

Before **the**  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
Annual Assessment of the Status of ) MB Docket No. 02-145  
Competition in the Market for the )  
Delivery of Video Programming )

**NINTH ANNUAL REPORT**

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## 1. INTRODUCTION

1. This is the Commission's ninth annual report ("*2002 Report*") to Congress on the status of competition in the market for the delivery of video programming.<sup>1</sup> Section 628(g) of the Communications Act of 1934, as amended ("Communications Act"), requires the Commission to report annually to Congress on the status of competition in the market for the delivery of video programming.<sup>2</sup> Congress imposed this annual reporting requirement in the Cable Television Consumer Protection and Competition Act of 1992 ("*1992 Cable Act*")<sup>3</sup> as a means of obtaining information on the competitive status of the market for the delivery of video programming.

### A. Scope of this Report

2. The *2002 Report* updates the information in our previous reports and provides data and information that summarize the status of competition in the market for the delivery of video programming. The information and analysis provided in this report are based on publicly available data, filings in various Commission proceedings, and information submitted by commenters in response to a

<sup>1</sup> The Commission's previous reports appear at: *Implementation of Section 19 of the 1992 Cable Act (Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming)*, ("*1994 Report*"), 9 FCC Rcd 7442 (1994); ("*1995 Report*"), 11 FCC Rcd 2060 (1996); ("*1996 Report*"), 12 FCC Rcd 4358 (1997); ("*1997 Report*"), 13 FCC Rcd 1034 (1998); ("*1998 Report*"), 13 FCC Rcd 24284 (1998); ("*1999 Report*"), 15 FCC Rcd 978 (2000); ("*2000 Report*"), 16 FCC Rcd 6005 (2001); and ("*2001 Report*"), 17 FCC Rcd 1244 (2002).

<sup>2</sup> Communications Act of 1934, as amended, § 628(g), 47 U.S.C. § 548(g).

<sup>3</sup> Pub. L.No. 102-385, 106 Stat. 1460 (1992)

*Norice of Inquiry* ("Norice") in this docket.' To the extent that information provided in previous annual reports is still relevant, we do not repeat that information in this report other than in an abbreviated fashion, and provide references to the discussions in prior reports.

3. In Section II, we examine the cable television industry, existing multichannel video programming distributors ("MVPDs") and other program distribution technologies and potential competitors to cable television. Among the MVPD systems or techniques discussed are direct broadcast satellite ("DBS") services and home satellite dishes ("HSD" or "C-Band"), wireless cable systems using frequencies in the multichannel multipoint distribution service ("MMDS"), private cable or satellite master antenna television ("SMATV") systems as well as broadcast television service. We also consider other existing and potential distribution technologies for video programming, including the Internet, home video sales and rentals, local exchange carriers ("LECs") and electric and gas utilities, and broadband service providers ("BSPs"). In Section III of this report, we examine market structure and competition. We evaluate horizontal concentration in the multichannel video marketplace and vertical integration between cable television systems and programming services. We also address technical issues, including cable modems, navigation devices, and emerging services.

## B. Summary of Findings

4. In the 2002 *Report*, we examine the status of competition in the market for the delivery of video programming, discuss changes that have occurred in the competitive environment over the last year, and describe barriers to competition that continue to exist. Overall, although competitive alternatives continue to develop, cable television still is the dominant technology for the delivery of video programming to consumers in the MVPD marketplace. As of June 2002, 76.5% of MVPD subscribers received their video programming from a franchised cable operator, compared to 78% a year earlier.

5. The total number of subscribers to both cable and non-cable MVPDs continues to increase. A total of 89.9 million households subscribe to multichannel video programming services as of June 2002, up 1.8% over the 88.3 million households subscribing to MVPDs in June 2001. This subscriber growth accompanied a 1.2 percentage point decrease in MVPDs' penetration of television households to 85.3% as of June 2002.<sup>5</sup>

6. Since the 2001 *Report*, the number of cable subscribers continued to grow, reaching almost 68.8 million as of June 2002, up about 0.4% from the 68.55 million cable subscribers in June 2001.<sup>6</sup> The total number of non-cable MVPD subscribers grew from 19.3 million as of June 2001 to 21.1 million as of June 2002, an increase of more than nine percent. Although industry data reflect continued growth through June 2002, a number of major cable system operators have experienced significant subscriber losses during this period and calendar year 2002 may be the first year in which the industry as a whole has had a net loss of subscribers.

7. DBS subscribership has grown significantly and now represents 20.3% of all MVPD subscribers. Between June 2001 and June 2002, the number of DBS subscribers grew from almost 16 million households to about 18 million households, which is significantly higher than the cable subscriber

<sup>4</sup> *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, MB Docket No. 02-145, Notice of Inquiry ("*Norice*"), 17 FCC Rcd 11579 (2002). Appendix A provides a list of commenters and the abbreviations by which they are identified herein.

<sup>5</sup> The number of MVPD households reported here, and the associated percentages, may overstate actual values because a household that subscribes to more than one MVPD (e.g., cable and DBS) is included as a subscriber to both services. See 2001 *Report*, 17 FCC Rcd at 1247.

<sup>6</sup> The source changed 2001 subscriber data. See Kagan World Media, *Broadband Cable Financial Databook*, July 2002, at 10.

growth rate. The continued growth of DBS is still, in part, attributable to the authority granted to DBS operators to distribute local broadcast television stations in their local markets by the Satellite Home Viewer Improvement Act of 1999 ("SHVIA"), and an increase in the number of markets where such service is offered. DBS attracts former cable subscribers as well as consumers not previously subscribing to an MVPD.

8. Over the last year, the number of subscribers to MMDS and large dish satellite service (HSD) continue to decline. The participation of incumbent local exchange carriers in the distribution of video programming also continue to decline. The number of subscribers to open video systems ("OVS") and private cable has remained relatively stable, although their market share remains small.

9. During the period under review, cable rates continued to rise. According to the Bureau of Labor Statistics, between June 2001 and June 2002, cable prices rose 6.3% compared to a 1.1% increase in the Consumer Price Index ("CPI"), which measures general price changes. Concurrently with these rate increases, the number of video and non-video services offered increased, and programming costs increased. We also note that cable operators' pricing decisions may be affected by direct competition. Available evidence indicates that when an incumbent cable operator faces "effective competition," as defined by the Communications Act, it responds in a variety of ways, including lowering prices or adding channels without changing the monthly rate, as well as improving customer service and adding new services such as interactive programming. A recent GAO study found that while the provision of local broadcast channels by DBS companies is not associated with lower cable prices, the provision of local broadcast channels by DBS companies is associated with non-price competition. In areas where DBS operators provide local channels, the GAO results indicate that cable companies offer subscribers approximately six percent more channels. According to GAO, this result indicates that cable companies are responding to DBS provision of local channels by improving their quality as reflected by the greater number of channels.<sup>7</sup>

10. The Telecommunications Act of 1996 ("1996 Act") removed barriers to telephone company or local exchange carrier ("LEC") entry into the video marketplace to facilitate competition between incumbent cable operators and telephone companies.<sup>8</sup> At the time of the 1996 Act, it was expected that LECs would compete in the video delivery market and that cable operators would provide local telephone exchange service. We previously reported that the four largest incumbent local exchange carriers ("ILECs") have largely exited the video business. This remains true today. A few smaller LECs continue to offer, or are preparing to offer, MVPD service over existing telephone lines. Alternatively, several cable multiple system operators ("MSOs") continue to offer telephone service. Cable operators are beginning to deploy Internet protocol ("IP") telephony solutions in addition to circuit-switched telephony offerings. Cable operators, such as Cox and AT&T, continue to deploy circuit-switched cable telephony. Others, like Cablevision and Comcast, continue to offer cable telephony where it has already been deployed, but generally are waiting for IP technology to become widely available before accelerating their rollout of telephone service. AT&T, AOL Time Warner, Comcast, Cox, and Charter are currently offering or continuing to test IP telephony products.

11. The most significant convergence of service offerings continues to be the pairing of Internet service with other service offerings. Cable operators continue to build-out the broadband infrastructure that permits them to offer high-speed Internet access. The most popular way to access the Internet over cable is still through the use of a cable modem and personal computer, though a small number of users continue to access the Internet through their television and a specially designed set-top box, rather than

<sup>7</sup> U.S. General Accounting Office, *Issues in Providing Cable and Satellite Television Services*, CAO-Oj-130 (October 2002) ("GAO 2002 Report") at 9-10. See also U.S. General Accounting Office, *Telecommunications: The Effect of Competition From Satellite Providers on Cable Roles*, GAO/RCED-00-164 (July 2000).

<sup>8</sup> Pub. L. No. 104-104, 110 Stat. 56 (1996).

the personal computer. Virtually all of the major MSOs offer Internet access via cable modems in portions of their service areas. Like cable, the DBS industry is developing ways to bring advanced services to their customers. For example, DirecTV currently offers one-way and two-way satellite-delivered Internet service under the brand name DirecWay. Many MMDS and private cable operators also offer Internet access services. In addition, broadband service providers continue to build advanced systems specifically to offer a bundle of services, including video, voice, and high-speed Internet access.

12. Non-cable MVPDs continue to report that regulatory and other barriers to entry limit their ability to compete with incumbent cable operators. Non-cable MVPDs continue to experience some difficulties in obtaining programming from vertically-integrated cable programmers and from unaffiliated programmers which continue to make exclusive agreements with cable operators. In multiple dwelling units (“MDUs”) potential entry may be discouraged or limited because an incumbent video programming distributor has a long-term and/or exclusive contract. In addition, non-cable MVPDs report problems obtaining franchises from local governments and difficulties in gaining access to utility poles needed to build out their systems.

13. Our findings as to particular distribution technologies operating in the market for the delivery of video programming include the following:

- Cable Systems: Since the *2001 Report*, there has been only marginal cable television industry growth in terms of subscribership (a 0.4% increase from June 2001 to June 2002), with a number of individual operators facing actual subscriber declines. The industry has continued to grow in terms of revenues (an approximate 15.9% increase between 2000 and 2001), prime time audience shares (which rose from an average 51.9 share between July 2000 and 2001 to an average 56.5 share between July 2001 and June 2002), and expenditures on programming. The number of national satellite-delivered video programming services increased last year, from 287 to 308, between June 2001 and June 2002.
- The cable industry has continued to invest in improved facilities. As a result, there have been increases in channel capacity, the deployment of digital transmissions, and non-video services such as Internet access and telephony.
- Direct-to-Home (“DTH”) Satellite Service (DBS and HSD): Video service is available from high power DBS satellites that transmit signals to small DBS dish antennas installed at subscribers’ premises (DBS service), and from low power satellites requiring larger antennas (HSD service). DBS has over 18 million subscribers, an increase of approximately 14% since the *2001 Report*. Between June 2001 and June 2002, the number of HSD subscribers, measured as the number of HSD users that actually purchase programming packages, declined from one million to 700,000, a decrease of about 30%. DirecTV and EchoStar are each among the five largest providers of multichannel video programming service. In June 2002, DBS represented a 20.3% share of the national MVPD market and HSD represented another 0.8% of that market.
- Wireless Cable Systems: Currently, the wireless cable industry (“MMDS”) provides competition to the cable industry in limited areas. MMDS subscribership declined between June 2001 and June 2002 from approximately 700,000 subscribers to 490,000 subscribers. With the advent of digital MMDS and the Commission’s authorization of two-way MMDS service, it appears that most MMDS spectrum eventually will be used to provide high-speed data services. Wireless cable represented an approximately 0.6% share of the national MVPD market in June 2002.

- Private Cable Operators: Private cable operators, also known as SMATV operators, use some of the same technology as cable systems, but do not use public rights-of-way, and focus principally on serving subscribers living in MDUs. Private cable subscribership increased slightly from 1.5 million subscribers last year to 1.6 million subscribers as of June 2002, representing approximately 1.8% of national MVPD subscribership.
- Broadcast Television: Broadcast stations and networks, and non-broadcast networks alike, must either produce programming or purchase programming from third-party producers. Broadcast networks and stations also are suppliers of content for distribution by MVPDs. In addition, they supply video programming directly to those television households that are not MVPD subscribers and to television sets in MVPD households that are not connected to such service. Since the *2001 Report*, the broadcast industry has continued to grow in the number of operating stations (from 1,678 in 2001 to 1,712 in 2002). Broadcast stations and networks, like MVPDs and non-broadcast networks, derive revenue from advertising. Advertising revenues and audience levels, however, declined for broadcasters in 2001, though low advertising figures are partly attributable to the generally slow economy in 2001. In 2001, advertising revenues were approximately \$36 billion, a 12% decrease over 2000 when advertising revenues were \$41 billion. Audience levels continue to decline as they have for many years. During the 2001-2002 television season, the broadcast television networks accounted for an average 59 share of prime time viewing for all television households, compared to an average 63 share a year earlier. Broadcast television stations continue to deploy digital television ("DTV") service. Ninety percent of the more than 1,300 commercial television stations have been granted DTV construction permits or licenses and 643 are on the air with DTV operation.
- LEC Entry: The 1996 Act expanded opportunities for LECs to enter the market for the delivery of video programming. In the *2001 Report*, we noted that ILECs have largely exited the video business. BellSouth, however, continues to operate some overbuild cable systems, and a number of smaller LECs that are offering, or preparing to offer, video service over telephone lines. Qwest Communications International (formerly US West) continues to offer video, high-speed Internet access, and telephone service over existing copper telephone lines using very high-speed digital subscriber line ("VDSL") in several markets. Reports indicate that 45 LECs, mostly small, also are using VDSL to offer a bundle of services, including video, over telephone lines.
- Open Video Systems: In the 1996 Act, Congress established a new framework for the delivery of video programming – open video system ("OVS"). Under these rules, a LEC or other entrant may provide video programming to subscribers, although the OVS operator must provide non-discriminatory access to unaffiliated programmers on a portion of its channel capacity.
- Broadband Service Providers: Broadband service providers are entities that compete with existing cable systems using state-of-the-art systems that offer a bundle of telecommunications services, including video, voice, and high-speed Internet access. RCN is the largest BSP, serving approximately 507,000 subscribers. WideOpenWest ("WOW") is the second largest BSP with cable systems serving about 313,000 subscribers. The third largest BSP is Knology, which currently serves approximately 120,000 subscribers.

- Internet Video: As of June 2002, an estimated 54 million Americans subscribed to an Internet access service, compared with 50 million as of June 2001. Real-time and downloadable video accessible over the Internet continues to become more widely available and the amount of content also is increasing. Despite the evidence of increased interest in Internet video deployment and use, the medium is still not seen as a direct competitor to traditional video service.
- Home Video Sales and Rentals: We consider the sale and rental of home video, including videocassettes, DVDs, and laser discs, part of the video marketplace because they provide services similar to the premium and pay-per-view offering of MVPDs. About 90% of all U.S. households have at least one VCR. The number of homes with DVD players has grown rapidly since their introduction, with 14 million DVD homes by the end of 2001. The newest home video technology is the personal video recorder ("PVR"). One source reports that one million homes currently have PVRs.
- Electric and Gas Utilities: Several electric and gas utilities continue to move forward with ventures involving multichannel video programming distribution. Some of their characteristics, such as ownership of fiber optic networks and access to public rights-of-way, make them competitively significant. Some utilities offer telecommunications services on their own, while others partner with broadband service providers, such as Starpower, RCN's joint venture with PEPCO. It also appears that utilities, particularly municipal utilities in rural areas, are willing to build advanced telecommunications networks to offer a full range of services where incumbent cable operators and telephone companies are not. Reports indicate that 450 public power systems offer communications services, up from 357 offering service last year.

14. We also find that:

- Consolidation within the cable industry continues as cable operators acquire and trade systems. The ten largest operators served about 85% of all U.S. cable subscribers. In terms of one traditional economic measure, national concentration among the top MVPDs has decreased since last year as the largest MSOs continue to become more equal in size, and it remains below the levels reported in earlier years.<sup>9</sup> DBS operators DirecTV and EchoStar rank among the five largest MVPDs in terms of nationwide subscribership along with three cable MSOs. As of June 2002, slightly more than 52 million of the nation's cable subscribers were served by systems that are included in regional clusters.
- The number of satellite-delivered programming networks has increased from 287 in 2001 to 308 in 2002. Vertical integration of national programming services between cable operators and programmers decreased to 30%, after remaining steady at 35% over the last couple of years. In 2002, four of the top six cable MSOs held ownership interests in satellite-delivered programming services. Sports programming warrants special attention because of its widespread appeal and strategic significance for MVPDs. The 2002 *Report* identifies at least 86

<sup>9</sup> Traditional economic measures (e.g., the Herfindahl-Hirschman Index or HHI) are based on market shares or the squaring of market shares such that large companies are weighed more heavily than small companies. The HHI (and apparent levels of concentration) decline with rising equality among any given number of companies in terms of market shares even if these firms individually have larger shares of the markets. See fn. 437 *infra*.

regional networks, 31 of which are sports channels, many owned at least in part by MSOs. There are also 32 regional and local news networks that compete with local broadcast stations and national cable news networks.

