spent working, for example, to improve the service quality of the network. Moreover, much of the information can now be obtained from investment banks and industry analysts who typically generate similar information quarterly. If the Commission ultimately decides to require broadband service providers to submit more granular data (*e.g.*, requiring filers to report, by technology and zip code, the number of high-speed connections) using a revamped FCC Form 477, the Commission must ensure that reviewing parties are unable to identify information submitted with any particular broadband service provider. The Commission must also be receptive to requests for confidentiality of the information submitted, assuming that the

²² See MCI Comments at 16-20.

²³ NOI at 6, ¶ 15.

