

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

In the Matter of )  
 )  
 Annual Assessment of the Status of Competition ) MB Docket No. 04-227  
 in the Market for the Delivery of Video )  
 Programming )

**ELEVENTH ANNUAL REPORT**

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By the Commission: Chairman Powell issuing a statement; Commissioners Copps and Adelstein  
 concurring and issuing a joint statement.

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## I. INTRODUCTION

1. This is the Commission's eleventh annual report (*2004 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. We report on trends in the market and on the factors that have facilitated or impeded changes in the competitive environment over the past year. Further, we offer information and analysis regarding changes in the market since the *2003 Report*, and we describe how those changes affect the current state of the market. 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); *2001 Report*, 17 FCC Rcd 1244 (2002); *2002 Report*, 17 FCC Rcd 26901 (2002); and *2003 Report*, 19 FCC Rcd 1606 (2004).

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

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

*Notice of Inquiry (Notice)* in this docket.<sup>4</sup> We do not require data submissions nor do we audit data provided. We report data and other information as submitted by the commenters.<sup>5</sup> We did not receive any information on a number of issues raised in the *Notice* (e.g., information on video delivery in foreign markets, technical issues, cable horizontal ownership, delivery method of programming networks), and very limited information on other issues (e.g., ownership of nonbroadcast networks, private cable operators, locally and community-oriented programming). If we continue to find that we do not get the necessary data from industry participants, we may pursue additional mandatory data collection processes to ensure that we have appropriate information to fulfill our statutory mandate to provide Congress with an annual assessment of the status of competition in the video marketplace.

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 MVPDs discussed are direct broadcast satellite (DBS) services and home satellite dishes (HSD), broadband service providers (BSPs), broadcast television service, wireless cable systems using frequencies in the multichannel multipoint distribution service (MMDS), and private cable operators (PCOs). We also consider other existing and potential distribution technologies for video programming, including local exchange carriers (LECs) and utilities, home video sales and rentals, and the Internet. In Section III of this report, we examine market structure and competition. We evaluate horizontal concentration in the multichannel video marketplace, vertical integration between programming services and distribution systems, and competitive issues in small and rural markets. We also address numerous technical issues regarding navigation devices, emerging services, and cable modems. Finally, we review briefly several developments in foreign markets.

## **B. Summary of Findings**

### **1. The Current State of Competition: 2004**

4. In the *2003 Report*, the Commission recognized that competition provides consumers with increased choice, better services, higher quality, and greater technological innovation. The *2003 Report* found that, overall, the level of competition among video providers had increased dramatically since our first *Report* in 1994. Most notably, cable operators served almost 100 percent of the nation's MVPD subscribers a decade ago, but by June 2003, cable's share of MVPD subscribers declined to 74 percent.<sup>6</sup> As of June 2004, cable operators served approximately 72 percent of all MVPD subscribers. Today, almost all consumers have the choice between over-the-air broadcast television, a cable service, and at least two DBS providers. In some areas, consumers may also choose between other traditional (e.g., broadcasting, cable, DBS) and emerging (e.g., use of digital broadcast spectrum, fiber to the home, video over the Internet) delivery technologies as well. Increased competition in the market for the delivery of video programming since our first *Report* has led to improvements in cable television services, including more channels of video programming and more service options, but generally not lower prices.<sup>7</sup> In addition, through the use of advanced set-top boxes and digital video recorders, consumers are now able to maintain more control over what, when, and how they receive information.

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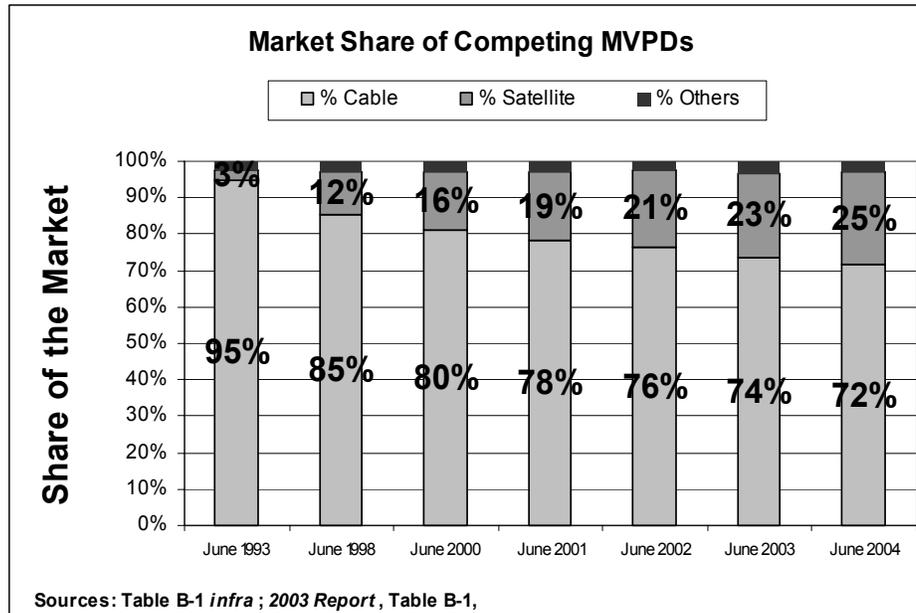
<sup>4</sup> *Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, 19 FCC Rcd 10909 (2004) (*Notice*). Where possible, we requested data as of June 30, 2004.

<sup>5</sup> Appendix A provides a list of commenters and the abbreviations by which they are identified herein.

<sup>6</sup> See Appendix B, Table B-1. We have revised data for the number of cable subscribers for June 2003 to use a consistent source.

<sup>7</sup> See *Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992, Statistical Report on Average Rates for Basic Service, Cable Programming Service, and Equipment*, MM Docket No. 92-266, FCC 05-12 (adopted Jan. 14, 2005) (*2004 Price Survey*); See also paras. 26-27 *infra*.

5. The *2004 Report* discusses changes that have occurred in the competitive environment over the last year. Overall, we find that cable subscribership is remaining relatively stable as the MVPD market grows; thus, cable's share of the MVPD market is declining. In contrast, DBS subscribership continues to increase at nearly double-digit rates of growth, and its share of the marketplace is increasing. The second and fourth largest MVPDs are both DBS operators. In addition, other delivery technologies continue to serve small numbers of subscribers in limited areas. LECs, who have partnered with DBS providers to offer video service over the last year, have recently announced plans to enter the video distribution market with fiber facilities.



6. Based on the information presented in this *Report*, we find that consumers today have viable choices in the delivery of video programming, and they are exercising their ability to switch among MVPDs.<sup>8</sup> We do not believe that the fact that large numbers of consumers continue to subscribe to cable service indicates a lack of choice. Cable operators in response to the growth of DBS have made upgrades and advances in their offerings.<sup>9</sup> The number of cable subscribers selecting digital tiers and advanced services not offered by DBS continues to grow. In addition, consumers are more likely to consider switching from cable to DBS when they change their residences, indicating a convenience factor and the cost of switching, rather than a lack of choice, is an important consideration in remaining a cable subscriber.

<sup>8</sup> See also *Time Warner Says Price Cuts Possible*, FINANCIAL TIMES, Oct. 5, 2004; *Cable's Competition*, CABLEFAX DATABRIEFS, Sept. 20, 2004; David Lieberman, *Study: Cable Losing Steam*, USA TODAY, Aug. 24, 2004, at 1B; David Lieberman, *Cable Companies' Subscriber Base Sinks, While Satellite Firms Soar*, USA TODAY, Aug. 11, 2004, at 3B; Ken Belson, *Two Big Cable Companies Report Losses Amid Competition*, NEW YORK TIMES, Aug. 10, 2004, at C4; Peter Grant, *Cable Trouble: Subscriber Growth Stalls as Satellite TV Soars*, WALL STREET JOURNAL, Aug. 4, 2004, at B1; *Cable Penetration Slips, DBS Rises*, BROADCASTING & CABLE TV FAX, Aug. 5, 2004, at 2; Chris Walsh, *Comcast Fighting Back: Growing Competition Spurs Strategy of New Services, Innovation*, ROCKY MOUNTAIN NEWS, July 1, 2004; Ronald Grover and Tom Lowry, *Satellite's Hot Pursuit of Cable*, BUSINESS WEEK ONLINE, May 24, 2004, at [http://www.businessweek.com/@@3Be8T4QQU\\*TiBhkA/magazine/content/04\\_21/b3884059.htm](http://www.businessweek.com/@@3Be8T4QQU*TiBhkA/magazine/content/04_21/b3884059.htm) (visited Jan. 14, 2005).

<sup>9</sup> See fn. 299 *infra*; U.S. General Accounting Office, *Issues Related to Competition and Subscriber Rates in the Cable Television Industry*, GAO-04-8 (Oct. 2003) at 10 (2003 GAO Report).

## 2. General Findings

7. Most MVPD subscribers continue to receive their video programming from a franchised cable operator, but cable's market share continues to decline. In June 2003, 73.6 percent of MVPD subscribers received their video programming from a franchised cable operator, and by June 2004, 71.6 percent of MVPD subscribers received their video programming from a franchised cable operator. At the same time, DBS's share increased from 22.7 percent of MVPD subscribers in June 2003, to 25.1 percent of MVPD subscribers in June 2004. The number of MVPD subscribers choosing all other delivery technologies represented 3.3 percent of all subscribers in June 2004, as compared with 3.7 percent in June 2003.

8. While the number of subscribers to cable television has increased slightly since the *2003 Report*, the total number of subscribers to MVPD services generally has increased at a more rapid pace. A total of 89.8 million households subscribed to multichannel video programming services as of June 2003, compared to 92.3 million households subscribing to MVPDs in June 2004, an increase of about 2.8 percent. This subscriber growth represents slightly less than a one percentage point increase in the percent of television households subscribing to an MVPD, from 84.2 percent as of June 2003 to 85.1 percent as of June 2004.<sup>10</sup>

9. Last year we reported a decline in the number of cable subscribers. This year we report that cable subscribership has increased only slightly, but now constitutes a smaller portion of the video programming market. As of June 2003, there were 66.05 million cable subscribers, representing 73.6 percent of all MVPD subscribers. As of June 2004, there were 66.1 million cable subscribers, representing 71.6 percent of all MVPD subscribers.

10. During the same period, the total number of noncable MVPD subscribers grew from 22.3 million in June 2003 to 26.2 million in June 2004, an increase of 17.7 percent. DBS subscribership, in particular, continues to grow at double digit rates. Between June 2003 and June 2004, the number of DBS subscribers grew from about 20.4 million households to about 23.2 million households. DBS's continued growth is due in part to the continued increase in the number of markets where local broadcast television stations are distributed by DBS under the authority granted to them by the Satellite Home Viewer Improvement Act of 1999 (SHVIA).<sup>11</sup>

11. Over the last year, subscribership to large dish satellite service (HSD) continued to decline. In June 2004, subscribers to HSD services represented only 0.36 percent of all MVPD subscribers, compared to June 2003, when 0.56 percent of all MVPD subscribers received their service via HSD. Although the participation of LECs has been limited in recent years, several LECs have announced their intent to re-enter the video distribution market in the next several years using fiber facilities. The number of subscribers receiving their video programming from a wireless (MMDS) operator remained steady over the past year at about 0.22 percent of MVPD subscribers, and MVPD subscribers served by private cable operators (PCOs) has declined slightly over the last year, from a 1.3 percent to 1.2 percent of all MVPD subscribers.

12. Cable multiple system operators (MSOs) and other MVPDs continue to offer nonvideo advanced services. Some cable operators continue to offer access to the Internet through the subscriber's television and a specially designed set-top box, but the most popular way to access the Internet over cable is through the use of a cable modem and personal computer. As of June 2003, there were more than 13.7

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<sup>10</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 *2003 Report*, 19 FCC Rcd at 1610 n.8.

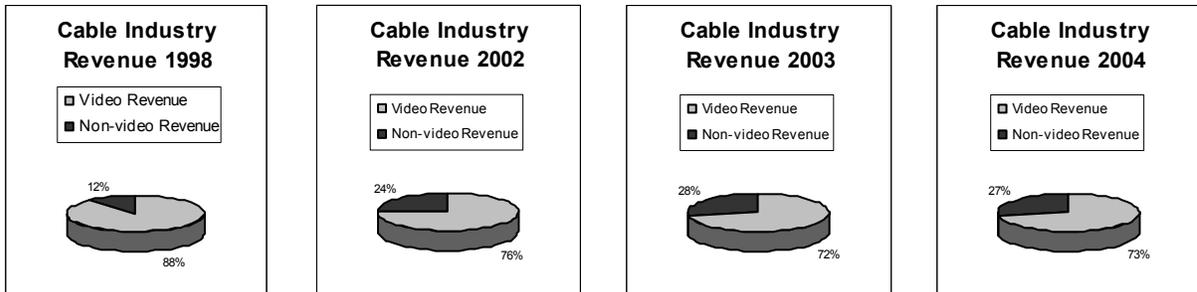
<sup>11</sup> Pub. L. No. 106-113, 113 Stat. 1501, 1501A-526 to 1501A-545 (1999).

million cable modem Internet access subscribers. As of June 2004, there were about 18.5 million cable modem Internet access subscribers. A majority of MSOs offering telephone service are offering facilities-based service, some using voice over Internet Protocol (IP) based services. Some MSOs continue to offer circuit-switched resale telephone service. As of year-end 2003, cable operators were serving approximately 2.8 million subscribers with telephone service.

13. BSPs continue to offer a package of video and nonvideo services over their advanced fiber networks, and many MMDS and private cable operators offer nonvideo advanced services in addition to their primary video offerings. As we reported in the *2003 Report*, the DBS industry is continuing to develop ways to bring advanced services to its customers. DIRECTV continues to offer one-way and two-way satellite-delivered Internet service under the brand name DIRECWAY. We note that DIRECTV has scaled back its plans to use SPACEWAY satellites to offer broadband services.<sup>12</sup> EchoStar, which has offered satellite-based Internet services in the past, no longer offers its own service. DIRECTV and EchoStar continue to develop strategic marketing alliances with local exchange carriers to offer an integrated digital satellite and DSL service. These agreements allow for single billing and discounts for subscribers to both services.

14. More specific findings as to particular distribution technologies operating in the market for the delivery of video programming include the following:

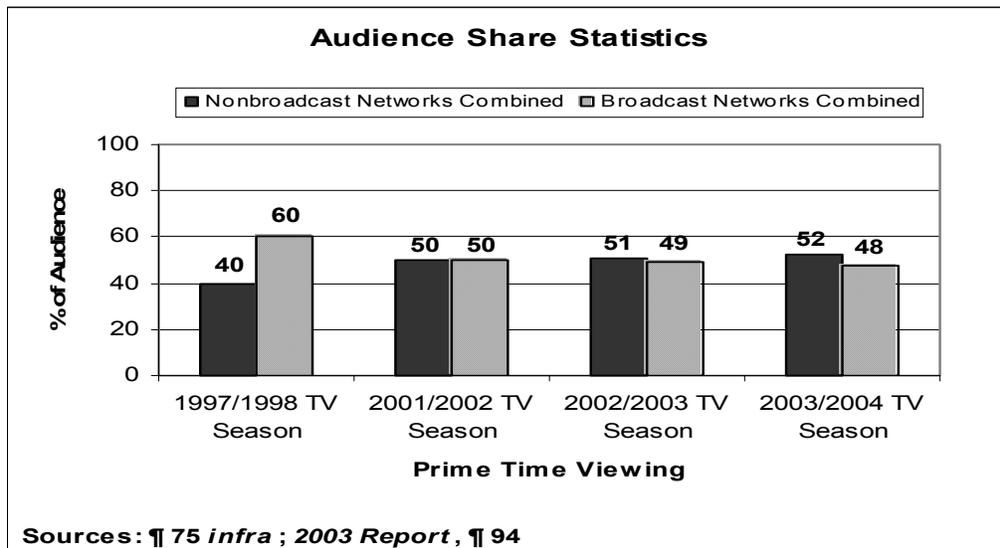
- Cable Systems:* Subscribership to cable television services has remained relatively static over the past year. Between June 2003 and June 2004, there was only a 0.08 percent increase in subscribership from 66.05 million subscribers to 66.1 million subscribers. As we reported last year, some cable operators have lost subscribers since our last *Report*, while others have increased their subscribership. This year, many cable operators have reported quarterly losses in subscribership, while reporting small overall, year-to-year increases. Nevertheless, the industry continues to grow in terms of revenue (an approximately 11 percent increase between June 2003 and June 2004); collective, all-day audience shares for nonbroadcast networks (which rose from an average 55 share during the 2002-2003 television season to an average 56 share during the 2003-2004 television season); and spending on programming. The cable industry has upgraded almost 91 percent of its plant to 750 MHz capacity or higher. As a result, cable continues to offer increased channel offerings and new advanced services, including video-on-demand and home networking, in addition to such advanced services as high-speed Internet access and telephony.



Sources: Table 4 *infra*; 2003

<sup>12</sup> Andy Pasztor, *DIRECTV to Write Down Value of Internet-Via-Satellite Effort*, THE WALL STREET JOURNAL, Oct. 25, 2004, at B5.

- Direct-to-Home (DTH) Satellite Service (DBS and HSD):* DBS continues to increase its share of the MVPD market, while other MVPDs continue to experience losses in market share. As of June 2004, DBS represented a 25.1 percent of all MVPD households, and DIRECTV and EchoStar rank among the four largest providers of multichannel video programming service. In June 2004, DBS operators had over 23.16 million subscribers, an increase of close to 14 percent since the *2003 Report*. HSD represents another 0.36 percent of all MVPD subscribers as of June 2004, with approximately 335,800 subscribers to HSD services, as measured by the number of HSD users that actually purchase programming packages.
- Broadband Service Providers (BSPs):* BSPs are entities that compete with existing cable systems using state-of-the-art networks that are capable of providing a package of video and nonvideo services. BSPs, many of which also operate as competitive LECs, are the primary open video system (OVS) certification holders, a regulatory framework originally intended for local exchange carriers. As of June 2004, BSPs served approximately 1.4 million subscribers, representing 1.5 percent of all MVPD households.
- Broadcast Television:* Broadcast television stations 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. The broadcast industry continues to grow in the number of operating stations (from 1,726 in June 2003 to 1,747 in June 2004), adding about 1.2 percent stations over the past year. Broadcast stations and networks, and nonbroadcast networks alike must either produce programming or purchase programming from third-party producers. Broadcast stations and networks, like MVPDs and nonbroadcast networks, derive revenue from advertising. Advertising revenues increased approximately 0.7 percent between June 2003 and June 2004. Audience levels continue to decline, as they have for many years. During the 2002-2003 television season, broadcast television stations collectively (network affiliates, independent stations and public broadcast stations) accounted for an average 49 share of prime time viewing for all television households, compared to an average 48 share during the 2003-2004 television season.