- The program access rules adopted pursuant to the 1992 Cable Act, and recently extended by the Commission, were designed to ensure that other MVPDs can access vertically-integrated satellite delivered programming on non-discriminatory terms. We recognize that the terrestrial distribution of programming, including in particular regional sports programming could have an impact on the ability of alternative MVPDs to compete in the video marketplace.
- Cable operators and other MVPDs continue to develop and deploy advanced technologies, especially digital compression techniques, to increase capacity and enhance the capabilities of their transmission platforms. These technologies allow MVPDs to deliver additional video options and other services (e.g., data access, telephony, and interactive services such as video-on-demand) to subscribers.
- a There have been a number of technical developments regarding cable modems and navigation devices used to access a wide range of services offered by MVPDs. To date, CableLabs has certified over 224 DOCSIS 1.0 compliant cable modems and 48 DOCSIS 1.1 compliant modems. CableLabs continues to advance development of the specification, releasing version 2.0 in January 2002. CableLabs is also continuing its efforts to develop next generation navigation devices with its initiative for the OpenCable Application Platform (“OCAP”) or “middleware” software specification. The specification, which was introduced in December 2001, is designed to enhance the ability of the consumer electronics industry to build and market integrated DTV sets, digital set-top boxes, and other navigation devices directly to consumers. One major television manufacturer, Panasonic, has signed the CableLabs POD-Host Licensing Agreement (“PHILA”), allowing it to develop, manufacture, and market digital televisions that will be able to receive high definition and other digital programs via cable, including premium services, without the use of set-top boxes. COMPETITORS

## II. COMPETITORS IN THE MARKET FOR THE DELIVERY OF VIDEO PROGRAMMING

### A. Cable Television Service

15. This section addresses the performance of franchised cable system operators during the past year.<sup>10</sup> We address four different areas of performance. First, we report on the general performance of the industry, including subscriber levels, availability of basic services, and viewership. Second, we discuss the cable industry's financial performance, including its revenue, cash flow status, stock valuations, and system transactions. Third, we examine the cable industry's acquisition *and disposition* of capital, including the amount of funds raised, and how these funds are being used to upgrade physical plant and to acquire new systems. Lastly, we address the growth of advanced **broadband services**, including high-speed Internet access services, digital video services, video-on-demand, and cable telephony that is offered in conjunction with, and over the same facilities as, video service.

#### 1. General Performance

16. Since our last *Report*, the cable industry has continued to grow in terms of homes passed, <sup>11</sup>basic tier cable subscribership," premium service subscriptions," basic tier cable viewership, and channel capacity." Basic tier cable penetration, the ratio of the number of cable subscribers to the total number of households passed by the system continues to decline. Deployment of advanced broadband service offerings continued to increase during 2001 and the first half of 2002. These services include offerings of digital video, high-speed Internet access services through cable infrastructure, interactive cable services,<sup>15</sup> and facilities-based cable telephony.

17. *Cable's Capacity to Serve Television Households.* As we have previously noted, the most widely used industry measurement of cable availability is the number of homes passed expressed as a percentage of the number of U.S. homes with at least one television ("TV households").<sup>16</sup> In its

<sup>10</sup> A franchise is an authorization supplied by a federal, state, or local government entity to own or construct a cable system in a specific area. 47 U.S.C. §§ 522(9), 522(10). A cable system operator is "any person or group of persons (A) who provides cable service over a cable system, and directly or through one or more affiliates owns a significant interest in such cable system; or (B) who otherwise controls or is responsible for, through any arrangement, the management and operation of such a cable system." 47 U.S.C. § 522(5).

<sup>11</sup> Homes passed is the total number of households capable of receiving cable television service

<sup>12</sup> We refer to all cable programming networks offered as a part of program packages or tiers as "basic cable networks." The primary level of cable television service is commonly referred to as "basic service" ("BST") and must be taken by all subscribers. The content of basic service varies widely among cable systems but, pursuant to the Communications Act, must include all local television signals and public, educational, and governmental access channels and, at the discretion of the cable operator, may include other video programming services. One or more expanded tiers of service, known as cable programming service tier ("CPST") for purposes of rate regulation, and often known as expanded basic, also may be offered to subscribers. These expanded tiers of service usually include additional video programming channels. 47 U.S.C. § 543(b)(7), (1)(2).

<sup>13</sup> Premium services are cable networks provided by a cable operator on a per channel basis for an extra monthly fee. Pay-per-view ("PPV") services are cable networks provided on a per program basis. PPV service is a separate category from premium service. 47 U.S.C. § 543(b)(7), (1)(2).

<sup>14</sup> Channel capacity is number of channels dedicated to video use based on other use considerations. Video channel capacity can be decreased on any given system simply by using bandwidth for other service, such as high-speed Internet access services or cable telephony.

<sup>15</sup> The interactive cable services discussed here include video-on-demand ("VOD"), interactive guides, and interactive television ("ITV").

<sup>16</sup> 2001 Report, 17 FCC Rcd at 1254; Nielsen Media Research

comments, NRTC again argues that the widely-used measure of availability (homes passed as a percentage of television households) is fundamentally flawed.” NRTC states that not only is the data for homes passed inflated, but that cable’s availability varies depending on whether the comparison is based on TV households, all households, all occupied housing units, or all housing units in the United States. as some have suggested might be the better comparison.<sup>18</sup> NRTC suggests that the measurement of the availability of cable be based on the number of housing units and not TV households.” NRTC states that cable’s availability could be as low as 78%.<sup>20</sup>

18. As NRTC’s comments indicate, the calculation of cable availability has been and remains a subject of controversy.<sup>21</sup> The number of homes passed depends on the data source used, and the percentage of homes passed varies based on the universe used for the comparison. In our order designating the EchoStar-DirecTV merger application for hearing, we observed that significant discrepancies can arise, for example, upon comparison of the Kagan 2001 homes passed figure with one from Warren Communications News.” These differences suggest that the Kagan data should be used with a good deal of caution and that they are most reliable as a trend indicator, rather than a precise estimate for any one year. In fact, homes passed data evaluated in the context of our review of the proposed DBS merger indicated that the number of homes nor passed by cable in fact may vary from the 4% claimed by the two DBS operators to 21.28% using alternative estimation methods.<sup>23</sup> Based on the available data, however, the Commission was unable to determine whether either of these values or another value correctly estimates the percentage of homes passed. Thus, because of the significance of this calculation in terms of the potential competitive harms posed by the merger of the two DBS operators, the issue of the precise measure of cable availability was designated for hearing.”

19. Since we are unable to resolve this factual question, for purposes of this Report, we continue to use, as we have in the past, data derived from Kagan World Media and Nielsen Media Research for historical consistency. We present these data to indicate trends, rather than an absolute measure of cable availability. As shown in Table I below, cable availability was estimated to be approximately 97.6% of TV households, as of June 2002, up 0.3% from year-end 2001. Regardless of whether cable availability is ultimately determined to be 97.5% or 78%, it is reasonable for purposes of this Report to conclude that the share of television households passed by cable is very high and has been rising gradually over time.

<sup>17</sup> NRTC Comments at 5-7; see also 2001 Report, 17 FCC Rcd at 1254

<sup>18</sup> NRTC Comments at 5-7.

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*, at 5. See also NRTC Comments in *Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Transferors and EchoStar Communications Corporation, Transferee*, CS Docket No. 01-348, Feb. 24, 2002, at 6-14.

<sup>21</sup> 2001 Report, 17 FCC Rcd at 1254; See also *Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Transferors and EchoStar Communications Corporation, Transferee*, CS Docket No. 01-348, Hearing Designation Order (“*EchoStar-Hughes HDO*”), FCC 02-284 (rel. Oct. 18, 2002), ¶¶ 122-25 (designating for hearing the issue of the precise number of households that are not served by a cable operator, the number served by a low-capacity cable system, and the number served by a high-capacity cable system).

<sup>22</sup> *EchoStar-Hughes HDO* ¶ 124 and n.356

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

TABLE 1: Cable Television Industry Growth: 1997 - June 2002 (in millions)<sup>25</sup>

Year-End	Television Households ("TH")		Homes Passed ("HP")		Basic Subscribers ("Subs")		HH Passed by Cable (HP/TH)	HHs Subscribing (Subs/TH)	U.S. Penetration (Subs/HP)
	Total	% Change	Total	% Change	Total	% Change			
1997	98.0	1.0%	94.6	1.0%	64.8	2.0%	96.5%	66.1%	68.5%
1998	99.4	1.4%	96.0	1.5%	66.1	2.0%	96.6%	66.5%	68.9%
1999	100.8	1.4%	97.4	1.5%	67.3	1.8%	96.6%	66.8%	69.1%
2000	102.2	1.4%	98.8	1.4%	68.5	1.8%	96.7%	67.0%	69.3%
2001	105.4	3.1%	102.0	3.2%	68.6	0.1%	96.8%	65.1%	67.3%
June 2002 <sup>27</sup>	105.4 <sup>27</sup>	0.0%	102.8	0.8%	68.8	0.3%	97.5%	65.3%	66.9%

20. **Subscribership.** As shown in Table 1, the number of subscribers and the number of homes passed are increasing.<sup>28</sup> Since its peak at year-end 2000, cable penetration (*i.e.*, subscribers as a percentage of homes passed) has declined because the number of homes passed has increased at a faster rate than the number of subscribers. The percentage of TV households subscribing to cable also declined during 2001, before increasing 0.2 percentage points in the first half of 2002 because the number of television households grew at a faster rate than the number of homes subscribing.<sup>29</sup>

<sup>25</sup> Nielsen Media Research; Kagan World Media, Cable TV Investor, May 24, 2002, at 9; Kagan World Media, Broadband Cable Financial Databook, July 2002, at 10. Historical data included in this table may differ from those previously reported because some data have been updated by the source.

<sup>26</sup> Homes Passed and Subscribers June 2002 data are based on a 2002 year-end estimate.

<sup>27</sup> Nielsen Media Research estimates the number of television households annually, and industry practice is to use this figure throughout the television broadcast season, which begins in September and ends in August of the following calendar year. Thus, the figure for TV households in June 2001 is the same as the figure for December 2000.

<sup>28</sup> The number of subscribers reported by some MSO has been the subject of recent controversy. For example, in June 2002, Adelphia revised its 2001 basic subscriber figures from 5.81 million down to 5.76 million, citing "inaccuracies in previously reported data." See *Adelphia Restates Results After Dismissing Deloitte*, The New York State Society of CPAs, at <http://www.nysscpa.org/home/2002/2week/article14.htm>. Charter Communications announced in November 2002 that it is participating in an informal SEC inquiry into how it accounts for its customers, and is also the subject of a similar Justice Department investigation involving a grand jury. Riva D. Atlas and Geraldine Fabrikant, *Large Cable Operator to Restate Its Results for 2000 and 2001*, NEW YORK TIMES, Nov. 20, 2002, at C1. In addition, some MSOs are reporting a decline in subscribership due to subscriber churning. AT&T Broadband reported 13.6 million subscribers as of year end 2001 and 13.2 million subscribers as of June 2002. AT&T Broadband, *AT&T Group Earnings Commentary: Fourth Quarter 2001*, Jan. 30, 2002, at 14; AT&T Broadband, *AT&T Group Earnings Commentary: Second Quarter 2002*, July 23, 2002, at 12. AT&T's subscriber loss is attributable to churning. See Letter from Lerner from James L. Casserly, Mintz, Levin, Cohn, Ferris, Gloufsky and Popeo, P.C., to Marlene H. Donch, Secretary, FCC, MB Docket No. 02-70 (Nov. 13, 2002), at 1-2.

<sup>29</sup> The increase in the percent of TV households subscribing to cable after the previous year's decline could be based on the static measurement of TV households between year-end 2001 and June 2002.

21. The number of homes subscribing to one or more premium cable services continues to increase, as shown in Table 2 below. The number of premium services to which homes are subscribing (also known as “pay units”) also continues to increase. In addition, the average number of subscriptions per premium subscriber is increasing, from an average 1.66 subscriptions per subscriber at year-end 2000 to an average 1.79 subscriptions per subscriber at year-end 2001, to an estimated average of 1.82 subscriptions per premium subscriber as of June 2002.

**TABLE 2: Premium Cable Services: 1997 - June 2002** (in millions)<sup>30</sup>

Year End	Premium Cable Service Subscribers (Pay HH)		Premium Cable Service Subscriptions (Pay Units)	
	Year End Total	% Change	Year End Total	% Change
1997	31.7	3.6%	49.1	2.3%
1998	32.8	3.5%	49.3	0.4%
1999	34.2	4.3%	50.5	2.4%
2000	35.6	4.1%	59.9	18.6%
2001	36.1	1.4%	64.8	8.2%
June 2002 <sup>31</sup>	36.4	0.8%	66.2	2.1%

22. **Channel Capacity.** Cable operators have invested substantial sums of money over the past decade to upgrade channel capacity. both by expanding bandwidth, and by employing digital compression technologies. Previously, channel capacity was reponed as the number of analog channels available for use by a cable system.” With recent technological advances, channel capacity is now a function of the amount of bandwidth a cable operator chooses to use for video services based on a number of considerations. Thus in the absence of information on the number of channels devoted to digitally compressed signals and the precise compression ratio used, it is not possible to infer from available data the number of video channels available to cable subscribers, even on average.

73. The Comniission’s *2001 Price Survey Report*<sup>33</sup> provides figures on the cable system capacity and channel allocation for cable systems responding a Commission survey, as shown in Table 3. It shows

<sup>30</sup> Kagan World Media, *Cable TV Investor*, May 24, 2002, at 9; Kagan World Media, *Broadband Cable Financial Databook*, July 2002, at 10. Historical data included in this table may differ from those previously reponed because some data have been updated by the source.

<sup>31</sup> June 2002 data is based on a year-end estimate.

<sup>32</sup> *2001 Reporr*, 17 FCC Rcd at 1254.

<sup>33</sup> *Implementation of Section 3 of the Cable Television Consumer Proreccion and Competition Act of 1992, Statistical Reporr on Average Prices for Basic Service, Cable Programming Services, and Equipment*, MM Docket No. 92-266, Report on Cable Industry Prices (“*2001 Price Survey Reporr*”), 17 FCC Rcd 6301 (2002). Section 623(k) of the Communications Act, as amended by the Cable Television Consumer Protection and Competition Act of 1992 (“1992 Cable Act”), requires the Commission to publish annually a statistical repon on cable prices, or more specifically, average rates for the delivery of basic cable service, cable programming service, and equipment. Section 623(k) was adopted as Section 3(k) of the 1992 Cable Act, Pub L. No. 102-385, 106 Stat. 1460, codified at 47 U.S.C. § 543(k); See 47 U.S.C. § 543(k). The 1992 Cable Act defines basic cable service as the tier of service that includes the retransmission of local television broadcast signals. See 47 U.S.C. § 543(b)(7). Cable programming service is defined as any video programming other than video programming carried on the basic service tier, and video programming offered on a per channel or per program basis. See 47 U.S.C. § 543(k)(1)(2). Equipment refers

(continued...)

that approximately two-thirds of the sampled cable systems (both competitive and non-competitive systems) have facilities that provide bandwidth of 750 MHz or above." The average system capacity in the Survey is approximately 650 MHz. As discussed above, capacity is allocated among the various services that cable operators provide, including video services. The average system in the survey devotes 82.5 channels or 495 MHz to video delivery to be divided among analog channels and digitally compressed channels.

**TABLE 3: Channel Capacity**

	Competitive Group		Noncompetitive Group	
	July 2000	July 2001	July 2000	July 2001
Average system capacity (MHz)	630	666	623	652
Percent of systems with capacity of:				
330 MHz and below	10.0%	8.5%	9.0%	8.3%
331 through 749 MHz	31.7%	22.8%	36.9%	28.5%
750 MHz	58.3%	68.7%	54.1%	63.2%
Number of 6 MHz activated channels:				
Devoted to analog service	69.2	72.0	67.7	69.9
Devoted to digital service	6.1	11.3	7.0	11.8
Total number of channels	75.9	83.3	74.4	81.7

24. *Viewership.* Viewership, when measured in audience shares of cable networks," continues to grow, while viewership shares of broadcast television stations<sup>37</sup> continue to decline." Audience share<sup>39</sup> statistics for total day viewing," show that cable audience shares rose from an average 54.1 share

(...continued from previous page)

to a converter box, remote control, and other equipment necessary to access programming. See 47 U.S.C. § 543(b)(3).

<sup>34</sup> *2001 Price Survey Report.* 17 FCC Rcd at 6313, Table II. The Survey enables the Commission to compare prices charged by samples of two groups of cable operators' (1) operators that are deemed to face effective competition (referred to as the "competitive group") and (2) operators that do not face effective competition (the "non-competitive group"). Within the non-competitive group, information was collected from both regulated and unregulated operators. Operators in the competitive group are limited to those operators that have sought and obtained a Commission finding of effective competition. As a result, within the non-competitive group, there may be operators that face competition but have not filed a petition with the Commission seeking a finding of effective competition. Similarly, there may be operators within the competitive group that may have met the criteria for a finding of effective competition at the time the finding was made, but because of changed circumstances, may not meet the statutory criteria currently. See *id.* at 6304-05

<sup>35</sup> According to NCTA, approximately 14% of all cable homes (or approximately 51 million cable homes) were passed by systems with a capacity of at least 750 MHz, and approximately 68% of homes passed (or 70 million households) were passed by activated two-way plant. NCTA Comments at 26. These data differ from data reported in the *2001 Price Survey Report.* This is likely due to differing measurement methodologies.

