

III. THE MERGER WILL MAKE TRUE BROADBAND SERVICES AVAILABLE FOR THE FIRST TIME TO ALL AMERICAN HOMES

A. The Merger Will Create The First True Satellite Broadband Service

Some commenters claim that the merger will result in an elimination or reduction of competition by reducing the number of broadband competitors from “two to one” in some areas, and from “three-to-two” in other areas.¹⁸⁵ These commenters completely miss the point. They appear to begin with the assumption that all Americans enjoy vibrant competition among providers of true broadband services *today*; they then seek to prove that this competitive marketplace will suffer as a result of the proposed merger.

In fact, however, the merger of EchoStar and Hughes will *create* for the first time a truly competitive broadband alternative to DSL and cable modem service. In doing so, it will help alleviate the real problem, which these commenters assume away:

- by any measure, the broadband revolution is far from reaching every corner of the United States. For many Americans living in remote areas, DSL or cable modems remain out of reach. Satellite high-speed service is the only platform with a national footprint, yet today’s satellite broadband services are not comparable in price or quality to DSL or cable modem services, resulting in a low level of subscription to satellite services by rural Americans; and
- even the remaining consumers today located in areas served by DSL or cable modems lack access to effective satellite broadband competition.

The high-speed Ku-band access services provided by the Applicants today do not cure either part of this problem. As a threshold matter, they do not satisfy the

¹⁸⁵ See, e.g., Comments of the State of Alaska at 6; NAB Petition at 102; NRTC Petition at 50.

Commission's definition of an "advanced service."¹⁸⁶ Nor could either company standing alone deploy on a timely basis an advanced residential broadband service of mass scale and appeal at an affordable price. Partly due to these issues, SPACEWAY has been developed with a focus on the larger commercial, or "enterprise," customers while EchoStar's Ka-band program has remained modest in scope. Both of these Ka-band programs will need to be refocused and integrated with one another to achieve the required economic scale for ubiquitous residential true broadband service.¹⁸⁷ Therefore, the effects of this transaction on the broadband market are more akin to an increase in the number of broadband competitors from "zero to one" in most areas and "one-to-two" or "two-to-three" in other areas of the country. New EchoStar is the best hope for true and competitive satellite broadband service to virtually all Americans at an attractive price.

Ultimately, the question for Congress and the Commission is simple: will the government try to tackle the limited availability of advanced broadband services across America only through a costly web of cross-subsidy and regulation? Or, will it allow a multi-billion dollar private capital initiative to create a true broadband service

¹⁸⁶ See *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*, Third Report, CC Docket No. 98-146, FCC 02-33 (rel. Feb. 6, 2002), at ¶ 60 ("none of these [satellite] lines satisfies the Commission's definition of advanced services.") ("Third Advanced Services Report").

¹⁸⁷ As discussed in more detail below, the estimates about the stand-alone Ka-band capacity of each company made by one Petitioner's expert are over-inflated by a host of inaccurate assumptions, such as the collocation of two SPACEWAY satellites in one orbital location and the mistaken belief that EchoStar can use the spectrum licensed to another company through its minority investment in that company.

competitor that will provide service virtually to every home in America? The latter alternative is the better one for the public interest. Indeed, the approval of the proposed merger will help fulfill several of the Commission's stated broadband principles and policy goals by:¹⁸⁸

- encouraging the ubiquitous availability of broadband access to the Internet to all Americans;
- promoting competition across different platforms for broadband services; and
- ensuring that broadband services exist in a minimal regulatory environment that promotes investment and innovation.

The importance of being able to offer a seamless bundle of video and broadband services cannot be overemphasized in considering what tools will be necessary to become and remain competitive with cable companies capable of leveraging their tremendous power in video into the broadband market. The Commission recognized years ago that “[m]ulti-service offerings and bundling services for sale seems to enhance subscription to alternative services offered by cable companies. . . . Indications are that consumers value receiving those services through ‘one-stop-shopping.’”¹⁸⁹ Cable is far ahead of any other service in fulfilling consumers’ demand for “one-stop-shopping,” thanks to its bandwidth advantages and market power in the MVPD market. Cable’s strategy was succinctly described by one commenter in the Commission’s cable modem open access proceeding:

¹⁸⁸ See “FCC Launches Proceeding to Promote Widespread Deployment of High-Speed Broadband Internet Access Services.” News Release (Feb. 14, 2002).

¹⁸⁹ Fifth MVPD Competition Report at ¶ 60.

The cable industry has informed everyone else outside the Commission that it is *cable itself* that is advantageously positioned to leverage *cable's* dominant incumbent position in *cable's* existing video markets, in order to secure *cable's* dominance of the broadband market. Cox openly declares that it has 'outlined a clear strategy: Leverage the power of our delivery network to offer customers not just cable television, but advanced services including . . . high-speed Internet access.'

* * *

The cable industry expects its leveraging to solidify cable's dominance of existing video markets, as well.¹⁹⁰

Present-day, spectrum-constrained, satellite providers simply cannot offer a bundled video, broadband and interactive service comparable to that being rolled out by those cable companies offering digital cable service.

1. The Current State of Deployment of Advanced Telecommunications Capability

The problem with broadband is a threshold one: availability. Many areas of the country still have *no access whatsoever* to what the Commission has described as "advanced telecommunications capability" (referred to here as "true broadband" services).¹⁹¹ Such services are defined by the Commission as having upstream

¹⁹⁰ Reply Comments of SBC Communications, Inc. and BellSouth Corporation, *In the Matter of Inquiry Concerning High Speed Access to Internet Over Cable and Other Facilities*, GN Docket No. 00-185 (filed Jan. 10, 2001), at 6 (citing a Cox Communications press release).

¹⁹¹ The Commission has also used the terms "advanced service" and "advanced telecommunications service" to refer to these capabilities. *See* Third Advanced Services Report at ¶ 8, n.23 (noting the Commission's adoption of the terms "advanced telecommunications services" or "advanced services" in its Second Report on such services, because it determined that the term "broadband services" "had come to include a much broader range of services and facilities" than those examined by the Commission.)

(customer-to-provider) and downstream (provider-to-customer) transmission speeds of more than 200 kbps.¹⁹² The Commission distinguishes true broadband services from those having 200 kbps capacity in only one direction, such as currently available satellite offerings, which the Commission defines as “high speed.”¹⁹³ The Commission’s data make clear that in terms of actual levels of subscribership, true broadband is less broadly deployed than high-speed services. In other words, a significant number of Americans, both urban and rural, still do not subscribe to true broadband service, whether because it is not available to them, the service is too costly, or for other reasons.

The present patchwork quilt of true broadband availability demonstrates that while the pace of deployment is acceptable, *the coverage is far from complete*. Even in areas served by cable, the availability of true broadband service remains limited. For example, out of more than 60 million homes passed by cable modem plant in July 2001, only about 5.2 million had high-speed cable modem lines and less than two-thirds of these met the definition of “advanced service.”¹⁹⁴ This number is, of course, a subset of

¹⁹² *Id.* at ¶ 8. According to the Commission, a transmission speed of 200 kbps “is enough to provide the most popular applications, including web-browsing at the same speed as one can flip the pages of a book.” *Id.* at ¶ 11.

¹⁹³ *See id.* at ¶ 9.

¹⁹⁴ The Commission reported that of the 5.2 million high speed cable lines existing in June 2001, 64 percent met the definition of advanced services, *id.* at ¶ 44, meaning that there were approximately 3.3 million such lines. Relying on a report by the National Cable Television Association (“NCTA”), the Commission reported that “more than 60 million homes” were passed by cable modem plant in July 2001. *See id.* at ¶¶ 44-45 & n.93. These figures yield a penetration rate of roughly 5.5 percent of cable modem capable homes assuming 60 million homes are passed by cable modem service. The NCTA has reported that as of November 2001, there were 6.4 million cable modem subscribers and 70 million homes passed by cable modem service. *See* http://www.ncta.com/industry_overview/indStat.cfm?indOverviewID=2 . Estimates vary (Continued ...)

the total number of homes passed by cable,¹⁹⁵ which in turn is a subset of the total number of U.S. homes. Thus, while the availability of advanced services via cable modem is growing, with the number of subscribers predicted to double in one year's time,¹⁹⁶ advanced service via cable modem is currently being provided to only a small fraction of all U.S. homes.