- During the 2002-2003 television season, broadcast television stations collectively accounted for an average 45 share of all day viewing for all television households, compared to an average 44 share during 2003-2004 television season. Broadcast television stations continue to deploy digital television (DTV) service. As of September 2004, all of the 40 stations that make up the top-four network affiliates in the top ten television markets were offering digital broadcasts and 1,468 television stations, representing 85 percent of all stations, are on the air with DTV operation
- *Wireless Cable Systems:* Wireless cable operators continue to provide competition to the cable industry in a few limited areas, with their subscribership remaining relatively constant. For both June 2003 and June 2004, we report approximately 200,000 subscribers to wireless cable systems. Wireless cable subscribers now represent approximately 0.22 percent of the all MVPD households, the same share as reported in the *2003 Report*. Wireless cable operators continue to convert their use of the spectrum from video service to Internet service exclusively.
- *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. PCOs focus principally on serving small numbers of subscribers living in multiple dwelling units (MDUs) and other private communities. As of June 2003, there were about 1.2 million subscribers to PCO services, representing 1.34 percent of all MVPD subscribers. As of June 2004, there were about 1.1 million subscribers to PCO services, representing 1.19 percent of the total number of MVPD households, a decline since our last *Report*.
- *Internet Video:* Over the past year, video provided over the Internet has grown and promises to become an increasingly strong product in the market for the delivery of video programming. Most instances of video streamed over the web, however, are still not of broadcast quality, and the medium is still not seen as a direct competitor to traditional video services. Streaming video is currently most viable when delivered over broadband networks. As of June 2004, an estimated 64 million Americans subscribed to an Internet access service, and 30.1 million of those subscribed to a high-speed Internet access service, or about 47 percent of all subscribers. Most near term uses of video available over the web will be downloadable video. Traditionally, downloadable video has been stored and viewed over the personal computer; however, video also is becoming available for download directly to a set-top box to be viewed over the television, similar to MVPD video-on-demand services. Despite its relative low quality, streaming video remains popular, and many firms continue to develop a great deal of content.
- *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 offerings of MVPDs. In 2004, VCR penetration is estimated to be about 91 percent of TV households. As of July 2004, approximately 70 percent of TV households have a DVD player. Digital video recorders (DVRs) are the newest technology for recording live video programming. DVRs are capable of pausing, recording, and rewinding live television in digital form on an internal hard drive instead of videotape. DVRs may be standalone devices, where the consumer obtains a

subscription from a DVR service operator. In addition, cable and satellite operators have incorporated DVR functionality into their set-top boxes. TiVo, the largest DVR maker, has approximately two million subscribers, of which 1.1 million are DIRECTV subscribers. There are 1.4 million cable subscribers that have set-top boxes with DVR functionality, and EchoStar has over one million subscribers to its DVR system.

- *LEC Entry:* In past *Reports*, we have reported that the largest incumbent LECs have largely exited the video business. While this remains true today, some large incumbent LECs (ILECs) (*e.g.*, SBC and Verizon) have announced plans to provide video service over fiber-to-the-home networks they plan to deploy over the next several years. BellSouth maintains its facilities-based overbuild cable systems in 20 franchise areas, passing 1.4 million homes. In addition, Verizon has received franchises for two communities thus far, and has announced plans to roll out video services in additional areas in 2005. Several ILECs are also offering or are preparing to offer, MVPD service over existing telephone lines. Qwest Communications, for example, offers video service, high-speed Internet access, and telephone service in several markets using existing copper telephone lines and very high-speed digital subscriber line (VDSL) technology.
- *Electric and Gas Utilities:* Some utilities are engaged in the provision of video services through overbuilding incumbent cable systems. Though their services are still not widespread, utilities provide competition in scattered localities. Attributes such as their ownership of fiber optic networks and access to public rights-of-way are competitive strengths. Some utilities offer telecommunications services on their own, while others partner with broadband service providers. Municipal utilities in rural areas are also notable entrants. Reports indicate that 109 public power entities offer video services.

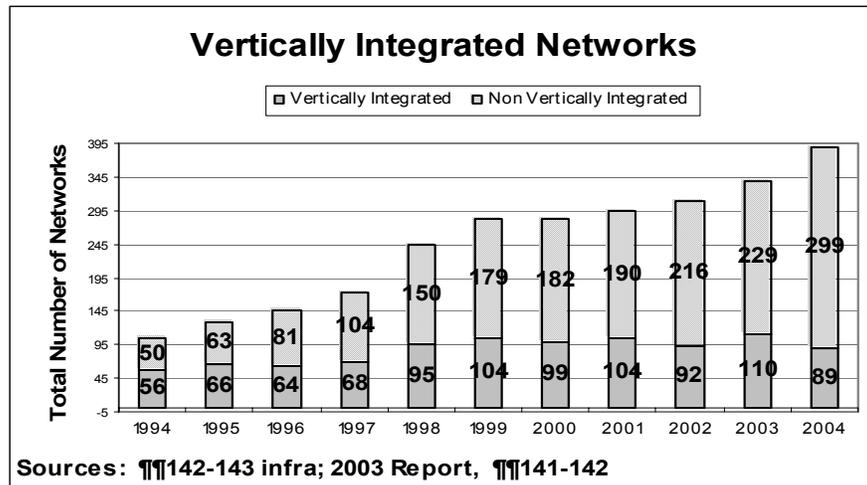
15. We also find that:

- Cable operators' acquisitions and system trades have slowed significantly since our *2003 Report*. In June 2003, the four largest operators served about 59 percent of all U.S. cable subscribers, whereas in June 2004, the four largest cable operators served about 58 percent of all U.S. cable subscribers. In terms of one traditional economic measure, national concentration among the top MVPDs has declined slightly since last year.<sup>13</sup> As of year-end 2003, slightly more than 53.6 million of the nation's cable subscribers were served by systems that are included in 108 regional clusters.
- The number of programming networks has increased over the last year. As of June 2003, there were approximately 339 nonbroadcast programming networks available for carriage by MVPDs. As of June 2004, there were 388 national nonbroadcast programming networks. Of these networks, cable operators had ownership interests in 89, compared to 110 networks reported in June 2003. Thus, during this period, vertical integration of national programming services between cable operators and programmers has decreased from 33 percent as of

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<sup>13</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.651 *infra*.

June 2003 to 23 percent as of June 2004. As of June 2004, four of the top six cable MSOs, ranked by subscribership, held ownership interests in programming services, the same as a year earlier. In addition, we identified 103 national, nonbroadcast networks that are not owned wholly or in part by a cable operator, but are owned by one or more media entities, such as a broadcast television network or broadcast station licensee. Thus, we have identified 196 national nonbroadcast networks, representing approximately 51 percent of the 388 networks, that are not affiliated with either cable or other media entities.



- In addition, of the 15 new programming networks that were launched in 2004, two are affiliated with cable operators. In 2003, 39 new networks were launched; four of these networks are affiliated with cable operators, and a fifth is affiliated with News Corp. (Fox).<sup>14</sup>
- Sports programming warrants special attention because of its widespread appeal and strategic significance for MVPDs. The *2004 Report* identifies at least 38 sports channels out of a total of 96 regional networks. Many of these networks are owned at least in part by MSOs. There are also 40 regional and local news networks that compete with local broadcast stations and national cable news networks. Many of these networks are owned at least in part by MSOs.
- There were no transactions or other merger activities involving DBS operators in 2004, following the December 2003 acquisition of a controlling interest in DIRECTV by News Corp., which resulted in DIRECTV's affiliation with a broadcast television network and other media-related businesses.
- In 2003, the Commission adopted rules to permit television sets to be built with "plug-and-play" functionality for one-way digital cable services, without the need for a set-top box. The cable, DBS, and consumer electronics industries continue to work on the development of an agreement for two-way "plug-and-play" receivers. In addition, the Commission also adopted rules in 2003 to assure that DTV broadcast content will not be indiscriminately redistributed over the Internet. In 2004, the Commission approved 13 technologies meeting the Commission's standard.

<sup>14</sup> See Appendix C, Tables C-1-C-3.

- In June 2004, there were approximately 18.5 million cable modem subscribers in the U.S. As of September 2004, 427 DOCSIS modems have received certification. Most operators continue to improve their high-speed Internet access service, offering higher speeds and special features.
- We report on some interesting developments in foreign markets, covering video over Internet Protocol (IP) broadband, the digital television transition, and terrestrial, cable, and satellite competition that we find relevant to our examination of video programming in the United States. In particular, we have chosen to examine video provided via IP broadband (also known as IPTV) in Hong Kong, Italy, and the United Kingdom. We also report on the transition to digital television in Germany and the United Kingdom, in order to provide insight into the relative efficiency of market structures and regulations within the United States.

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

### A. Cable Television Service

16. This section addresses the performance of franchised cable system operators during the past year.<sup>15</sup> First, we report on the general performance of the industry, including subscriber levels, availability of basic services, viewership, and cable rates. 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. Lastly, we address the growth of advanced video services including digital video, video-on-demand, digital video recorders, and high-definition television; and nonvideo advanced services including high-speed Internet access and voice over Internet protocol telephony.

#### 1. General Performance

17. During 2003, there was a decline in basic cable service<sup>16</sup> subscribers and premium cable service<sup>17</sup> subscribers. Basic cable penetration, the ratio of the number of basic cable subscribers to the number of homes passed,<sup>18</sup> declined in 2003 and is estimated to have declined further in the first half of 2004. By many other measures, however, general cable industry performance increased across the board.

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<sup>15</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>16</sup> Basic cable service, also referred to as the basic service tier (BST), is the level of cable television service that must be taken by all cable television subscribers. The content of basic cable service varies 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. Expanded basic cable service, also referred to as the cable programming service tier (CPST) for purposes of rate regulation, offers additional video channels on one or more program service tiers. 47 U.S.C. § 543(b)(7); 47 U.S.C. § 543 (k)(2).

<sup>17</sup> Premium services are nonbroadcast networks provided by a cable operator on a per-channel basis for an extra monthly fee. Pay-per-view (PPV) services are nonbroadcast networks provided on a per program basis. PPV service is a separate category from premium service.

<sup>18</sup> Homes passed is the total number of households capable of receiving cable television service.

For example, basic cable viewership<sup>19</sup> increased, as did premium service subscriptions<sup>20</sup> and subscriptions to digital video programming.<sup>21</sup> Although basic cable penetration decreased in 2003, homes passed increased during the same period. Channel capacity<sup>22</sup> also increased during 2003 and the first half of 2004, as did deployment of video-on-demand,<sup>23</sup> digital video recorders,<sup>24</sup> and high-definition programming.<sup>25</sup> Deployment of nonvideo advanced services, such as high-speed Internet access service and telephone service also increased during this period.

18. ***Cable's Capacity to Serve Television Households.*** A widely used industry measurement of cable availability is the percentage of homes with a television that are passed by a cable system. The calculation of cable availability has been a subject of controversy.<sup>26</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.<sup>27</sup> NCTA estimates that at the end of 2003, 102.9 million homes with a television were passed by a cable system and there were 108.4 million homes with a television.<sup>28</sup> Thus, NCTA estimates that at the end of 2003, 95 percent of homes with a television were passed by a cable system.<sup>29</sup> NRTC contends that NCTA estimates are flawed and overstate cable availability.<sup>30</sup> NRTC maintains that the numerator for the NCTA's 95 percent estimate includes all occupied households (not just TV households), while the denominator is limited to just TV households.<sup>31</sup> Our analysis of NCTA's numbers

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<sup>19</sup> Basic cable viewership is the combined audience share of all nonbroadcast networks on the BST and CPST tiers.

<sup>20</sup> Premium service subscriptions are the number of premium services to which homes are subscribing (also known as pay units).

<sup>21</sup> Digital video programming refers to digitally-compressed video channels offered on digital service tiers. Subscribers to digital video programming must also subscribe to basic cable service.

<sup>22</sup> Channel capacity is bandwidth dedicated to video use. Video channel capacity can be increased or decreased on any given system simply by using more or less bandwidth for other services, such as high-speed Internet access services or cable telephony.

<sup>23</sup> Video-on-demand (VOD) allows subscribers to select at any time movies and other programming they wish to view from a selection of titles stored on a remote server.

<sup>24</sup> Digital video recorders (DVRs) use a hard disk drive to record video programs.

<sup>25</sup> High-definition (HD) programming is a television signal with greater detail and fidelity than provided by the National Television Systems Committee (NTSC) system. The high-definition picture has approximately twice the visual resolution as NTSC. High-definition programming also provides CD-quality audio.

<sup>26</sup> See *Application of EchoStar Communications Corporation, General Motors Corporation, and Hughes Electronics Corporation, Transferors and EchoStar Communications Corporation, Transferee*, 17 FCC Rcd 20559, 20611-12 ¶¶ 122-25 (2002) (*EchoStar-Hughes HDO*) (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>27</sup> Homes passed data evaluated in the context of our review of the EchoStar-DIRECTV merger application indicated that the number of homes not passed by cable may vary from four percent to 21.28 percent depending on the estimation methods. *EchoStar-Hughes HDO*, 17 FCC Rcd at 20612 ¶ 124 and n.356.

<sup>28</sup> NCTA, *Cable Developments 2004*, at 7; and Kagan World Media, *Broadband Cable Financial Databook*, Aug. 2004 (*Cable Databook*) at 11.

<sup>29</sup> NCTA, *Cable Developments 2004*, at 7. NCTA calculated the 95 percent figure as follows: 102.9 million/108.4 million = 0.949.

<sup>30</sup> NRTC Comments at 6.

<sup>31</sup> *Id.*

shows that NCTA actually used TV households in both the numerator and denominator.<sup>32</sup> NRTC also argues that housing units, not TV households, should be used to determine the universe of homes passed by cable.<sup>33</sup> NRTC contends that the Census Bureau's total household estimates are more accurate than the TV household estimates produced by Nielsen Media Research and used by NCTA.<sup>34</sup> NRTC alleges that NCTA's count of TV households must overstate the actual number of TV households because the count is larger than the Census Bureau's estimate of total households in 33 states.<sup>35</sup> NRTC maintains that a "full and fair accounting" will show that 22.4 million households lack access to cable services.<sup>36</sup>

19. For purposes of this *Report*, we continue to use, as we have in the past, data derived from Kagan World Media (homes passed by cable systems) and Nielsen Media Research (total TV households) for historical consistency. We present these data to indicate trends, rather than an absolute measure of cable availability. Kagan estimates that at the end of 2003, there were 108.4 million TV households, and 106.0 million occupied homes passed by cable systems (not all of them with a television).<sup>37</sup> Thus, at the end of 2003, the percentage of occupied homes with a television that were passed by a cable system must be less than 97.8 percent.<sup>38</sup> As noted above, NCTA estimates that at the end of 2003, 95 percent of occupied homes with a television were passed by a cable system.

20. Section 612(g) of the Communications Act provides that at such time as cable systems with 36 or more activated channels are available to 70 percent of households within the United States and are subscribed to by 70 percent of those households, the Commission may promulgate any additional rules necessary to promote diversity of information sources.<sup>39</sup> Current Census Bureau data indicate that there are 105,842,000 occupied housing units.<sup>40</sup> According to Warren Communications News (Warren), there are 84,415,707 occupied homes passed by cable systems with 36 or more channels and 58,177,885 of those households subscribe to cable systems with 36 or more channels.<sup>41</sup> Thus, based on this data source,

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<sup>32</sup> NRTC's conclusion is based on data from NCTA's website which reports that the 95 percent figure is occupied homes passed as a percentage of TV households, but NCTA's Cable Developments 2004 publication reports that the 95 percentage figure is occupied TV homes passed as a percentage of TV households. See <http://www.ncta.com/Docs/PageContent.cfm?pageID=86> (visited Nov. 16, 2004).

<sup>33</sup> NRTC Comments at 6.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 6 and Exhibit 1.

<sup>36</sup> *Id.* at 5.

<sup>37</sup> Cable Databook at 11. Occupied homes passed by cable systems equals total cable homes passed times percent of total housing units that are occupied (106.0 million = 117.9 million x 109.9 million/122.2 million). Cable Databook at 11 and 13.

<sup>38</sup> We calculate the 97.8 percent figure as follows: 106.0 million/108.4 million = 0.978. Since the numerator includes homes that may not have a television, the calculation overstates cable availability.

<sup>39</sup> 47 U.S.C. § 532(g).

<sup>40</sup> U.S. Census Bureau, The 2003 American Housing Survey (revised Aug. 16, 2004), Table 2-1. See <http://www.census.gov/hhes/www/housing/ahs/03dchrh/tab2-1.html> (visited Oct. 19, 2004). Last year, according to Warren Communications News, there were 82,506,311 homes passed by cable systems with 36 or more channels and 56,859,607 of those homes subscribed to cable. We compared those figures with the Census Bureau's data that indicated that there were 119,300,000 households in the United States. We have now clarified that the Warren data are based on the number of occupied households and, thus, the appropriate Census Bureau figure is occupied households, not total households.

<sup>41</sup> Warren Communications News, *Custom Report: From Television and Cable Factbook Online Datasets*, Oct. 19, 2004. Warren defines homes passed as the total number of homes passed by cable systems having the potential of being served promptly. Specifically, the homes passed have to be occupied and are assumed to have a television.

cable systems with 36 or more channels are available to 79.8 percent (84,415,707/105,842,000) of occupied households. Of the occupied homes passed by cable systems with 36 or more channels, 68.9 percent (58,177,885/84,415,707) subscribe to these systems.<sup>42</sup> Warren reports that there are 66,241,805 cable subscribers. Thus we conclude that there are 8,063,920 current subscribers to cable systems with fewer than 36 channels. Although they do not represent the universe of cable systems, the sample data from the 2004 Price Survey and the Annual Report of Cable Television Systems (Form 325) can be used to estimate the second prong of the 70/70 benchmark; neither of which indicate that the second element of the test has been met. From the Price Survey sample, we estimate that the subscribers to systems with 36 or more channels as a percent of the homes passed by such systems is 58.8 percent. Based on the Form 325 sample, we estimate that this figure is 54.7 percent.

21. **Subscribership.** The number of basic cable subscribers changed little from 66.1 million in 2002 to 66.0 million in 2003, as shown in Table 1 below. The number of basic cable subscribers is projected to change little in 2004. Kagan projects 66.2 million basic subscribers at year-end 2004.<sup>43</sup>

**TABLE 1: Cable Television Industry Growth: 1998 - June 2004 (in millions)<sup>44</sup>**

Year	TV Households (TH) <sup>45</sup>		Homes Passed (HP) <sup>46</sup>		Basic Subscribers (Subs) <sup>47</sup>		HH Passed by Cable (HP/TH)	HHs Subscribing (Subs/TH)	U.S. Penetration (Subs/HP)
	Total	% Change Over Prior Yr	Total	% Change Over Prior Yr	Total	% Change Over Prior Yr			
1998	99.4	1.4%	95.6	1.7%	65.1	1.4%	96.2%	65.5%	68.1%
1999	100.8	1.4%	97.6	2.1%	65.9	1.2%	96.8%	65.4%	67.5%
2000	102.2	1.4%	98.9	1.3%	66.6	1.1%	96.8%	65.2%	67.3%
2001	105.4	3.1%	100.6	1.7%	66.9	0.5%	95.4%	63.5%	66.5%
2002	106.7	1.2%	103.4	2.8%	66.1	-1.2%	96.9%	61.9%	63.9%
2003	108.4	1.6%	106.0	2.5%	66.0	-0.2%	97.8%	60.9%	62.3%
June 2004	108.4	0.0% <sup>48</sup>	107.1	1.0%	66.1	0.2%	98.8%	61.0%	61.7%

<sup>42</sup> See also Letter from Daniel L. Brenner, Senior Vice President, Law & Regulatory Policy, NCTA, to Marlene H. Dortch, Secretary, FCC, Dec. 17, 2004 (providing estimates using Warren, Nielsen, and Kagan homes passed and subscriber statistics).