"Cable network shares include basic (BST and CPST), premium, and PPV cable networks.

<sup>37</sup> "Broadcast" shares include network affiliates, independent, and public television stations

<sup>38</sup> See *2001 Report*, 17 FCC Rcd at 1256.

<sup>39</sup> A share is the percent of all households using television during the time period that are viewing the specified station(s) or network(s). The sum of reported audience shares exceeds 100% due to simultaneous multiple set viewing.

<sup>40</sup> Total day viewing is 24 hours, 6 am - 6 am

between July 2000 and June 2001, to an average 58.3 share between July 2001 and June 2002.<sup>41</sup> Broadcast television audience shares for total day viewing decreased from an average 56.8 share from July 2000 through June 2001, to an average 53.0 share between July 2001 and June 2002.<sup>42</sup> Audience share statistics for prime time<sup>43</sup> show that cable audience shares rose from an average 51.9 share between July 2000 and June 2001, to an average 56.5 share between July 2001 and June 2002.<sup>44</sup> Broadcast television audience shares for prime time viewing decreased from an average 63.8 share from July 2000 through June 2001, to an average 59.4 share between July 2001 and June 2002.<sup>45</sup>

**25. Cable Networks.** As discussed in Section III.B., the number of nationally delivered basic cable networks available for delivery by cable operators increased over the last year from 287 networks as of June 2001 to 308 in June 2002.<sup>46</sup> In addition, there also were 85 regional cable networks available for carriage by cable system operators as of April 2002, and about 59 planned networks."

**26. Programming Costs.** Cable system operators spent nearly \$9.3 billion on programming in 2001.<sup>48</sup> Of that \$9.3 billion, more than \$7 billion was spent to acquire basic cable network programming." Programming expenses incurred by cable operators for copyright fees for broadcast signal carriage pursuant to Section III of the Copyright Act" amounted to approximately \$121.7 million in 2001.<sup>51</sup> It is estimated that cable operators will spend more than \$10 billion to acquire programming in 2002.<sup>52</sup>

## 2. Financial Performance

27. Cable industry revenue and cash flow indicate increasing industry growth over the last year and a half, after several years of slow growth. Stock prices, however, continue to decline, signaling investor apprehension.

<sup>41</sup> Nielsen Media Research, *Total Day 24 Hours 6 am - 6 am Total US Ratings By Viewing Source July 2000-June 2002*, Oct. 2002. Last year, we compared only non-premium cable viewing shares to all broadcast television station viewing shares. This year, we include viewing trends from all cable network sources. For broadcast season (September to August) viewing trends, see ¶ 80 *infra*.

<sup>42</sup> *Id.*

<sup>43</sup> Prime time viewing is Monday through Saturday 8 pm-11 pm and Sunday 7 pm-11 pm.

<sup>44</sup> Nielsen Media Research, *Primetime Monday-Saturday 8-11 PM Sunday 7-11 PM. Total US Ratings By Viewing Source July 2000-June 2002*, Oct. 2002. For broadcast season (September to August) viewing trends. see ¶ 80 *infra*.

<sup>45</sup> *Id.*

<sup>46</sup> See 2001 Report, 17 FCC Rcd at 1309-10. Last year, we estimated the number of national programming services at 294. NCTA notes in its latest Cable Developments that there were errors in this calculation, and that the number of national programming networks was actually 287. See NCTA, *National Video Programming Services, 1994-2001*, Cable Developments 2002, May 2002, at 23.

"See Appendix C, Table C-3 and C-4

<sup>48</sup> NCTA Comments at 37.

<sup>49</sup> Kagan World Media, *Basic Cable Network Economics 2002*, at 27; Kagan World Media, *Pay TV Newsletter*, July 2002.

<sup>50</sup> Copyright Act, 17 U.S.C. § 111 *et seq.*

<sup>51</sup> Copyright Office, Library of Congress, *Licensing Division Report of Receipts*, Nov. 27, 2002. Copyright fees, are due on a specific date, but are collected on a rolling basis. We report the most current figures reported by the Copyright Office.

<sup>52</sup> NCTA Comments at 37.

28. **Cable Industry Revenue.** As Table 4 shows, annual cable industry revenue grew 15.9% during 2001, reaching more than \$43.9 billion in total revenue, with growth in every revenue segment. Both video and non-video advanced services constitute the greatest increases in revenue for cable operators during 2001. Analysts estimate that by year-end, cable operator total revenue for 2002 will reach nearly \$50 billion, with video and non-video services again estimated to constitute the greatest increases for cable operators.

29. **Cable Industry Cash Flow.** Cash flow (generally expressed as earnings before interest, taxes, depreciation, and amortization, or "EBITDA") is often used to assess the financial position of cable firms and other capital intensive companies. Cash flow from operations is the net result of cash inflows from operations (revenue) and cash outflows from operations (expenses). Cash flow from operations does not include non-cash charges to net income such as depreciation and amortization. Cash flow from operations indicates a firm's ability to meet its net finance and investment obligations. As Table 4 shows, cash flow from operations increased during 2001, though cash flow as a percentage of revenue (cash flow margin) declined for the second year in a row. That is, revenues are increasing at a greater rate than cash flow, indicating that cable operator expenses have increased faster than revenues over the last year.

**TABLE 4: Cable Industry Revenue and Cash Flow: 1998 – 2002<sup>53</sup>**

	1998	1999	98-99	2000	99-00	2001	00-01	2002	01-02
	Total	Total	% Change	Total	% Change	Total	% Change	Estimated Year-End Total	% Change
Basic Subscribers (mil)	66.1	67.3	1.8%	68.5	1.8%	68.6	0.1%	69.0	0.6%
<b>Revenue Segments (mil.)</b>									
Basic Service and CPST Tiers	\$21,831	\$23,135	6.0%	\$24,729	6.9%	\$27,031	9.3%	\$28,492	5.4%
Premium (Pay) Tiers	\$4,758	\$4,696	-1.3%	\$5,115	8.9%	\$5,617	9.8%	\$5,533	-1.5%
Pay-Per-View	\$514	\$721	40.3%	\$751	4.2%	\$993	32.2%	\$1,143	15.1%
Local Advertising	\$1,675	\$2,000	19.4%	\$2,430	21.5%	\$2,430	0.0%	\$2,503	3.0%
Home Shopping	\$175	\$205	17.1%	\$239	16.6%	\$260	8.8%	\$284	9.2%
Advanced Analog and Digital Tier	\$445	\$919	106.5%	\$1,088	18.4%	\$2,365	117.4%	\$3,379	42.9%
High-speed Internet access, cable teleph. & interactive svcs	\$133	\$542	307.5%	\$1,164	114.8%	\$2,835	143.6%	\$5,602	97.6%
Equipment and Install	\$2,631	\$2,424	-7.9%	\$2,451	1.1%	\$2,463	0.5%	\$2,491	1.1%
<b>Total Revenue (mil.)</b>	<b>\$32,162</b>	<b>\$34,642</b>	<b>7.7%</b>	<b>\$37,967</b>	<b>9.6%</b>	<b>\$43,994</b>	<b>15.9%</b>	<b>\$49,427</b>	<b>12.3%</b>
Revenue Per Subscriber	\$486.57	\$514.74	5.8%	\$554.26	7.7%	\$641.31	15.7%	\$716.33	11.7%
<b>Operating Cash Flow (mil.)</b>	<b>\$14,900</b>	<b>\$15,597</b>	<b>4.7%</b>	<b>\$15,764</b>	<b>1.1%</b>	<b>\$16,683</b>	<b>5.8%</b>	<b>\$18,806</b>	<b>12.7%</b>
Cash Flow per Subscriber	\$225.42	\$231.75	2.8%	\$230.13	-0.7%	\$243.19	5.7%	\$272.55	12.1%
<b>Cash Flow/Total Revenue</b>	<b>46.3%</b>	<b>45.0%</b>	<b>-2.8%</b>	<b>41.5%</b>	<b>-7.8%</b>	<b>37.9%</b>	<b>-8.7%</b>	<b>38.0%</b>	<b>0.3%</b>

30. **Cable System Transactions.** Over the last several years, as Table 5 shows, the number of system acquisitions and exchanges between MSOs has declined. Several mergers among large operators

<sup>53</sup> Kagan World Media, Cable TV Investor, May 14, 2002, at 9; Kagan World Media, Broadband Cable Financial Databook, July 2002, at 10 and 144. Historical data included in this table may differ from those previously reported because some data have been updated by the source.

which involve the transfer and exchange of numerous systems, however, are **not** reflected in Table 5.<sup>54</sup> In addition, the industry benchmark average "value per subscriber" has declined from its peak, of an average value of more than \$5,700 per subscriber in 2000, to an average of approximately \$2,200 as of June 2002.<sup>55</sup>

**TABLE 5: System Transactions: 1999 - June 2002<sup>56</sup>**

	1999	2000	99-00 % Change	2001	00-01 % Change	Jan-Jun 2002
Number of Systems Sold	92	45	-51.1%	36	-20.0%	12
Total Number of Subscribers Sold	18,288,706	11,469,090	-37.3%	17,958,375	56.6%	388,120
Average Number of Subscribers per System Sold	198,790	254,869	28.2%	498,844	95.7%	32,343
Total Number of Homes Passed Sold	28,345,972	18,990,621	-33.0%	31,657,221	66.7%	666,216
Average Number of Homes Passed per System Sold	308,108	422,014	37.0%	879,367	108.4%	55,518
Total Dollar Value (mil.)	\$73,070	\$66,008	-9.7%	\$87,499	32.6%	\$852
Average Dollar Value (mil.) of System Sold	\$794	\$1,467	84.8%	\$2,431	65.7%	\$71
National Average Dollar Value Per Subscriber <sup>57</sup>	\$3,995	\$5,755	44.1%	\$4,872	-15.3%	\$2,196
Dollar Value Per Home Passed	\$2,578	\$3,476	34.8%	\$2,764	-20.5%	\$1,281
Cash Flow Multiple	16.7x	19.5x	16.8%	19.3	-1.0%	11.2

31. **Stock Prices.** Cable stock prices, as measured by the Kagan MSO Average, declined 14.5% in 2001, whereas the S&P 500 declined 13% in 2001, and the NASDAQ declined 21%.<sup>58</sup> In the first half of 2002, the Kagan MSO Average declined 38% over year-end 2001. The delisting of Adelphia Communications in May 2002 contributed to this decline.<sup>59</sup> Despite recent declines, however, many Wall

<sup>54</sup> Merger transactions are not reflected in Table 5. Mergers over the last couple of years, however, have involved the transfer of many cable systems. See e.g., *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations from MediaOne Group, Inc., Transferor, to AT&T Corp., Transferee*, 15 FCC Rcd 9816 (2000); *Applications for Consent to the Transfer of Control of Licenses and Section 214 Authorizations by Time Warner Inc. and America Online, Inc., Transferors, to AOL Time Warner Inc., Transferee*, 16 FCC Rcd 6537 (2001); *Applications for Consent to the Transfer of Control of Licenses, Comcast Corporation and AT&T Corp., Transferors, to AT&T Comcast Corporation, Transferee*, Repon and Order ("*AT&T-Comcast Merger Order*"). FCC 02-310, (Nov. 14, 2002).

<sup>55</sup> The value of cable subscribers is not uniform nationwide, but instead varies by system. Subscribers in certain systems are more valuable based on considerations such as the capacity of the system, the average number of services purchased by subscribers in a given system, or the cash flow generated by the operations of a given system. System sale prices also vary from year to year based on supply and demand factors as well as industry access to capital and the relative cost of such capital.

<sup>56</sup> Kagan World Media, Cable TV Investor, Jan. 25, 2002, at 11; Kagan World Media, Cable TV Investor, July 18, 2002, at 9. Historical data included in this table may differ from those previously reported because some data have been updated by the source.

<sup>57</sup> See fn. 55 *supra*.

<sup>58</sup> Kagan World Media, Broadband Cable Financial Databook, July 2002, at 89.

<sup>59</sup> *Id.*

Street analysts expect that the cable industry will outperform the S&P 500 and media stocks in general in 2002-2003.<sup>60</sup>

### 3. Capital Acquisition and Disposition

**32. Industry Financing.** The cable industry typically has relied on combinations of private and public financing, with the distribution of these combinations varying greatly from year to year. These year-to-year fluctuations in financing sources appear to be based on the availability of acceptable financing rates through private investors or capital lending institutions, and the attractiveness of debt and equity offerings. Table 6 shows the amount raised per year by source.

**TABLE 6: Acquisition of Capital: 1991- June 2002 (\$ in millions)<sup>61</sup>**

Year	Private Debt		Net New Public Debt		Private Equity (Pvt. Placement/VC)		Public Equity (Common/Preferred)		Total Capital Raised in Year
	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	Amount Raised	% of Total Raised in Year	
1994	\$7,454	91.2%	\$155	1.9%	\$100	1.2%	\$461	5.6%	\$8,170
1995	\$9,688	51.5%	\$4,495	23.9%	\$1,191	6.3%	\$3,419	18.2%	\$18,793
1996	\$5,837	58.0%	\$2,355	23.4%	\$49	0.5%	\$1,818	18.1%	\$10,059
1997	\$2,933	27.4%	\$6,252	58.4%	\$1,292	12.1%	\$230	2.1%	\$10,707
1998	\$5,421	39.1%	\$6,299	45.5%	\$200	1.4%	\$1,927	13.9%	\$13,847
1999	\$34,358	51.9%	\$18,610	28.1%	\$5,385	8.1%	\$7,799	11.8%	\$66,151
2000	\$2,755	60.3%	\$4,288	35.7%	\$101	0.8%	\$380	3.2%	\$12,024
2001	\$6,668	31.4%	\$10,678	50.2%	\$623	2.9%	\$3,282	15.4%	\$21,251
June 2002	\$2,157	19.9%	\$5,070	46.8%	\$0.0	0.0%	\$3,608	33.3%	\$10,834
<b>Total Raised: 1994-June 02</b>	<b>81,769</b>	<b>47.6%</b>	<b>\$58,202</b>	<b>33.9%</b>	<b>8,941</b>	<b>5.2%</b>	<b>22,923</b>	<b>13.3%</b>	<b>\$171,835</b>
<b>Avg Raised Per Year</b>	<b>\$9,620</b>		<b>\$6,847</b>		<b>1,052</b>		<b>2,697</b>		<b>\$20,216</b>

**33. Capital Expenditures/Capital Investment.** Since 1996, cable operators have invested more than \$65 billion to upgrade systems in order to deploy higher quality television and advanced two-way broadband services.<sup>62</sup> The rebuilding of more than a million miles of cable plant, which is nearly 80% complete, has translated into numerous new services, such as digital video, digital music, high-speed Internet access, cable telephony, video-on-demand, and other interactive applications.<sup>63</sup> In 2001, the

<sup>60</sup> Richard Bilotti and Benjamin Swinburne, *New Ratings System*, Morgan Stanley, Mar. 18, 2002; *Adelphia Aside: Financial Analysts Tell NCTA Cable's Day Will Come Again*, Comm. Daily, May 8, 2002, at 6; Spencer Wang, John Blackledge, and Thomas Sheehan, *Media & Entertainment: Media Mosaic 2002-A Manifesto for Media Investing in 2002*, ABN-Amro, Jan. 3, 2002, at 4.

<sup>61</sup> Kagan World Media, *Cable TV Finance*, Feb. 8, 2002, at 8; Kagan World Media, *Cable TV Finance*, Aug. 21, 2002, at 7. Historical data included in this table may differ from those previously reported because some data have been updated by the source.

<sup>62</sup> NCTA Comments at 4.