Likewise, the Commission has noted that service via asymmetric digital subscriber line ("ADSL"), the most popular residential wireline offering, is available to less than half of all U.S. homes.¹⁹⁷ Moreover, only about 37 percent of the 2.7 million ADSL lines reported at the end of June 2001 met the Commission's definition of advanced services.

While satellites offer the best hope for filling the gaps left by cable modem and DSL, satellite broadband today is not fully comparable to cable modem and DSL, leaving many Americans without a true broadband alternative. The Commission found that none of the current satellite offerings qualifies as an advanced service under its

as to the percentage of U.S. homes that have access to cable modems, ranging from 66 percent to roughly 80 percent of U.S. households by year-end 2001. Third Advanced Services Report at ¶ 46 & n.98.

¹⁹⁵ See Eighth MVPD Competition Report at ¶ 17 (reporting that by the end of June 2001, the number of homes passed by cable was estimated at 104 million).

¹⁹⁶ See Third Advanced Services Report at ¶ 66 (citing a Morgan Stanley report on broadband cable that estimated growth in subscribers from year-end 2000 to year-end 2001).

¹⁹⁷ See *id.* at ¶ 51 (quoting an estimate that ADSL was available to "about 45 percent of U.S. homes" at the end of 2001). Assuming that there are 107 million households, the number of households without ADSL access amounts to 58.85 million.

definition.¹⁹⁸ It follows that in areas where advanced services via cable modem or DSL are not available, the number of competitors providing true broadband services is essentially zero. Nor is the situation likely to change soon. A number of reports have suggested that a sizable number of homes in the U.S. will not have access to cable modem or DSL technology in the near future, if ever. A report cited by the Commission puts the number of homes that may never have such access at 20 to 30 million.¹⁹⁹ Many of these homes will be in rural areas, as reflected in another study cited by the Commission which found, for example, that “about 25 to 30 percent of rural telephone subscribers are not likely to have access to high-speed services in the near future.”²⁰⁰

This conclusion is consistent with the Commission’s general finding that there is a “positive correlation” between “population density and the presence of high-speed subscribers.”²⁰¹ With respect to advanced and high-speed services in the aggregate, the Commission reports that such services are currently utilized in “fewer than 40 percent of the most sparsely populated zip codes,” in contrast to the most densely populated zip codes, nearly all of which report use of such services.²⁰² As the NRTC

¹⁹⁸ *Id.* at ¶ 60 (“none of these [satellite] lines satisfies the Commission’s definition of advanced services.”).

¹⁹⁹ *See id.* at ¶ 78 (citing studies by Salomon Smith Barney and Merrill Lynch).

²⁰⁰ *Id.* at ¶ 113 (citing a study by the National Telephone Cooperative Association).

²⁰¹ *Id.* at ¶ 109.

²⁰² *See id.* at ¶ 35 and App. C, Table 11 (observing that “well over 90 percent” of “the most densely populated zip codes” have high speed subscribers. The Commission defined the most densely populated zip codes as those in the top three deciles of its study in terms of density. Those most sparsely populated zip codes were those in the bottom three deciles. *Id.*, App. C at 4, n.13. It should be noted that the Commission’s data report
(Continued ...)

observes, a joint report by the National Telecommunications and Information Administration (“NTIA”) and the Rural Utilities Service (“RUS”) in 2000 noted that “only 5% of towns with fewer than 10,000 residents have access to cable modem service, and only 1.4% of such towns have access to DSL service.”²⁰³ And as discussed above, not all of these cable modem and DSL lines meet the definition of advanced services. In one important respect, however, rural areas with no access to true broadband are in the same position as urban and suburban areas without this service – the current number of providers offering this service in these areas is essentially zero.

Even in those areas where cable modem and DSL services are available, real broadband competition has not been effective in restraining prices that are high and rising. This likely reflects the current lack of effective broadband competition even in urban markets. As the Commission has found, cable modem service is by far the most widely used mode of high-speed and advanced service. According to the Commission, cable modem lines accounted for 54 percent of the estimated 9.6 million high-speed lines reported as of June 2001,²⁰⁴ with subscribership figures expected to double in one year’s

the presence of subscribers in a zip code, and that this data cannot necessarily be used to precisely calculate the percentage of the population to whom a service is available. *See id.* at ¶ 25.

²⁰³ NRTC Petition at 44 (citing NTIA/RUS Report at 18-21).

²⁰⁴ *See* Third Advanced Services Report at ¶ 44 and App. C, Table 1.

time according to a report cited by the Commission.²⁰⁵ ADSL lines accounted for roughly 28 percent of all high-speed lines.²⁰⁶

On the other hand, satellite-based and terrestrial fixed wireless systems accounted for only 2 percent of all high speed lines, with less than 195,000 subscribers.²⁰⁷ These data reflect that subscribership for high-speed satellite services, which again do not meet the definition of true broadband, with only approximately 140,000 residential and small business subscribers to Hughes' DIRECWAY and EchoStar's StarBand combined,²⁰⁸ pales in comparison to the figures for high-speed cable and wireline technologies.

Cable likewise dominates in providing true broadband service, accounting for approximately 56 percent of the reported 5.9 million true broadband lines in service

²⁰⁵ See *id.* at ¶ 66 (citing a Morgan Stanley report on broadband cable that estimated growth in subscribers from year-end 2000 to year-end 2001).

²⁰⁶ *Id.* at ¶ 48 & ¶ 71. Other wireline technologies, such as T1, symmetric DSL, and optical fiber services, which are used primarily by businesses, accounted for approximately 16 percent of all high-speed lines. *Id.* at ¶ 48.

²⁰⁷ See Third Advanced Services Report, App. C, Table 1 (data for satellite and fixed wireless services, which was aggregated by the Commission due to confidentiality concerns, reflect that such services accounted for 194,707 of the nation's 9,616,341 high speed lines).

²⁰⁸ As a percentage of homes with Internet service, the figure for satellite service is even smaller. The NTIA's most recent study reflected that only 0.5 percent of all Internet homes utilized high-speed services other than cable and DSL, while 12.9 percent of such homes used cable modem, and 6.6 percent used DSL. See U.S. Department of Commerce, National Telecommunications and Information Administration and Economics and Statistics Administration, *A Nation Online: How Americans Are Expanding Their Use of the Internet* (Feb. 3, 2002), at 39 (reporting that technologies other than standard dial-up, cable modem, and DSL, were used by only 0.5% of Internet households).

as of June 2001.²⁰⁹ The Commission reported that cable companies increased residential subscribership for advanced services by 261 percent in the 18 months preceding its *Third Advanced Services Report*.²¹⁰ Wireline technologies including ADSL accounted for 35 percent of all true broadband lines, and residential subscribership to ADSL advanced services grew by 683 percent in the 18 months leading up to the Commission's *Third Advanced Services Report*.²¹¹ Fiber accounted for less than 8 percent of all true broadband lines.²¹² As noted above, none of the satellite operators currently offers true broadband service, reflecting the fact that satellite providers account for zero percent of this market. With cable far outstripping other high-speed technologies in terms of availability, it comes as no surprise that competition is lacking in the high-speed and advanced services market, and that, as NRTC has observed, prices for such services are high and rising.²¹³

²⁰⁹ See *Third Advanced Services Report*, App. C, Table 1.

²¹⁰ *Id.* at 16, n.70.

²¹¹ *Id.*

²¹² *Id.*

²¹³ See NRTC Petition at 50 (citing reports that conclude “price appears to be a key obstacle to broadband penetration.”)