<sup>43</sup> Cable Databook at 11.

<sup>44</sup> Historical data in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook at 8, 11.

<sup>45</sup> The 2003 and estimated June 2004 TV Household numbers are reported by Kagan World Media as total U.S. TV households. The numbers are derived from Nielsen Media Research and Kagan estimates. *Id.* at 11.

<sup>46</sup> The 1998 through 2003 homes passed numbers are reported by Kagan as residential cable homes passed. The June 2004 homes passed estimate is an average calculated from the actual 2003 and the projected 2004 numbers for occupied cable homes passed. *Id.* at 9, 11.

<sup>47</sup> The 1998 through 2003 basic subscriber numbers are reported by Kagan as basic subscribers. The June 2004 basic subscriber estimate is an average calculated from the actual 2003 and the projected 2004 numbers for total basic cable subscribers. *Id.* According to NCTA, there were 71.1 million cable subscribers at the end of April 2004. NCTA Comments at 7. NCTA's estimate of cable subscribers is more than the number of basic subscribers reported in Table 1 above.

<sup>48</sup> Percentage change columns in this row are from December 2003 to June 2004.

Basic subscriber losses for the second quarter of 2004 were larger than expected and some companies have revised their projections for 2004 from slight increases to no growth in the number of basic subscribers.<sup>49</sup> For example, Comcast added 140,000 basic cable subscribers in 2003.<sup>50</sup> These gains were followed by losses in the first six months of 2004.<sup>51</sup> By year-end 2004, Comcast expects net additions of less than 0.5 percent to the number of basic cable subscribers.<sup>52</sup> For 2003, Cox added 57,000 basic cable subscribers (a 0.9 percent increase).<sup>53</sup> These gains were followed by a loss of 75,000 basic cable subscribers in the first six months of 2004.<sup>54</sup> For the year 2004, Cox expects basic cable subscriber growth to be just under one percent.<sup>55</sup> For 2003, Time Warner reported a 0.1 percent increase in the number of basic cable subscribers.<sup>56</sup> Time Warner, however, reported a loss of 21,000 basic cable subscribers in the second quarter of 2004.<sup>57</sup> Cablevision lost 19,600 basic cable subscribers in 2003 but added 7,800 in the first six months of 2004.<sup>58</sup> By year-end 2004, Cablevision expects an increase of approximately 0.5 percent in the number of basic video subscribers.<sup>59</sup> Charter lost 147,500 basic cable subscribers in 2003.<sup>60</sup> Charter lost another 67,300 basic cable subscribers in the first six months of 2004.<sup>61</sup>

22. Cable penetration (*i.e.*, subscribers/ homes passed) declined in 2003, as the number of subscribers decreased, and the number of homes passed increased. Cable penetration is estimated to decline further in the first half of 2004. The ratio of cable subscribers to television households also declined in 2003, as the number of subscribers decreased, and the number of television households increased.<sup>62</sup>

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<sup>49</sup> See Kagan World Media, *Cable TV Investor: Deals & Finance*, Aug. 18, 2004, at 1-2.

<sup>50</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

<sup>51</sup> Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>52</sup> *Id.*

<sup>53</sup> Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2003* (press release), Feb. 2, 2004.

<sup>54</sup> Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2004* (press release), July 29, 2004.

<sup>55</sup> *Id.*

<sup>56</sup> Time Warner Inc., *Time Warner Reports Results for 2003 Full Year and Fourth Quarter* (press release), Jan. 28, 2004.

<sup>57</sup> Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>58</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004; Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2004 Results* (press release), Aug. 9, 2004.

<sup>59</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004.

<sup>60</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Year 2003 Financial and Operating Results* (press release), Feb. 19, 2004. *Charter* reports that the number of analog video subscribers declined from 6.6 million at year-end 2002 to 6.4 million at year-end 2003. Analog video subscribers include all subscribers who receive video services. *Id.*

<sup>61</sup> Charter Communications Inc., *Charter Communications Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.

<sup>62</sup> From the end of 2003 to the end of June 2004, the ratio of cable subscribers to TV households is calculated to increase slightly from 60.9 percent to 61.0 percent. This calculation is the result of holding the number of TV

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23. For the second year in a row, the number of homes subscribing to premium cable services declined from 35.3 million in 2002 to 34.8 million in 2003, as shown in Table 2 below. At the end of 2003, approximately 53 percent of cable's 66.0 million subscribers also subscribed to premium services.<sup>63</sup> The number of premium services to which homes are subscribing (also known as pay units) increased from 80.9 million in 2002 to 83.4 million in 2003, but the size of the increase was smaller than the prior year's increase.<sup>64</sup> Although the cable industry sold more premium services, the total revenue received from premium services declined 1.2 percent in 2003.<sup>65</sup> Cable systems sold premium cable services to fewer homes, but the average number of subscriptions per premium subscriber increased slightly, from an average 2.3 subscriptions per subscriber in 2002 to an average 2.4 subscriptions per subscriber in 2003.<sup>66</sup>

**TABLE 2: Premium Cable Services: 1998 - 2003 (in millions)**<sup>67</sup>

Year	Premium Cable Service Subscribers (Pay HH)		Premium Cable Service Subscriptions (Pay Units)		Average Number of Subscriptions
	Total	% Change Over Prior Year	Total	% Change Over Prior Yr	Pay Units/ Pay HH
1998	32.9	3.5%	58.6	6.0%	1.8
1999	34.3	4.3%	60.2	2.7%	1.8
2000	35.7	4.1%	66.8	11.0%	1.9
2001	36.0	0.8%	75.6	13.2%	2.1
2002	35.3	-1.9%	81.1	7.3%	2.3
2003	34.8	-1.4%	83.4	2.8%	2.4

24. **Channel Capacity.** Data from the Commission's *2004 Price Survey*<sup>68</sup> provides figures on cable system bandwidth and the number of analog and digital video channels being delivered by surveyed

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households constant at 108.4 million over the entire 2003-2004 season and assuming that the number of basic subscribers will increase from 66.0 million to 66.1 million from January 2003 to June 2004. At year-end 2004, Kagan projects 66.2 million basic subscribers. Cable Databook at 11. We assumed that half of the projected growth would occur by the end of June 2004. As such, we assumed that there would be 66.1 million basic subscribers by the end of June 2004.

<sup>63</sup> Cable Databook at 9.

<sup>64</sup> *Id.* at 9.

<sup>65</sup> *Id.* at 8.

<sup>66</sup> *Id.* at 9.

<sup>67</sup> Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook. The 1998 through 2003 premium cable service subscribers (Pay HH) numbers are reported by Kagan as pay subscribers. *Id.* at 9. The 1998 through 2003 premium cable service subscriptions (Pay Units) numbers are reported by Kagan as the sum of premium units and mini-pay units (defined as a service or pay TV that programs less than 8 hours per day). Premium units include HBO, Cinemax, Showtime, Movie Channel, Starz, and Playboy. Mini-pay units include Sundance, Flix, and Encore. *Id.* at 9.

<sup>68</sup> The *2004 Price Survey* (Survey) requested data from cable operators pertaining to monthly cable rates in communities selected as part of a random sample. We received 641 Survey responses. We requested data as of January 1, 2004, and limited amounts of data as of January 1, 2003 and January 1, 2002. In addition to monthly

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cable systems (see Table 3).<sup>69</sup> It shows that approximately 85.7 percent of the sampled cable systems (both competitive and noncompetitive systems)<sup>70</sup> have facilities with bandwidth of 750 MHz or above.<sup>71</sup> The average bandwidth of systems in the Survey is approximately 734 MHz. Cable system bandwidth may be allocated among video and nonvideo services. We calculate that the average system in the Survey used 513 to 588 MHz of bandwidth to provide video service.<sup>72</sup> Cable operators are choosing to provide, on average, approximately 73 analog video channels and 150 digital video channels, with enough additional bandwidth to provide high-definition television, video-on-demand, and Internet access services. From January 2003 to January 2004, the total number of video channels (analog plus digital) carried by the average cable system in the Survey increased from approximately 210 to 223.

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cable rates, the Survey sought information on the number of channels in order to determine how much subscribers pay on a per channel basis. The Survey also gathered information at the cable system level on other factors that may affect cable rates and competition in the multichannel video programming market, including: (1) number of cable subscribers; (2) number of digital cable service subscribers; (3) number of cable Internet access subscribers; (4) number of cable telephony subscribers; (5) cable system capacity in MHz; and (6) cable programming revenues; (7) cable programming costs; and (8) system operating costs.

<sup>69</sup> Section 623(k) of the Communications Act requires the Commission to publish annually a statistical report on cable prices, or more specifically, average rates for the delivery of the BST, the CPST, and equipment. *See* 47 U.S.C. § 543(k). The BST includes local television broadcast signals and public, educational, and governmental access channels. *See* 47 U.S.C. § 543(b)(7). The CPST includes 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)(2); *see also* fn. 16 *supra*. Equipment refers to a converter box, remote control, and other equipment necessary to access programming. *See* 47 U.S.C. § 543(b)(3).

<sup>70</sup> 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 noncompetitive group). Within the noncompetitive 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 noncompetitive group, there may be, and likely are, 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.

<sup>71</sup> According to NCTA, by year-end 2003, nearly 95 million homes were passed by systems with 750 MHz or higher capacity, and more than 95 million households were passed by systems that provided two-way services, such as cable modem service, interactive television, and IP telephony. NCTA Comments at 29. Kagan reports that by the end of 2003 there were 106 million occupied households passed by cable systems. Cable Databook at 11. Thus, NCTA's reported numbers for year-end 2003 indicate that nearly 89.6 percent (95 million/106 million = 89.6 percent) of these homes had access to cable systems with 750 MHz or higher and more than 89.6 percent (95 million/106 million = 89.6 percent) of these homes had access to activated two-way plant. NCTA's calculation for homes passed by 750 MHz cable systems is slightly higher than the 85.7 figure derived from the *2004 Price Survey* data. This is likely due to differing data and measurement methodologies.

<sup>72</sup> Each analog channel requires six MHz bandwidth, thus it takes approximately 438 MHz of bandwidth to deliver the 73 analog channels. Multiple digital channels, however, can be delivered on six MHz of bandwidth. Depending on the modulation, type of content, and other factors that vary from one cable operator to another and one system to another, a range of six to 12 digital channels can be delivered on each six MHz of bandwidth. The average number of digital channels in the survey is 150, so it takes from 75 to 150 MHz of bandwidth to deliver the 150 digital channels (150/12 x 6 MHz = 75 MHz to 150/6 x 6 MHz = 150 MHz). Because cable operators are delivering high-definition television (HDTV) programming, and it takes more bandwidth to deliver HDTV programming, our estimate of the bandwidth used for video programming may understate the actual bandwidth cable operators are using to provide video programming.

**TABLE 3: January 2004 Channel Capacity**<sup>73</sup>

	Competitive Group	Noncompetitive Group
Average system capacity (MHz)	734	734
Percent of systems with capacity of:		
212 to 749 MHz	14.5%	14.3%
At 750 MHz	62.4%	59.3%
751 to 870 MHz	23.1%	26.4%
Total number of channels <sup>74</sup>	232.4	222.6
Total number of analog channels	74.7	73.2
Total number of digital channels	157.7	149.4

25. **Viewership.** During the 2003-2004 television season, the combined audience share<sup>75</sup> of all nonbroadcast networks<sup>76</sup> was higher than the combined audience share of all broadcast television stations<sup>77</sup> for both all day viewing and prime time viewing.<sup>78</sup> For all day viewing, the combined audience share of all nonbroadcast networks was 56, and the combined audience share of all broadcast television stations was 44. For prime time viewing, the combined audience share of all nonbroadcast networks was 52, and the combined audience share of all broadcast television stations was 48. According to NCTA, the seven national commercial broadcast networks (ABC, CBS, NBC, FOX, UPN, WB, and PAX) accounted for a 38 share of all day viewing in 2003, and all nonbroadcast networks accounted for a 63 share of all day viewing.<sup>79</sup> According to NCTA, the 2003–2004 television season (September 2003–May 2004) was the first time that the combined nonbroadcast networks’ share of prime time viewing was greater than the combined national broadcast networks’ share of prime time viewing.<sup>80</sup>

26. **Cable Rates.** The Commission’s 2004 Price Survey<sup>81</sup> finds that the average monthly cable rate increased by 5.6 percent for the noncompetitive cable operators surveyed (cable systems in communities without an effective competition finding) over the twelve months ending January 2004, and the average price per channel increased by 1.2 percent. The average monthly cable rate increased by 3.6 percent for the competitive cable operators surveyed (cable systems in communities where effective competition was found to be present) over the twelve months ending January 2004, and the average

<sup>73</sup> Derived from 2004 Price Survey data.

<sup>74</sup> In previous years, we have reported the total number of channels in terms of the bandwidth (specifically, the estimated number of six MHz channels) needed to carry the analog and digital channels. See fns. 22, 71 *supra*.

<sup>75</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). Due to simultaneous multiple set viewing, Nielsen reports audience shares that exceed 100 percent when totaled. We have normalized audience shares to equal 100 percent.

<sup>76</sup> Nonbroadcast network shares include basic (BST and CPST) networks, premium networks, and PPV networks distributed by MVPDs.

<sup>77</sup> Broadcast shares include network affiliates, independent, and public television stations.

<sup>78</sup> Prime time viewing is Monday through Saturday, 8 p.m.-11 p.m., and Sunday, 7 p.m.-11 p.m. Nielsen Media Research, *Broadcast Calendar (TV Season) Share of Audience Report, Prime time and Total Day*, Sept. 2004. See also NCTA Comments at 45–46. The most popular nonbroadcast networks continue to receive a lower audience share for all day viewing and prime time viewing than any of the major broadcast television networks. Nielsen Media Research.

<sup>79</sup> NCTA Comments at 45. NCTA’s numbers do not include PBS and independent commercial broadcast stations.

<sup>80</sup> *Id.* at 46.

<sup>81</sup> See fn. 68 *supra*.

monthly price per channel decreased by 0.3 percent.<sup>82</sup> Thus, the competitive differential in monthly cable rates (the percentage difference between the noncompetitive group and the competitive group) was 7.3 percent over the twelve months ending January 2004, and the competitive differential in the price per channel was 11.0 percent. The degree of difference varied by competitive subgroup. The highest differentials were associated with wireline overbuild competition. For communities in this subgroup, the average monthly cable rate and price per channel were, respectively, 15.7 percent lower and 27.2 percent lower than those averages for the noncompetitive group.

27. The Bureau of Labor Statistics (BLS) publishes a Consumer Price Index (CPI) that measures price inflation related to all goods and services for all urban consumers. By this measure, inflation increased by 1.1 percent over the 12 months ending January 2004. BLS also publishes price indices for many components of the overall CPI, including a price index for a basket of cable services (cable CPI).<sup>83</sup> The cable CPI increased by 3.8 percent over the year ending January 2004. Because it covers a different mix of services, however, the cable CPI cannot be compared directly with the results of the Commission's Price Survey.<sup>84</sup>

28. **Cable Industry Revenue.** Total revenue grew to \$54.3 billion in 2003, as shown in Table 4 below. This represents an 11.5 percent increase over 2002. Cable revenue is projected to grow 10.8 percent in 2004 to \$60.2 billion. Much of the increase in revenue comes from growth in demand for advanced services, especially high-speed Internet service and digital cable services, and from higher basic cable rates. Average monthly residential revenue per subscriber grew from \$59.87 in 2002 to \$66.22 in 2003 and is projected to increase to \$72.60 in 2004.<sup>85</sup> All revenue categories increased, except revenue from premium tiers, which decreased 1.2 percent in 2003.

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 companies in capital intensive industries.<sup>86</sup> Cash flow from operations is the net result of cash inflows from operations (revenue) and cash outflows from operations (expenses). Cash flow from operations indicates a firm's ability to meet its net finance and investment obligations and thus does not include non-cash charges to net income such as depreciation and amortization. As Table 4 shows, cash

<sup>82</sup> See *2004 Price Survey* at ¶¶ 9-11. The Survey found that there is only a slight difference in the overall average and the average for the noncompetitive group because the noncompetitive group is much larger than the competitive group - an estimated eight percent of the total nationwide) *Id.*

<sup>83</sup> This index predominately reflects cable service, although it includes elements of satellite television and radio service. See <http://www.bls.gov/cpi/home.htm> (visited Jan. 14, 2005).

<sup>84</sup> For example, the Cable CPI includes all cable television services, while the monthly cable rate consists of basic service, expanded basic, and equipment. Also, because the CPI measures change in what consumers pay for a fixed basket of goods and services, BLS adjusts the cable CPI to reflect estimated changes in cable services. See <http://www.bls.gov/cpi/home.htm> (visited Jan. 14, 2005).

<sup>85</sup> Cable Databook at 4.

<sup>86</sup> The cable industry has long used a cash flow valuation model. Cash flow valuation is an effective tool for valuing companies that have negative net income because they are building out capital infrastructure and accruing significant long-term debt early in their life-cycle. The traditional measurement of cash flow, a measure of operating profit, has evolved into EBITDA, which ignores the expenses of interest, taxes, depreciation and amortization, whereas the standard valuation model, net income, includes them. In the past year, free cash flow (FCF) has largely replaced EBITDA as a critical valuation metric of choice among industry analysts. Although a standardized definition of FCF does not exist, FCF essentially takes into account the periodic interest that must be paid on debt. Some analysts more recently have suggested that the cable industry should be valued on the traditional net income model, and not cash flow or its various proxies (EBITDA or FCF) because the industry has now reached a stage of maturation that would justify use of more traditional valuation metrics. See *2003 Report*, 19 FCC Rcd at 1627 ¶¶ 28 and n.72.

flow from operations increased during 2003.<sup>87</sup> Table 4 also shows that the average annual revenue for residential and business subscribers combined is expected to grow from \$824 in 2003 to \$910 in 2004.<sup>88</sup> In addition, cash flow as a percentage of revenue (cash flow margin) increased over the same period. That is, cash flow increased at a greater rate than revenue, indicating that revenues grew faster than operating expenses during 2003.