<sup>63</sup> *Id.*

cable industry spent a total of **\$17.8 billion** in capital expenditures.<sup>64</sup> Cable operators spent approximately \$850 million on the construction of new plant, \$4.1 billion on upgrades, \$2.4 billion on rebuilds, \$6.5 billion on new equipment, and **\$4.0 billion** on maintenance of new and existing equipment.” This represents a 14.6% increase over the \$15.5 billion spent in 2000.<sup>65</sup> Analysts expect that operators will spend an estimated \$17.6 billion in 2002, a decrease of 0.9% over 2001.<sup>67</sup> Of the \$17.8 billion to be spent industry-wide, it is estimated that approximately \$823 million will be spent on construction of new cable plant, \$2.2 billion on rebuilds, \$3.5 billion on upgrades, \$7.1 billion on equipment and \$4.0 billion on maintenance.“

34. MSOs continue to spend substantially on maintenance, upgrades, rebuilds, and new services, though with industry upgrade goals near completion. many cable operators have already begun to spend less on capital improvements.<sup>69</sup> For example, Comcast reported capital expenditures of \$2.2 billion in 2001, and is expected to spend approximately \$1.5 billion in 2002.<sup>70</sup> As of June 30, 2002, Comcast had spent about \$789 million.” Cablevision reported total capital expenditures of about \$1.3 billion in 2001 (\$900 million of which was for cable television services), and is expected to spend \$1 billion in 2002.<sup>72</sup> Cox reports capital spending of \$2.2 billion on capital expenditures in 2001.<sup>73</sup> As of June 2002, Cox had spent approximately \$1 billion, and expects that by year-end it will have spent a total of \$2 billion.<sup>74</sup> Charter reported cable capital expenditures of \$3 billion in 2001, and is expected to spend approximately \$2.5 billion during 2002.<sup>75</sup> As of June 30, 2002, Charter had already spent \$1.1 billion in capital

<sup>64</sup> Kagan World Media, Cable TV Finance, June 7, 2002, at 3; see also NCTA Comments at 25. As a result of these expenditures, approximately 74% of all cable homes (or approximately 51 million cable homes) were passed by systems with a capacity of at least 750 MHz, and approximately 68% of homes passed (or 70 million households) were passed by activated two-way plant. NCTA Comments at 26.

<sup>65</sup> Kagan World Media, Cable TV Finance, June 7, 2002, at 3. “Rebuilds” are significant improvements made to existing systems that do not retain much of the old system plant and equipment. “Upgrades” are improvements to existing cable systems that do not require the replacement of the entire existing plant and equipment. See also NCTA Comments at 25.

<sup>66</sup> Kagan World Media, Cable TV Finance, June 7, 2002, at 3.

<sup>67</sup> *Id.* See also NCTA Comments at 25.

<sup>68</sup> Kagan World Media, Cable TV Finance, June 7, 2002, at 3.

<sup>69</sup> NCTA estimates that the rebuilding of cable plant is nearly 80% complete. NCTA Comments at 4. For example, Cablevision envisions “completion of the company’s entire network upgrade to 750 MHz in 2003.” Cablevision Systems Corp., *Cablevision Systems Corporation Announces Fully-Funded Growth Plan* (press release), Aug. 8, 2002.

<sup>70</sup> Comcast Corp., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 25 and 41. Comcast’s merger with AT&T could affect Comcast’s year-end expenditures. See fn. 78 *infra*

<sup>71</sup> Comcast Corp., *SEC Form 10-Q for the Quarter-Ended June 30, 2002*, at 4

<sup>72</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter 2001 Financial Results for Cablevision NY Group and Rainbow Media Group* (press release), Feb. 14, 2002. Cablevision expects completion of the company’s entire network upgrade to 750 MHz by year-end 2003. Cablevision Systems Corp., *Cablevision Systems Corporation Announces Fully-Funded Growth Plan* (press release), Aug. 8, 2002.

<sup>73</sup> Cox Communications, Inc., *SEC Form 10-K405/A For the Year-Ended December 31, 2001*, at 3.

<sup>74</sup> Cox Communications, Inc., *SEC Form 10-Q For the Quarter-Ended June 30, 2002*, at 12; Cox Communications, Inc., *Cox Communications Announces Second Quarter Financial Results For 2002* (press release), July 31, 2002.

<sup>75</sup> Charter Communications, Inc., *SEC Form 10-K405 for the Year-Ended December 31, 2001*, at 46. As a result of these expenditures, 75% of Charter subscribers were served by systems with a capacity of 750 MHz or greater, with 34% of Charter subscribers served by systems with a capacity of 850 MHz, and more than 78% of Charter subscribers are served by systems with two-way capability. Charter expects by year-end 2002, nearly 85% of its

(continued...)

expenditures.<sup>76</sup> AOL Time Warner spent \$2.2 billion on cable-related capital expenditures during 2001, and has spent \$975 million on cable-related capital expenditures during the first half of 2002.” AT&T Broadband reported capital expenditures of approximately \$3.3 billion in 2001, of which \$1.5 billion was related to the growth and support of advanced services and \$583 million was for network construction and upgrade.<sup>78</sup> As of June 2002, AT&T Broadband reported capital expenditures of \$1.7 billion, of which \$695 million was related to the growth and support of advanced services and \$482 million was for network construction and upgrade.”

#### 4. Provision of Advanced Broadband Services

35. Advanced services continue to be deployed at a rapid pace. With most systems able to deliver digital video, and many systems able to deliver cable modem and/or cable telephone service, MSOs are beginning to commercially deploy other advanced service offerings such as video-on-demand (“VOD”), high-definition television (“HDTV”), and Internet protocol (“IP”) telephony over cable systems.

36. **Digital Video Services.** Most major cable operators currently offer a selection of digitally-compressed video channels to analog subscribers on a “digital tier.” Digital compression technologies allow anywhere from four to 12 video channels to be compressed into the capacity previously used to provide just one standard six MHz analog channel. Most cable operators offer two tiers of digitally compressed service; one that offers programming similar to programming available on the basic cable tier, and a second that offers programming similar to programming on the premium tier of service. This additional programming is offered in stand-alone packages, or in combination with PPV and VOD.<sup>81</sup> Currently there are about 90 networks available for carriage on cable systems’ digital tiers, offering a wide range of genres, including sports, music, movies, children’s, family, and foreign-language

37. As of year-end 2001, it was estimated that there were more than 15.2 million digital video subscribers industry-wide.” As of June 2002, there were an estimated 16.8 million digital video

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subscribers will be served by systems with broadband capacity of 750 MHz or greater. Charter Communications, Inc., *SEC Form 10-Q for the Quarter-Ended June 30, 2002*, at 28.

<sup>76</sup> *Id.* at 27

<sup>77</sup> AOL Time Warner, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at F-16

<sup>78</sup> AT&T Broadband, *AT&T Group Earnings Commentary: Fourth Quarter 2001*, Jan. 30, 2002 at 12. As of December 31, 2001, 59% of AT&T’s cable plant had been upgraded to a capacity of at least 750 MHz; *Applications for Consent to the Transfer of Control & Licenses. Comcast Corporation and AT&T Corp., Transferors, to AT&T Comcast Corporation, Transferee. Applications and Public Interest Statement (“AT&T-Comcast Merger Application”)*, MB Docket No. 02-70, Feb. 28, 2002, at 18.

<sup>79</sup> AT&T Broadband, *AT&T Group Earnings Commentary: Second Quarter 2002*, July 23, 2002 at 11; AT&T Broadband, *AT&T Group Earnings Commentary: First Quarter 2002*, April 24, 2002 at 11

<sup>80</sup> The digital tier offers programming that is digitally compressed for efficient delivery. The programming is then demodulated from digital to analog format for display on subscribers’ analog television receivers. This so-called “digital tier” does not provide programming for display on subscribers’ digital receivers with 16 by 9 format or high-definition resolution.

<sup>81</sup> NCTA Comments at 29,

<sup>82</sup> *Id.*

<sup>83</sup> *Id.* see also NCTA, *What is Digital Cable?*, at <http://www.ncta.com>; See also Kagan World Media, *Broadband Cable Financial Databook*, July 2002, at 78.

subscribers.” The cable industry estimates that by 2006, the number of digital subscribers will increase nearly three-fold over 2002 levels, to more than 48 million digital cable subscribers.<sup>85</sup>

38. As of year-end 2001, Cox reported approximately 1.4 million digital video subscribers, and more than 1.6 million subscribers as of June 2002.<sup>86</sup> As of June 2002, Comcast reported nearly two million digital video subscribers and expects to end 2002 with as many as 2.7 million digital video subscribers.” As of year-end 2001, AOL Time Warner had more than 3.3 million digital video subscribers.<sup>88</sup> By June 2002, AOL Time Warner had as many as 3.9 million subscribers.<sup>89</sup> As of year-end 2001, AT&T reported 3.5 million digital video subscribers.<sup>90</sup> As of June 2002, AT&T reported 3.9 million digital video subscribers.” Charter Communications provided digital video service to approximately 2.1 million subscribers as of year-end 2001 and 2.4 million subscribers as of June 2002.<sup>92</sup> Charter expects to have as many as 2.7 million digital video subscribers by year-end 2002.<sup>93</sup> Cablevision began providing digital video service commercially in September 2001.<sup>94</sup> By year-end 2001, Cablevision had 17,200 digital video subscribers, and by June 2002, Cablevision had 42,670 digital video subscribers.” Cablevision expects digital video to be available to as many as 3.4 million subscribers by year-end 2002.<sup>96</sup>

39. **Video-on-Demand.** Cable operators continue to focus on video on demand (“VOD”) service offerings and local content, with each of the top ten cable operators testing or offering a commercial VOD service.” Unlike pay-per-view services, VOD services allow the subscriber to select at any time

<sup>84</sup> NCTA. *What is Digital Cable?*, at <http://www.ncta.com>

<sup>85</sup> *Id.*

<sup>86</sup> Cox Communications, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 4; Cox Communications, Inc., *Cox Communications Announces Second Quarter Financial Results For 2002: Summary of Operating Statistics* (press release), July 31, 2002.

<sup>87</sup> Comcast Reply Comments at 2

<sup>88</sup> AOL Time Warner, Inc., *AOL Time Warner Provides Update on 2002 With Consolidation of AOL Europe: Company Reports Preliminary Results for 2002* (press release), Jan. 7, 2002.

<sup>89</sup> AOL Time Warner, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2002*, at 12

<sup>90</sup> AT&T Comcast, *Merger Proposal – Joint Proxy Statement/Prospectus*, May 14, 2002, at VII-28.

<sup>91</sup> AT&T Broadband. *AT&T Group Earnings Commentary. Second Quarter 2002*, July 23, 2002, at 12

<sup>92</sup> Charter Communications, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 13; Charter Communications. *SEC Form 10-Q for the Quarter-Ended June 30, 2002*, at 15.

<sup>93</sup> Charter Communications, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 13.

<sup>94</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter 2001 Financial Results* (press release), Feb. 14, 2002.

<sup>95</sup> *Id.*; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2002 Financial Results* (press release), Aug. 8, 2002.

<sup>96</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Announces Fully-Funded Growth Plan* (press release), Aug. 8, 2002.

<sup>97</sup> Jennifer Lee. *Interactive TV is Finally Here. Sort Of*, NEW YORK TIMES, Apr. 4, 2002, at E1. See also Richard Bilotti, *Broadband Cable: Truth, Lies and Truck Rolls. Understanding Product Profitability*, Morgan Stanley, Oct. 4, 2002 (“Morgan Stanley Oct 4 Repon”). at 63. Morgan Stanley notes that “most of the developments in the VOD space . . . have been content related rather than deployment specific” indicating that cable operators are focusing on ensuring they have saleable popular content to offer subscribers. *Id.* See also Kagan World Media, *Broadband Cable Financial Databook*, July 2002, at 79; Andrea Figler, *Movies Lead, All Others Follow*,

(continued...)

programming they wish to view from a large selection of titles and categories stored on a remote server.<sup>98</sup> VOD systems run on a server located in the cable operator's headend, which delivers programming as it is demanded by individual subscribers at virtually any time, with VCR-like controls such as **pause**, **rewind**, **forward** and **stop**, and for an extended period of time. **usually** 24 hours. Some operators are opting to offer VOD via the subscription model ("SVOD"), in which the subscriber pays one monthly fee for unlimited access to a library of pre-selected programming. By 2005, VOD revenues are projected to range between \$278 million and \$3 billion.<sup>99</sup>

40. NCTA comments that "the battleground between cable and DBS" is moving into the VOD arena, but that cable companies have differentiated approaches to providing this service.<sup>100</sup> EchoStar agrees with NCTA's assessment regarding VOD, but states it cannot compete effectively with cable's VOD offerings because cable is able to cache content at servers throughout a franchise area. EchoStar states that DBS operators must rely on limited bandwidth on satellite frequencies, with on-demand programming available at staggered intervals throughout the day.<sup>101</sup> Some cable MSOs report that VOD has contributed to increased demand for and reduced chum of digital services.<sup>102</sup> Comcast states that its VOD deployments have provided consumers with increased control over their viewing choices and have helped drive demand for digital services.<sup>103</sup>

41. Cox provides VOD in its Hampton Roads and San Diego markets, and announced the launch of the first advertiser-supported VOD channel in its San Diego market in August 2002.<sup>104</sup> By the end of 2002, Cox plans to have VOD capability deployed for 30% of homes passed.<sup>105</sup> Comcast reports that it has launched VOD in 15 markets covering over 3.2 million homes and expects to make VOD available to

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CABLEWORLD, Oct. 28, 2002, at [http://www.kagan.com/archive/cableworld/2002/10\\_28\\_cwd02102806.shtml](http://www.kagan.com/archive/cableworld/2002/10_28_cwd02102806.shtml) (visited Oct. 29, 2002).

<sup>98</sup> Pay-per-view is pay television programming for which cable subscribers pay a one time fee for each program viewed. The programming is generally available at pre-set times and in some cases is timeshifted across several channels to increase the opportunity for viewing. Once initiated, the program cannot be paused, rewound or fast-forwarded. The programming is cablecast from the operator's headend to all subscribers but only descrambled for those who order the programming. See CableLabs, at <http://www.cablelabs.com/news/glossary.html#P> (visited Oct. 29, 2002).

<sup>99</sup> See Emarketer, *Interactive TC: Reality & Opportunity* ("2002 Emarketer Study"), March 2002, at 135.

<sup>100</sup> NCTA Comments at 31.

<sup>101</sup> EchoStar Reply Comments at 6.

<sup>102</sup> See Man Stump, *Cable Ops Touring VOD as Anti-Churn Weapon*, BROADBAND WEEK, Mar. 4, 2002, quoting a Cox executive: "VOD will drive digital penetration;" and a Charter executive: "In regions where we've launched VOD for over 18 months, we see [digital chum] diving well below four percent per month, compared to typical digital chum rates in the range of 6-8 percent." *Id.*

<sup>103</sup> Comcast Comments at 5; Comcast Reply Comments at 3. Comcast believes that, although VOD is thought of as a way to deliver movies to consumers for a fee, Comcast is increasingly focusing on delivering other VOD content, including games, distance learning, how-to programs, and foreign language programming, all no additional charge as a means of driving sales of digital video. *Id.* at 3-4.

<sup>104</sup> Cox Communications, Inc., *Cox Communications Announces Launch of First-Ever Advertising-Focused Video On Demand Channel* (press release), Aug. 20, 2002; NCTA Comments at 32. See Kagan World Media, *Broadband Cable Financial Databook*, July 2002, at 79;

<sup>105</sup> Staci Kramer, *Revenue Good, Churn Bad*, CABLEWORLD, Oct. 28, 2002. Cox does not yet offer SVOD to its customers. *Id.*

nearly 50% of its homes passed by year-end 2002.<sup>106</sup> Comcast charges customers \$3.95 for new releases on-demand and \$2.95 for library content, but it includes SVOD services at no additional charge for those subscribing to premium programming, such as HBO, Showtime and Starz.<sup>107</sup> Charter offers VOD in 12 markets and has stated it will launch nine additional markets by year-end 2002, building a VOD "footprint" of approximately 1.1 million customers, or 40% of its total digital base.<sup>108</sup> AOL Time Warner has launched VOD in 32 of its 34 divisions, covering at least eight of its markets.<sup>109</sup> In addition to offering HBO, Starz Encore, and Showtime SVOD services and HBO on Demand, AOL Time Warner offers free content from Scripps Networks, including HGTV, Food Network and the BBC.<sup>110</sup> AT&T has launched VOD in four major markets, and has begun a trial in two of those markets to test Starz Encore and Showtime SVOD services.<sup>111</sup> Cablevision offers VOD over its iO digital service in select parts of its franchise area.<sup>112</sup> Approximately 26% of Cablevision's iO customers have signed up for at least one SVOD service.<sup>113</sup> In September 2001, Cablevision launched a VOD service called Mag Rack, offering special interest video content in the form of "video magazines."<sup>114</sup> Each selection from the "video magazine rack" provides in-depth information and expert advice in a specific field of interest.<sup>115</sup> As of June 2002, Cablevision was offering 27 "video magazines," and it anticipates having between 35 and 40

<sup>106</sup> Comcast Reply Comments at 3; NCTA Comments at 31. Comcast has deployed Wink technology in systems totaling 1.5 million Comcast customer homes in Florida, Virginia, Maryland, and Delaware, which provides viewers with free interactive programs and advertisements. Comcast Reply Comments at 5. Comcast also has deployed Worldgate's ITV services in Huntsville and Tuscaloosa, Alabama, which includes a variety of content including updated weather forecasts, horoscopes, recipes, stock quotes, headline news stories, entertainment links, and sports scores. *Id.*

<sup>107</sup> Comcast Reply Comments at 3; NCTA Comments at 31; Staci Kramer, *The Stakes Just Got Higher*, CABLEWORLD, Oct. 28, 2002.

<sup>108</sup> Charter Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2001*, at 15; Staci Kramer, *Ready Set, Launch*, CABLEWORLD, Oct. 28, 2002. Charter has approximately 250 titles on VOD and SVOD and plans to roll out Mag Rack in January 2003. Charter charges \$3.99 for new releases, \$2.99 for library content, and \$3.99 per month for SVOD.