2. EchoStar's and Hughes' Current Ku-Band Broadband Offerings Are Competitively Inadequate

a. Current Ku-Band Offerings Are Simply Not Competitive in Today's Market

What many Petitioners describe as a loss of competition from the merger²¹⁴ relates to two interim alternatives that have not been able to realize anything close to the full potential of satellite broadband offerings. The Commission itself has described the DIRECWAY and Starband offerings as "still in the early stages of deployment,"²¹⁵ and although each company has tried to make the most of these delivery modes, it is clear that these services are subject to significant constraints that will limit their long-term viability, especially in light of the emergence and rapid deployment of more advanced broadband service alternatives.

Foremost among these constraints are transmission speeds, capacity limitations and overall cost. As noted above, current satellite offerings do not meet the Commission's definition of "advanced services" because the satellite offerings are not capable of providing transmission speeds in excess of 200 kbps in both directions.²¹⁶ These Ku-band offerings have limited capacity. As discussed in the attached Declaration of Mr. Arnold Friedman ("Friedman Declaration") attached as C hereto, there are

²¹⁴ See NRTC Petition at 50-52; Pegasus Petition at 30; NAB Petition at 98-104.

²¹⁵ Third Advanced Services Report at ¶ 60.

²¹⁶ *Id.*

operational limits on the number of subscribers that can be served on the Ku-band transponders that Starband and DIRECWAY lease from existing Ku-band satellite operators.²¹⁷ Although satellite broadband providers seek to group transponders on the same satellite for operational efficiencies and customer service quality, there are limits on their ability to successfully do so. The Ku-band is used for many commercial purposes other than DIRECWAY and Starband services, and satellite operators have already committed many Ku-band transponders for such other uses. Moreover, Starband and DIRECWAY directly compete with other users for access to the available Ku-band capacity. As a result, it is not always possible to obtain additional capacity on the same spacecraft where DIRECWAY and Starband have already located existing broadband subscribers.²¹⁸ These limitations directly impact the economics of the currently provided Ku-band services.

Obtaining Ku-band capacity is also expensive. In today's market, the cost to lease a single 36 MHz transponder is approximately \$2,000,000 per year. The cost of acquiring space segment capacity from third parties is a large component of the total cost of the monthly service cost for satellite broadband service. Thus, the cost of leasing Ku-band capacity increases the cost to provide DIRECWAY and Starband service, relative to the cost to provide DSL and cable modem service.²¹⁹

²¹⁷ Friedman Declaration at ¶ 12.

²¹⁸ *Id.* at ¶¶ 13-14.

²¹⁹ *Id.*

The long-term ability of services of this nature to compete with faster, true broadband services is therefore questionable, especially since, as the Commission observes, “new and unforeseen capacity hungry applications that require advanced service platforms will drive demand, and in turn deployment, in the future.”²²⁰ For example, the Commission notes that one report forecasts that “by 2005, the average broadband household will download about 70 megabits [sic] of files, consume more than 20 minutes of video streaming per day, and download three two-hour long movies per month.”²²¹ Consumers will demand nothing less than true broadband service and more to facilitate their use of the Internet for such activities.²²²

Other constraints on the competitiveness of present-day satellite broadband services versus cable modem or DSL service include higher up-front costs for equipment and installation, and the need for professional installation.²²³ As explained in Mr. Friedman’s Declaration, the impact of these constraints is that current Ku-band

²²⁰ Third Advanced Services Report at ¶ 64.

²²¹ *Id.*

²²² A survey conducted by McKinsey & Co. and JP Morgan in April 2001 characterized consumer interest in broadband as already “surprisingly high.” McKinsey & Co. and JP Morgan, *Broadband 2001: A Comprehensive Analysis of Demand, Supply, Economics, and Industry Dynamics in the U.S. Broadband Market* (Apr. 2001), at 25. Ninety-four percent of survey respondents indicated that the “primary benefits of broadband – data speeds many times faster than with most dial-up connections, not tying up the phone line, always being on, never having any busy signals” were either extremely, very, or somewhat important to them.

²²³ Friedman Declaration at ¶ 8. Professional installation of satellite equipment is required by FCC licenses for transmit-receive Ku-band terminals used for two-way service to consumers. This requirement has negatively impacted installation costs and consequent pricing.

broadband offerings are unable to compete with cable modem and DSL offerings.²²⁴ The price of these satellite services is significantly higher than that of cable modem and DSL services.²²⁵ Monthly charges for the Starband and DIRECWAY services, for example, start at approximately \$70 and \$60 respectively,²²⁶ compared to approximately \$30-60 for cable modem service from major providers²²⁷ and \$45-59 per month for standard DSL service.²²⁸ Second, equipment and installation costs are much higher for satellites than cable modem or DSL services. The suggested retail price of equipment for satellite broadband service is more than \$500, plus the customer must obtain professional installation at a cost starting at \$199, for a total price tag of over \$700. Moreover, satellite subscribers typically have no alternative other than to purchase their satellite equipment, as the equipment is usually not offered on a lease basis. Cable modem and DSL installations, on the other hand, entail significantly lower costs to bring the subscriber on line. Cable modems are offered by one major provider for \$199 or a \$5 monthly rental

²²⁴ *Id.* at ¶ 9.

²²⁵ *Id.*

²²⁶ *See* Third Advanced Services Report at ¶ 48. DIRECWAY service is obtained through Hughes' distributors. The current monthly fee for DIRECWAY service is \$59.99 and for Starband service is \$69.99. *See* Friedman Declaration at ¶ 9.

²²⁷ *See* Friedman Declaration at ¶ 9. A \$40-55 price range was reported by Comcast Corporation's website, www.comcast.com, visited Feb. 18, 2002. Cox Communications-Northern Virginia offers a high-speed Internet access service for \$30-40 per month. *See* www.coxcable.com/Fairfax/RoadRunner/rates.asp (visited Feb. 21, 2002). Time Warner Cable advertises high-speed Internet access in Bergen County, New Jersey for \$45-60 monthly including the cost of modem rental. *See* www.timewarcablenj.com/road_runner/faq.html#gq17 (visited Feb. 21, 2002).

²²⁸ Third Advanced Services Report, App. B, at ¶ 25.

fee, with a self installation kit.²²⁹ DSL installation costs to consumers ranged from no cost to \$250 according to a recent Commission survey.²³⁰

The sum effect of all of these factors is that current Ku-band satellite broadband offerings are not as competitive, and therefore not as attractive as cable modem and DSL offerings. Low rates of subscribership to satellite broadband offerings – only 140,000 satellite subscribers to date compared to subscribership numbers in the millions for cable modem and DSL – demonstrate this lack of competitiveness of satellite offerings. Logically, a merger that will result in the combination of two interim and struggling broadband alternatives that are already not competitive with cable modem and DSL services will not produce a further loss of broadband competition.²³¹ According to

²²⁹ These prices were reported by Comcast Corporation's website, www.comcast.com, visited Feb. 18, 2002. Cox Cable-Northern Virginia offers cable modem rentals for \$15 per month with a \$124.99 professional basic installation fee. The modems may also be purchased from computer equipment retailers. See www.coxcable.com/Fairfax/RoadRunner/rates.asp (visited Feb. 21, 2002). Time Warner Cable in Bergen County, New Jersey charges a basic installation fee of \$69-99, depending on the configuration of the subscriber's computer. See www.timewarnercablenj.com/road_runner/faq.html#gq17 (visited Feb. 21, 2002).

²³⁰ Third Advanced Services Report, App. B. at ¶ 25.