**TABLE 4: Cable Industry Revenue and Cash Flow: 2002 – 2004<sup>89</sup>**

	2002	2003	02-03	2004	03-04
	Total	Total	% Change	Est. Total	% Change
Basic Subscribers (mil.)	66.1	66.0	-0.2%	66.2	0.3%
<b>Revenue Segments (mil.)</b>					
Basic Service and CPST Tiers	\$27,690	\$29,000	4.7%	\$30,336	4.6%
Premium (Pay) Tiers	\$5,963	\$5,891	-1.2%	\$5,871	-0.3%
VOD/Pay-Per-View <sup>90</sup>	\$793	\$976	23.1%	\$1,134	16.2%
Local Advertising	\$2,978	\$3,239	8.8%	\$3,676	13.5%
Home Shopping	\$289	\$307	6.2%	\$330	7.5%
Total Digital Tier	\$2,693	\$3,396	26.1%	\$4,008	18.0%
High-speed Internet	\$4,525	\$6,761	49.4%	\$8,886	31.4%
Digital Video Recorder	\$4	\$36	800.0%	\$149	313.9%
Circuit Switch and VoIP	\$1,261	\$1,524	20.9%	\$1,732	13.6%
Installation <sup>91</sup>	\$426	\$443	4.0%	\$458	3.4%
Miscellaneous <sup>92</sup>	\$2,173	\$2,821	29.8%	\$3,669	30.1%
<b>Total Revenue<sup>93</sup> (mil.)</b>	<b>\$48,795</b>	<b>\$54,394</b>	<b>11.5%</b>	<b>\$60,249</b>	<b>10.8%</b>
Revenue Per Subscriber	\$738.20	\$824.15	11.7%	\$910.11	10.4%
<b>Operating Cash Flow (mil.)</b>	<b>\$18,201</b>	<b>\$20,371</b>	<b>11.9%</b>	<b>\$22,670</b>	<b>11.3%</b>
Cash Flow per Subscriber	\$275.36	\$308.65	18.9%	\$342.45	11.0%
<b>Cash Flow/Total Revenue</b>	<b>37.3%</b>	<b>37.5%</b>	<b>0.5%</b>	<b>37.6%</b>	<b>0.3%</b>

<sup>87</sup> Kagan World Media reports that it was high-margin, high-speed data service that drove operating cash flow growth in 2003. Cable Databook at 7.

<sup>88</sup> Revenue from residential subscribers is expected to grow from \$794.64 (\$66.22 per month x 12 = \$794.64) in 2003 to \$871.20 (\$72.60 x 12 = \$871.20) in 2004. Revenue from business subscribers is expected to grow from \$991.32 (\$82.61 x 12 = \$991.32) in 2003 to \$1040.88 (\$86.74 x 12 = \$1040.88) in 2004. *Id.* at 13.

<sup>89</sup> Pay-per-view and home shopping data for 2001 come from the *2002 Report*. All other data come from the Cable Databook at 8-13 and 154. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook.

<sup>90</sup> Includes VOD, subscription-video-on-demand (SVOD), near-video-on-demand (NVOD), and PPV.

<sup>91</sup> Includes basic installation and pay installation.

<sup>92</sup> Miscellaneous revenue includes revenues derived from high-definition television, interactive games, home networking, business services, and equipment charges. We note that there is often no additional cost for the standard definition version of HDTV channels. In many cases, MSOs charge for HDTV channels that are not offered in a standard definition version. Some MSOs do not charge higher prices for an HD set-top box, but most apply a professional installation fee. See Time Warner Cable, <http://www.timewarnercable.com/corporate/products/digitalcable/hdtv.html> (visited Jan. 14, 2005); Cablevision Systems Corp., <http://www.io.tv/index.jhtml?pageType=hdtv> (visited Jan. 14, 2005); Comcast Corp., <http://www.comcast.com/Benefits/CableDetails/Slot4PageOne.asp?LinkID=120> (visited Jan. 14, 2005); Charter Communications, <http://www.charter.com/products/hdtv/hdtv.aspx> (visited Jan. 14, 2005).

<sup>93</sup> Total revenue includes both residential and business revenue. Business revenue was \$1,036 million for 2002, \$1,911 million for 2003, and a projected \$2,647 million for 2004.

30. **Programming Costs.** Cable operators' combined program expenditures reached \$11.46 billion in 2003.<sup>94</sup> This represents expenditures for existing nonbroadcast networks and expenditures for new nonbroadcast networks.<sup>95</sup> In addition to expenditures for national nonbroadcast networks, cable companies produced or acquired local and regional programming, including cable news and public affairs networks.<sup>96</sup> Included in the \$11.46 billion in program expenditures are copyright fees of \$129.2 million in 2003 for broadcast signal carriage pursuant to Section 111 of the Copyright Act.<sup>97</sup>

31. **Cable System Transactions.** The aggregate value of cable systems sold in any year depends on the number of transactions, the size of the cable systems involved, and the price paid. As shown in Table 5 below, there were 34 cable transactions in 2003, representing an aggregate value of \$1.52 billion.<sup>98</sup> A few transactions accounted for most of the dollar value.<sup>99</sup> Most of the transactions, however, involved small rural cable systems and non-upgraded cable systems.<sup>100</sup> For the smallest transaction, the price was \$1,259 per subscriber.<sup>101</sup> For the largest transaction, the price was \$3,225 per subscriber.<sup>102</sup> The average value per subscriber in 2003 was \$2,321.<sup>103</sup> In the first six months of 2004, there were nine cable system transactions, representing an aggregate value of \$293 million. According to Kagan, this is the smallest number of transactions since it started tracking cable transactions in 1982.<sup>104</sup> Mergers, which involve the transfer and exchange of numerous systems, are not reflected in Table 5.

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<sup>94</sup> NCTA Comments at 44. NCTA's calculation of programming expenditures includes license fees, copyright fees, and investments in local programming.

<sup>95</sup> In 2004, we have identified 388 nonbroadcast networks. See para. 145 *infra*. According to NCTA, there were 339 nonbroadcast networks by year-end 2003, including new networks such as NFL Network, Pentagon Channel, Si TV, and TVOne. NCTA Comments at 45.

<sup>96</sup> *Id.* at 46-47.

<sup>97</sup> Copyright Act, 17 U.S.C. § 111 *et seq.* Copyright Office, Library of Congress, *Licensing Division Report of Receipts*, Oct. 28, 2004. Copyright fees are due on a specific date, but are collected on a rolling basis.

<sup>98</sup> Cable Databook at 175.

<sup>99</sup> The two largest transactions, Comcast's acquisition of 30,000 cable subscribers from U.S. Coastal Cable in April 2004 and Cebridge's acquisition of 41,000 cable subscribers from USA Media Group in March 2004, accounted for approximately 63 percent of the aggregate value of cable systems sold. Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 18. See also Kagan World Media, *Cable TV Investor: Deals and Finance*, Mar. 31, 2004, at 12; Kagan World Media, *Cable TV Investor: Deals & Finance*, May 28, 2004, at 13.

<sup>100</sup> Cable Databook at 175. See also Kagan World Media, *Cable TV Investor: Deals & Finance*, Feb. 29, 2004, at 6-7.

<sup>101</sup> Cable Databook at 175.

<sup>102</sup> *Id.*

<sup>103</sup> *Id.* Analysis of transactions over the past five years shows that smaller systems sold for an average of \$1,731 per subscriber and larger systems sold for an average of \$4,466 per subscriber. *Id.*

<sup>104</sup> Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 18.

**TABLE 5: System Transactions: 2001 - June 2004**<sup>105</sup>

	2001	2002	2003	Jan-Jun 2004
Number of Systems Sold	36	23	34	9
Total Number of Subscribers Sold	17,958,375	607,446	654,759	130,391
Average Number of Subscribers	498,844	26,411	19,258	14,488
Total Number of Homes Passed Sold	31,657,221	1,158,765	1,132,772	233,147
Average Number of Homes Passed per System Sold	879,367	50,381	33,317	25,905
Total Dollar Value (mil.)	\$87,499	\$1,432	\$1,520	\$293
Average Value (mil.) of System Sold	\$2,431	\$62.3	\$44.7	\$43.7
National Average Dollar Value Per Subscriber	\$4,872	\$2,357	\$2,321	\$2,249
Dollar Value Per Home Passed	\$2,764	\$1,236	\$1,341	\$1,258
Cash Flow Multiple	19.3	11.6	9.4	10.5

32. **Stock Prices.** Cable stock prices, as measured by the Kagan Cable MSO Average,<sup>106</sup> fell 8.2 percent from June 2003 to June 2004, whereas the S&P 500 rose 16.4 percent, and the NASDAQ rose 25.2 percent.<sup>107</sup> At the end of June 2004, cable stocks were trading at a historic low of 8.5 times cash flow.<sup>108</sup> One analyst reported that cable stocks had fallen because of investor worries regarding competition from DBS and reports of facilities-based entry of telephone companies into the video delivery market.<sup>109</sup>

## 2. Capital Acquisition and Disposition

33. **Industry Financing.** Table 6 shows the amount of financing raised per year by source. Cable companies reduced total debt in 2003. Kagan reports that 2003 was the first time net public debt was negative since it began keeping records in 1988.<sup>110</sup> Cable companies continued to reduce net public debt in the first half of 2004.

<sup>105</sup> Data for 2003 come from Kagan World Media, *Cable TV Investor: Deals & Finance* Jan. 31, 2004, at 11. Data for January to June 2004 come from Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 19. The numbers for January to June 2004 include all announced and proposed deals. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See *Cable Databook*.

<sup>106</sup> The Kagan MSO Average includes the following companies (stock symbol): Gannett (GNCMA), Washington Post (WPO), Comcast A (CMCSA), Comcast Special (CMCSK), Cox (COX), Cablevision (CVC), Time Warner (TWX), Insight Communications (ICCI), Mediacom (MCCC), Charter Communications (CHTR), RCN Corporation (RCN), and Adelphia (ADELQ).

<sup>107</sup> Kagan World Media, *Cable TV Investor: Deals & Finance*, July 30, 2003, at 23; Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 23.

<sup>108</sup> Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 1.

<sup>109</sup> Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 3. See also Peter Grant, *Coming to Cable: Payback Time*, WALL STREET JOURNAL, July 27, 2004.

<sup>110</sup> *Cable Databook* at 153.

TABLE 6: Acquisition of Capital: 1998 - June 2004 (\$ in millions)<sup>111</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	
1998	\$5,421	39.1%	\$6,299	45.5%	\$250	1.8%	\$1,927	13.9%	\$13,897
1999	\$34,358	51.9%	\$18,610	28.1%	\$5,385	8.1%	\$7,799	11.8%	\$66,152
2000	\$7,255	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%	\$21,250
2002	\$2,545	25.2%	\$3,942	39.0%	\$15	0.1%	\$3,608	35.7%	\$10,110
2003	\$1,791	-641.9%	-\$2,240	802.9%	\$116	-41.6%	\$54	-19.4%	-\$279
Jan-June 2004	\$6,165	173.3%	-\$2,733	-76.8%	\$125	3.5%	\$0	0%	\$3,557

34. *Capital Expenditures/Capital Investment.* Over the last decade, cable companies have invested heavily to rebuild and upgrade cable systems.<sup>112</sup> These investments enable cable operators to offer more channels of basic and digital cable services, premium movie services, pay-per-view programs, high-definition programming, high-speed Internet access services, CD-quality music, cable telephony, and more personalized programming options.<sup>113</sup> NCTA estimated that the rebuilding and upgrading of cable systems to 750 MHz or greater capacity with two-way capability would be 91 percent complete by July 2004.<sup>114</sup> At year-end 2003, nearly 95 million homes were passed by cable systems with capacity of 750 MHz or higher and two-way capability.<sup>115</sup> With the rebuilding and upgrading of cable systems nearing completion, capital expenditures for most cable operators are being reduced. Capital expenditures were \$10.3 billion in 2003 and are estimated to fall to \$9.5 billion in 2004.<sup>116</sup>

35. Comcast reported capital expenditures of \$4.1 billion in 2003, with approximately \$1.4 billion for upgrading cable systems and approximately \$1.6 billion for upgrading customer premise equipment.<sup>117</sup> Comcast expects capital expenditures to reach \$3.3 billion to \$3.4 billion in 2004, an approximate \$750 million decline from 2003.<sup>118</sup> For the first six months of 2004, Comcast reported \$1.7

<sup>111</sup> Data for 2003 come from Cable Databook at 158. Data for January to June 2004 come from Kagan World Media, Cable TV Investor: Deals & Finance, July 29, 2004, at 15. Historical data included in this table may differ from those previously reported because some data have been updated by Kagan. See Cable Databook.

<sup>112</sup> 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.

<sup>113</sup> NCTA Comments at 30.

<sup>114</sup> *Id.* at 29.

<sup>115</sup> *Id.* at 29.

<sup>116</sup> *Id.* at 29, and Cable Databook at 4.

<sup>117</sup> Comcast Comments at 23.

<sup>118</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004. Comcast has been upgrading the AT&T Broadband systems acquired in 2002. Prior to the acquisition of AT&T Broadband in 2002, over 95 percent of Comcast's systems were upgraded to 750 MHz or greater. When Comcast acquired the AT&T Broadband systems, only 66 percent of those systems were upgraded. At year-end 2003, 93 percent of the acquired systems were upgraded. *Id.* See also *2003 Report*, 19 FCC Rcd at 1634 ¶ 38.

billion in capital expenditures.<sup>119</sup> Comcast expects to complete the upgrade of its cable systems in 2004.<sup>120</sup> By year-end 2003, 95 percent of Comcast's cable systems were upgraded to deliver two-way digital cable and high-speed Internet services.<sup>121</sup> At the end of the first quarter of 2004, Comcast had upgraded 96 percent of its cable plant.<sup>122</sup> At the end of June 2004, 97 percent of Comcast cable systems were upgraded to provide advanced services.<sup>123</sup> Cox reported capital expenditures of \$1.6 billion in 2003, with \$206.4 million for upgrading and rebuilding cable systems and \$606.3 million for customer premise equipment.<sup>124</sup> Cox expects a slight decline in expenditures to \$1.4 billion in 2004.<sup>125</sup> For the first six months of 2004, Cox reported capital expenditures of \$617.9 million.<sup>126</sup> Time Warner reported cable capital expenditures of \$1.6 billion in 2003, with \$175 million for upgrading and rebuilding cable systems and \$715 million for customer premise equipment.<sup>127</sup> For the six months ended June 30, 2004, Time Warner reported \$718 million in cable capital expenditures.<sup>128</sup> Last year, Time Warner announced that it had upgraded virtually all of its cable architecture with hybrid fiber-coax cable plant capable of supporting two-way, digital communications.<sup>129</sup> Cablevision reported cable capital expenditures of \$715.2 million in 2003, with \$139.1 million for upgrading and rebuilding cable systems and \$448.5 million for customer premise equipment.<sup>130</sup> During 2003, Cablevision completed a system-wide upgrade of its nonbroadcast network.<sup>131</sup> For the first six months of 2004, Cablevision reported cable capital expenditures of \$278.0 million.<sup>132</sup> Charter reported cable capital expenditures of \$854 million in 2003, with \$132 million for upgrading and rebuilding cable systems and \$380 million for customer premise equipment.<sup>133</sup> For the six months ended June 30, 2004, Charter reported \$390 million in cable capital expenditures.<sup>134</sup> This is a 48 percent increase from the first half of 2003, when cable capital expenditures

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<sup>119</sup> Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004. In the second quarter of 2004, Comcast spent \$893 million in capital improvements compared with \$1.0 billion in the second of the prior year. *Id.*

<sup>120</sup> Comcast Corp., *Comcast Provides Financial Outlook for 2004* (press release), Feb. 11, 2004.

<sup>121</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

<sup>122</sup> Comcast Comments at 24.

<sup>123</sup> Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>124</sup> Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2003* (press release), Feb. 2, 2004.

<sup>125</sup> *Id.*

<sup>126</sup> Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2004* (press release), July 29, 2004.

<sup>127</sup> Time Warner Inc., *Time Warner Reports Results for 2003 Full Year and Fourth Quarter* (press release), Jan. 28, 2004.

<sup>128</sup> Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>129</sup> *2003 Report*, 19 FCC Rcd at 1635 ¶ 38.

<sup>130</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004.

<sup>131</sup> *Id.*

<sup>132</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2004 Results* (press release), Aug. 9, 2004.

<sup>133</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Year 2003 Financial and Operating Results* (press release), Feb. 19, 2004.

<sup>134</sup> Charter Communications Inc., *Charter Communications Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.

totaled \$264 million. The increase resulted from increased purchases of customer premise equipment, primarily for high-definition television and digital video recorders, and increased expenditures on “scalable” infrastructure<sup>135</sup> related to the deployment of advanced services.<sup>136</sup>

### 3. Advanced Services

36. In addition to traditional analog video services, most cable operators offer subscribers advanced video services, including digital video, video-on-demand, digital video recorders, and high-definition television, and nonvideo advanced services, including high-speed Internet access and telephony (circuit-switched telephony and/or voice over Internet protocol telephony).<sup>137</sup> Mid-sized and smaller cable operators also are deploying advanced services.<sup>138</sup> A December 2002 survey of mid-sized and smaller cable operators shows that more than half were providing digital cable and high-speed cable Internet service, and most of the other half planned to launch the services in the near term.<sup>139</sup> Our review of six mid-sized and smaller cable operators shows that all offer digital cable service and high-speed Internet service but not all offer video-on-demand, digital video recorders, high-definition television, and telephone service.

37. **Digital Video Services.** Cable operators offer digitally-compressed video channels to cable subscribers. Digital compression technologies allow anywhere from six to 12 video channels to be compressed into the capacity previously used to provide just one standard six MHz analog channel. Digital cable subscribers obtain programming by selecting one or more digital service tiers. Digital tiers may include a movie tier, a variety tier, a sports tier, and a non-English-language tier. Digital cable

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<sup>135</sup> Scalable infrastructure includes costs, not related to customer premise equipment or the nonbroadcast network, to secure growth of new customers, revenue units and additional bandwidth revenues or provide service enhancements (e.g., headend equipment, high-speed data access equipment, host digital terminals, video and telephony transport, advertising insertion equipment, and telephone switches).

<sup>136</sup> Charter Communications Inc., *Charter Communications Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.

<sup>137</sup> Subscription data for advanced services shown in this *Report* are primarily for residential service, but may also include some small business service. For example, Comcast offers a business Internet service for teleworkers called Comcast Teleworker, and a business Internet service for small to medium businesses called Comcast Workplace. Similarly, Time Warner also offers a business Internet service called Road Runner Business Class to small and medium-sized businesses, home offices, and telecommuters. Subscribers to these services are included in the reported numbers. Cable companies also sold \$1.9 billion in services to business in 2003 under separately-run subsidiaries. For example, Cox Business Services offers high-speed Internet access, local and long distance telephone, advanced voice and data transport; Cox Enterprise Connectivity Solutions connects businesses to branch locations and remote workers; Charter Business offers high-speed Internet access services and video services to small and large businesses; and Time Warner’s Road Runner Business Class offers high-speed Internet access to small and mid-sized businesses. Small operators also offer advanced services to business customers. Bresnan, for example, provides high-speed Internet access, voice and data transport and video to large and small businesses under its Bresnan Business Services subsidiary; Susquehanna Communications offers businesses advanced communications services, including local and long distance telephone services, high-speed Internet access, and data transport and video; and Sunflower Broadband offers Sunflower Broadband Business Services providing high-speed Internet, telephone service, and professional IT service. Cable Databook at 13; See Cox Communications, Inc., <http://www.coxbusiness.com> (visited Dec. 28, 2004); Charter Business, <http://www.charter-business.com> (visited Dec. 28, 2004); Time Warner, Inc., [http://www.rrbiz.com/Road Runner/index.asp?sid=1](http://www.rrbiz.com/Road%20Runner/index.asp?sid=1) (visited Dec. 28, 2004); Bresnan Communications, <http://www.bresnan.com/unst/products/business> (visited Dec. 28, 2004); Susquehanna Communications, <http://www.suscom.com/home/business.php> (visited Dec. 28, 2004); Sunflower Broadband, <http://www.sunflowerbroadband.com/business> (visited Dec. 28, 2004).

<sup>138</sup> See ACA Comments at Exhibit 2.