<sup>109</sup> NCTA Comments at 32; Kagan World Media, *Broadband Cable Financial Databook*, July 2002, at 79; AOL Time Warner, Inc., *SEC Form 10-K for the Year Ended December 31, 2001*, at 10; Mavis Scanlon, *Kicking Into High Gear*, CABLEWORLD, Oct. 28, 2002. AOL Time Warner charges \$3.95 for new programming releases and \$1.95 for "library" content. The company also offers subscription VOD of HBO, Cinemax, Showtime and the Movie Channel catalogues for \$6.95 per month.

<sup>110</sup> *Id.*

<sup>111</sup> AT&T Broadband, *AT&T Broadband Launches Trial of Subscription Video-On-Demand in Los Angeles* (press release), May 1, 2002; AT&T Broadband, *AT&T Broadband To Launches Video-On-Demand With DIVA* (press release), Oct. 3, 2000.

<sup>112</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2002 Financial Results* (press release), Aug. 8, 2002. Cablevision offers over 700 titles per month; 30 hours of children's programming and movies; Mag Rack, a collection of video magazines covering specific fields of interest; encores of cable network programming; wrestling and classic sports matches; and 300 hours of "ITV clips," including local news, movie trailers and TechTV stories. See Mavis Scanlon, *The Upside of Going Slow*, CABLEWORLD, Oct. 28, 2002. Cablevision charges \$4.95 per new release on-demand and \$2.95 for library titles; SVOD is \$4.95 per month and requires separate subscription to premium channels. *Id.*

<sup>113</sup> *Id.*

<sup>114</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2002 Financial Results* (press release), Aug. 8, 2002. Charter and Insight have also agreed to carry Cablevision's Mag Rack VOD service in several of their systems. *CableFAXDaily*, Sept. 4, 2002, at 1.

<sup>115</sup> NCTA Comments at 32.

distributed by year-end 2002.<sup>116</sup> Insight continues to build its VOD deployment in ten markets and now has 225,000 subscribers capable of buying VOD programming.<sup>117</sup>

**42. Digital Television ("DTV") and High-Definition Television ("HDTV").** During the past year, the amount of digital and HDTV programming offered by cable operators has increased. Cable operators are now offering high definition digital programming, which is delivered to subscribers with digital receivers for display in digital format and resolution. Several MSOs, including Comcast, AOL Time Warner, Cox, Charter, AT&T, Adelphia, Cablevision, Mediacom, Insight, and CableOne now offer HDTV on cable systems in selected markets.<sup>118</sup> In addition, the top ten cable operators (representing more than 85% of subscribers nationwide) will offer to carry the signals of up to five digital broadcast stations or other programming networks that provide HDTV during at least 50% of their prime time schedule or a substantial portion of their broadcast week by January 1, 2003.<sup>119</sup>

**43.** Comcast offers HDTV service to more than 1.3 million subscribers.<sup>120</sup> In addition to providing access to high-definition broadcasts of ABC, NBC, CBS, HBO, and Showtime in selected areas, Comcast will also offer HDTV signals for certain local PBS stations and its own Comcast SportsNet.<sup>121</sup> AOL Time Warner has launched HDTV in more than 40 markets including high-definition broadcasts of ABC, CBS, NBC, and PBS, as well as HBO and Showtime in certain areas.<sup>122</sup> Cox offers HDTV services in two markets with seven additional market launches planned before year-end 2002.<sup>123</sup> Cox's initial lineup includes local ABC and PBS stations, as well as HBO HD, Showtime HD and Discovery HD Theater.<sup>124</sup> Charter has announced that it will provide HDTV programming from HBO and Showtime in several of its markets.<sup>125</sup>

**44. Internet and High-Speed Data Services.** Dial-up Internet access is still the most widely-used mode of accessing the Internet. As of year-end 2001, approximately 80%-82% of all Internet households

<sup>116</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2002 Financial Results* (press release), Aug. 8, 2002.

<sup>117</sup> Shirley Brady, *Getting Back in the Game*, CABLEWORLD, Oct. 28, 2002. VOD access is available as part of Insight's Digital Gateway service. Insight charges \$3.99 for new releases, \$2.99 for library titles, and \$9.99 for a children's unlimited programming package.

<sup>118</sup> NCTA Comments at 33-35. Linda Moss, *Ops: HD Query: Can We Levy Fee?*, MULTICHANNEL NEWS, Nov. 25, 2002, at 6.

<sup>119</sup> See Letters from Michael K. Powell, Chairman, FCC, to The Honorable Ernest F. Hollings, Chairman, Committee on Commerce, Science and Transportation, U.S. Senate, and The Honorable W.J. "Billy" Tauzin, Chairman, Committee on Energy and Commerce, U.S. House of Representatives, Attachment (*Proposal for Voluntary Industry Actions to Speed the Digital Television Transaction*) (Apr. 4, 2002) ("*Voluntary DTV Plan*"); see also Letter from Robert Sachs, President NCTA, to Chairman Powell, May 1, 2002.

<sup>120</sup> Comcast Reply Comments at 4; Comcast Corp., *Comcast To Debut HDTV In Major Markets By End of 2002* (press release), Mar. 14, 2002.

<sup>121</sup> Comcast Corp., *Comcast Launches HDTV* (press release), Oct. 29, 2001; Comcast Corp., *Comcast To Debut HDTV In Major Markets By End of 2002* (press release), Mar. 14, 2002; *AT&T-Comcast Merger Application*, at 10.

<sup>122</sup> NCTA Comments at 33; AOL Time Warner, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 10.

<sup>123</sup> Cox Communications, Inc., *Cox Communications Launches HDTV in Phoenix* (press release), Sept. 4, 2002.

<sup>124</sup> *Id.*

<sup>125</sup> Charter Communications, Inc., *Charter High Definition Service Debuts in Five Markets* (press release), May 29, 2002.

were accessing the Internet using dial-up modems<sup>126</sup> It is projected that telephone dial-up will remain the principal means of accessing the Internet until about 2005-2006, when it is expected that less than 50% will use dial-up access, with the remaining accessing the Internet through broadband facilities.”

45. Cable modem access is currently the primary means of accessing the Internet over broadband networks, although cable’s share of the broadband Internet access market has decreased over the last several years.<sup>128</sup> DSL remains the most significant broadband competitor to cable modem service. As of year-end 2001, high-speed Internet access services provided over cable were available to more than 50 million homes, and there were between approximately 6.9 and 7.4 million subscribers. whereas there were between 3 and 3.3 million residential DSL subscribers.<sup>129</sup> At that same time there were about 200,000 subscribers to other broadband technologies, including satellite and wireless.”

46. The Internet service providers (“ISPs”) used in cable modem service are selected by the cable provider.” Some cable operators offer only one ISP to customers in a given system.” and others offer consumers a choice among multiple ISPs. AOL Time Warner currently carries Road Runner and the

<sup>126</sup> JP Morgan estimates that as of year-end 2001, 81.5% of Internet households used dial-up connections. Morgan Stanley estimates that as of year-end 2001, 80% of Internet households used dial-up connections. Spencer Wang and John Blackledge, *Media Markets: Back to Basics*, JP Morgan Securities, Aug. 19, 2002 (“JP Morgan Aug. 19<sup>th</sup> Report”), at 155; Richard Bilotti, Benjamin Swinburne, Megan Lynch, and Scott Babka, *NUTS: The Last One Standing Wins*, Morgan Stanley, July 10, 2002 (“Morgan Stanley July 10<sup>th</sup> Report”), at 65.

<sup>127</sup> JP Morgan estimates that as of year-end 2005, 44% of Internet households will use dial-up connections, while 55.5% will use broadband connections. Morgan Stanley estimates that as of year-end 2006, 48% of Internet households will still use dial-up connections while 52% will use broadband connections. *Id.* Broadband technologies include cable modem, telephone company digital subscriber line (“DSL”), broadband wireless, and broadband satellite. Broadband technologies allow users to access the Internet at much greater speeds than are available over traditional dial-up connections. See 1999 Report, 15 FCC Rcd at 1003-04.

<sup>128</sup> See Morgan Stanley Oct 4<sup>th</sup> Report, at 46-7. Cable’s share of the broadband market remained relatively stable between year-end 2001 and June 2002, and some analysts expect cable’s share will increase slightly at year-end 2002, though it is expected to remain over ten percentage points below 1999 levels. *Id.*

<sup>129</sup> Based on information from five top cable operators. Bear Stearns estimates more than 50 million marketable homes as of year-end 2001. Cable modem service is likely available to many more homes than that. Raymond Lee Katz, Gloria Radeff, and Bryan Goldberg, *Cable TV & Broadband*, Bear Stearns, May 2002 (“Bear Stearns May Report”), at 14. JP Morgan estimates that as of year-end 2001, there were 6.9 million cable modem subscribers. Bear Stearns estimates that as of year-end 2001, there were more than 7.35 million cable modem subscribers, and Morgan Stanley estimates that as of year-end 2001, there were more than 7.38 million cable modem subscribers. Bear Stearns May Report, at 14; JP Morgan Aug. 19<sup>th</sup> Report at 155; Morgan Stanley July 10<sup>th</sup> Report, at 65. Bear Stearns estimates that as of year-end 2001, there were 3 million residential DSL subscribers, and Morgan Stanley estimates that as of year-end 2001, there were more than 3.3 million residential DSL subscribers. Bear Stearns May Report, at 14; Morgan Stanley July 10<sup>th</sup> Report, at 65.

<sup>130</sup> JP Morgan estimates that as of year-end 2001, there were 200,000 subscribers to satellite and wireless broadband technologies. Bear Stearns estimates that as of year-end 2001, there were 225,000 subscribers to satellite and wireless broadband technologies. Bear Stearns May Report, at 14; JP Morgan Aug. 19<sup>th</sup> Report, at 155.

<sup>131</sup> Many cable providers offer cable modem service through proprietary ISPs. See 2001 Report, 17 FCC Rcd 1266-67; see also *Inquiry Concerning High-Speed Access to the Internet Over Cable and Other Facilities, Internet Over Cable Declaratory Ruling, Appropriate Regulatory Treatment for Broadband Access to the Internet Over Cable Facilities*, CS Docket No. 02-52, GN Docket No. 00-185, Declaratory Ruling and Notice of Proposed Rulemaking (“*High-Speed Access Declaratory Ruling and NPRM*”), 17 FCC Rcd 4798 (2002).

<sup>132</sup> For example, Cablevision offers high-speed Internet access service under the brand Optimum Online only, and Charter offers high-speed Internet access services under the brand name Charter Pipeline only. Cox offers high-speed Internet access services under the brands Cox Express and Cox High Speed Internet, however, each system offers only one ISP to its subscribers.

AOL Internet service, as well several unaffiliated national or regional ISPs, including Earthlink.<sup>133</sup> Comcast, AT&T, and AT&T Comcasr (Comcast) have entered into an agreement with Microsoft." which provides that, for a specified period of time, if AT&T Comcasr offers a high-speed Internet service agreement to any third party on any of its cable systems, AT&T Comcast will be obligated to offer an Internet service agreement on non-discriminatory terms with respect to the same cable systems to Microsoft's ISP, The Microsoft Network ("MSN").<sup>135</sup> AT&T and Comcast have also agreed to carry the AOL ISP service on the combined AT&T and Comcast systems (Comcast), serving up to one-third of the MSO's subscribers." AT&T has already entered into contracts with several national or regional unaffiliated ISPs including EarthLink, and Comcast has entered into a contract with unaffiliated ISP. United Online."

47. As of year-end 2001, Cox had approximately 884,000 high-speed Internet access subscribers, and by June 2002, had approximately 1.1 million subscribers.<sup>138</sup> Analysts forecast that Cox could have as many as 1.3 million high-speed Internet access subscribers by the end of 2002.<sup>139</sup> As of year-end 2001, Comcast had 948,000 high-speed Internet access subscribers, and by June 2002, Comcast had approximately 1.2 million high-speed Internet access subscribers." As of year-end 2001, AT&T had approximately 1.5 million high-speed Internet access subscribers, and as of June 2002 AT&T had approximately 1.8 million subscribers." As of year-end 2001, Cablevision had 506,675 high-speed Internet access subscribers.<sup>142</sup> By June 2002, Cablevision had 610,505 subscribers.<sup>143</sup> As of year-end 2001, Charter had 607,700 high-speed Internet access subscribers and it expects that by year-end 2002 it will have as many as 1.25 million high-speed Internet access subscribers." As of June 2002, Charter had

<sup>133</sup> AOL Time Warner Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 10-11.

<sup>134</sup> See *AT&T-Comcast Merger Order*, fn. 54 *supra* at n.370.

<sup>135</sup> See *id.* This obligation applies for a period of five years following the spin-off of AT&T Broadband. *AT&T-Comcast Merger Application*, at 8. AT&T, Comcast, and Microsoft also agreed to a term sheet providing for a trial of an ITV platform including set-top box middleware. *Id.* at 8.

<sup>136</sup> In connection with the TWE Restructuring Agreement, AT&T and Comcast will enter into a three-year non-exclusive agreement with AOL Time Warner under which AOL high-speed Internet access service would be made available on AT&T Comcast cable systems. AT&T Corp. and Comcast Corp., *AOL Time Warner, AT&T and Comcast Agree to Restructure Time Warner Entertainment Partnership* (press release), Aug. 21, 2002.

<sup>137</sup> Prior to its merger with Comcast, AT&T entered into third-party ISP agreements with Galaxy Internet Services, Earthlink, NetIPplus, and Internet Central. See Letter From James R. Colharp, Senior Director, Public Policy, Comcast Corp. and Betsy J. Brady, Vice President, Federal Government Affairs, AT&T Corp., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 02-70 (Nov. 6, 2002), at 1. See also Letter from A. Renee Callahan, Lawler, Metzger & Milkman, LLC, to Marlene H. Dortch, Secretary, FCC, MB Docket No. 02-70 (July 2, 2002), at 19-20 (responding to Document and Information Request by the Chief, Industry Analysis Division, Media Bureau, FCC, (June 11, 2002)).

<sup>138</sup> Cox Communications, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 5; Cox Communications, Inc., *Cox Communications Summary of Operating Statistics*, at 13.

<sup>139</sup> Bear Stearns May Report, at 14.

<sup>140</sup> Comcast Reply Comments at 5; *AT&T-Comcast Merger Application*, at 12.

<sup>141</sup> AT&T Broadband, *AT&T Group Earnings Commentary: Fourth Quarter 2001*, Jan. 30, 2002 at 14; AT&T Broadband, *AT&T Group Earnings Commentary: Second Quarter 2002*, July 23, 2002, at 11.

<sup>142</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter 2001 Financial Results for Cablevision NY Group and Rainbow Media* (press release), Feb. 14, 2002.

<sup>143</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2002 Financial Results for Cablevision NY Group and Rainbow Media* (press release), Aug. 8, 2002.

<sup>144</sup> Charter Communications, Inc., *SEC Form 10-K for the Year-Ended December 31, 2001*, at 14.

905,500 high-speed Internet access subscribers.'" **As** of June 2002, AOL Time Warner had 2.5 million subscribers to its cable modem service.<sup>146</sup>

**48. As** we have reported in the past, a few cable operators offer Internet access services delivered through a television receiver rather than a personal computer.'" Many of these products are available on a stand-alone basis and can be used independently of a cable television subscription. Many, however, are co-marketed through the cable television provider.'" Nationwide providers of television-based Internet access services include Microsoft, which provides MSN-TV (formerly WebTV), Worldgate, and America Online, which provides AOLTV.<sup>149</sup>

**49. Telephone Services Offered by Cable Operators.** Since our last report, several cable operators have begun a test IP telephony in addition to the traditionally-deployed circuit-switched telephony.'" Most cable operators deploying IP telephony, however, are electing to deploy telephony as second-line service. Second-line service is not self-powered and thus does not guarantee that the telephone will function in the event of a power failure. In some cases second-line service is not connected to the customer's existing telephone wiring. Instead, customers are required to plug their telephone units into their cable modems and run their own wiring or elect to use wireless handset units in their homes.

**50. Cox and AT&T** continue to deploy circuit-switched cable telephony, and others, such as Cablevision, Comcast, and Charter offer circuit-switched cable telephony where it has already been deployed. Several MSOs, including AT&T, AOL Time Warner, Cox, Comcast, and Charter, are currently testing, or have commercially deployed IP telephony. **As** of June 2002, cable operators served approximately 2.1 million local residential IP and circuit-switched telephone customers.<sup>151</sup>

**51. AT&T and Cox** remain the leaders in the provision of primary-line, circuit-switched cable telephony. **As** of year-end 2001, Cos provided residential, facilities-based, circuit-switched cable telephony services in nine markets to nearly 500,000 subscribers nationwide.<sup>152</sup> **As** of June 2002, Cox had 578,321 subscribers.'" In addition, Cos is running an IP telephony trial in its Oklahoma City.