²³¹ See Pegasus Petition at 30. The NAB has also suggested that EchoStar and DIRECTV "compete in the deployment of advanced services." NAB Petition at 30-31. However, the "evidence" supplied by NAB of supposed competitive reactions is a disjointed litany of events that cannot even be characterized as tandem movements by the two DBS operators, let alone as indicia of intense competition.. NAB claims, for example, that the following events are competitive reactions: "On March 17, 1999, DIRECTV announced it would invest \$1.4 billion in Spaceway Broadband Satellite System, with the stated goal of 'establish[ing] satellites as the preeminent means of delivery broadband services. On April 19, 1999, EchoStar announced that it would work with SkyStream Data Injection Equipment to insert data into the transport stream to reclaim lost bandwidth." *Id.* at 30 (citations omitted). This "evidence" of intense satellite broadband competition is as unavailing as the Petitioners' "evidence" of intra-DBS competition in the video market, as discussed in Section II.A.2 above.

Professor Willig, “[d]espite the fact that satellite-based Internet access is technically available in all areas of the United States, the low penetration rate of this technology -- even in areas without any access to DSL or cable modem service -- raises questions about whether households in both rural and urban areas are likely to accept it on a large scale.”²³²

b. Current Satellite Offerings Clearly Have Not Functioned as a Check on Broadband Prices

Petitioners such as NRTC, Pegasus and NAB argue that what they characterize as competition between DIRECWAY and StarBand must be preserved as a check on broadband prices. The lack of satellite competitiveness is borne out not only by the low subscribership rates discussed above, but also by the rising cable modem and DSL prices also observed by these Petitioners. NRTC’s own data reveal that its characterization of the current market is simply wrong – NRTC states that “the price of high-speed services is an impediment to 36% of those interested in subscribing,” and that “the lack of advanced services competition has resulted in monopoly pricing [of DSL services] by ILECs.”²³³ These facts contradict NRTC’s argument that the merger will reduce or eliminate competition. Consumers are already subject to monopoly pricing notwithstanding the presence of both DIRECWAY and StarBand in the marketplace.

²³² Willig Declaration at ¶ 29.

²³³ NRTC Petition at 50 (citing comments of Focal Communication Corporation and Pac-West Telcomm. Inc. and quoting comments of the Competitive Telecommunications Association before the NTIA) (internal quotation marks omitted).

3. Neither Company's Stand-Alone Ka-Band Ventures Would Allow Timely Deployment Of An Affordable Broadband Product to Residential Subscribers

As the Application explains, the future of satellite broadband lies with the deployment of next-generation systems in the Ka-band capable of competing with the advanced services offerings of cable companies and DSL providers.²³⁴ Because of the challenges involved in bringing these satellite systems to fruition, however, deployment of these new satellites has taken longer, and will require more capital than many Ka-band licensees have been able to sustain. Just recently, Astrolink reported that it had terminated its Ka-band spacecraft contract with Lockheed Martin, after having built 90% of its first spacecraft, and after spending about \$710 million on its Ka-band system and finding itself unable to finance the remaining cost of implementing the Astrolink broadband system.²³⁵ Indeed, the current satellite programs are not immune to downturns in the capital markets or changes in the projected demand for broadband services. However, as discussed in Section III.B. below, the efficiencies flowing from the merger will enable New EchoStar to deploy a competitive true broadband satellite offering for the benefit of all U.S. consumers, rural, suburban and urban alike.

²³⁴ See Merger Application at 47.

²³⁵ "Decision Nears on Astrolink as Lockheed Ends Funding, *Communications Daily*, Nov. 1, 2001. See also Letter from Peter A. Rohrbach and David Martin, Counsel for Astrolink International LLC, to William F. Caton, Acting Secretary, FCC, Re: Astrolink International LLC, File Nos. 182 through 189, SAT-P/LA-95 & SAT-MOD-19971222-00200 (Feb. 8, 2002) at 2.

a. Hughes' Ka-Band Venture – SPACEWAY

The Hughes SPACEWAY system is licensed to operate at two U.S. orbital slots with full-CONUS coverage: 99° and 101° West Longitude. Consistent with the FCC license for the system, and Hughes' system design, the first spacecraft to be deployed at each of these locations is constructed to utilize 500 MHz of spectrum in each direction (19.7-20.2 GHz downlink; 29.5 – 30.0 GHz uplink).²³⁶

Deploying the SPACEWAY system requires a capital expenditure in excess of \$1.8 billion, and the development of very complex technology that has never before been deployed in a commercial satellite network, such as on-board processing and switching. It also involves the substantial commercial risks associated with implementing cutting edge technology in outer space. In order to support these expenditures and mitigate the attendant risks, the Hughes SPACEWAY business plan targets enterprise customers.

There are a number of reasons why focusing on enterprise customers increases the commercial viability of the SPACEWAY system and reduces the business risk.

- Hughes' experience from Ku-band VSATs is that enterprise customers are willing to subscribe to broadband services more quickly than residential customers.

²³⁶ Hughes also is licensed to operate a Ka-band spacecraft at the 131° W.L. "wing" slot, which the Commission has acknowledged is not suitable for CONUS service, as well as spacecraft at a number of other locations that are suitable only for international service.

- Targeting enterprise users provides a greater opportunity to generate additional revenue from value-added broadband services.
- Because Hughes already provides Ku-band VSAT services to hundreds of thousands of enterprise Ku-band VSAT terminals, SPACEWAY services can readily be marketed to this large base of installed enterprise users.
- Enterprise customers are not as cost-sensitive as residential users to the up-front costs of acquiring VSAT equipment, or the complexities associated with professionally installing that equipment.
- Serving the enterprise sector provides the opportunity for Hughes to recover more quickly the enormous capital cost of deploying this system; conversely, focusing on a ubiquitous residential service is a far riskier endeavor that would take far longer to recover such costs.
- The profit margins of residential service are significantly lower, partly because subscriber acquisition costs are significantly higher.

In short, the focus on enterprise users is based on the expected higher and quicker “take up” rate by those users, larger profit margins through increased opportunity for value-added services, as well as more modest subscriber acquisition costs, and it has justified Hughes’ making capital investment in the SPACEWAY system and incurring the associated technology risks. By contrast, costs of actually marketing a ubiquitous residential service on a broad scale and equipping residential users to use SPACEWAY-enabled services most likely would not be feasible without the merger.

The SPACEWAY spacecraft at 99° and 101° W.L. will be capable of providing coverage of the 50 states, Puerto Rico and the U.S. Virgin Islands. However, the fact that those spacecraft will be technically capable of serving users throughout the

U.S. does not mean that it is economically feasible to actually market broadband service to, and equip, residential households, particularly those in rural areas.

The recent experiences of terrestrial broadband providers demonstrates that U.S. consumers are very price sensitive in the case of broadband services, and are willing to stay with or revert to dial-up phone service if the cost of broadband service is too high.²³⁷ Thus, DSL and cable modem service providers are moving toward a model in which consumers can self-install their modems, and in which there is no up-front cost to the subscriber – the inexpensive modem often is provided free of charge by the service provider, and there is no installation charge.²³⁸ Current monthly costs for DSL and cable modem service are as low as \$30-60. DSL and cable modem service can therefore be offered to residential customers at a lower “all-in” cost than is possible with satellite-delivered broadband. As a result, both Starband and DIRECWAY currently substantially subsidize Ku-band equipment costs.

Thus, actually marketing and deploying SPACEWAY services to U.S. households will require a substantial additional investment by Hughes that is far and beyond the \$1.8 billion of capital costs for the SPACEWAY system. Particularly in the current economic climate, it is extremely risky for Hughes to make this type of investment to provide service to residential customers. Such an investment makes sense only if the costs of acquiring residential users are at a level that is sustainable by the

²³⁷ See Willig Declaration at ¶ 29 (observing that “consumers appear to be very sensitive to the price of broadband services”) (citing studies of consumer demand for broadband service).