<sup>139</sup> *Id.*

subscribers may obtain additional programming by selecting one or more premium digital tiers, such as HBO, Showtime, Cinemax, The Movie Channel, Starz!, and international programming.<sup>140</sup> In addition, digital cable subscribers may choose programming from a high-definition digital tier.<sup>141</sup> In addition to digital cable, cable operators are also deploying interactive digital services, such as single tuner or dual-tuner digital video recorders, and video-on-demand.<sup>142</sup> The cable industry reported that the number of digital cable subscribers increased from 20.6 million at the end of June 2003 to 22.9 million at the end of March 2004.<sup>143</sup>

38. In 2003, Comcast ended the year with nearly 7.7 million digital cable subscribers, representing a penetration rate of nearly 36 percent of basic cable subscribers.<sup>144</sup> At the end of June 30, 2004, Comcast offered digital cable service to all of its 21.4 million subscribers and had 8.1 million digital cable subscribers, representing 37.5 percent of basic video cable subscribers.<sup>145</sup> Comcast also offers a Spanish-language tier that includes ten digital TV networks and eight audio channels.<sup>146</sup> In addition to premium movie channel tiers, Comcast offers premium sports packages to its digital cable subscribers, including NASCAR IN CAR, MLB Extra Innings, Major League Soccer Direct Kick, ESPN GamePlan (collegiate sports), NHL Center Ice, and NBA League Pass.<sup>147</sup> During 2003, Cox added 82,967 digital cable subscribers and ended the year with over 2.1 million digital cable subscribers, representing 34 percent of its basic video subscriber base.<sup>148</sup> As of June 30, 2004, Cox digital cable was available to 99 percent of its 6.3 million basic cable subscribers, and it had 2.3 million digital cable subscribers, representing 36 percent of basic cable subscribers.<sup>149</sup> In 2003, Time Warner added 602,000 net digital video subscribers to reach a total of 4.3 million digital video subscribers, representing 40 percent of basic cable subscribers.<sup>150</sup> By June 30, 2004, the number of Time Warner's digital video subscribers had grown to 4.6 million, representing 42 percent of basic video cable subscribers.<sup>151</sup> At year-

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<sup>140</sup> The premium digital tiers require subscription to the digital service. To receive a digital premium channel, a subscriber must subscribe to the premium channel. For example, to receive digital HBO, a subscriber must subscribe to HBO.

<sup>141</sup> The high-definition tier of programming requires subscription to the digital service and a high-definition set-top box. Some high-definition programming is available at no additional charge. For example, the high-definition programming of the broadcast networks is often available at no additional charge. In addition, high-definition programming from the premium channels is often included with a subscription to the premium movie channels. Other high-definition programming may require additional fees. For example, Discovery HD Theater may require additional fees.

<sup>142</sup> NCTA Comments at 34. These interactive services offered by a cable company require subscription to the digital service. The digital video recorder service offered by cable operators also requires a DVR set-top box.

<sup>143</sup> *Id.* at 33-34; *2003 Report*, 19 FCC Rcd at 1637 ¶ 41.

<sup>144</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

<sup>145</sup> Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>146</sup> Comcast Comments at 26.

<sup>147</sup> *Id.* at 27.

<sup>148</sup> Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2003* (press release), Feb. 12, 2004.

<sup>149</sup> Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2004* (press release), July 29, 2004.

<sup>150</sup> Time Warner Inc., *Time Warner Reports Results for 2003 Full Year and Fourth Quarter* (press release), Jan. 28, 2004.

<sup>151</sup> Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2004 Results* (press release), July 28, 2004.

end 2003, Cablevision had 905,495 subscribers to its Interactive Optimum (iO) digital video service, representing a penetration rate of 30.8 percent of basic subscribers.<sup>152</sup> Charter provided digital video service to approximately 2.7 million subscribers as of year-end 2003, representing 42 percent of basic video subscribers.<sup>153</sup> Over the six months ending June 2004, Charter lost both basic video subscribers and digital video subscribers. As of June 2004, Charter had approximately 2.6 million digital video subscribers, representing 43 percent of basic video subscribers.<sup>154</sup>

39. In 2003, the Commission adopted rules based on an agreement between consumer electronics companies and cable operators that will enable television sets to be built with “plug and play” functionality for one-way digital cable services, which include typical cable programming services and premium channels like HBO and Showtime.<sup>155</sup> For these services, consumers will be able to plug their cable directly into their digital television set without the need of a set-top box. Consumers, however, will have to obtain a security card (often called a CableCARD), from their local cable operator, to be inserted into the television set. Consumers still need a set-top box to receive two-way services (*e.g.*, video-on-demand), and the cable and consumer electronics industries continue to work on an agreement for two-way “plug and play” functionality.<sup>156</sup> Consumer electronics manufacturers have already begun selling digital cable ready television sets with over-the-air integrated DTV tuners as well as cable tuners.<sup>157</sup>

40. **Video-on-Demand (VOD).** VOD allows subscribers to order video programming from a central server at any time of day, and to fast-forward, rewind, and pause the programming.<sup>158</sup> In most cases, subscribers receive unlimited viewing of a VOD program for 24 hours. Some cable operators also offer subscription video-on-demand (SVOD) where subscribers pay a monthly fee for unlimited access to a library of pre-selected programming. Other cable operators offer near video-on-demand (NVOD) which typically features a schedule of popular movies and events offered on a staggered-start basis (*e.g.*, every 15 to 30 minutes). Cable companies view VOD as a competitive service to DVD/VHS rentals. Most of the major cable companies have deployed VOD services.<sup>159</sup> In 2003, there were 12.6 million digital

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<sup>152</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004.

<sup>153</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Year 2003 Financial and Operating Results* (press release), Feb. 19, 2004.

<sup>154</sup> Charter Communications Inc., *Charter Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.

<sup>155</sup> *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, 18 FCC Rcd 20885 (2003).

<sup>156</sup> See para. 187 *infra*.

<sup>157</sup> CEA Comments at 8. With most cable systems, use of the digital cable ready television set requires that cable subscribers obtain a CableCARD *containing* security and other circuitry for particular local cable systems. As we reported last year, the CableCARD is a removable security module which, when inserted into an OpenCable certified device, enables delivery of digital video programming and other services. CableCARDS are provided directly by the cable operator to customers who request them. CableLabs, at <http://www.cablelabs.com/news/glossary.html#C> (visited Oct. 5, 2004). See para. 187 *infra*.

<sup>158</sup> VOD differs from PPV. PPV 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 time shifted across several channels to increase the opportunity for viewing. Once initiated, the program cannot be paused, rewound or fast-forwarded.

<sup>159</sup> NCTA Comments at 23. Cablevision, Charter, Comcast, Cox, Insight, Mediacom, and Time Warner offer VOD service.

subscribers with VOD capability, 10.0 million digital subscribers with NVOD capability, and 8.2 million homes with SVOD capability.<sup>160</sup>

41. Comcast's ON DEMAND service allows digital cable subscribers to choose from a library of movie, sports, and news, and start them at any time. In addition to programming from established content providers, such as Discovery Networks, CBS, BET, and MTV, Comcast's VOD service also includes programming from new, and less well known, content providers.<sup>161</sup> At the end of 2003, Comcast's VOD service was available to 50 percent of its cable subscribers.<sup>162</sup> Comcast expects to make ON DEMAND available to 85 percent of its subscribers by the end of 2004.<sup>163</sup> Cox's Entertainment on Demand gives subscribers in selected markets access to hundreds of movies and other programming with full VCR-like functionality.<sup>164</sup> Digital cable subscribers can access Entertainment on Demand with their existing Cox cable box, which communicates with Cox's servers to stream and control movies.<sup>165</sup> Time Warner maintains that it leads the industry in deploying VOD and SVOD services.<sup>166</sup> Time Warner offers these services to all of its 31 cable operating divisions.<sup>167</sup> Time Warner provides two VOD services: Movies on Demand allows Time Warner digital cable subscribers to select among hundreds of movies, and Premiums on Demand allows Time Warner digital cable subscribers unlimited instant access to movies offered on the premium movie channels (*i.e.*, HBO, Showtime, Cinemax, and the Movie Channel) for a monthly fee.<sup>168</sup> Cablevision's Interactive Optimum (iO) digital cable service provides a VOD and SVOD.<sup>169</sup> Cablevision's SVOD service includes HBO, Cinemax, Anime Network, Showtime, Disney Channel, and IFC Uncensored which offers independent films and original series.<sup>170</sup> Charter OnDemand offers a near VOD service that allows digital cable subscribers to pause, rewind, and fast-forward movies offered at multiple start times, rather than instant access.<sup>171</sup>

42. **Digital Video Recorders (DVRs).** DVR service allows subscribers to record programming onto a hard drive located in a set-top box, which can then be played back at any time. DVR features include fast-forward, pause, and the ability to pause live television. Cable operators are integrating DVR functionality into digital set-top boxes and are expected to have approximately 1.4 million DVR

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<sup>160</sup> Cable Databook at 12.

<sup>161</sup> Comcast Comments at 31.

<sup>162</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

<sup>163</sup> Louis Chunovic, *The Success Story Wall Street Ignores*, BROADCASTING & CABLE, Aug. 30, 2004, at 28.

<sup>164</sup> For a description of Entertainment on Demand, see <http://www.cox.com/digitalcable/eod/faq.asp> (visited Sept. 10, 2004).

<sup>165</sup> *Id.*

<sup>166</sup> For an overview of Time Warner Cable, see [http://www.timewarner.com/companies/time\\_warner\\_cable\\_index.adp](http://www.timewarner.com/companies/time_warner_cable_index.adp) (visited Sept. 10, 2004).

<sup>167</sup> *Id.* Each of Time Warner's cable operating divisions is a cluster of cable franchises, see <http://www.timewarner.com/companies/clusters.adp> (visited Sept. 10, 2004).

<sup>168</sup> For an overview of Time Warner's VOD and SVOD offerings, see <http://www.timewarnercable.com/corporate/products/digitalcable/moviesondemand.htm> and <http://www.timewarnercable.com/corporate/products/digitalcable/premiumsondemand.html> (visited Sept. 10, 2004).

<sup>169</sup> For an overview of Cablevision's VOD and SVOD services, see [http://www.io.tv/index.jhtml?pageType=on\\_demand](http://www.io.tv/index.jhtml?pageType=on_demand) (visited Sept. 10, 2004).

<sup>170</sup> *Id.*

<sup>171</sup> For an overview of Charter's VOD service, see <http://www.charter.com/services/ondemand/ondemand.aspx> (visited Sept. 10, 2004).

subscribers by the end of 2004.<sup>172</sup> Most cable operators are offering dual tuner DVRs that allow a subscriber to record one or more programs while watching another program.<sup>173</sup> Comcast's DVR service enables subscribers to record between 30 and 50 hours of programming and most of its DVRs include dual tuners that allow a subscriber to record at least two programs at once while watching a third program.<sup>174</sup> At the end of 2003, Comcast's DVR service was available to 10 percent of basic subscribers.<sup>175</sup> By June 2004, Comcast's DVR service was available to 50 percent of its digital cable subscribers, and by year-end Comcast expects DVR service to be available to 100 percent of its digital subscribers.<sup>176</sup> Cox offers DVR service to 35 percent of its basic cable subscribers.<sup>177</sup> Cox has announced that 95 percent of its markets will have access to DVR service by the end of 2004.<sup>178</sup> Cox's DVR subscribers have dual tuner recording capabilities and an enhanced interactive guide.<sup>179</sup> The dual tuner software, which is automatically downloaded to the subscriber's set-top box, allows subscribers to record two programs simultaneously while watching a previously recorded program, or watch a live program while recording an additional program.<sup>180</sup> The enhanced DVR navigation service will allow subscribers to set preferences to store first-run episodes of a favorite show; a favorite show on any channel where it appears; or a favorite show only in its prime time slot.<sup>181</sup> Viewers search for programs using an on-screen keyboard and find programs by entering keywords such as actor, director or subject.<sup>182</sup> Comcast DVR service is generally \$9.95 per month in addition to the cost of the digital tier of service.<sup>183</sup> Cox's DVR service is available for \$4.95 per month, plus the lease price of a DVR set-top box, which is \$9.95 per month.<sup>184</sup> Time Warner offers DVR service in 30 of its 31 divisions and had 458,000 subscribers at the end of March 2004.<sup>185</sup> Charter offers DVR service in a limited number of its service

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<sup>172</sup> NCTA Comments at 35.

<sup>173</sup> Television sets and products with one-way plug-and-play functionality through a CableCARD currently are not able to offer similar dual-tuner DVR functionality unless the device is equipped to receive and the subscriber orders two or more CableCARDS. The Commission will monitor progress in making multistream CableCARDS available to subscribers as quickly as possible. *See* para. 39 *supra*, para. 187 *infra*.

<sup>174</sup> Comcast Comments at 33. *See* Comcast Corp., <http://www.comcast.com> (visited Jan. 14, 2005).

<sup>175</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

<sup>176</sup> Comcast Comments at 33. Comcast's DVR service is available in Albuquerque, New Mexico; northern Virginia; Montgomery County, Maryland; selected systems in New Jersey; Charleston, South Carolina; and Panama City, Sarasota and Fort Myers/Naples, Florida. NCTA Comments at 36.

<sup>177</sup> *Id.* at 35. Areas where Cox currently provides DVR service include Gainesville, Florida; Fairfax, Virginia; San Diego, California; Las Vegas, Nevada; and Cleveland, Ohio. *Id.*

<sup>178</sup> Cox Communications Inc., *Cox Communications' Digital Video Recorder Service Soon Available in More Than 95 Percent of Markets* (press release), July 27, 2004.

<sup>179</sup> Cox Communications Inc., *Cox Digital Video Recorder Service Enhancements Bring Customers a Superior Viewing Experience* (press release), Sept. 8, 2004.

<sup>180</sup> The dual tuner software is available in markets where Cox uses Motorola DVRs. Cox's current Motorola DVR markets include Kansas; Orange County, California; Middle America Cox (Arkansas, Kansas, Louisiana, and East Texas); Omaha, Nebraska; Roanoke, Virginia; New England; Baton Rouge, Louisiana; Hampton Roads, Virginia; Middle Georgia; New Orleans, Louisiana; and Tulsa, Oklahoma. *Id.*

<sup>181</sup> *Id.*

<sup>182</sup> *Id.*

<sup>183</sup> *See* Comcast Corp., at [http://www.comcast.com/Support/Corp1/FAQ/FaqDetail\\_1824.html](http://www.comcast.com/Support/Corp1/FAQ/FaqDetail_1824.html) (visited Jan. 14, 2005).

<sup>184</sup> *Id.*

<sup>185</sup> NCTA Comments at 35.

areas. In late 2003, Charter announced an agreement with Scientific-Atlanta Inc. to purchase digital set-top boxes for the initial rollout of DVR service in the Los Angeles area, the first of Charter's DVR deployments.<sup>186</sup> In the spring of 2004, Charter announced the commercial launch of a dual-tuner DVR service using a Motorola digital set-top box in the Rochester, Minnesota market.<sup>187</sup> Insight offers DVR service in all its systems, and Cablevision, Mediacom, Bright House, and Adelphia have announced plans for DVR deployment in 2004.<sup>188</sup>

43. **High-Definition Television (HDTV).** Cable operators are deploying HDTV nationwide. Cable companies initiated HDTV service in early 2003, and by the end of that year it was available to approximately 37 million cable subscribers.<sup>189</sup> At the end of June 2004, HDTV service was available in 155 markets, including 99 of the top 100 markets, making it the fastest rollout of any service launched by the cable industry.<sup>190</sup> By late September 2004, HDTV over cable was available to subscribers in 177 markets, including all of the top 100 markets, and 90 million television households were passed by a cable system offering HDTV programming.<sup>191</sup> HDTV is part of the digital video service, requires an HD set-top box, and typically includes a mix of broadcast, basic cable, and premium nonbroadcast networks.<sup>192</sup> Fifteen nonbroadcast networks offer HDTV programming.<sup>193</sup> These include HBO, Showtime, Cinemax, The Movie Channel, Starz!, and iN Demand. In addition to its HD Theater, Discovery plans to produce Atlas HD, a series of 30 two-hour, HDTV documentary specials on countries around the world.<sup>194</sup> HDNet produces sports, news, and entertainment 24 hours a day. MSG Network, Comcast SportsNet, Fox Sports Net NY, and ESPN also produce HDTV programming. In addition to the nonbroadcast networks, cable operators are carrying the digital signals of 454 broadcast stations.<sup>195</sup> Cox has agreements with the Public Broadcasting Service and the Association of Public Television Stations to carry digital signals, including the HDTV programming, of 70 PBS stations.<sup>196</sup> Public broadcasters have similar company-wide agreements with Time Warner and Insight, and market-specific agreements with Comcast, Adelphia, Cablevision, and Bright House.<sup>197</sup>

44. Comcast offers HDTV in 54 markets, including all of the top 100 designated market areas (DMAs) served by Comcast, as well as smaller markets like Eugene, Oregon; Salisbury, Maryland; and

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<sup>186</sup> Charter Communications Inc., *Charter Communications Gives Video Control to California Customers* (press release), Dec. 19, 2003.

<sup>187</sup> Charter Communications Inc., *Charter Deploys Motorola's Broadband Media Center with Moxi Service* (press release), Apr. 26, 2004.

<sup>188</sup> NCTA Comments at 36.

<sup>189</sup> *Id.* at 31. The high-definition tier of programming requires subscription to the digital service and a high-definition set-top box. To obtain the full visual effect of HDTV, a cable subscriber also needs an HDTV set.

<sup>190</sup> *Id.*

<sup>191</sup> NCTA, *Consumers in 177 Markets Across the U.S. – Including all of the Top 100 – Can Now Receive HDTV Over Cable* (press release), Sept. 27, 2004.

<sup>192</sup> NCTA Comments at 31.

<sup>193</sup> *Id.* at 32.

<sup>194</sup> *Id.*

<sup>195</sup> NCTA, *Cable's HDTV Deployment* at <http://www.ncta.com/images/HDTVkit-Deploy-final2.pdf> (visited Nov. 4, 2004). Data as of September 15, 2004 include some digital signals that may be DTV and not HDTV. See also NCTA Comments at 32.

<sup>196</sup> NCTA Comments at 31.

<sup>197</sup> *Id.* at 32.