<sup>145</sup> Charter Communications, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2002*, at 16.

<sup>146</sup> AOL Time Warner, Inc., *SEC Form 10-Q for the Quarter Ended June 30, 2002*, at 12

<sup>147</sup> **2001 Repon**, 17 FCC Rcd at 1269

<sup>148</sup> For example, as of year-end 2001, Charter offered television-based Internet access using WorldGate to approximately 557,000 homes with over 9,000 subscribers, and offered advanced interactive television services using Digeo to more than 558,000 homes. Charter Communications, Inc., *SEC Form 10-K for the Year Ended December 31, 2001*, at 15; Charter Communications, Inc., *Digeo and Moxi Merge* (press release), Mar. 29, 2002.

<sup>149</sup> For an explanation of how the WebTV and Worldgate services operate, see **1998 Report**, 13 FCC Rcd at 24315-6.

<sup>150</sup> A circuit-switched cable telephony voice call and an IP telephony voice call both begin with special equipment that connects a household's twisted pair infrastructure with the cable infrastructure. Cable circuit-switched telephony, however, eventually turns the call over to traditional "circuit switched" processing, while IP telephony eventually turns the call over to the Internet for IP processing. IP telephony processes voice telephone calls much like data are processed on the Internet; that is, digitized pieces of data are divided into discrete packets and are transported over the Internet following any path that does not resist transfer. See **2001 Report**, 17 FCC Rcd at 1269.

<sup>151</sup> NCTA. **Telephone Services**, at <http://www.ncta.com>.

<sup>152</sup> Cox Communications, Inc., *Cox Communications Announces Fourth Quarter Financial Results for 2001* (press release), Feb. 17, 2002; Cox Communications, Inc., *Cox Timeline for Telephony* (news release), Apr. 16, 2002.

<sup>153</sup> Cox Communications, Inc., *Cox Communications Announces Second Quarter Financial Results for 2002* (press release), July 31, 2002.

Oklahoma system.'" AT&T offers its residential, facilities-based, circuit-switched telephony product in 16 markets. and as of June 2002, had over 1.2 million subscribers.'" AT&T has also been pursuing IP telephony solutions. As of July 2002, AT&T was conducting a hybrid circuit-switched-IP telephony trial in its Boulder, Colorado system.<sup>156</sup>

52. Other MSOs are also providing telephony in certain service areas. For example, Comcast provides primary-line circuit-switched telephony services to more than 40,000 subscribers in several of its systems, continuing telephone operations associated with certain cable systems it acquired in the last several years.'" In June 2002, Comcast announced that it has begun to install equipment for the initial deployment of residential, primary-line IP telephony service in the Philadelphia area, with plans to begin service in the second quarter of 2003.<sup>158</sup> Comcast has also announced its intention to deploy IP telephony in Detroit, though in October 2002, Comcast said that after consummation of its merger with AT&T, it plans to temporarily put any additional cable telephony plans on hold so that it can focus on rebuilding AT&T's basic cable subscribership.<sup>159</sup> As a result of its acquisition of certain AT&T cable systems, Charter Communications provides circuit-switched cable telephony to more than 17,600 subscribers.<sup>160</sup> Charter has been testing IP telephony in several field trials.<sup>161</sup> AOL Time Warner plans to launch IP telephony in 2003.<sup>162</sup> Cablevision offers limited facilities-based, residential circuit-switched telephony in New York to approximately 13,400 subscribers.<sup>163</sup>

## B. Direct-To-Home Satellite Services

### I. Direct Broadcast Satellite Services

53. DBS service is a nationally distributed subscription video service that delivers video and audio programming via satellite to a small parabolic "dish" antenna located at the viewer's home. To date, the Commission has licensed four companies to provide DBS service: DirecTV, EchoStar (marketed as the DISH Network), Dominion Video Satellite, Inc. (marketed as Sky Angel) and Cablevision's

<sup>154</sup> Morgan Stanley July 10<sup>th</sup> Report, at 69

<sup>155</sup> AT&T Comments at 16-17

<sup>156</sup> Morgan Stanley July 10<sup>th</sup> Report, at 69

<sup>157</sup> Comcast Corp., *Comcast Announces Plans For Residential Primary-Line IP Phone Service In Portion Of Philadelphia Market* (press release), June 27, 2002.

<sup>158</sup> *Id.*

<sup>159</sup> *AT&T-Comcast Merger Application*, at 38; In Detroit, Comcast is implementing a hybrid IP-circuit switched approach. In this approach, IP technology is used in the connection between the customer's home and the headend, after which the signal is conveyed and processed through Comcast's existing switch. See Letter from James L. Casserly, Mintz, Levin, Cohen, Ferris, Glovsky and Popeo, P.C., to Marlene H. Dortch, Secretary, FCC, MB Docket No. 02-70 (Aug. 20, 2002). David Lieberman, *Comcast Plans Focus on Cable Subscriptions*, *USA TODAY*, Oct. 29, 2002, at B3; Peter Thai Larsen, *Comcast Pledges to Stop "Churn."* *FINANCIAL TIMES*, Oct. 29, 2002, at 18

<sup>160</sup> Charter Communications, Inc., *SEC Form 10-Q for the Quarter-Ended June 30, 2002*, at 37

<sup>161</sup> Charter Communications, Inc., *Charter Communications and High Speed Access Corp. Announce Trial of True IP Switched Local Voice Service Over Cable* (press release), Dec. 14, 1999.

<sup>162</sup> Peter Grant, *More Consumers Answer Cable's Call on Phone Service*, *WALL STREET JOURNAL*, Sept. 5, 2002, at B1.

<sup>163</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter 2001 Financial Results for Cablevision NY Group and Rainbow Media Group* (press release), Feb. 14, 2002.

Rainbow DBS.<sup>164</sup> Three of these companies – DirecTV, EchoStar and Dominion -- currently provide service.<sup>165</sup>

54. Rainbow DBS is in the process of constructing a DBS satellite, "Rainbow 1 DBS," from which it expects to initiate service in December 2003.<sup>166</sup> Rainbow expects to deploy a spot-beam satellite and eventually use high-compression MPEG-4 technology to increase the amount of programming that can be distributed.<sup>167</sup> Rainbow states that its 11 allocated channels<sup>168</sup> can be used to deploy 21 spot beams capable of reaching 143 DMAs,<sup>169</sup> including 76 of the top 100 and 67 of the remaining 110.<sup>170</sup>

55. A potential new U.S. entrant, Compass Systems, Inc., a company 100% owned by Northpoint Technologies, Ltd., has filed an application for a construction permit for a DBS system and

<sup>164</sup> R/L DBS Company, L.L.C. ("Rainbow DBS") is a 100% wholly-owned subsidiary of Rainbow Media Holdings, Inc., the programming subsidiary of Cablevision Systems Corporation, and holds the license for 11 channels at the 61.5° W.L. orbital location. In March 2002, Rainbow Media Holdings, Inc. acquired Loral Space and Communications, Ltd.'s 50% interest in R/L DBS Company, LLC. This purchase increased Rainbow Media Holdings' ownership of R/L DBS to 100%. See Cablevision Systems Corp., *SEC Form 10-Q for the Quarterly Period Ended June 30, 2002*, at 1-6, Note 6. On December 28, 2000, the Commission granted a 36-month extension of time to R/L DBS to construct and launch a satellite. See *Petition of R/L DBS Company, L.L.C. For Extension of its Direct Broadcast Satellite Construction Permit*, 16 FCC Rcd 9, 10-11 (2001).

<sup>165</sup> Dominion is the licensee of eight channels at 61.5° W.L. orbital location. Dominion was issued a construction permit in 1982. Under a 1996 agreement, Dominion leased capacity on EchoStar's EchoStar III satellite for its eight licensed channels, six of which it has sub-leased to EchoStar, which uses them for Dish Network programming, and two of which it uses to transmit its Sky Angel services. See *Dominion Video Satellite, Inc. Application for Minor Modification of Authority to Construct and Launch and to Continue Construction and Launch of Planned Satellite at 61.5° W.L.; Application for Additional Time to Construct and Launch Direct Broadcast Satellites; Application for Launch Authority*, 14 FCC Rcd 8182 (1999) (granting Dominion authority to commence operation of a DBS service using EchoStar's EchoStar III satellite in the 61.5° W.L. orbital location). See also <http://www.skyangel.com>. Dominion plans to launch two satellites in the 2004-2005 timeframe. See The Carmel Group, *2002 DBS North America Databook ("2002 Carmel Report")*, at 247.

<sup>166</sup> See Cablevision Systems Corp. *SEC Form 10-K for the Year Ended December 31, 2001*, at 1-38-39. In December 2000, the International Bureau granted an extension to R/L DBS' construction permit, requiring it to commence service offerings no later than December 29, 2003. See *Petition of R/L DBS Company, LLC for Extension of its Direct Broadcast Satellite Construction Permit*, 16 FCC Rcd 9 (IB 2000).

<sup>167</sup> See Lener from Howard J. Symons, Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. on behalf of Cablevision and R/L DBS Co. to Marlene H. Donohue, Secretary, FCC. Attachment at 3-7 (Sept. 18, 2002).

<sup>168</sup> On March 26, 2002, Rainbow filed an application requesting authorization to use channels 23 and 24 at 61.5° W.L. See *Application of R/L DBS Company, LLC to Modify Existing DBS Authorization to Add Channels 23 and 24 at 61.5° W.L.* Currently, these channels are unassigned, but used by EchoStar pursuant to a grant of Special Temporary Authority ("STA"). See also *Direct Broadcast Satellite Corporation Application for Special Temporary Authority to Operate a Direct Broadcast Satellite over Channels 1-21 (odd) and 23-32 (odd and even) at 61.5° W.L.*, 13 FCC Rcd 6392 (IB 1998); *Direct Broadcast Satellite Corporation Application Authority of a Direct Broadcast Satellite, Application for Modification and Request for Special Temporary Authority to Test*, 13 FCC Rcd 10080 (IB 1998).

<sup>169</sup> Designated Market Areas ("DMAs") are used by Nielsen Media Research to identify TV stations whose broadcast signals reach a specific area. A DMA consists of all counties whose largest viewing share is given to stations of that same market area. Non-overlapping DMAs cover the entire contiguous 48 states, Hawaii, and parts of Alaska. There are currently 210 DMAs throughout the United States. See <http://www.nielsenmedia.com/FAQ/index.html>.

<sup>170</sup> *Id*

for authorization for a terrestrial platform in the DBS frequencies ("Southpoint Application")." The Southpoint Application has four parts: (1) an application for authority to construct a DBS system; (2) a request for the Commission to exercise its discretion to grant immediately an "interim assignment" of unassigned DBS channels at each of the U.S. DBS positions of 166° W.L. and 157° W.L. for the applicant's proposed DBS satellites;<sup>172</sup> (3) a request for immediate authorization of a multichannel video and broadband service through an "integrated terrestrial platform" located in the United States; and (4) a discussion of future plans for providing DBS service to the United States, Canada, and Mexico and for providing fixed satellite service to other nations.

56. **Foreign-licensed Satellites Seeking Access to the U.S. Market for DBS and DTH.** The Commission has several requests from foreign-licensed satellite operators seeking access to the U.S. market to provide DBS and DTH services." On April 25, 2002, SES Americom filed an application to provide service in the United States using a satellite licensed by Gibraltar at the 105.5° W.L. orbital location." SES Americom states that its service, Americom2Home, will offer a platform on which a variety of content providers can lease capacity to offer programming directly to consumers, as opposed to directly offering retail services to consumers."

57. There are also two pending requests to use a Canadian-licensed satellite to provide DBS and DTH services in the United States. The first is Digital Broadband Applications Corp. ("DBAC"). DBAC filed its application on January 8, 2002, for authority to operate earth stations to communicate with the Canadian-licensed DBS space stations Nimiq at 82° W.L. orbital location and Nimiq 2 at 91° W.L. orbital location. DBAC proposes to offer interactive two-way broadband video and data services in the United States. The second applicant is WSN Net Holdings, Inc. ("WSN Net"), which filed its application on November 21, 2001. WSN Net requests authority to operate earth stations that will communicate with both Nimiq satellites to provide DBS in the United States.

58. **Subscribership.** DBS has become the largest competitor to cable in the MVPD market. DBS subscribership grew by almost 13% from approximately 16.1 million subscribers as of June 30,

<sup>171</sup> See Application of Compass Systems, Inc. for Authority to Construct an International Direct Broadcast Satellite System (filed Mar. 20, 2002).

<sup>172</sup> The 157° W.L. orbital position is a non-full continental United States ("CONUS") slot with 32 unassigned frequencies. The 166° W.L. orbital location is a non-full CONUS slot and has 32 frequencies, eight of which have been assigned to R/L DBS. The 101° W.L., 110° W.L. and 119° W.L. orbital locations have 32 frequencies each and are the only slots with what the Commission considers full CONUS coverage. Currently, EchoStar and DirecTV have been assigned all full CONUS Frequencies. EchoStar is assigned 29 frequencies at 110° W.L. and 21 frequencies at 119° W.L. DirecTV is assigned 32 frequencies at 101° W.L., three frequencies at 110° W.L., and 11 frequencies at 119° W.L.

<sup>173</sup> These requests will be evaluated under the framework established in *DISCO II. See Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Satellites Providing Domestic and International Service in the United States*, 12 FCC Rcd 24094 (1997) (DISCO II). Because the United States exempted DBS from its commitment in the World Trade Organization Basic Telecommunications Agreement, this evaluation includes an analysis of the effective competitive opportunities U.S. satellite operators have in the country licensing the foreign satellite (the "ECO-SAT test"), in addition to a technical/interference analysis. The United States does not require the foreign DBS satellite to acquire a separate and duplicative U.S. license for the satellite. The Commission requires foreign-licensed companies to file for authority to "land" their signals by seeking an earth station license or to file a petition for declaratory ruling to provide service to earth stations in the United States.

<sup>174</sup> File No. SAT-PDR-20020425-00071.

<sup>175</sup> SES Americom Reply Comments at 2. See also SES Americom, Inc., *SES Americom Files FCC Petition for New Satellite Television and Internet Platform* (press release), Apr. 25, 2002. According to SES, the Americom2Home system could be operational as early as 2004. *Id.*

2001 to approximately 18.2 million subscribers as of June 31, 2002.<sup>176</sup> EchoStar and DirecTV subscribers comprise 20.3% of total MVPD households." Analysts believe that **DBS** industry growth is attributed to reductions in the price of hardware, low- or no-cost installation promotions: and aggressive program marketing.<sup>178</sup> Analysts are projecting a consolidated annual growth rate for the DBS industry of 7–8% from 2002 to 2008.<sup>179</sup>

59. DirecTV is the nation's leading DBS operator, and third largest MVPD provider. reporting approximately 10.7 million subscribers as of the end of June 2002, an increase of just over 10% from the 9.6 million subscribers reported as of June 30, 2001.<sup>180</sup> EchoStar is the second largest DBS provider, and sixth largest MVPD overall. with 7.6 million subscribers as of July 30, 2002.<sup>181</sup> Dominion's Sky Angel service is a self-described Christian and family-oriented DBS service, offering 20 video and 16 radio channels for \$9 a month.<sup>182</sup> Although Dominion's transponders are currently located on an EchoStar satellite. Sky Angel subscribers must use a separate dish antenna to receive DISH Network programming." Sky Angel does not repon its subscriber numbers on an annualized basis. but one analyst estimates that Sky Angel is distributed to over one million subscribers."

60. According to one study, in overall customer satisfaction performance, DirecTV ranked highest among 14 major providers of satellite and cable TV services nationwide, achieving a score 18 index points higher than the cable TV service average." EchoStar ranked second in the study." According to the SBCA, 57% of DBS households have subscribed to cable previously. an increase from

<sup>176</sup> SkyRepon. *National DTH Counts July 2001 to July 2002*, at [http://www.skyreport.com/dth\\_counts.shtml](http://www.skyreport.com/dth_counts.shtml). See also SBCA Reply Comments at 6. Table I.

<sup>177</sup> See Appendix B, Table B-1 *infra*.

<sup>178</sup> Kagan World Mrdia, Inc.. *The State of DBS 7002* ("DBS Databook"). Nov. 2001, at 13

<sup>179</sup> See 2002 Carmel Repon at 8. See also Douglas Shapiro, Michael Savner, and Jeffrey Toohig. *Equity Research. Initiating Coverage of DBS Sector*, Banc of America Securities. Scpt. 19, 2002, at 3, Figure 1.

<sup>180</sup> DirecTV Comments at 11. DirecTV has entered into an exclusive distribution relationship in certain territories with the National Rural Telecommunications Cooperative ("NRTC") which acquires and supports subscribers. The NRTC, its panner Pegasus, and several smaller resellers are reponed to account for approximately 1.75 million subscribers of the 10.74 million total reponed by DirecTV. See Hughes Electronics Corporation, *Hughes Second Quarter 2002 Results Driven by Strong DirecTV U.S. Financial Performance* (press release). July 15, 2002. DirecTV stales that, compared to cable subscribers. DBS subscribers are more likely to live in single family homes. and more likely to live in rural areas. DirecTV Comments at 12. DirecTV states that approximately 55% of DirecTV's subscribers (including those of distributor NRTC) live in larger urban areas. defined by A.C. Nielsen as "A" counties (those counties in the 21 largest metropolitan areas) and "B" counties (all counties with more than 85,000 households under 1990 Census that are nor included as "A" counties), and 45% live in smaller. rural counties. *Id.* at 12–14.