²³⁸ See Friedman Declaration at ¶¶ 9, 11.

expected revenue stream from those residential users, after taking into account anticipated subscriber churn. As set forth below, the combined scale produced by the merger offers the *only* way to drive down those subscriber acquisition costs, and thereby to justify the substantial investment needed to market and deploy true broadband services to residential users, including those in rural areas. Moreover, the subscriber acquisition costs for such a large customer base will consume significant cash resources, something that Hughes alone has a very limited financial ability to provide, and the merged entity will be better able to provide.

b. EchoStar's Limited Ka-band Development

EchoStar's development of a Ka-band offering is not nearly as advanced as Hughes' SPACEWAY program. While it has been granted licenses for three Ka-band orbital locations (83°, 113° and 121° W.L.), the limited amount of spectrum licensed for its use at two of these locations (500 MHz in each direction) and its lack of experience with enterprise customers, have resulted in relative modest plans for deploying its Ka-band satellite.²³⁹ EchoStar 9 has been designed with a limited number of spot-beams and

²³⁹ Pegasus and the State of Alaska suggest that EchoStar's statements in the Application regarding the development of its stand-alone Ka-band offerings are somehow inconsistent with statements made in other proceedings. *See* State of Alaska Comments at 7; Pegasus Petition at 48-49. Alaska and Pegasus misread the Application. While identifying the risks involved with Ka-band ventures, the Applicants do not, as Pegasus and Alaska suggest, state that each has "changed its mind" about deploying a system. *See* Comments of the State of Alaska at 7. Neither is there any inconsistency with regard to EchoStar's statements in the VisionStar transfer of control proceeding concerning the need for spectrum. In that proceeding, EchoStar stated: "EchoStar . . . with two full-CONUS licensed orbital locations (compared to 3 or 4 locations assigned to certain other licensees) does not have adequate bandwidth to serve the same number of potential customers that certain current and future competitors can provide." *Transfer of Control Application, In the Matter of VisionStar, Inc.*, File No. SAT-T/C-20001215-000163 (filed

(Continued ...)

could be used to backhaul DBS programming to EchoStar's uplink facilities and/or to provide limited broadband services to consumers. However, its total capacity is quite limited (see below) and prior to the merger, EchoStar had no plans to roll out residential broadband Ka-band service on other than a trial basis.

While several Petitioners have speculated as to the commercial viability of launching a number of high-capacity Ka-band satellites into EchoStar's licensed orbital locations, the simple truth is that EchoStar cannot justify making the enormous capital investment in residential broadband service based upon its limited resources and MVPD subscriber base. As explained in the Application, EchoStar believes that it must achieve at least 5 million broadband subscribers within a five year period in order to recover the significant up-front investment and subscriber acquisition costs associated with launching and marketing a new two-way broadband satellite service.²⁴⁰ EchoStar currently does not have access to sufficient spectrum, orbital locations or capital resources to achieve these targets. All of these limitations, however, can be overcome by combining the resources of the Applicants once this merger is approved.

Dec. 15, 2000), at 6. While EchoStar further explained that the combination of EchoStar's and VisionStar's spectrum would "mitigate" the problem of inadequate spectrum, *see id.*, EchoStar never stated that the VisionStar transaction would *resolve* the inadequacy, as Pegasus suggests.

²⁴⁰ Merger Application, Attachment B, Joint Engineering Statement at 15.

c. Available Spectrum Resources

NRTC and Pegasus are simply wrong when they allege that each company could achieve miracles on its own and serve tens of millions of subscribers simply by using its own orbital locations.²⁴¹ Mr. Morgan's conclusions to that effect rest upon several erroneous assumptions. Mr. Morgan wrongly assumes, for example, that it is feasible for Hughes to collocate two operating SPACEWAY satellites at the same orbital location. He also believes that Hughes could have unencumbered access to a full 1,000 MHz of spectrum at each orbital location.

A key element of the SPACEWAY design, and a key element to offering a competitive broadband service by satellite, is the ability to deploy the small transmit/receive user antennas on a ubiquitous basis, and without incurring the delay and expense involved with individually licensing each antenna. The reality, however, is that Hughes is only able to use 50% of its assigned spectrum for service to such ubiquitous terminals.

The Commission has designated 1000 MHz of spectrum at 18.3-18.8 GHz and 19.7-20.2 GHz bands for downlinks from Ka-band GSO FSS spacecraft, and 1000 MHz of spectrum at 28.35-28.6 GHz, 29.25-29.5 GHz, and 29.5-30.0 GHz for uplinks to Ka-band spacecraft.²⁴² However, 280 MHz of this downlink spectrum (18.3-18.58 GHz) and 250 MHz of this uplink spectrum (29.25-29.5 GHz) is not suitable for the

²⁴¹ See NRTC Petition at 54-55; Pegasus Petition at 45.

²⁴² See *In the Matter of Second Round Assignment of Geostationary Satellite Orbital Locations to Fixed Satellite Service Space Stations in the Ka-Band*, 16 FCC Rcd. 14389, 14393 n.26 (2001).

deployment of small, ubiquitously-deployed satellite earth terminals. There are number of reasons for this. First, the Commission has indicated its “expectation” that this 280 MHz of downlink spectrum will generally be used for “gateway” type earth stations²⁴³ (which are not part of the SPACEWAY plan) and not for ubiquitous antennas. Second, the Commission has raised questions about whether the ubiquitous deployment of small terminals in this shared uplink and downlink spectrum is practicable, given the Commission’s stated desire to limit widespread FSS deployment in bands where terrestrial deployment is widespread or where feeder links to MSS satellite networks are being deployed.²⁴⁴

The net result of this regulatory situation is that Hughes cannot plan on using the 18.3-18.58 GHz band or the 29.25-29.5 GHz band for its SPACEWAY system. These problems have a corresponding effect on the 18.58-18.8 GHz band that prevents Hughes from using that 220 MHz downlink segment for broadband service to ubiquitous

²⁴³ *Redesignation of the 17.7-19.7 GHz Frequency Band, Blanket Licensing of Satellite Earth Stations in the 17.7-20.2 GHz and 27.5-30.0 GHz Frequency Bands, and the Allocation of Additional Spectrum in the 17.3-17.8 GHz and 24.75-25.25 GHz Frequency Bands for Broadcast Satellite-Service Use*, IB Docket No. 98-172, at ¶ 48 & n. 100 (rel. June 22, 2000).

²⁴⁴ *FWCC Request for Declaratory Ruling on Partial-Band Licensing of Earth Stations in the Fixed-Satellite Service That Share Terrestrial Spectrum, FWCC Petition for Rulemaking to Set Loading Standards for Earth Stations In the Fixed-Satellite Service that Share Terrestrial Spectrum, Onsat Petition for Declaratory Order that Blanket Licensing Pursuant to Rule 25.115(c) is Available for Very Small Aperture Terminal Satellite Network Operations at C-Band, Onsat Petition for Waiver of Rule 25.212(d) to the Extent Necessary to Permit Routine Licensing of 3.7 Meter Transmit and Receive Stations at C-Band, Ex parte Letter Concerning Deployment of Geostationary Orbit FSS Earth Stations in the Shared Portion of the Ka-band*, FCC 00-369 (released October 24, 2000) at ¶ 99.

small antennas. The SPACEWAY system is designed to use spectrum in 500 MHz segments, and it not feasible to change the design of the SPACEWAY system at this late date. Thus, Hughes cannot simply “add” this other 220 MHz of spectrum to its current system design.

In addition, contrary to the speculation of some of the Petitioners,²⁴⁵ the 103° W.L. orbital location licensed to PanAmSat Corporation simply is not part of the SPACEWAY program. The spacecraft that PanAmSat is constructing for the 103° W.L. orbital location has a different configuration than the Boeing-manufactured SPACEWAY spacecraft licensed for 99° and 101° W.L. That PanAmSat spacecraft, being manufactured by Orbital Sciences Corporation (i) is incompatible with the SPACEWAY design, (ii) uses a bent-pipe configuration, and (iii) does not contain the advanced switching capabilities that are a central feature of the SPACEWAY system. Thus, the PanAmSat spacecraft under construction for 103° W.L. simply has not been optimized to provide the type of true broadband services that will be offered by SPACEWAY.²⁴⁶

Mr. Morgan is equally wrong in his assertion that EchoStar controls Celsat’s use of its licensed Ka-band slots,²⁴⁷ and even overstates the spectrum available to

²⁴⁵ See NRTC Petition at 54-57, Morgan Declaration (NRTC) at 36-37.