Panama City, Florida.<sup>198</sup> At the end of June 2004, Comcast had approximately 600,000 subscribers to its HDTV service and offered HDTV service to more than 91 percent of its basic cable subscribers, up from 84 percent at the end of 2003.<sup>199</sup> Comcast charges a one-time fee for HDTV service and an additional \$5 monthly charge for the HDTV set-top box.<sup>200</sup> Comcast offers as many as 14 program services in HDTV, including the major broadcast networks, PBS, ESPN, iNHD1, iNHD2, HBO, Showtime, Starz!, and Cinemax.<sup>201</sup> Comcast has also entered an agreement with Discovery Communications to offer Discovery HD Theater in selected markets.<sup>202</sup> In addition, Comcast offers Comcast SportsNet in HDTV in some markets and is working with independent programmers, such as New England Sports Network, to create HDTV programming.<sup>203</sup> Most of Time Warner Cable's 31 divisions offer HDTV.<sup>204</sup> To access Time Warner Cable's HDTV service, subscribers must subscribe to the digital service and have an HDTV television and an HDTV set-top box.<sup>205</sup> All of Time Warner's HDTV subscribers receive, at no additional charge, HDTV programming from networks that have standard definition counterparts, including ABC, NBC, CBS, FOX, PBS, WB, UPN, TNT, Discovery HD Theater, HBO, and Showtime.<sup>206</sup> For an additional \$6.50 per month, Time Warner offers a second HDTV tier that includes ESPN HD, HDNet, HDNet Movies, iNHD1, and iNHD2.<sup>207</sup> In San Diego, 14 percent of Time Warner's digital cable subscribers also subscribe to the HDTV service, the highest HDTV penetration of any Time Warner cable division.<sup>208</sup> Cablevision offers 15 HDTV channels to more than 70,000 HDTV subscribers.<sup>209</sup> For iO subscribers with HDTV television sets, Cablevision offers HD set-top boxes at no additional charge over the standard box rental fee.<sup>210</sup> Currently, there is no additional charge for the HDTV programming provided the subscriber subscribes to a programming package that offers the standard definition version of each channel.<sup>211</sup> Cablevision's HDTV subscribers may view in high-definition CBS, PBS, FOX, NBC, MSG Network, Fox Sports Net New York, Bravo, HBO, Showtime, Cinemax, Starz!, The Movie Channel, iN Demand's iNHD, and the industry's first HDTV VOD offering, featuring more than 20 new release movies and programs originally seen in IMAX theaters.<sup>212</sup> Charter offers HDTV service in over 33 of its markets.<sup>213</sup> Charter offers the following HDTV channels: ABC, CBS, NBC, FOX, Discovery,

<sup>198</sup> Comcast Comments at 28.

<sup>199</sup> *Id.*; Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004; Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

<sup>200</sup> See Comcast Corp., at <http://www.comcast.com/Buyflow/default.ashx> (visited Jan. 10, 2005).

<sup>201</sup> Comcast Comments at 28.

<sup>202</sup> *Id.*

<sup>203</sup> *Id.* at 29.

<sup>204</sup> See, Time Warner Cable, at <http://www.timewarnercable.com/CustomerService/FAQ/TWCFaqs.ashx?faqID=30&MarketID=10&CatID=58> (visited Sept. 17, 2004).

<sup>205</sup> Time Warner Inc., *Time Warner Cable Launches ESPN HD* (press release), Sept. 14, 2004.

<sup>206</sup> *Id.*

<sup>207</sup> *Id.*

<sup>208</sup> Time Warner Inc., *Time Warner Cable San Diego Offers ESPN in High-definition* (press release), Sept. 13, 2004.

<sup>209</sup> Cablevision Systems Corp., *Cablevision and ESPN Reach Agreement to Add ESPN HD to Cablevision's Comprehensive High-Definition Programming Slate* (press release), June 7, 2004.

<sup>210</sup> *Id.* A professional installation fee applies.

<sup>211</sup> *Id.*

<sup>212</sup> *Id.*

<sup>213</sup> See Charter Communications, Inc., [http://www.charter.com/help/faqs/hdtv\\_faqs.aspx](http://www.charter.com/help/faqs/hdtv_faqs.aspx) (visited Sept. 17, 2004).

ESPN, HDNet, HDNet Movies, HBO HD to HBO subscribers, and Showtime HD to Showtime subscribers.<sup>214</sup> Charter's HDTV set-top box costs \$3 more a month than its standard digital set-top box.<sup>215</sup>

45. **High-Speed Internet Access Service.** In 2004, high-speed Internet access service is projected to generate approximately 15.4 percent of total cable industry revenue.<sup>216</sup> According to one analyst, cable's high-speed Internet service is currently available to over 98 million homes, and by year-end 2005, it will be available to more than 102 million homes.<sup>217</sup> NCTA maintains that the numbers indicate that the cable industry is close to completing the systems upgrades necessary to offer high-speed Internet service and other advanced services to every home passed by cable.<sup>218</sup>

46. Cable provided high-speed Internet access service to 63.2 percent (16.4 million subscribers) of the total 26 million high-speed Internet access residential and small business subscribers, as of year-end 2003.<sup>219</sup> DSL accounted for 34.3 percent.<sup>220</sup> Approximately 2.5 percent of high-speed Internet subscribers use other wireline and wireless technologies.<sup>221</sup> From June 2003 to June 2004, the number of cable modem subscribers grew from 13.7 million to 18.5 million.<sup>222</sup> Over the same period, the number of DSL subscribers increased from 6.4 million to 10.8 million.<sup>223</sup>

47. Comcast's high-speed Internet access service is available to 37.3 million homes, or 96.6 percent of homes passed by Comcast's systems.<sup>224</sup> At year-end 2003, Comcast had 5.3 million subscribers to its high-speed Internet access service, representing a penetration rate<sup>225</sup> of 15.2 percent.<sup>226</sup> By the end of June 2004, the number of subscribers to Comcast's high-speed Internet access service had

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<sup>214</sup> *Id.*

<sup>215</sup> *Id.*

<sup>216</sup> Cable Databook at 4-5. See Table 4, *supra*.

<sup>217</sup> NCTA Comments at 38.

<sup>218</sup> *Id.* at 39.

<sup>219</sup> FCC, *High-Speed Services for Internet Access: Status as of June 30, 2004* (WCB, rel. Dec. 22, 2004) (High-Speed Services Report) at Table 3. NCTA estimates that cable operators have 17.3 million subscribers of high-speed Internet service. NCTA Comments at 30.

<sup>220</sup> High-Speed Services Report at Table 3.

<sup>221</sup> *Id.*

<sup>222</sup> High-Speed Services Report at Table 3; *2003 Report*, 19 FCC Rcd at 1642 ¶ 53. Kagan estimates that the number of cable modem subscribers grew from 13.8 million in June 2003 to 18.6 million in June 2004. Kagan World Media, *Cable TV Investor: Deals & Finance*, Aug. 18, 2004, at 3. See paras. 115, 206 *infra*.

<sup>223</sup> High-Speed Services Report at Table 3; *2003 Report*, 19 FCC Rcd at 1642 ¶ 53. Kagan estimates that the number of DSL subscribers grew from 6.5 million in June 2003 to 9.8 million in June 2004. Kagan World Media, *Cable TV Investor: Deals & Finance*, Aug. 18, 2004, at 3.

<sup>224</sup> Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>225</sup> Although there is no standard method for reporting penetration rates for advanced services, high-speed Internet service penetration rates are usually calculated by dividing the number of high-speed Internet subscribers by the number homes passed where high-speed Internet service is available. This is the method often used when high-speed Internet services are not yet available to every home passed by a cable system. Cablevision, however, has completed its system upgrade and makes high-speed Internet service available to all homes passed by its cable systems. As such, Cablevision calculates its penetration rate for high-speed Internet service by dividing the number of high-speed Internet service subscribers by the number of homes passed by its cable system.

<sup>226</sup> Comcast Corp., *Comcast Full Year and Fourth Quarter Results Meet or Exceed All Operating and Financial Targets Setting Stage for Continued Growth in 2004* (press release), Feb. 11, 2004.

grown to over 6 million, representing a penetration rate of 16.1 percent.<sup>227</sup> Comcast reported that the average monthly revenue per high-speed Internet subscriber was \$43.52 in the second quarter of 2004.<sup>228</sup> Cox ended 2003 with nearly 2 million high-speed Internet access subscribers.<sup>229</sup> At the end of June 2004, the number of subscribers to Cox's high-speed Internet subscribers had grown to 2.2 million, representing a 21.7 percent penetration rate.<sup>230</sup> Time Warner had 3.2 million high-speed Internet subscribers at year-end 2003, representing a penetration rate of 17 percent.<sup>231</sup> The number of Time Warner's high-speed Internet subscribers had grown to 3.5 million by the end of June 2004, representing a penetration rate of 19 percent.<sup>232</sup> Cablevision reported 1.1 million subscribers for its high-speed Internet and a penetration rate of 24 percent for year-end 2003.<sup>233</sup> By the end of June 2004, Cablevision had 1.2 million high-speed Internet subscribers and the highest penetration rate (26.7 percent) in the cable industry for this service.<sup>234</sup> Charter had nearly 1.6 million high-speed Internet subscribers at the end of 2003, representing a penetration rate of 15 percent.<sup>235</sup> The number of subscribers to Charter's high-speed Internet service had grown to more than 1.7 million, a penetration rate of 16 percent, at the end of June 2004.<sup>236</sup>

48. Cable operators are increasing the speed of their high-speed Internet services,<sup>237</sup> and are beginning to offer high-speed Internet tiers, increased storage capacity, multiple e-mail accounts, and home networking for multiple devices.<sup>238</sup> Comcast offers two high-speed options: 4 Mbps for \$52.95 per month and 3 Mbps for \$42.95 per month.<sup>239</sup> Subscribers select their speed then choose between standard service (one connection) and Comcast Home Networking (up to five devices), at no additional monthly service cost.<sup>240</sup> In addition, Comcast offers subscribers up to seven e-mail accounts with storage capacity of 250 MB for each account.<sup>241</sup> In most of its markets, Cox offers three high-speed Internet access tiers: a value package providing 256 Kbps downstream and upstream for \$24.95 per month; a preferred package providing 4 Mbps downstream and 512 Kbps upstream for \$39.95 per month; and a premier package

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<sup>227</sup> Comcast Corp., *Comcast Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>228</sup> *Id.*

<sup>229</sup> Cox Communications Inc., *Cox Communications Announces Fourth Quarter and Full-Year Financial Results for 2003* (press release), Feb. 12, 2004.

<sup>230</sup> Cox Communications Inc., *Cox Communications Announces Second Quarter and Year-to-Date Financial Results for 2004* (press release), July 29, 2004.

<sup>231</sup> Time Warner Inc., *Time Warner Reports Results for 2003 Full Year and Fourth Quarter* (press release), Jan. 28, 2004.

<sup>232</sup> Time Warner Inc., *Time Warner Inc. Reports Second Quarter 2004 Results* (press release), July 28, 2004.

<sup>233</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Fourth Quarter and Full Year 2003 Results* (press release), Mar. 2, 2004.

<sup>234</sup> Cablevision Systems Corp., *Cablevision Systems Corporation Reports Second Quarter 2004 Results* (press release), Aug. 9, 2004.

<sup>235</sup> Charter Communications Inc., *Charter Reports Fourth Quarter and Year 2003 Financial and Operating Results* (press release), Feb. 19, 2004.

<sup>236</sup> Charter Communications Inc., *Charter Reports Second Quarter 2004 Financial and Operating Results* (press release), Aug. 9, 2004.

<sup>237</sup> See NCTA Comments at 40-41.

<sup>238</sup> See paras. 195, 210 *infra*.

<sup>239</sup> Comcast Corp., *Comcast Adds New 4Mbps ('4Meg') Speed Option to High-Speed Internet Service Offering* (press release), July 27, 2004.

<sup>240</sup> *Id.*

<sup>241</sup> *Id.*

providing 5 Mbps downstream and 768 Kbps for \$54.95 per month.<sup>242</sup> Time Warner's core Road Runner package provides 3 Mbps downstream and 384 Kbps upstream for \$44.95 per month.<sup>243</sup> Time Warner has announced plans to introduce a Road Runner Premium high-speed Internet package providing 6 Mbps downstream and 512 Kbps upstream for between \$64.95 and \$84.95 per month, depending on the package or bundle of other services the subscriber takes from Time Warner Cable.<sup>244</sup> Cablevision's Optimum Online high-speed Internet service provides 3.5 Mbps downstream and 1 Mbps upstream for \$44.95 per month and can be purchased through the television set using only the remote control and on-screen prompts.<sup>245</sup> In more than 85 percent of Charter's markets, high-speed Internet subscribers receive 3 Mbps downstream and 256 Kbps upstream for \$39.99 per month.<sup>246</sup>

49. Most cable operators provide high-speed Internet service with one proprietary ISP specifically created and owned by the cable operator.<sup>247</sup> For example, Cablevision offers high-speed Internet service under the brand Optimum Online, Charter offers the service under the Charter High-Speed brand, and Cox offers the service under the Cox High Speed Internet brand. Some cable operators, however, permit their high-speed Internet service to be used with non-affiliated ISPs. For example, Time Warner Cable offers its subscribers multiple ISPs including its own Road Runner Internet access service, AOL for Broadband, Earthlink, Big Net and other regional ISPs.<sup>248</sup>

50. **Telephony Offered by Cable Operators.** Although some cable companies have been providing traditional circuit-switched telephony for years, the cable industry is now using digital technology, the bandwidth provided by their fiber/coaxial network, and the Internet to provide voice-over-Internet protocol (VoIP) services.<sup>249</sup> This is a new product that is not yet widely available, but cable

<sup>242</sup> Cox Communications Inc., *Overnight, Cox Turns up the Speed on High-Speed Internet Service* (press release), Aug. 10, 2004. The service is available to nearly two million Cox high-speed Internet subscribers. The service is not yet available in Cox's Las Vegas, Nevada; Gainesville, Florida; and Middle America markets. *Id.*

<sup>243</sup> Time Warner Cable, *Time Warner Cable Rolls Out Even Faster Version of Road Runner as New Option for Gamers and Other Intensive Bandwidth Users* (press release), July 26, 2004.

<sup>244</sup> Time Warner announced that most of Time Warner Cable's 31 operating divisions would begin offering the Premium Road Runner high-speed Internet service in August 2004. *Id.*

<sup>245</sup> Cablevision Systems Corp., *Cablevision Launches Groundbreaking Sales Channel for Optimum Online* (press release), June 17, 2004; and Cablevision Systems Corp., [http://www.cablevision.com/index.jhtml?pageType=ool\\_product](http://www.cablevision.com/index.jhtml?pageType=ool_product) (visited Sept. 21, 2004).

<sup>246</sup> Charter Communications Inc., *Charter Increases Internet Access Download Speed by 50 Percent* (press release), Apr. 6, 2004.

<sup>247</sup> See 2001 Report, 17 FCC Rcd at 1266-67 ¶¶ 46-47 and n.136; 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, Declaratory Ruling and Notice of Proposed Rulemaking*, 17 FCC Rcd 4798 (2002) (*High-Speed Access Declaratory Ruling and NPRM*). In the *High-Speed Access Declaratory Ruling and NPRM*, the Commission concluded that "cable modem service, as it is currently offered, is properly classified as an interstate information service, not as a cable service, and that there is no separate offering of telecommunications service." *High-Speed Access Declaratory Ruling and NPRM*, 17 FCC Rcd at 4802 ¶ 7. See *AT&T v. City of Portland*, 216 F.3d 871 (9th Cir. 2000). See also *Brand X Internet Services v. FCC*, 345 F.3d 1120 (9th Cir. 2003) [No. 02-70518, Oct. 6, 2003], cert. granted, *F.C.C. v. Brand X Internet Services*, 125 S. Ct. 655 (mem), 73 USLW 3146, 73 USLW 3331, 73 USLW 334 (U.S. Dec. 3, 2004) (NO. 04-281).

<sup>248</sup> See Time Warner Cable, at <http://www.timewarnercable.com/corporate/aboutus/> (visited Sept. 23, 2004).

<sup>249</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

(continued...)

companies and analysts consider VoIP to be a major source of revenue in the years ahead.<sup>250</sup> Although telephone companies are subject to a patchwork of state regulations, the Commission recently decided that a type of VoIP service offered by Vonage Holding Corporation, called DigitalVoice, is not subject to traditional state public utility regulation.<sup>251</sup> The Commission also stated that other types of IP-enabled services, such as those offered by cable companies, that have basic characteristics similar to DigitalVoice would not be subject to traditional state public utility regulation.<sup>252</sup> One of the unsettled issues is whether VoIP service will be a primary service with back-up powering in case of a power outage, or a secondary line service without back-up powering. At the end of 2003, there were 2.8 million subscribers to cable telephone service, with 2.7 million subscribers being served by circuit-switched service.<sup>253</sup> At the end of 2004, Kagan projects there will be 3.5 million subscribers to cable telephone service, with 3.1 million subscribers being served by circuit-switched service and 400,000 being served by VoIP service.<sup>254</sup>

51. In late 2003, Time Warner announced partnerships with MCI and Sprint for the nationwide deployment of Digital Phone, Time Warner Cable's residential VoIP service.<sup>255</sup> Time Warner's Digital Phone subscribers can connect to existing telephone jacks in the home, keep their existing telephone numbers, and retain their directory listings.<sup>256</sup> Digital Phone's standard features include 411 directory assistance, 611 service calls, Enhanced 911 service, operators assisted calls, call waiting, caller ID and voice mail.<sup>257</sup> The service includes unlimited local, in-state and domestic long distance calling starting at \$39.95 per month.<sup>258</sup> Time Warner launched Digital Phone in February 2003 in Portland, Maine. Currently, Time Warner offers Digital Phone in 20 markets nationwide and plans to offer the service in all of its markets by the end of 2004.<sup>259</sup> Time Warner's digital phone service does not include back-up power and will not function during a power outage.<sup>260</sup> Although Cox has more than one million

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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.

<sup>250</sup> For example, Dallas Clement of Cox Communications says that cable industry VoIP revenue will exceed \$1 billion by 2006 and grow to \$8 billion by 2010. Tania Pancayk-Collins, *NAMIC Notebook*, COMM. DAILY, Sept. 21, 2004, at 6. In addition, Merrill Lynch estimates that the cable industry's share of all phone lines will grow from 1.9 percent in 2003 to 12.6 percent in 2008 with all of the growth coming from VoIP. Louis Chunovic, *Dialing for Dollars*, BROADCASTING & CABLE, Aug. 30, 2004, at 28.

<sup>251</sup> *Vonage Holdings Corporation Petition for Declaratory Ruling Concerning an Order of the Minnesota Public Utilities Commission*, WC Docket No. 03-211, FCC 04-267 ¶ 1 (rel. Nov. 12, 2004) (*Vonage Order*).

<sup>252</sup> *Vonage Order*, FCC 04-267, at ¶ 46.

<sup>253</sup> Kagan World Media, *Cable TV Investor: Deals & Finance*, July 29, 2004, at 8-9.

<sup>254</sup> *Id.*

<sup>255</sup> Time Warner Cable, *Time Warner Cable Partners with MCI and Sprint for Nationwide Rollout of Digital Phone* (press release), Dec. 8, 2003.

<sup>256</sup> *Id.*

<sup>257</sup> *Id.*

<sup>258</sup> See Time Warner Cable, <http://www.timewarnercable.com/corporate/products/digitalphone/landingpagephone.html> (visited Sept. 24, 2004).

<sup>259</sup> Kathryn Balint, *Time Warner Joins Phone Fray*, SIGNONSANDIEGO.COM, Sept. 23, 2004, at <http://www.signonsandiego.com/news/business/20040923-9999-1b23phone.html> (visited Sept. 24, 2004).