<sup>181</sup> SkyReport, *National DTH Counts July 2001 to July 2002*, at [http://www.skyreport.com/dth\\_counts.shtml](http://www.skyreport.com/dth_counts.shtml).

<sup>182</sup> Sky Angel, at <http://www.skyangel.com/HTML%20Site/Body%20Pages/FAQ/faq.htm>.

<sup>183</sup> *Id.*

<sup>184</sup> 2002 Carmel Repon at 245.

<sup>185</sup> J.D. Power and Associates, *J.D. Power and Associates Reports: Satellite TV Grows in Consumer Popularity. Cable Service Sees Slight Decline* (press release). Sept. 5, 2002. DirecTV ranked highest in all six categories studied: cost of service, credibility/billing, program offerings. equipment and service capabilities, customer service, and reception quality.

<sup>186</sup> *Id.*

48% in 2000.<sup>187</sup> Three percent of DBS households also concurrently subscribe to cable, the most common reason being to have access to local broadcast stations that are not offered via satellite.<sup>188</sup>

**61. Availability of Local Broadcast Stations.** DBS operators continue to expand their delivery of local broadcast television stations in their local markets (“local-into-local service”).<sup>189</sup> As of December 2002, DirecTV offered subscribers in 51 DMAs a \$5.99 per month package of local broadcast stations including commercial and noncommercial stations.<sup>190</sup> As of December 2002, EchoStar also offers a similar package of commercial and noncommercial broadcast stations for \$5.99 per month in 52 DMAs.<sup>191</sup> EchoStar and DirecTV also make available to customers who are not within a DMA where

<sup>187</sup> SBCA Comments at 6.

<sup>188</sup> *Id.*

<sup>189</sup> As required by the Satellite Home Viewer Improvement Act of 1999 (“SHVIA”), the Commission established rules to implement carriage of broadcast signals, retransmission consent, and program exclusivity with respect to satellite carriage of broadcast stations. SHVIA provides DBS carriers with the opportunity to carry local stations in a DMA pursuant to a statutory copyright license similar to the one provided cable operators. If a DBS operator selects this option in a DMA, however, effective January 1, 2002, it must carry all the local stations in the DMA that request carriage pursuant to the Commission’s rules. See 47 C.F.R. §76.66. See *Implementation of the Satellite Home Viewer Improvement Act 1999: Broadcast Signal Carriage Issues, Retransmission Consent Issues*, 16 FCC Rcd 1918 (2000); *Implementation of the Satellite Home Viewer Improvement Act of 1999: Broadcast Signal Carriage Issues*, 16 FCC Rcd 16544 (2001); *Implementation of the Satellite Home Viewer Improvement Act of 1999: Retransmission Consent Issues: Good Faith Negotiation and Exclusivity*, 16 FCC Rcd 15599 (2001). The satellite industry challenged and sought review of the Commission’s Order implementing the statute and appealed a June 19, 2001, judgment of the United States District Court for the Eastern District of Virginia, which granted the government’s motion to dismiss their complaint challenging the SHVIA. On December 7, 2001, the United States Court of Appeals for the Fourth Circuit denied the petitions for review and affirmed the District Court’s opinion. See *DirecTV, EchoStar, SBCA v. FCC & USA*, No. 01-1151 (Fourth Circuit). See also *Satellite Broadcasting and Communications Association v. FCC*, No. 01-1151 et al (4<sup>th</sup> Cir. 2001). The Supreme Court declined to review the 4<sup>th</sup> Circuit’s opinion. See *Satellite Broadcasting Communications Assoc v. FCC*, 215 F.3d 337 (4<sup>th</sup> Cir. 2001), *cert denied*, 122 S. Ct. 2588 (2002).

<sup>190</sup> See SkyReport, *Local TV Channels Available by Satellite: Available on DirecTV and EchoStar’s DISH Network*, at <http://www.skyreport.com/local.shtm> (visited Oct. 4, 2002). DirecTV consumers in Hanford, Connecticut; Las Vegas, Nevada; Providence, Rhode Island; Buffalo, New York; Grand Rapids, Michigan; Knoxville, Tennessee; Norfolk, Virginia; Oklahoma City, Oklahoma; New Orleans, Louisiana; and Jacksonville, Florida markets need a special set-top receiver and an 18 x 24-inch, oval shaped satellite dish to access local channels from DirecTV’s satellite at the 119° W.L. orbital location. SBCA Comments at 6: DirecTV, Inc., *Local Channels Availability*, at <http://www.directv.com/DTVAPP/LocalChannelAction.do>.

<sup>191</sup> See DISH Network, Inc., at <http://www.dishnetwork.com/content/programming/locals/index.shtml>. EchoStar uses its CONUS satellites to deliver signals of local commercial and noncommercial broadcast stations to subscribers. Any remaining stations in a market not carried on CONUS satellites are carried on EchoStar’s secondary satellites, operating from 61.5° W.L. and 148° W.L. orbital locations. In order to receive these local stations from EchoStar’s secondary satellites, subscribers are required to obtain and install additional equipment, including a second dish antenna. As of August 23, 2002, EchoStar reported that it had received 116,348 second dish requests from subscribers, 100,880 of which have been installed, with 15,468 requests outstanding. See EchoStar’s Local Station Carriage Compliance Plan: 150 Day Report. CSR-5865-Z (filed Sept. 3, 2002). See also *National Association of Broadcasters and Association of Local Television Stations; Request for Modification or Clarification of Broadcast Carriage Rules for Satellite Carriers (“Two-Dish Order”)*, 17 FCC Rcd 6065, 6081, 6084 (MB 2002), *recon. pending*. EchoStar has launched two satellites, EchoStar VI and EchoStar VII, both of which it reports have allowed it to transition some markets from a two-dish to a single-dish local-into-local service offering and to introduce several new markets with a single dish solution. The lawfulness of EchoStar’s two-dish approach is on review. See Applications for Review, *Two-Dish Order*, filed by WLNY-TV Inc. and Golden Orange Broadcasting Co. (May 3, 2002), Association of Public Television Stations and the Public Broadcasting Service (May 6, 2002), and Paxson Communications Corporation (May 6, 2002).

EchoStar carries local broadcast stations a Distant Broadcast Network package including ABC, CBS, NBC, FOX and PBS.<sup>192</sup> Of the 210 DMAs, local-into-local service is offered by at least one DBS operator in 62 markets. In 41 of those markets, local-into-local service is offered by both EchoStar and DirecTV. SBCA claims that, taken together, EchoStar and DirecTV offer local-into-local service to approximately 67% of U.S. television households.” EchoStar states that the addition of local channels has made DBS more competitive with incumbent cable providers and has led to an increase in DBS subscribership and a restraint on cable prices.” DirecTV reports that, as of June 30, 2002, over 60% of all residential customers took local programming packages (where available), an increase of 13 percentage points from the 47% it reported last year.”

62. **EchoStar-Hughes Merger.** On December 3, 2001, the Commission received the application (the “Application”)<sup>196</sup> of EchoStar, General Motors Corporation (“GM”), and Hughes Electronics Corporation (“Hughes”) (collectively, the “Applicants”) for consent to transfer control of various Commission authorizations, including DBS and fixed satellite space station authorizations, earth station authorizations, and other related authorizations held by their wholly- or majority-owned subsidiaries to EchoStar (“New EchoStar”). The proposed transaction involved the split-off of Hughes from GM, followed by the merger of the Hughes and EchoStar companies. The proposed merged entity, New EchoStar, would have a new ownership structure and would have continued to provide DBS subscription television service under the DirecTV brand name. The proposed merger would have combined operations of the two major DBS providers in the United States – EchoStar and Hughes’ DirecTV – into a single entity.”

63. On October 9, 2002, the Commission declined to approve the transfer of licenses from EchoStar and Hughes Electronics to New EchoStar and designated the application for a full evidentiary hearing before an Administrative Law Judge.<sup>198</sup> The Commission found that EchoStar and Hughes failed

<sup>192</sup> See DISH Network, Inc., *Distant Broadcast Networks*, <http://www.dishnetwork.com/content/programming/locals/index.shtml> (visited Oct. 4, 2002). See DirecTV, Inc., at <http://www.directv.com/dtvapp/learn/NonLocalFeed.jsp>.

<sup>193</sup> SBCA Comments at 6.

<sup>194</sup> EchoStar Comments at 5.

<sup>195</sup> DirecTV Comments at 13. See also 2001 Report, 17 FCC Rcd at 1273-74.

<sup>196</sup> See *Consolidated Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transfers, and EchoStar Communications Corporation. Transfer of Authority to Transfer Control, Dec. 3, 2001 (“December 2001 Filing”)*; Letters to William F. Caton, Acting Secretary, Federal Communications Commission from Pantelis Michalopoulos, Counsel for EchoStar and Gary Epstein, Counsel for Hughes providing information pursuant to Section 1.65 of Commission Rules, filed Dec. 18, 2001 and Feb. 21, 2002 (“December 2001 Amendment Letter” and “February 2002 Amendment Letter”). The term, “Application,” includes the *December 2001 Filing, December 2001 Amendment Letter*, and *February 2002 Amendment Letter*.

<sup>197</sup> EchoStar and Hughes also submitted a joint application requesting authority to launch and operate NEW ECHOSTAR 1, a direct broadcast satellite that would be located at the 110° W.L. orbital location (the “Satellite Application”). See *EchoStar Satellite Corporation and Hughes Electronic Corporation. Application for Authority to Launch and Operate NEW ECHOSTAR 1 (USABBS-16)*, S2435. File No. SAT-LOA-20020225-00023 (Feb. 25, 2002); Letter to William F. Caton, Acting Secretary, Federal Communications Commission from Pantelis Michalopoulos, Counsel for EchoStar, and Gary Epstein, Counsel for Hughes, providing supplemental Technical Annex (Mar. 28, 2002); and Letter to Marlene H. Donch, Secretary, Federal Communications Commission from Pantelis Michalopoulos, Counsel for EchoStar, and Gary Epstein, Counsel for Hughes (providing complete copy of supplemental Technical Annex) (May 30, 2002).

<sup>198</sup> See fn. 21 *supra*. Section 309(e) of the Communications Act provides that if the FCC “for any reason” is unable to make a finding under Section 309(a) that the public interest would be served by the granting of a license transfer application, then “it shall formally designate the application for hearing on the ground or reasons then obtaining.” See EchoStar-Hughes HDO ¶ 289 for list of issues designated for hearing.

to meet their burden of proof to show that, on balance, the proposed merger is in the public interest, and found that the record indicates that substantial potential public interest harms may result from the transaction.<sup>199</sup> In its order, the Commission stated that the record demonstrated that the proposed transaction would eliminate a current viable competitor from every market in the country, whether those markets are served by cable systems or are markets in which no cable systems exist, at best resulting in a merger to duopoly, and at worst a merger to monopoly.” The Commission’s analysis of the potential competitive harms to the MVPD market indicated that the proposed merger would significantly increase concentration in an already concentrated market, and thus the merger should be presumed to create or enhance market power or facilitate its exercise, substantially reduce competition, and harm consumers.” Based on these and other conclusions, the Commission was unable to find that the public interest, convenience and necessity would be served by approving the transfer of control to New EchoStar of the licenses and authorizations controlled by GM/Hughes, DirecTV and EchoStar.<sup>202</sup>

64. On October 31, 2002, the United States Department of Justice filed a civil action in US District Court to enjoin the merger of EchoStar and Hughes.” The Department of Justice alleged that the proposed acquisition would cause significant harm to competition in numerous local markets for MVPD services throughout the United States, creating a monopoly for millions of households, and a duopoly for tens of millions of households.” DOJ also alleged that the merger would lead to higher prices and lower service quality for approximately 95% of U.S. television households that would be the case absent consummation of the merger.”

65. On November 27, 2002, the Applicants submitted an amendment to their applications to ameliorate the competition concerns identified in the HDO.<sup>206</sup> The Applicants requested that the Commission approve their merger contingent on the execution of a divestiture agreement that would include the divestiture of licenses and assignment of rights to certain frequencies to Rainbow.” The Applicants also requested that the hearing be suspended pending review of the amended application.<sup>208</sup>

<sup>199</sup> *Id.* ¶ 275.

<sup>200</sup> *Id.*

<sup>201</sup> *Id.* ¶¶ 104–187

<sup>202</sup> *Id.* ¶ 289.

<sup>201</sup> United States vs. EchoStar Communications Corp., Hughes Electronics Corp., General Motors Corp., and DirecTV Enterprises, Inc., No. 1:02CV02138 (D.C. filed Oct. 31, 2002).

<sup>204</sup> *Id.* at 6

<sup>205</sup> *Id.*

<sup>206</sup> See EchoStar-Hughes HDO ¶ 295

<sup>207</sup> See Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transferors, and EchoStar Communications, transferee, For Authority to Transfer Control: Application of EchoStar Satellite Corporation and Hughes Electronics Corporation for Authority to Launch and Operate NEW ECHOSTAR 1 (USABBS-16), Amendment to Consolidated Application for Authority to Transfer Control (Nov. 27, 2002). See also EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation File Amendment to Transfer of Control, Public Notice, DA 02-3358 (Dec. 4, 2002).

<sup>208</sup> Application of EchoStar Communications Corporation, General Motors Corporation, Hughes Electronics Corporation, Transferors, and EchoStar Communications, transferee, For Authority to Transfer Control: Application of EchoStar Satellite Corporation and Hughes Electronics Corporation for Authority to Launch and Operate NEW ECHOSTAR 1 (USABBS-16), Petition for Suspension of Hearing (Nov. 27, 2002).

On December 10, 2002, the Applicants notified the Commission that they had agreed to terminate the proposed merger and asked to have their applications withdrawn and the hearing **terminated**.<sup>209</sup>

## 2. **Satellite-Based** Advanced Services

66. **Broadband Satellite Services.** Last year, we reported that both DirecTV and EchoStar offered two-way Internet access services to their subscribers.<sup>210</sup> DirecTV offers one-way and two-way Internet service under the brand name DirecWay.<sup>211</sup> As of June 30, 2002, DirecWay had over 123,000 residential and small office/home office subscribers in North America, compared to 74,000 one year ago.<sup>212</sup> EchoStar previously offered satellite-based Internet services through its investment in Starband, in conjunction with satellite operator Gilat, but, in April 2002, EchoStar ended its joint marketing and operations agreement with Starband.<sup>213</sup> Starband entered into bankruptcy protection in June 2002.<sup>214</sup> Starband has approximately 40,000 customers.\*”

67. According to the SBCA, economic conditions have hindered the development of consumer-based satellite high-speed services.<sup>216</sup> EchoStar questions whether under current economic conditions any stand-alone DBS provider can realistically provide an affordable, competitive, satellite-based, two-way high-speed Internet broadband service to residential customers.”

68. **High-Definition Television.** DirecTV and EchoStar provide subscribers with high-definition television (“HDTV”) programming. DirecTV offers three channels of high definition

<sup>209</sup> Lener from Gary M. Epstein, Counsel for Hughes Electronics Corporation and General Motors Corporation and Pantelis Michalopoulos, Counsel for EchoStar Communications Corporation, to Marlene H. Dortch, Secretary, FCC (Dec. 10, 2002).

<sup>210</sup> 2001 Report, 17 FCC Rcd at 1275.

<sup>211</sup> Hughes Electronics Corporation introduced one-way high-speed Internet access in 1997 under the DirecPC brand name. The return path is provided via dial-up modem. It launched a two-way version in December 2001, allowing consumers to receive and send data via the dish antenna. Hughes also sold DirecDuo, a single dish antenna capable of supporting high-speed Internet access and video programming from DirecTV. In August 2002, Hughes introduced the DirecWay brand, folding one- and two-way DirecPC products and the DirecDuo product under this single brand name. Some retailers continue to use the DirecPC and DirecDuo product names in their marketing promotions and advertisements. See <http://www.hughes.com/consumer/directway.xml> and <http://www.directv.com/directway.com/directpc.com>. DirecTV also offers Internet access through its DirecTV Broadband affiliate, DirecTV DSL. See DirecTV Broadband, Inc., at <http://www.DirecTVdsl.com>.

<sup>212</sup> SBCA Comments at 9.

<sup>211</sup> See EchoStar Communications Corp., *SEC Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Act of 1934 for the Period Ended June 30, 2002*, at 9.

<sup>214</sup> Andy Pasztor, *EchoStar Will No Longer Offer Web Via Satellite*, WALL STREET JOURNAL, Apr. 5, 2002, at B5. See also Starband Communications, Inc., *Starband Files for Chapter 11; Gilat Commits Interim Financing* (press release), June 3, 2002.