²⁴⁶ Furthermore, PanAmSat is a publicly funded company, with fiduciary obligations to its 19.4 percent stockholders other than Hughes, and has no agreement with Hughes or Hughes Network Systems regarding the operation of any of PanAmSat’s satellites as part of the SPACEWAY system.

²⁴⁷ On the contrary, an EchoStar affiliate holds only a 17.6 percent interest in Celsat, and EchoStar simply has no control over Celsat’s use of its spectrum. See Merger Application at Attachment D.

that company.²⁴⁸ Nor is it appropriate for the Commission to speculate about possible alternative combinations between EchoStar and Celsat or any other Ka-band licensee in evaluating the specific merger before it.²⁴⁹

Mr. Morgan makes another fundamental mistake by grossly overstating the number of subscribers that could be served in the Ka-band spectrum that is available. Mr. Morgan wrongly relies on dial-up subscriber usage statistics.²⁵⁰ These figures simply do not apply to broadband users, who spend substantially more time online, and are much more likely to watch movie trailers, watch streaming video, listen to streaming audio and download software and music on demand. Thus, Mr. Morgan's assumption of an "average busy hour demand" of 2.75 kbps per subscriber" is flawed. As a result of these and other errors, Mr. Morgan substantially overstates the number of broadband subscribers that each company could serve.²⁵¹

²⁴⁸ Mr. Morgan appears to assume that Celsat was authorized to operate over an additional 850 MHz of spectrum "outside the normal FSS Ka-band allocation." *See* Morgan Declaration (NRTC) at 37. The basis of this assumption is not clear. In fact, Celsat received authorization for 500 MHz spectrum in each direction at each of the 83° W.L. and the 121° W.L. orbital locations, and not an additional 850 MHz. Moreover, use of this spectrum is limited to feederlinks to and from Celsat's MSS system (Celsat is not licensed to provide ubiquitous broadband service). Celsat is licensed for downlinks at 18.3-18.8 GHz and uplinks at 28.35-28.6 GHz and 29.25-29.5 GHz. *See In the Matter of Celsat America, Inc.*, File Nos. 192-SAT-AMEND-97 and 88-SAT-AMEND-98, Order and Authorization, DA 01-1682 (Int'l Bur. rel. Aug. 3, 2001).

²⁴⁹ *See* 47 U.S.C. § 310(d) (in considering a transfer of control application "the Commission may not consider whether the public interest, convenience, and necessity might be served by the transfer, assignment, or disposal of the permit or license to a person other than the proposed transferee or assignee").

²⁵⁰ Friedman Declaration at ¶ 26.

²⁵¹ *Id.*

B. Efficiencies Flowing From the Merger Will Make Possible Deployment of a Competitive, True Broadband Alternative

The many efficiencies gained by the merger will allow New EchoStar to deploy a true broadband alternative that is competitive in all major respects to DSL and cable modem services. It will also allow New EchoStar to price its broadband services at competitive levels in those areas unable and unlikely to receive cable modem or DSL services.

The merged company will combine the resources and subscriber bases of both companies which will result in substantial cost and service advantages over any possible individual Ka-band offering of EchoStar or Hughes. As Mr. Friedman explains, the combination of the Applicants' broadband programs through the merger will address many of the economic hurdles facing prospective Ka-band operators today, such as the relatively high costs during the early years of developing and manufacturing subscriber equipment.²⁵² While some of these costs may be passed on to subscribers, it is clear that much of these costs would have to be borne by the satellite providers in order to attract a critical mass of subscribers relatively quickly. New EchoStar would be in a much better position to drive down the equipment costs for this service with a larger potential subscriber base.²⁵³

²⁵² Friedman Declaration at ¶ 20.

²⁵³ *Id.* at ¶ 21.

The combined company would be able to market its broadband services to a much larger base of MVPD subscribers and bundle broadband and video services to new subscribers more efficiently and economically by, among other things, consolidating advertising and promotion budgets and sharing distribution channels. The merger will also allow New EchoStar to market its broadband services to the combined DBS customer base of the two companies. Indeed, current subscribers of DBS services are more likely to subscribe to satellite broadband services because these households have a clear line of sight to the satellites and because they have a demonstrated willingness to place the necessary equipment and antenna dishes on their homes.²⁵⁴ In fact, half of Hughes' current broadband subscribers also subscribe to DIRECTV. As Professor Willig explains, the ability to market this broadband service to the combined subscriber base of both companies will lower the acquisition costs necessary to reach the critical mass of subscribers and also likely shorten the time period necessary to reach this level of subscribers.²⁵⁵

New EchoStar will also be able to manage its satellite fleet and spot-beam capacity more efficiently than either Applicant could do separately. Additional cost savings would also be achieved, according to Mr. Friedman, through the consolidation of customer service centers, uplink facilities, network operating centers, trunking facilities and billing functions.²⁵⁶

²⁵⁴ *Id.*

²⁵⁵ See Willig Declaration at ¶ 32.

²⁵⁶ Friedman Declaration at ¶ 22.

There also can be little doubt that New EchoStar must pass on these cost and efficiency advantages directly to consumers in order to be competitive with DSL and cable modem services, which in turn will spur competition among cable modem, DSL and any other broadband service providers.

A broad range of commenters understand the potential that this new service holds for closing the “digital divide” between urban and rural areas, including business owners who see the potential boost to the competitiveness of rural economies, rural healthcare providers who see the potential for improved telemedicine services via a true broadband satellite link to urban healthcare centers, rural educators desiring to provide their students with a true broadband link to the Internet equal to what is available to their urban counterparts, and citizens who simply seek access to the same types of services available in urban areas.²⁵⁷ These commenters recognize that the merger will be

²⁵⁷ See, e.g., Comments of Arnold Sherman, Executive Director, Montana World Trade Center, Missoula, Montana; Comments of Jeff Hoffman, Champion Rural Economic Area Partnership Alliance Director; Comments of W.A. (Bill) Gallagher, Farm Bureau Financial Services, Helena, Montana; Comments of Dave Lewis, State Representative, State of Montana; Comments of Susan Fischetti, Fischetti Enterprises, Inc., Eagle River, Alaska; Comments of Dick Maxwell, Executive Director, Buckeye Association of School Administrators, Columbus, Ohio; Comments of Amy Paster, Director, Church Point Chamber of Commerce, Church Point, Louisiana; Comments of Shelby Robert, Robert Farms, Gonzales, Louisiana; Comments of Sen. Noble Ellington, Chairman, Senate Judiciary A Committee, State of Louisiana; Comments of Russell Hanson, President, North Dakota Retail Association, Bismarck, North Dakota; Comments of Lois Hartman, Executive Director, North Dakota Firefighter’s Association, Bismarck, North Dakota; Comments of Jason Brostrom, NetExpress LLP, Bismarck, North Dakota; Comments of Jeffrey Masten, Medical X-Ray Center, Sioux Falls, South Dakota; Comments of Mary E. Jones, Ed.D., Sioux Falls, South Dakota; Comments of Edward T. Clark, M.D., Central Plains Clinic, Sioux Falls, South Dakota; Comments of Rick Bauermeister, Director of Business Development, Market Solutions Group, Inc., Sioux Falls, South Dakota; Comments of George Landrith, President, Frontiers of Freedom, Fairfax, Virginia; Comments of David Charles, M.D., National Alliance of Medical Researchers & Teaching Physicians, Washington, D.C.

a step forward toward parity between the services available in rural and urban areas , and not the “step backward” feared by the National Rural Electric Cooperative Association.²⁵⁸

The merger will help make this potential a reality for all of these constituencies.