<sup>260</sup> See Time Warner Cable <http://www.twcnc.com/dp/faq.cfm#Can%20I%20call%20911%20using%20Digital%20Phone%20Service> (visited Oct. 25, 2004).

residential telephone subscribers in 13 markets,<sup>261</sup> Cox has been using, and plans to continue to use, circuit-switched technology for its service.<sup>262</sup> In late 2003, however, Cox used VoIP technology to provide telephony service in Roanoke, Virginia, and Cox is preparing to launch additional VoIP markets in 2004.<sup>263</sup> Cox provides back-up power so that its digital phone service continues to work during a power outage.<sup>264</sup> Cablevision Optimum Voice service offers unlimited local, regional, and long-distance calling within the United States and Canada for \$34.95 a month.<sup>265</sup> The service includes: voicemail, call waiting, caller ID, caller ID blocking, call return, three-way calling, call forwarding, 911 service, and direct-dial international calling.<sup>266</sup> Optimum Voice has 115,000 subscribers and is available to nearly 4.4 million homes. Optimum Voice calls are carried over Cablevision's own network, not the public Internet, and voice packets are prioritized.<sup>267</sup> Cablevision does not provide back-up power for its VoIP system, so the service will not function during a power outage.<sup>268</sup> Charter offers VoIP service to 31,000 subscribers in Madison and Wausau, Wisconsin, and St. Louis, Missouri.<sup>269</sup> Charter plans to make its telephone service available to one million of its cable subscribers by the end of 2004.<sup>270</sup> Charter recently announced agreements with Level 3 Communications, Sprint Communications, and Accenture which will enable the company to increase VoIP deployment in each of its markets in 2005.<sup>271</sup> Charter's VoIP service provides local and long-distance service within the United States and Canada and costs \$39.95 per month.<sup>272</sup> Charter plans to provide back-up power for its VoIP service.<sup>273</sup> In 2004, Comcast's VoIP service will be tested in Philadelphia, Pennsylvania; Indianapolis, Indiana; and Springfield, Massachusetts; half its infrastructure will be VoIP-ready by the end of 2004; and 95 percent of its infrastructure will be VoIP-

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<sup>261</sup> Markets include: Phoenix and Tucson, Arizona; Orange County and San Diego, California; Wichita, Kansas; Omaha, Nebraska; Meriden, Connecticut; Rhode Island (statewide); New Orleans, Louisiana; Oklahoma City, Oklahoma; and Hampton Roads, Roanoke and Northern Virginia, Virginia. Cox Communications Inc., *Cox Communications Brings Digital Telephone Service to Northern Virginia* (press release), April 30, 2004.

<sup>262</sup> Cox Communications Inc., *Cox Communications VoIP Whitepaper: Voice Over Internet Protocol: Ready for Prime Time*, May 2004, at 3.

<sup>263</sup> *Id.* at 4.

<sup>264</sup> See Jeff Baumgartner, *Dialing Out, Powering Up*, CED, July 2004, at <http://www.cedmagazine.com/ced/2004/0704/07f.htm> (visited Oct. 25, 2004).

<sup>265</sup> Cablevision Systems Corp., *Direct-Dial International Calling Now Available With Cablevision's Optimum Voice* (press release), Sept. 13, 2004.

<sup>266</sup> *Id.*

<sup>267</sup> *Id.*

<sup>268</sup> David Pogue, *When Is An Internet Phone Company Not An Internet Phone Company? When It's A Cable Company*, NEW YORK TIMES, April 8, 2004. See Cablevision Systems Corp., [http://www.optimumvoice.com/index.jhtml?pageType=ny\\_times\\_04082004](http://www.optimumvoice.com/index.jhtml?pageType=ny_times_04082004) (visited Oct. 25, 2004).

<sup>269</sup> Jerri Stroud, *Charter's Phone Service is on Fast Track*, STLTODAY, Sept. 1, 2004, at <http://www.stltoday.com/stltoday/business/stories.nsf/Business/story/D0284558FD9B775386256F020005CC49?OpenDocument&Headline=MORNING+BRIEFING> (visited Sept. 24, 2004).

<sup>270</sup> *Id.*

<sup>271</sup> Charter Communications Inc., *Charter Taps Three Telephony Partners; Level 3 Sprint and Accenture to Enhance, Expedite Charter Telephone* (press release), Aug. 30, 2004.

<sup>272</sup> Dan Hinkel, *Charter Offers Internet Telephone Capability*, GAZETTEEXTRA, Sept. 15, 2004, at <http://www.gazetteextra.com/charter091504.asp> (visited Sept. 24, 2004).

<sup>273</sup> Alan Breznick, *More Major MSOs Unveil VoIP Rollout Plans*, CABLE DATACOM NEWS, Mar. 2004, at <http://www.cabledatcomnews.com/sitesearch/results.php?q=Charter+Communications+Power+Back+up> (visited Oct. 25, 2004).

ready by the end of 2005.<sup>274</sup> Comcast plans to offer VoIP service to more than 40 million households by 2006.<sup>275</sup> Comcast's network has a built-in emergency back-up power that will provide telephone service for up to 10 hours.<sup>276</sup>

**52. Mid-sized and Smaller Cable Operators.** In addition to reporting on the advanced services provided by the largest cable companies, this year we examined six mid-sized and smaller cable operators to identify the advanced services they provide.<sup>277</sup> All provide high-speed Internet service. All provide digital video service but not all offer HDTV, VOD, and DVR service. Some provide telephone service, but not VoIP. Bresnan Communications serves over 300,000 subscribers in Colorado, Montana, Wyoming, and Utah.<sup>278</sup> Bresnan Communications offers a full range of advanced services that include digital video service, VOD, HDTV, DVR, high-speed Internet service, and circuit-switched telephone service.<sup>279</sup> Service Electric Cable TV & Communications serves approximately 290,000 subscribers in Pennsylvania and New Jersey.<sup>280</sup> Service Electric offers digital video service, HDTV, high-speed Internet, and circuit-switched telephone service.<sup>281</sup> Service Electric does not offer VOD and DVR service. Susquehanna Communications serves over 230,000 subscribers in Pennsylvania, New York, Illinois, Indiana, Maine, and Mississippi.<sup>282</sup> Susquehanna Communications offers digital video service, HDTV, and will soon offer VOD and DVR service.<sup>283</sup> Susquehanna Communications also offers high-speed Internet service and will soon offer digital telephone service.<sup>284</sup> Buckeye CableSystem serves approximately 149,000 subscribers in Ohio, Michigan, and New York.<sup>285</sup> Buckeye CableSystem offers digital video service, HDTV, VOD, and high-speed Internet service.<sup>286</sup> Buckeye CableSystem does not offer DVR or telephone service. US Cable Group serves 145,000 subscribers in Minnesota, Wisconsin, South Carolina, Georgia, Florida, Missouri, Texas, New Mexico, Colorado, and New Jersey.<sup>287</sup> US Cable Group offers digital video service, and high-speed Internet service.<sup>288</sup> US Cable Group does not offer HDTV, VOD, DVR, or residential telephone service. Sunflower Broadband operates cable systems in

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<sup>274</sup> Comcast Corp., *Presentation to UBS 32<sup>nd</sup> Annual Media Conference*, Dec. 9, 2004, at 20. See also Wesley Brown, *Internet Phone Service for Every Home Not Far Off*, ARKANSAS NEWS BUREAU, June 27, 2004, at [http://www.vonage.com/corporate/press\\_news.php?PR=2004\\_06\\_27\\_1](http://www.vonage.com/corporate/press_news.php?PR=2004_06_27_1) (visited Sept. 24, 2004).

<sup>275</sup> *Id.*

<sup>276</sup> See Comcast Corp., [http://www.comcast.com/Support/Corp1/FAQ/FaqDetail\\_1719.html](http://www.comcast.com/Support/Corp1/FAQ/FaqDetail_1719.html) (visited Oct. 25, 2004).

<sup>277</sup> The six mid-sized and smaller cable companies include: Bresnan Communications, Service Electric Cable TV & Communications, Susquehanna Communications, Buckeye CableSystem, US Cable Group, and Sunflower Broadband. See also *Availability of Advanced Telecommunications Capability in the United States (Fourth 706 Report)*, 19 FCC Rcd 20540, 20570 (2004).

<sup>278</sup> See Bresnan Communications, at <http://www.bresnan.com/unst/about> (visited Oct. 28, 2004).

<sup>279</sup> See Bresnan Communications, at <http://www.bresnan.com/unst/products/offers> (visited Oct. 28, 2004).

<sup>280</sup> See Service Electric Cable TV & Communications, at <http://www.sectv.com/comp.shtml> (visited Oct. 27, 2004).

<sup>281</sup> See Service Electric Cable TV & Communications, at <http://www.sectv.com/prod.shtml> (visited Oct. 27, 2004).

<sup>282</sup> See Susquehanna Communications, at <http://www.suscom.com/about/pfaltzgraff.php> (visited Oct. 28, 2004).

<sup>283</sup> *Id.*

<sup>284</sup> *Id.*

<sup>285</sup> NCTA, *Cable Operators*, Cable Developments 2004, at 28.

<sup>286</sup> See Erie County Cablevision Inc., at [http://www.buckeyecablesystem.com/erie\\_html/indexpages\\_html/ourcompany.html](http://www.buckeyecablesystem.com/erie_html/indexpages_html/ourcompany.html) (visited Oct. 28, 2004).

<sup>287</sup> See US Cable Group, at [http://www.uscablegroup.com/operating\\_companies.htm](http://www.uscablegroup.com/operating_companies.htm) (visited Oct. 28, 2004).

<sup>288</sup> See US Cable Group, at <http://www.uscable.com> (visited Oct. 28, 2004).

Kansas and offers digital video service, HDTV, high-speed Internet service, and circuit-switched telephone service.<sup>289</sup> Sunflower Broadband does not offer VOD and DVR service.

## B. Direct-to-Home Satellite Services

### 1. Direct Broadcast Satellite

53. DBS operators provide service to most of the continental U.S., and they generally provide service to Alaska and Hawaii.<sup>290</sup> While companies are not required to charge a direct fee for their service, in the U.S. all the current DBS companies provide a subscription service that is presently limited to video and audio programming although under the Commission's rules DBS providers are also allowed to provide other "nonconforming" services as well. DBS service is provided via satellite to small parabolic "dish" antennas located at the individual residences of consumers or at business or educational organizations.<sup>291</sup> Currently, four operators hold licenses to provide DBS service: EchoStar (marketed as the DISH Network), DIRECTV, Dominion Video Satellite, Inc. (marketed as Sky Angel),<sup>292</sup> and Cablevision's Rainbow DBS Company LLC (marketed as VOOM).<sup>293</sup> On December 19, 2003, the Commission approved the joint application of General Motors Corporation, Hughes Electronics Corporation (Hughes) and The News Corporation (News Corp) to transfer control of various Commission licenses and authorizations, including its DBS authorizations held by Hughes, to News Corp.<sup>294</sup>

54. **Subscribership.** As of June 30, 2004, approximately 23.16 million U.S. households subscribed to DBS services.<sup>295</sup> This represents an increase of 13 percent over the 20.4 million DBS

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<sup>289</sup> See Sunflower Broadband, at <http://www.sunflowerbroadband.com> (visited Oct. 28, 2004).

<sup>290</sup> Under the geographic service rules, DBS operators must provide service to Alaska and Hawaii unless they can demonstrate that such service is technically infeasible. This requirement does not apply to satellites operating at 61.5° W.L. See 47 C.F.R. § 25.148(c). See also State of Hawaii, Petition for Administrative Sanctions of the State of Hawaii, MB Docket No. 03-82 (filed Feb. 6, 2003); MICROCOM, Request for Declaratory Ruling on DBS Service to Hawaii from 101 Degrees W.L., MB Docket No. 03-82 (filed Mar. 19, 2003).

<sup>291</sup> In our rules we define the Direct Broadcast Satellite Service as "A radiocommunication service in which signals transmitted or retransmitted by space stations, using frequencies specified in § 25.202(a)(7), are intended for direct reception by the general public. For the purposes of this definition, the term direct reception shall encompass both individual reception and community reception." 47 C.F.R. 25.201.

<sup>292</sup> Dominion holds licenses for eight channels at 61.5° W.L. orbital location. 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.*, 14 FCC Rcd 8182 (1999).

<sup>293</sup> Cablevision recently cancelled its planned spin off of its Rainbow Media Enterprises, which includes VOOM and several programming networks. See Peter Grant, *Cablevision Won't Spin Off Voom*, WALL STREET JOURNAL, Dec. 22, 2004, at B10.

<sup>294</sup> See *General Motors Corporation and Hughes Electronics Corporation, Transferors, and The News Corporation Limited, Transferee, For Authority to Transfer Control (News Corp Order)*, 19 FCC Rcd 473 (2004), *recon. pending*. News Corp owns the Fox Television Network; 35 broadcast television stations; news, sports and general entertainment cable networks; movie and television studios; print publications; and conditional access system provider NDS. For a complete listing of News Corps holdings, see News Corp., at <http://www.newscorp.com/index2.html> (visited Jan. 14, 2005). In addition, Liberty Media Corporation holds a sizable interest in News Corp. See Geraldine Fabrikant, *Liberty Media Accelerates Swap of News Corp. Shares*, NEW YORK TIMES, Dec. 21, 2004, at C4. Moreover, News Corp. has announced plans to launch a several new channels in coming years through DIRECTV. See Joe Flint, *News Corp. Plans Reality Channel Aided by DirecTV*, WALL STREET JOURNAL, July 14, 2004, at B2.

<sup>295</sup> SBCA Comments at 5.

subscribers we reported last year.<sup>296</sup> DBS comprises approximately 25 percent of all MVPD subscribers.<sup>297</sup> Several reasons account for DBS' continued subscriber growth, including offers of free set-top box equipment, increased availability of local broadcast stations, and an increase in niche programming, such as EchoStar's Armenian, Urdu, Tagalog, and Portuguese-language channels, and DIRECTV's CricketTicket sports network, and Hindi, Vietnamese, and Tamil-language channels.<sup>298</sup> One analyst states that changes in the market share of total new subscribers between cable and DBS indicates a change in consumer preference between cable and DBS service, but one primarily confined to consumers in the midst of switching their physical residence.<sup>299</sup> DBS operators continue to rank high in customer satisfaction surveys. In its annual ranking of cable and satellite providers, J.D. Power and Associates found consumers ranked EchoStar first and DIRECTV second among the largest 13 MVPDs.<sup>300</sup>

55. DIRECTV retains its position as the leading DBS provider and second largest MVPD with 13.04 million subscribers as of June 2004, an increase of 12.4 percent from the 11.6 million subscribers as of June 2003.<sup>301</sup> EchoStar is the second largest DBS operator and fourth largest MVPD, with 10.12 million subscribers as of June 30, 2004, an increase of 15 percent over the 8.8 million subscribers as of June 2003.<sup>302</sup> Last year we reported the entry of DBS provider VOOOM in October 2003, and, as of June 30, 2004, VOOOM reported that it had approximately 25,000 subscribers.<sup>303</sup> Sky Angel continues to provide 20 channels of family-oriented programming, but does not publicly disclose its subscriber numbers on an annualized basis.<sup>304</sup>

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<sup>296</sup> See 2003 Report, 19 FCC Rcd at 1650 ¶ 65.

<sup>297</sup> See Table B-1 *infra*.

<sup>298</sup> See, e.g., Peter Grant, *Cable Trouble: Subscriber Growth Stalls as Satellite TV Soars*, WALL STREET JOURNAL, Aug. 4, 2004; David Lieberman, *Cable Companies' Subscriber Base Sinks, While Satellite Firms Soar*, USA TODAY, Aug. 11, 2004, at 3B; Douglas Shapiro and W. Joseph Fersedi, *What Changed in the Cable-DBS Dynamic in 2Q?*, Banc of America Securities, Aug. 27, 2004. In addition to free equipment and local-into-local service penetration, Shapiro posits that several changes in how DIRECTV conducts its business led to "astounding" gross subscriber additions for the provider. Specifically, DIRECTV moved away from selling its equipment in a retail environment to direct sales, with many retailers selling a certificate and then contacting DIRECTV directly to ship and install the system. *Id.* at 10. Shapiro also believes that DIRECTV's use of a new security stream for its programming, which has not yet been hacked, accounted for a "significant number" of DIRECTV's gross subscriber additions during the second quarter of 2004. *Id.* at 11.

<sup>299</sup> Douglas Shapiro, *What Changed in the Cable-DBS Dynamic in 2Q?*, Banc of America Securities, Aug. 27, 2004, at 7. This analyst still perceives a high switching cost between the two platforms, but one that disappears when a consumer moves. *Id.* In addition, one study found that for basic cable services, consumers subscribe to DBS as a substitute for cable when facing large quality-adjusted cable price increases. When faced with small quality-adjusted cable price changes, switching costs deter customers from subscribing to DBS service. See Andrew S. Wise and Kiran Duwadi, *Competition Between Cable Television and Direct Broadcast Satellite – Its More Complicated Than You Think*, Media Bureau Staff Research Paper, International Bureau Working Paper, MB 2005-1, IB-3, January 2005.

<sup>300</sup> See J.D. Power & Associates, *As Satellite TV Penetration Grows, Overall Customer Satisfaction Among Satellite Subscribers Continues to Top Cable* (press release), Aug. 18, 2004.

<sup>301</sup> DIRECTV Group, Inc., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 of 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2004*, at 37.

<sup>302</sup> EchoStar Communications Corp., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 of 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2004*, at 24.

<sup>303</sup> Cablevision Systems Corp., *SEC Quarterly Report Form 10-Q Pursuant to Section 13 of 15(d) of the Securities Act of 1934 for the Quarterly Period Ended June 30, 2004*, at 23.

<sup>304</sup> In previous reports we have estimated that Sky Angel serves approximately one million subscribers. See 2002 Report, 17 FCC Rcd at 26930 ¶ 59.

56. **Service and Equipment Pricing.** Both DIRECTV and EchoStar instituted price increases since our last report.<sup>305</sup> EchoStar raised its prices on average \$2 per month.<sup>306</sup> DIRECTV instituted its fourth price increase in 10 years, with prices for packages increasing between \$1 and \$3 per month.<sup>307</sup> VOOM has experimented with varying pricing strategies for its service.<sup>308</sup>

57. Subscribers to DBS service need a satellite dish and a set-top box. Over the last few years, both major providers have offered heavily discounted or free equipment in exchange for annual service contracts. Recently DIRECTV and EchoStar have moved away from offering free equipment and are instead promoting equipment leasing on a monthly basis.<sup>309</sup> In addition, DBS operators are offering multiple set-top boxes to new customers for free or at reduced cost in their standard promotions.<sup>310</sup> According to DIRECTV, lowering the price of its equipment is a critical factor in its ability to attract new

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<sup>305</sup> Todd Wallack, *Satellite TV Companies Raising Prices Again*, SFGATE.COM, Jan. 29, 2004; Michael McCarthy, *Satellite, Cable Operators Get Ready to Raise Rates*, USA TODAY, Feb. 10, 2004.

<sup>306</sup> EchoStar made the following changes to its packages and pricing: changed the name of its America's Top 100 package to America's Top 120 package to reflect increased number of channels and raised its price from \$33.99 per month to \$34.99 per month; changed the name of its America's Top 150 to America's Top 180 to reflect increased number of channels and raised the price from \$42.99 to \$44.99; and raised the price of its America's Everything package from \$74.99 to \$77.99 per month. EchoStar changed the name of its America's Top 50 package to America's Top 60, but maintained the price at \$29.99 per month. See *EchoStar Slates Rate Increases on Some Packages*, SATELLITE BUSINESS NEWS, Jan. 14, 2004. See also EchoStar Communications Corp., *New DISH Network Package Eliminates Equipment Cost, Commitment; Low Price Includes Local Channels, Free Installation* (press release), Jan. 8, 2004. EchoStar's last price increase occurred in January 2003 when it raised its average subscriber's monthly fees four percent. See EchoStar Communications Corp., *DISH Network Increases Basic Rates by \$2; Average Customer to Receive Approximate Four Percent Increase* (press release), Jan. 9, 2003.