<sup>215</sup> Starband Communications, Inc., *Starband Wraps Up 2001 as America's Leading Consumer Satellite Internet Provider* (press release), Jan. 7, 2002.

<sup>216</sup> SBCA Comments at 9.

<sup>217</sup> EchoStar Comments at 7.

programming: HDNet,<sup>218</sup> HBO's HBO HD, and Showtime's SHO HDTV.<sup>219</sup> EchoStar carries seven channels of HD programming: HBO HD, SHO HDTV, CBS.<sup>220</sup> Discovery HD Theater, Dish-On-Demand Pay-Per-View in HDTV format, and an HDTV demo channel." According to the SBCA, DBS providers are working to meet the voluntary milestones set by Commission Chairman Powell in April, 2002.<sup>222</sup>

69. **Emerging Services.** In early 2002, EchoStar introduced a channel called Dish Home, which acts as a "portal" for all Dish Network interactive channels, such as customer support services, including account review and bill payment, entertainment, games, sports, and news and weather information." All navigation is controlled by the remote control. Certain functions, such as bill payment, require a phone line connection." DirecTV is conducting trials of SVOD service with StarZ Encore Group, providing a small catalogue of programming accessible via a DirecTV set-top box with a TiVo PVR built in. The programming is automatically downloaded to the PVR's hard drive and can be accessed at any time by the customer."

70. **Access to Programming.** On June 13, 2002, the Commission adopted an Order extending for five years, until October 5, 2007, the statutory prohibition on exclusive contracts for satellite-delivered cable or satellite-delivered broadcast programming between cable operators and their affiliated programmers.<sup>226</sup> In the Order, the Commission rejected requests to expand the prohibition to terrestrially delivered programming or non-vertically integrated programming." SBCA states that,

<sup>218</sup> HDNet is a national, all-high-definition television network broadcasting 16 hours a day, seven days week, offering a wide range of entertainment and sports programming.

<sup>219</sup> To receive DirecTV's HDTV service, subscribers must purchase either an HDTV set with a built-in DirecTV receiver, or a separate decoder box, and a second satellite dish that is capable of receiving the signals. See DirecTV, *High Definition Television Programming from DirecTV*, at <http://www.DirecTV.com/DTVAPP/Imagine/HDTV.jsp>.

<sup>220</sup> EchoStar carries the high definition signal of WCBS in New York and KCBS in Los Angeles. To qualify to receive these signals, in addition to subscribing to a local-inlo-local programming package, the customer must live in one of the 17 market areas served by the CBS owned and operated stations and the customer must not be in range of the signals of a CBS affiliate from a nearby city. See EchoStar Communications Corp., at <http://www.dishnetwork.com/content/programming/locals/cbshd/index.shtml>.

<sup>221</sup> EchoStar Communications Corp., at <http://faq.dishnetwork.com>. EchoStar subscribers must use certain set-top boxes and they need a second dish antenna pointing to EchoStar's satellite at 61.5° W.L. orbital location. In addition, EchoStar charges \$7.99 per month to subscribe to Discovery HD Theater and requires the use of EchoStar's \$499 Model 6000 HDTV receiver, and EchoStar's \$99 "Enhanced HD Adapter."

<sup>222</sup> SBCA Comments at 9. On April 4, 2002, Commission Chairman Michael Powell proposed that by January 3, 2003, DBS providers carry the signals of up to five digital programming services that are providing value-added digital programming during at least 50% of their prime time schedule. See *Voluntary DTV Plan*, fn. 119 *supra*.

<sup>223</sup> Steve Caulk, *EchoStar's Portal Sees Quiet Success*, ROCKY MOUNTAIN NEWS, Aug. 19, 2002, available at [http://216.239.51.100/search?q=cache:A3CF4zUnmPcC:www.rockymountainnews.com/drmn/technology/article/0.1299,DRMN\\_49\\_1333908.00.html+EchoStar%27s+Portal&hl=en&ie=UTF-8](http://216.239.51.100/search?q=cache:A3CF4zUnmPcC:www.rockymountainnews.com/drmn/technology/article/0.1299,DRMN_49_1333908.00.html+EchoStar%27s+Portal&hl=en&ie=UTF-8). Access to the service is dependent upon the type of set-top box used by the customer. EchoStar charges a fee for access to certain content. For example, games cost 64.99 per month for unlimited access. See also EchoStar Communications Corp., *EchoStar to Launch New Interactive TV Features Offering Games, Movie Reviews and Customer Support for Dish Network Satellite TV Customers* (press release), Jan. 9, 2002.

<sup>224</sup> See EchoStar, *Dish Home*, at [http://www.dishnetwork.com/content/technology/itv/dish\\_home/index.shtml](http://www.dishnetwork.com/content/technology/itv/dish_home/index.shtml).

<sup>225</sup> See DirecTV, *DirecTV to Test StarZ On Demand SVOD Service on DirecTV Receivers with TiVo* (press release), May 23, 2002.

<sup>226</sup> *Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Development of Competition and Diversity in Video Programming Distribution. Section 628(c)(5) of the Communications Act ("Program Access Order")*, 17 FCC Rcd 12124 (2002). See ¶ 140 *infra*.

<sup>227</sup> See *id.* at 12126.

although the five year extension on program access rules will result in increased competition and continued growth of consumer choice, by not extending the prohibition to terrestrially-delivered programming, vertically-integrated cable companies will continue to circumvent the program access rules by switching the delivery of their programming away from satellite to terrestrial-only means.” SBCA states that 43% of new DBS subscribers named “more channels” as an important reason for choosing DBS as their multichannel video provider. and, if it were not for vertically integrated companies withholding “highly-desirable regional programming,” DBS could become an even stronger competitor to cable.” DirecTV argues that technological advances that have diminished the costs of delivering programming terrestrially, coupled with the efforts of cable MSOs to cluster or trade their systems to form broad, contiguous service areas, have created an environment in which terrestrial distribution has become a more viable method of delivering regional and national programming from production facilities to cable headends.<sup>230</sup> DirecTV urges the Commission to monitor the effects of terrestrial distribution of vertically-integrated programming by cable operators. EchoStar argues that the “terrestrial loophole” be eliminated either by regulation or an act of Congress.” NCTA disputes the notion of a “terrestrial loophole” and suggests that DirecTV and EchoStar each have the resources and subscriber base to develop their own basic and premium programming, both for their own use and for sale to other MVPDs.<sup>232</sup>

### 3. Home Satellite Dishes

71. The home satellite dish (“HSD”) or C-band segment of the satellite industry continues to experience a decline in subscribership.<sup>233</sup> Between June 30, 2001, and June 30, 2002, C-band subscribership fell from 1,000,074 subscribers to 700,641 subscribers, a decline of over 30% with an average loss of close to 27,000 subscribers per month.<sup>234</sup> SBCA states that the pace of de-authorizations of C-band service is slowing and satellite programmers are committed to offering programming to this sector.<sup>235</sup> Motorola has introduced two new set-top boxes that enable C-band subscribers to access up to

<sup>228</sup> SBCA Comments at 17. See also DirecTV Comments at 10; EchoStar Comments at 10-11.

<sup>229</sup> SBCA Comments at 17. SBCA states that in Philadelphia, Comcast, which owns sports teams and related programming properties, uses terrestrial delivery of that programming to prevent DBS companies from showing local team sports programming, resulting in a less competitive market in Philadelphia, where DBS penetration is 3.9%, or half of the rest of the top twenty DMAs where it is 9.3% on average. *Id.* at 17-18; EchoStar Comments at 10-11 and n.24. Comcast counters EchoStar stating that: (1) as compared to Philadelphia, DBS penetration is no higher in several other major markets including San Diego and Boston, where there is no terrestrially-delivered, cable affiliated regional sports network, than it is in Philadelphia; (2) the two-year growth rate for DBS in Philadelphia (131%) is the highest of any top 10 market; and (3) the three-year DBS growth rate in Philadelphia (217%) is the third-highest of the top 39 DMAs. Comcast Reply Comments at 21, n.80.

<sup>230</sup> DirecTV Comments at 10.

<sup>231</sup> EchoStar Comments at 11.

<sup>232</sup> NCTA Reply Comments at 14.

<sup>233</sup> C-band subscribers generally have access to approximately 30 satellites, accessible using a rotational dish antenna. Numerous programmers offer varying packages of programming, but generally there are over 600 channels of video and audio programming, with approximately 200 of them available free of charge. For a list of the type of programming available via C-band, including many of the more popular cable networks as well as national broadcast feeds, see Motorola 4DTV, at <http://www.4dtv.com/Programming/programming.html>.

<sup>234</sup> SkyReport, *National DTH Counts June 2001 - June 2002*, at [http://www.skyreport.com/dth\\_counts.htm](http://www.skyreport.com/dth_counts.htm). See also SBCA Comments at 8, Table 1.

<sup>235</sup> SBCA Comments at 7. The spokesman for SuperStar/Netlink Group and Turner Vision, a major C-band operator, stated that he believes that C-band subscriptions will bottom out between 300,000 and 400,000 subscribers, although he provided no time frame for this to happen. SATELLITE NEWS, *Big Dishes Diminish*, Aug. 12, 2002, at <http://www.tripled.com/sattimes/sattimes.htm> (visited Oct. 3, 2002).

200 channels of digital programming in addition to the 300 or more analog channels currently available to them.<sup>236</sup> C-band subscribers also now have access to high-speed Internet services. In September, 2002, Skyvision, Inc. and Internet Satellite Platform, Inc. announced the formation of CbandNet, a high-speed Internet service, offering monthly service packages ranging in price from \$29.95 to \$44.95.<sup>237</sup> There are now four remaining C-Band programming distributors. Gemstar-TV Guide Superstar/Netlink Group. DSI Distributing, Satellite Receivers, Ltd.. and the NRTC.<sup>238</sup>

### C. Wireless Cable Systems

72. Multipoint distribution service ("MDS") and instructional television fixed service ("ITFS") are authorized to operate in the 2.5-2.69 GHz band. In addition, MDS entities have licenses in the 2.15-2.162 GHz band. Wireless cable systems combine multiple MDS (*i.e.*, multichannel MDS) frequencies and ITFS frequencies to transmit video programming and high-speed Internet access to residential subscribers in limited areas. This delivery technology is also known as multichannel multipoint distribution service ("MMDS").

73. In 1998, the Commission released the *Two-Way Order* permitting MDS/ITFS licensees to construct digital two-way systems that could provide high-speed, high-capacity broadband service, including two-way Internet service via cellularized communication systems.<sup>239</sup> In 2001, the Commission adopted a *First Report and Order and Memorandum Opinion and Order* in the New Advanced Wireless Services proceeding, which made the spectrum used by MMDS services potentially available for advanced mobile and fixed terrestrial wireless services, including third-generation ("3G") and future generations of wireless systems.<sup>240</sup> The Commission decided not to relocate the existing licensees or otherwise modify their licenses. The Commission recognized that it would have to explore the service rules that would apply to permit mobile operations in the 2.5-2.69 GHz band in a separate, future proceeding. On October 17, 2002, the Wireless Telecommunications Bureau sought comment on an industry proposal requesting further rule changes to facilitate provision of two-way fixed and mobile services, while allowing others to continue to provide one-way video services.<sup>241</sup>

<sup>236</sup> Motorola, Inc., *Motorola's 4DTV Digital Sidecar Provides System Upgrade for C-band Subscribers* (press release), Apr. 12, 2002. See also Motorola 4DTV, <http://www.4dtv.com/Products/products.html> (visited Oct. 3, 2002). Motorola offers a stand-alone set-top box functioning as both analog and digital receiver and a so-called side-car set-top box which adds digital functionality to existing analog receivers. In addition, 4DTV offers the DigiCipher II HDD-200 set-top box which allows for the receipt of high definition programming. *Id.*

<sup>237</sup> *SATELLITE NEWS, High-Speed Internet for the Big Dish*, Sept. 24, 2002, at <http://www.tripled.com/sattimes/sattimes.htm> (visited Oct. 3, 2002). See also CbandNet, <http://www.cband.net> (visited Oct. 3, 2002). The company offers Internet services, software, modems, satellite dishes, low noise blockers ("LNB"), dish movers, and accessories.

<sup>238</sup> *Satellite Receivers Buys Disney's C-Band Subscribers*, Satellite Business News FAXUpdate, June 15, 2001

<sup>239</sup> *Amendment of Parts 21 and 74 to Enable Multipoint Distribution Service and Instructional Television Fixed Service Licensees to Engage in Fixed Two-Way Transmissions*, 13 FCC Rcd 19112 (1998), *recon.*, 14 FCC Rcd 12764 (1999), *Jurrher recon.*, 15 FCC Rcd 14566 (2000).

<sup>240</sup> See *Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems*, 16 FCC Rcd 17222 (2001). The 3G advanced wireless services may include new data and broadband services such as Internet access, electronic mail, and short messaging services. *Id.* at 17223-4.

<sup>241</sup> See *Wireless Telecommunications Bureau Seeks Comment on Proposal to Revise Multichannel Multipoint Distribution Service and the Instructional Television Fixed Service Rules*, Public Notice, DA 02-2732 (WTB rel. Oct. 17, 2002). The Public Notice sought comment on a paper entitled, *A Proposal for Revising the MDS and ITFS Regulatory Scheme*, filed by the Wireless Communications Association International, Inc., the National ITFS Association and the Catholic Television Network (Oct. 7, 2002).

74. **MMDS Households and Subscribership.** Over 2,650 MDS and MMDS licenses have been issued in the U.S.<sup>242</sup> Four companies – Sprint, WorldCom, Nucentrix and BellSouth – hold more than half of the licenses.<sup>243</sup> Collectively, these four companies can potentially reach 75% of the U.S. population.<sup>244</sup> The number of MMDS subscribers, however, has declined to approximately 490,000 from 700,000 last year.<sup>245</sup> MMDS has never become a significant competitor in the market for the delivery of video programming,<sup>246</sup> rather many MMDS providers are focusing on data transmission rather than video service.<sup>247</sup> Moreover, the future of these services may depend on the ability of these companies to develop better technology.<sup>248</sup> Sprint announced that it has put MMDS deployment on hold until substantial progress is made on second-generation MMDS technology.<sup>249</sup> The future competitive impact of MMDS is further clouded by the bankruptcy filings of two of the major companies (WorldCom and Nucentrix), each holding about 17% of MMDS licenses.<sup>250</sup> In March 2002, Nucentrix announced that it had entered into agreements to convert the majority of its video customers in markets in Oklahoma, Texas, and the Midwest to DBS programming provided by DirecTV and Pegasus, and in central Texas to Time Warner Cable, as a replacement for its MMDS video service.<sup>251</sup> Nucentrix plans to use its MMDS spectrum to provide broadband Internet and other advanced wireless services.<sup>252</sup> WorldCom has indicated that, as part of its strategy to improve its financial outlook, it may consider selling part or all of its MMDS business.<sup>253</sup>

#### D. Private Cable Systems

75. Private cable operators (“PCOs”), also known as private communication operators or satellite master antenna television (“SMATV”) systems, are video distribution facilities that use closed transmission paths without using any public right-of-way.<sup>254</sup> PCOs receive programming via a master satellite antenna and distribute television signals via terrestrial wiring to urban and suburban multiple

<sup>242</sup> BIA Financial Network, *The MMDS Industry: A Look Into the Industry's Most Significant Operators*, September 2002, at 5.

<sup>243</sup> *Id.*

<sup>244</sup> *Id.* at 6

<sup>245</sup> NCTA Comments at 12.

<sup>246</sup> MMDS subscribers have never represented more than approximately a 1.5% share of all MVPD households. *See 2000 Report*, 16 FCC Rcd at 6110, Appendix C, Table C-1

<sup>247</sup> FCC, OPP Working Paper #37, *Broadcast Television: Survival in a Sea of Competition*, September 2002, at 63

<sup>248</sup> BIA Financial Network, *The MMDS Industry: A Look Into the Industry's Most Significant Operators*, September 2002, at 12. MMDS must have a “line-of-sight” path between transmitter and receiver. Technical limitations include signal strength and blockage by terrain.

<sup>249</sup> Sprint, *Sprint to Terminate ION Efforts; Announces Additional Actions to Improve Competitive Positioning and Reduce Operating Costs in FON Group* (press release), Oct. 17, 2001. Sprint has begun field trials of second generation technology in its Houston, Texas market. Kevin Fitchard, *Sprint Revives MMDS Plans*, TELEPHONY, May 13, 2002.

<sup>250</sup> BIA Financial Network, *The MMDS Industry: A Look Into the Industry's Most Significant Operators*, September 2002, at 12.

<sup>251</sup> Nucentrix Broadband Networks, *Nucentrix Announces Conversion of Video Subscribers* (press release), Mar. 19, 2002.

<sup>252</sup> *Id.* *See also* Nucentrix Broadband Networks, *Nucentrix Applauds MDS/ITFS Proposal for Next Generation of Broadband Wireless Services* (press release), Oct. 7, 2002.

<sup>253</sup> Sue Marek, *Sidgmore: All Wireless Assets for Sale*, WIRELESS WEEK, July 3, 2002

<sup>254</sup> 47 U.S.C. § 522(7)