C. The Merger Does Not Preclude Additional Entry

While the merger will create a true broadband service alternative, including in areas where none currently exists, it will not preclude new, additional entrants from providing high-speed and advanced services. Arguments to the contrary by some Petitioners, claiming that the merger will “stifle” Ka-band competition, or “prevent” Ka-band competition from emerging in rural areas,²⁵⁹ are mistaken.

NRTC and Pegasus argue that the merger will adversely affect broadband competition with regard to Ka-band services because the merged entity would control enough Ka-band slots to preclude new Ka-band entrants.²⁶⁰ Simple arithmetic reveals the flaws in this argument. Pegasus identified orbital slots capable of serving CONUS as those from 83° W.L. to 133° W.L. and complains that New EchoStar will control “between 8 and 11 of the slots.”²⁶¹ Pegasus fails to mention that *eleven* other entities affiliated with neither EchoStar nor Hughes currently control orbital slots capable of serving CONUS, which demonstrates that there are more than enough prime Ka-band

²⁵⁸ See Comments of National Rural Electric Cooperative Association at 9.

²⁵⁹ See NRTC Petition at 52-56.

²⁶⁰ Pegasus Petition at 69-72; NRTC Petition at 52.

²⁶¹ Pegasus Petition at 71.

slots controlled by others to ensure that the merger will not “stifle” competition in providing broadband services.²⁶² Moreover, as explained above, SPACEWAY only has access to only two full-CONUS slots and EchoStar has access to at most three such slots, not three and five, respectively, as Pegasus and NRTC claim.²⁶³

Pegasus and NAB also argue that merger approval would violate Section 25.140(e) of the Commission’s Rules, which limits the number of FSS orbital slots to two per applicant.²⁶⁴ This argument is without merit. The Commission has never held that Section 25.140(e) operates to preclude a merger that results in a transfer of control over orbital slots.²⁶⁵ It does not. In any event, the Commission has never applied this rule to

²⁶² See “FCC International Bureau Authorizes Second Round Ka-Band Satellite Systems.” Press Release (Aug. 2, 2001) and attached “Ka-Band GSO Orbit Assignment Plan,” which reflects that Lockheed Martin Corporation, DirectCom Networks, Inc., CAI Data Systems, Inc., TRW, Inc., Pegasus Development Corporation, CyberStar Licensee LLC, GE American Communications, Inc., Astrolink International, NetSat 28 Company, LLC, Motorola, Inc., and Loral Space & Communications Corporation are authorized to operate satellites at orbital locations ranging from 83° W.L. to 133° W.L.

²⁶³ See Pegasus Petition at 69; NRTC Petition at 52.

²⁶⁴ Pegasus Petition at 71-72; NAB Petition at 110.

²⁶⁵ See *e.g.*, *In the Matter of Loral Space & Comm. Ltd. and Orion Network Syst.*, 13 FCC Rcd. 4592 (1998); *In the Matter of Hughes Comm. Inc. and Affiliated Companies and Anselmo Group Voting Trust/PanAmSat Licensee Corp.*, 12 FCC Rcd. 7534 (1997); *In the Matter of VisionStar, Inc.*, Order and Authorization, File No. SAT-T/C-20001215-00163, DA 01-2481 (Int’l Bur. rel. Oct. 30, 2001) (approvals of transfer of control applications which resulted in the transferee controlling more than two Ka-band slots. In none of these instances did Rule 25.140(e) operate to preclude the transfer). Pegasus and NRTC are likewise incorrect in their assertion that Commission Rule 25.140(f) precludes this transfer of control. See NRTC Petition at 52-53; Pegasus Petition at 71-72. Rule 25.140(f) limits an FSS applicant to one additional slot beyond its assigned authorizations, provided that its in-orbit satellites are filled and that it has no more than two unused orbital locations for previously authorized but unlaunched satellites in that band. 47 C.F.R. § 25.140(f). This rule too has never been held to preclude transfers of control, and Petitioners cite no authority to the contrary.

restrict assignments in the Ka-band because it concluded that there were sufficient slots to accommodate all applicants.²⁶⁶

The Commission has recently observed that new entrants using several different technology platforms have already begun, or are poised to begin, playing a significant role in providing high-speed and advanced services to many areas of the country including smaller markets. The Commission has reported, for example, “that there are at least 241 different companies using unlicensed spectrum to provide high-speed terrestrial fixed wireless Internet access in approximately 503 different counties” across the nation.²⁶⁷ Importantly, the Commission recognized that industry observers have pegged fixed wireless as a solution for rural areas, noting that “while fixed wireless has the potential to compete with DSL and cable modem service, the technology is best-suited for rural and underserved markets where these services are not available.”²⁶⁸

MMDS systems have been cited by the Commission as another competitor expected to gain strength in the next two years. MMDS, which currently reaches 55 percent of the population by Commission estimates, is expected to reach 90 percent of the population by the end of 2004.²⁶⁹ The Commission noted that industry observers predict that “[d]espite the setbacks that the fixed wireless industry has faced during the past year,

²⁶⁶ See *In the Matter of Second Round Assignment of Geostationary Satellite Orbit Locations to Fixed Satellite Service Space Stations in the Ka-Band*, DA 01-1693, 16 FCC Rcd. 14389 (2001) at ¶¶ 16-17.

²⁶⁷ Third Advanced Services Report at ¶ 59.

²⁶⁸ *Id.* at ¶ 75 (citing industry observers).

²⁶⁹ *Id.* at ¶ 61.

including financial problems and halting of deployment plans by major operators, analysts believe that the industry still has the potential to grow and become a successful vehicle for offering high-speed services.”²⁷⁰

Furthermore, Loral, WB Holdings and Teledesic recently certified to the Commission that they have commenced construction of their Ka-band satellite networks.²⁷¹

The Commission has observed as well that multiple providers are beginning to deploy third generation wireless (“3G”) systems, including “many commercial mobile radio service licensees [who] are beginning to deploy, or have developed plans to deploy, 3G services within their existing spectrum.”²⁷² The Commission concluded that “successful deployment of 3G wireless services may significantly expand availability of advanced services, especially to consumers that are currently unserved by wireline connections.”²⁷³

Advances in technology will also expand the reach of DSL services. The Commission has reported that “DSL extension products” have been developed to relieve significant constraints on DSL availability. The Commission describes these products,

²⁷⁰ *Id.* at ¶ 71. The Commission has also pointed out that during 2001, it authorized the use of MMDS and Instructional Television Fixed Service spectrum for mobile in addition to fixed use, by licensees, and that industry analysts predicted that this action by the Commission “gives fixed wireless carriers and equipment vendors additional flexibility and may help revive the industry.” *Id.* at ¶ 76.

²⁷¹ “Satellite Companies File Milestone Documents with FCC,” *Communications Daily* (Feb. 11, 2002) at 9.

²⁷² Third Advanced Services Report at ¶ 80.

²⁷³ *Id.*

developed to serve subscribers who are located beyond the range of the central office or who are blocked by a digital loop carrier that cannot be modified with a remote access multiplexer or remote DSLAM, and capable of “bring[ing] consumers, especially those in low-density areas, within the range for DSL services.”²⁷⁴ A new DSL standard recently announced by the International Telecommunication Union, G.SHDSL, also has the potential to expand DSL availability. G.SHDSL can reportedly be deployed nearly twice as far from the central office as symmetric DSL, while increasing the amount of available bandwidth. As a result the Commission has noted that this new standard “would . . . extend DSL capability to consumers that are currently beyond the reach of the central office.”²⁷⁵

With respect to cable modem deployment, the ACA has reported that its member companies are “leading the industry in delivering broadband services to smaller markets,” noting that the Commission “has received substantial data on ACA members’ broadband deployment in response to the High-Speed Access N[otice of Inquiry].”²⁷⁶

²⁷⁴ *Id.* at ¶ 83. The Commission has also pointed out that the number of rural subscribers receiving DSL may be under-reported in Commission studies because the Commission only requires high-speed providers that have 250 or more subscribers in a given state to report subscriber numbers. “Thus, many smaller providers that serve discrete communities in sparsely-populated areas may not have reported, thereby creating the impression that there is less high-speed service in rural areas than there may actually be.” *Id.* at ¶ 35. The Commission further cites a report by the National Telephone Cooperative Association that “almost 80 percent of respondents to a recent survey of its members are offering high-speed services to all public centers in the carrier’s service territory.” *Id.* at n.82

²⁷⁵ *Id.* at ¶ 84.

²⁷⁶ ACA Petition at 7-8 (citing ACA’s comments in *In the Matter of Inquiry Concerning High-Speed Access to the Internet over Cable and other Facilities*, GN

(Continued ...)

According to ACA, small cable systems passed “nearly one million homes with cable modem service,” had invested “about \$300 million” in plant upgrades and equipment, and planned to nearly double the number of homes passed with cable modem service in the next 12-24 months.²⁷⁷

In sum, the merger will do nothing to stifle new entry in the broadband market. A multitude of new entrants are able to provide broadband service using a variety of technologies, and will compete with cable modem, DSL and satellite broadband services.²⁷⁸ Competition between the various technologies is consistent with the view expressed by FCC Chairman Powell in recent reports that “sufficient competition comes from the different types of broadband service available: via DSL, cable networks, or satellite dishes.”²⁷⁹

Docket 00-185 (Dec. 1, 2000), and its Reply Comments in that proceeding (Jan. 10, 2001).

²⁷⁷ See ACA Reply Comments, *In the Matter of Inquiry Concerning High-Speed Access to the Internet over Cable and other Facilities*, GN Docket 00-185 (Jan. 10, 2001) at 4, 7 and Table 1. Although the ACA intimates that the merger will force small cable providers out of business, ACA Petition at 7-8, this contention is both overblown and inconsistent with the cable industry’s representations to the Commission in other proceedings regarding the aggressive roll-out of digital upgrades in smaller markets, as discussed in Section II.E., *supra*.

²⁷⁸ The number of current and up-and-coming participants in the broadband market make clear that the Commission should give no weight to the claim of Pappas Telecasting Companies that the merger would create a “broadband monopoly.” See Comments of Pappas Telecasting at 16-17.

²⁷⁹ Jonathan Krim, “FCC Rules Seek High-Speed Shift,” *Washington Post* (Feb. 15, 2002), at E1 (reporting on FCC Chairman Powell’s view of broadband competition and observing further “Powell and his supporters argue that it is difficult to foster competition within each mode of high-speed Internet access because of the huge cost involved in building networks”).

D. The Merger Provides A Market Solution to the Lack of True Broadband Availability While Avoiding the Need for Costly and Contentious Regulatory Measures

There are two ways to achieve universal broadband deployment: through adopting a complicated web of regulations, or through private capital investment. Both Congress and the Commission have recognized the superiority of reliance on market forces and encouraging private investment. Regulation as a tool for facilitating broadband deployment, on the other hand, has historically led to market inefficiencies. Some of the regulatory broadband initiatives contemplated by the Commission or aspired to by some parties would present exactly this problem. By contrast, the merger presents a market-based path to similar results – the creation of a broadband alternative without need for subsidy, cross-subsidy, franchise rights or any other government support.

Congress's preference for market-based solutions is evident in Section 706 of the Telecommunications Act of 1996, which directed the Commission to:

[E]ncourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans . . . by utilizing, in a manner consistent with the public interest, convenience, and necessity, price cap regulation, regulatory forbearance, measures that promote competition in the local telecommunications market, or other regulating methods that remove barriers to infrastructure investment.²⁸⁰

The Commission has interpreted this directive to mean:

²⁸⁰ Telecommunications Act of 1996, Pub. L. 104-104, § 706, 110 Stat. 153, reproduced in notes under 47 U.S.C. § 157.

[T]he language and spirit of the Act require that we promote advanced services deployment within a framework that relies significantly on market forces.²⁸¹

Accordingly, the Commission explained that it is “actively engaged in removing barriers and encouraging investment in advanced telecommunications,” and described its efforts as working to:

[E]stablish a rational regulatory framework for these services, to promote investment through competition and the administration of our universal service support mechanisms, make efficient use of available spectrum and ensure that lack of access to public rights-of-way do not slow deployment.²⁸²

At the same time, struggling with some intractable problems associated with the digital divide, the Commission has had to contemplate initiatives that are not necessarily consistent with this preference for market solutions. These involve the highly controversial, complicated universal service subsidies that created so many long-running disputes in the telephone context. For example, in its *Third Report on Advanced Services*, the Commission stated that it has “encouraged investment in [advanced services] infrastructure in high cost areas” by modifying explicit subsidy provisions, high-cost loop support for rural carriers and access charges for rate-of-return companies.²⁸³ The Commission has also noted that it is considering changes to its

²⁸¹ Third Report on Advanced Services at ¶ 33.

²⁸² *Id.* at ¶ 6.

²⁸³ Third Advanced Services Report at ¶¶ 139-40. The Commission is currently reconsidering its order modifying rules for rate-of-return carriers. *See id.* at 56, n.336.

controversial physical collocation rules, as well as the definition of “core services” eligible for universal service support, to facilitate deployment of advanced services.²⁸⁴

If possible, of course, the Commission should strive to promote broadband deployment without need to resort to universal service funds or any other system of subsidy. The efficiencies unleashed by the EchoStar/Hughes merger will facilitate universal broadband service without need for any such regulation or subsidy. The Applicants propose to use their private investment to create a true advanced service provider that will go a long way toward resolving the problem without demanding subsidies, without requesting monopoly rights, and without precluding entry by other providers.²⁸⁵

The single act of approving the merger will set in motion deployment of the very type of true broadband service Congress and the Commission have sought to make available to all Americans – competitive, widely available, advanced service capability.

²⁸⁴ *Id.* at ¶¶ 155, 158. The Commission’s collocation rules were vacated in part and remanded in *GTE Serv. Corp. v. FCC*, 205 F.3d 416 (D.C. Cir. 2000), and the Commission released an order on remand in August 2001. See *In re Deployment of Wireline Services Offering Advance Telecommunications Capability*, 16 FCC Rcd. 15435 (2001). Changes to the definition of “core services” are being considered in the pending rulemaking *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Public Notice FCC 01J-1 (rel. Aug. 21, 2001).

²⁸⁵ The merger will require the Commission to do none of the “things” recently cited by an FCC official as “things government shouldn’t do: (1) Agree to ‘give me a monopoly and I’ll give you broadband’ requests. (2) Favor one technology over others through subsidies.” Edie Herman, “Telecom Experts Debate Why Broadband Subscription Lacks,” *Communications Daily* (Jan 24, 2002), at 3 (citing comments by FCC Chief of Office of Plans and Policy Robert Pepper).

E. Nationwide Pricing Will Have the Same Beneficial Effect for Broadband as for MVPD Services

A number of Petitioners claim that the merger will lead to monopoly in the broadband market for those persons for whom satellite is the only alternative. New EchoStar will commit to a nationwide pricing policy for basic broadband services that will translate effective competition in urban areas into benefits to all households for broadband service, just as it will for MVPD services.²⁸⁶

IV. THE MERGER WILL HAVE PRO-COMPETITIVE EFFECTS IN THE VIDEO PROGRAMMING MARKET

Consumers want more channels. MVPDs face bandwidth constraints. When New EchoStar finds itself with roughly twice the capacity as DIRECTV and EchoStar individually, it will have an unparalleled opportunity to give consumers the new channels they desire, and an ability to go beyond the entrenched programming interests to the independent programmers that historically have been shut out of the market. This new vitality in the programming landscape will shake up the MVPD market for the better.

A. The Merger Will Promote, Rather Than Impede, Competition In the Market for Video Programming

Several Petitioners contend that the merger will have an anti-competitive effect on the video programming market, because New EchoStar allegedly will be the

²⁸⁶ See Willig Declaration at ¶ 34.