<sup>307</sup> DIRECTV raised the price of its Total Choice package with 130 channels from \$33.99 to \$36.99 per month; Total Choice package with local stations increased from \$38.99 to \$39.99; Total Choice Plus package with 150 channels was raised from \$37.99 to \$39.99; Total Choice Plus with local stations increased from \$39.99 to \$42.99; Total Choice Premier package with 210 channels increased from \$85.99 to \$87.99; and Total Choice Premier with local stations increased from \$87.99 to \$90.99. *DIRECTV Slates Price Increases*, SATELLITE BUSINESS NEWS, Jan. 23, 2004.

<sup>308</sup> See, e.g., *Voom Tries New Lease Offer, Lower Purchase Price*, SATELLITE BUSINESS NEWS, Feb. 16, 2004; *Voom Plans To Keep Current Promotion*, SATELLITE BUSINESS NEWS, May 28, 2004. Presently, VOOM has two programming packages. "VOOM Package" includes 21 HD channels available only from VOOM, 50-plus standard definition channels, 18 digital music channels, three non-exclusive HD channels, and a "SportsPack" with five sports-related channels for \$49.90 per month. The second package is "Va Va VOOM package, which includes everything offered in the standard VOOM Package plus HBO, Cinemax, Showtime Unlimited, and STARZ!, marketed as "PlusPacks" for \$89.90 per month. Subscribers to the VOOM Package have the option of buying individual "PlusPacks" for \$19.90 each per month. See *Voom Ups Price and Fees; Rainbow DBS Details Spin-Off Plans*, SATELLITE BUSINESS NEWS, Aug. 2, 2004; Rainbow DBS Company LLC, at <http://www.voom.com/index.jsp> (visited Jan. 14, 2005).

<sup>309</sup> *EchoStar Increases Focus on Lease Program*, SATELLITE BUSINESS NEWS, July 12, 2004. For example, EchoStar ran a promotion in 2004 called Digital Home Advantage, which provided subscribers with free equipment and installation for up to four rooms. The customer paid a one-time \$49 activation fee, which was credited on the first monthly bill, and a fee of \$5 per month per receiver. The second offer, called Free-For-All, required purchase of the set-top box and satellite dish for \$199 for a two-room installation, or \$149 for a one-room installation, and then receiving 20 or 15 monthly credits of \$10 per month, respectively, for the total equipment cost.

<sup>310</sup> One analyst finds that the move from offering two receivers free to three or more per subscriber served to surmount cost-of-ownership concerns for consumers deciding between DBS and cable service. Douglas Shapiro, *What Changed in the Cable-DBS Dynamic in 2Q?*, Banc of America Securities, Aug. 27, 2004, at 9.

subscribers.<sup>311</sup> DIRECTV and EchoStar continue to offer a wide range of equipment with advanced features, including dual-tuner DVR and HDTV.<sup>312</sup> VOOM offers its equipment for sale and for lease.<sup>313</sup>

58. **Availability of Local Broadcast Stations.** DBS providers continue to increase the number of markets where they deliver local broadcast television stations (local-into-local service).<sup>314</sup> As of December 2004, local-into-local service is offered by at least one DBS operator in 155 of 210 television markets (*i.e.*, designated market areas, or DMAs), which cover 95 percent of all U.S. television households. EchoStar leads DBS providers in offering to subscribers a package of local broadcast stations including commercial and non-commercial stations in 150 DMAs and Puerto Rico.<sup>315</sup> DIRECTV offers local-into-local service in 130 DMAs.<sup>316</sup> DIRECTV received Commission approval to relocate the DIRECTV 5 satellite to a Broadcasting Satellite Service orbital location assigned to Canada at 72.5° W.L.

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<sup>311</sup> DIRECTV Comments at 9.

<sup>312</sup> See *e.g.*, The DIRECTV Group, Inc., *DIRECTV Selects TiVo For Next Generation Digital Satellite Receiver with DVR* (press release), Feb. 21, 2002.

<sup>313</sup> VOOM's "Base Offer" monthly leasing plan includes one receiver and dish installed for \$199 and a lease fee of \$9.50 per month, with the option of adding five additional receivers, each \$50 installed and \$14.50 per month per receiver. For subscribers signing an annual leasing contract, the cost is \$49 for one receiver, with an option to lease up to five additional receivers, for \$50 each installed and \$14.50 per month per receiver. For those buying VOOM equipment, the cost is \$499 for one receiver, and for up to five additional receivers, the cost for each is \$299 installed and \$5.00 per month. For those buying equipment and committing to an annual contract, the initial receiver cost is \$349, and additional receivers are \$299 installed and \$5.00 per month. In addition, subscribers taking the more expensive of VOOM's programming packages can receive a \$50 discount on the price and installation cost of each additional receiver. VOOM requires that its equipment be installed by a VOOM certified installer and has thus built the cost of installation into its equipment prices. See Rainbow DBS LLC, at [http://www.voom.com/get\\_it/offers.jsp](http://www.voom.com/get_it/offers.jsp) (visited Jan. 14, 2005).

<sup>314</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 Designated Market Area (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, it must carry all the local stations in the DMA, effective January 1, 2002. 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).

<sup>315</sup> EchoStar Communications Corp., *DISH Network Satellite Television Brings Local Channels to Clarksburg-Weston, W.VA* (press release), Sept. 23, 2004. Historically, EchoStar required that consumers obtain a second satellite dish to receive all local stations in some markets. Presently, according to EchoStar, 62 of its local-into-local markets require the use of a "SuperDish" to receive all local channels and some additional programming, such as international channels. EchoStar's SuperDish allows subscribers to receive signals from three orbital locations. See EchoStar Communication Corp., at <http://www.dishnetwork.com/content/programming/locals/index.shtml> (visited Jan. 14, 2005).

<sup>316</sup> Letter from Susan Eid, The DIRECTV Group, to Marlene H. Dortch, Secretary, FCC, filed in MB Docket No. 03-124 (Dec. 22, 2004). As a condition of approval of News Corp.'s acquisition of DIRECTV, it was required to offer local broadcast television services in an additional 30 DMAs beyond what had previously been funded, projected, or planned. See *News Corp. Order*, 19 FCC Rcd at 617, 627 ¶¶ 334, 369. See also DIRECTV Group Inc., at [http://www.directv.com/DTVAPP/see/LocalChannels\\_markets.dsp](http://www.directv.com/DTVAPP/see/LocalChannels_markets.dsp) (visited Nov. 19, 2004).

and to provide local-into-local service in 24 markets in the U.S. from that location.<sup>317</sup> VOOM does not presently retransmit local-into-local programming.<sup>318</sup>

59. **Spectrum Auctions.** In 2002, the Commission established the Multichannel Video Distribution and Data Service (MVDDS) in the 12.2-12.7 GHz band (12 GHz band), which is allocated to DBS on a primary basis.<sup>319</sup> MVDDS consists of 500 MHz of contiguous spectrum that is licensed across 214 service areas. MVDDS spectrum may be used to facilitate the delivery of new video and broadband communications services, such as local television programming and high-speed Internet access.<sup>320</sup> The technical rules reflect a balance in which the Commission affords protection to the DBS service and the non-geostationary satellite orbit (NGSO) fixed-satellite service (FSS) while allowing the entrance of MVDDS.<sup>321</sup>

60. In establishing MVDDS, the Commission concluded that another platform operator in the MVPD marketplace would provide significant public interest benefits through lower prices, improved service quality, increased innovation, and increased service to unserved or underserved rural areas.<sup>322</sup> In this connection, the Commission found that “open eligibility for in-region cable operators [would] pose[] a significant likelihood of substantial competitive harm” because “cable operators have a strong incentive to prevent entry by new MVPD providers.”<sup>323</sup> Therefore, cable operators and entities holding attributable interests in cable operators must divest any attributable interest within ninety days of the grant of an MVDDS license whose geographic service area significantly overlaps the cable operator’s service area.<sup>324</sup>

61. On January 27, 2004, the Commission completed the auction of the 214 MVDDS licenses (Auction No. 53), raising (in net bids) a total of \$118,721,835. In this auction, ten winning bidders won a

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<sup>317</sup> See *Application of DIRECTV Enterprises, LLC*, 19 FCC Rcd 15529 (2004). See also DIRECTV Reply Comments at 6. DIRECTV states that customers in these markets will access all local channels from 72.5° W.L. with the addition of a second 18-inch satellite dish, which DIRECTV states that it will provide and install free of charge to customers who agree to a one-year programming commitment. *Id.*

<sup>318</sup> All of VOOM’s equipment packages include a separate antenna capable of receiving over-the-air local digital broadcast channels. The antenna will not pick up analog local broadcast signals. See Rainbow DBS Company LLC, at [http://www.voom.com/see\\_it/local.jsp](http://www.voom.com/see_it/local.jsp) (visited Jan. 14, 2005).

<sup>319</sup> *Amendment of Parts 2 and 25 of the Commission’s Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range*, 17 FCC Rcd 9614, 9680 (2002) (MVDDS Second R&O).

<sup>320</sup> MVDDS licensees may use the 12.2–12.7 GHz band for any digital fixed nonbroadcast service (broadcast services are intended for reception of the general public and not on a subscribership basis) including one-way direct-to-home/office wireless service. See 47 C.F.R. § 101.1407 (permissible operations for MVDDS).

<sup>321</sup> See generally 47 C.F.R. Part 101, subpart P.

<sup>322</sup> *MVDDS Second R&O*, 17 FCC Rcd at 9680 ¶ 165.

<sup>323</sup> *Id.*

<sup>324</sup> 47 C.F.R. § 101.1412(a). “Cable operator” means a company that is franchised to provide cable service, as defined in 47 C.F.R. § 76.1000(e), in all or part of the MVDDS license area, *id.* § 101.1412(b). “Significant overlap” occurs when a cable operator’s subscribers in the MVDDS license area make up 35 percent or more of the households in that MVDDS license area which subscribe to one or more Multichannel Video Program Distributors (MVPDs), as defined in 47 C.F.R. § 76.1000(e). See 47 C.F.R. §§ 101.1412(c) and (e). The winning bidder for the MVDDS license of the New York service area (MVD001), *inter alia*, requested and received a 270-day extension of the 90-day divestiture deadline, see 47 C.F.R. § 101.1412(g)(4), of the Commission’s MVDDS/cable cross-ownership rule. See DTV Norwich, LLC, Application for Multichannel Video Distribution and Data Service License, MVD001-New York, Request for Waiver of Section 101.1412(g)(4) of the Commission’s Rules, *Order*, File No. 0001618606-MVD001, DA 04-3044 (rel. Sept. 23, 2004) (*DTV Norwich Waiver Order*).

total of 192 MVDDS licenses, which the Commission issued later in 2004.<sup>325</sup> MVDDS licenses are issued for a ten-year term beginning on the date the initial authorization is granted.<sup>326</sup> Licensees must provide “substantial service” within five years of the grant, which must be documented at license renewal time.<sup>327</sup> As of the third quarter 2004, MVDDS equipment is still under development.

62. On July 19, 2004, the Commission completed the auction of three licenses to use the DBS service allocation in the 12.2-12.7 GHz band and Associated Feeder Links in the 17.3-17.8 GHz band (Auction No. 52), raising (in net bids) a total of \$12.2 million.<sup>328</sup> The licenses are for unassigned channels at orbit locations of 175° W.L. (32 channels), 166° W.L. (32 channels), and 157° W.L. (29 channels). Cablevision’s Rainbow DBS Company LLC paid \$3.2 million for the license at the 175° W.L. orbital location and \$3.2 million for the license at the 166° W.L. orbital location.<sup>329</sup> EchoStar paid \$5.8 million for the license at the 157° W.L. orbital location.<sup>330</sup>

63. ***Expanding Satellite Fleets and Video Capacity.*** In May 2004, DIRECTV successfully launched DIRECTV 7S, a spot beam satellite designed to deliver local broadcast stations in their local markets.<sup>331</sup> In September 2004, DIRECTV announced it would spend \$1 billion to launch four new satellites capable of providing local-into-local service, national high-definition channels, and interactive programming.<sup>332</sup> DIRECTV announced that two (Ka-band) satellites, Spaceway 1 and Spaceway 2, already under construction and originally slated to support Spaceway’s two-way satellite Internet service, are being converted to provide 500 local HD channels as well as broadband Internet service.<sup>333</sup> DIRECTV expects to launch Spaceway 1 and 2 in early 2005, and anticipates that they will become

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<sup>325</sup> See *Wireless Telecommunications Bureau Grants Multichannel Video Distribution and Data Service Licenses*, Public Notice, DA 04-2331 (rel. July 27, 2004) (granting 154 licenses); *Wireless Telecommunications Bureau Grants Multichannel Video Distribution and Data Service Licenses to South.Com LLC*, DA 04-2547, *Public Notice*, (rel. Aug. 18, 2004) (granting 37 licenses); and *DTV Norwich Waiver Order* (granting license for MVD001). All of the grants are subject to conditions.

<sup>326</sup> 47 C.F.R. § 101.1413(a).

<sup>327</sup> 47 C.F.R. § 101.1413(b) and (c). The substantial service requirement is defined as a service that is sound, favorable, and substantially above a level of mediocre service which might minimally warrant renewal. At the end of five years into the license period and ten years into the license period, the Commission will consider factors such as: (1) whether the licensee’s operations serve niche markets or focus on serving populations outside of areas serviced by other MVDDS licensees; (2) whether the licensee’s operations serve populations with limited access to telecommunications; and (3) a demonstration of service to a significant portion of the population or land area of the licensed area.

<sup>328</sup> See *Direct Broadcast Satellite Service Licenses Auction Closes*, *Public Notice*, DA 04-2158 (rel. July 19, 2004). The Commission recently decided that the eligibility for the fourth license originally slated for Auction No. 52, which authorizes use of the last two available channels at the eastern DBS orbit location – 61.5° W.L. – should be restricted. See *Auction of Direct Broadcast Satellite Licenses*, AUC-03-52, FCC 04-271 (rel. Dec. 3, 2004).

<sup>329</sup> *Id.* at Attachment A.

<sup>330</sup> *Id.*

<sup>331</sup> DIRECTV Group, Inc., *DIRECTV 7S Successfully Delivered on Sea Launch Vehicle* (press release), May 5, 2004. According to DIRECTV, the satellite is designed to deliver local programming to an additional 42 markets and to transmit local channels to 19 existing local-into-local markets. *Id.*

<sup>332</sup> Paul Bond, *DIRECTV Channels \$1 Billion HD Plan*, HOLLYWOOD REPORTER, Sept. 9, 2004; Andy Pasztor, *DIRECTV Spends on Satellites*, WALL STREET JOURNAL, Sept. 9, 2004.

<sup>333</sup> DIRECTV Group, Inc., *DIRECTV Announces Plan to Launch Next Generation Satellites to Provide Dramatic Expansion of High-definition and Advanced Programming Services* (press release) (*DIRECTV Release*), Sept. 8, 2004. See also Andy Pasztor, *DIRECTV to Write Down Value of Internet-Via-Satellite Effort*, WALL STREET JOURNAL, Oct. 25, 2004.

operational by mid-2005. DIRECTV also plans to launch two more (Ka-band) satellites – DIRECTV 10 and DIRECTV 11 – in 2007, which will have the capacity to carry 1,000 local HD channels, up to 150 national HD channels, and a range of interactive and enhanced programming.<sup>334</sup> Further video capacity enhancements will come from a gradual migration to advanced transmission codecs such as MPEG-4, higher order modulations such as 8PSK, and the use of new frequency bands.<sup>335</sup> In June 2004, VOOM leased 16 Ku-band transponders aboard SES Americom's AMC-6 satellite, which VOOM refers to as "Rainbow 2".<sup>336</sup> In addition, VOOM has contracted with Lockheed Martin for the construction of five Ka-band satellites to be operated at orbital locations of 62° W.L., 71° W.L., 77° W.L., 119° W.L. and 129° W.L.<sup>337</sup>

## 2. Home Satellite or Large Dish Service

64. The home satellite dish (HSD) or large dish segment of the satellite industry is the original satellite-to-home service offered to consumers, and involves the home reception of analog signals transmitted by satellites operating generally in the C-band frequency.<sup>338</sup> As of June 30, 2004, there were 335,766 households receiving HSD service, a decrease of 33 percent from the 502,191 we reported as of June 2003 last year.<sup>339</sup> Overall, HSD subscribership is decreasing by 12,000 to 20,000 subscribers per month.<sup>340</sup> Nevertheless, several companies continue to sell programming in packages or on an a la carte

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<sup>334</sup> *DIRECTV Release*. See also Letter from William Wiltshire, Harris, Wiltshire & Grannis LLP, to Marlene H. Dortch, Secretary, FCC, Attachment (Digital Television Carriage Issues for DBS Operators) at 3, transmitted by letter from William Wiltshire to Marlene Dortch, Secretary, FCC (Oct. 12, 2004).

<sup>335</sup> DIRECTV Ex Parte in CS Docket No. 98-120 (filed Oct. 8, 2004).

<sup>336</sup> *SES Partners with VOOM*, Sky Report, June 10, 2004. VOOM expects to use the additional capacity to increase its channel capacity from a total of 130 channels to over 350 channels; high definition channels are expected to increase from 39 to more than 70, and standard definition channels from 90 to approximately 280. See *VOOM Plans Big Expansion*, Sky Report, Nov. 23, 2004. VOOM owns and operates a high power Ku-band satellite at 61.5° W.L. orbital location.

<sup>337</sup> VOOM anticipates that in combination these satellites will provide spot beam coverage of the entire United States including Alaska and Hawaii, increasing its channel capacity to more than 5,000 high definition channels. The first of these satellites is expected to be launched in 2008. See Rainbow Media Enterprises, *VOOM Satellite Service to Dramatically Increase Channel Capacity* (press release), Nov. 22, 2004.

<sup>338</sup> Satellites in the C-band frequency are primarily used to transmit programming to cable operators via C-band receiving dishes at the cable operator's central technical facility or "headend." To be "authorized" to receive one or more scrambled channels, an HSD owner must purchase an integrated receiver-decoder from an equipment dealer and then pay a monthly or annual subscription fee to a program packager. HSD systems are typically designed to receive programming from several different satellites at several different orbital locations. Most HSDs include motors that permit the receiving dishes to rotate and receive signals from these many satellites. Space considerations and zoning regulations restrict many viewers' ability to install the large antenna needed for HSD reception.

<sup>339</sup> SBCA Comments at 6.

<sup>340</sup> Frank Ahrens, *Channels A La Carte; Big Dish Customers, A Dying Breed, Choose What They Pay For*, WASHINGTON POST, Apr. 15, 2004, at E1; *C-Band Deauthorizations Slow Down*, SATELLITE BUSINESS NEWS, July 2, 2004; *C-Band Deauthorizations Drop Again*, SATELLITE BUSINESS NEWS, Aug. 4, 2004.

basis to home satellite dish owners.<sup>341</sup> In April 2004, EchoStar purchased Superstar/Netlink Group, LLC, one of the largest distributors of home satellite dish service and equipment.<sup>342</sup>

65. A digital home satellite dish solution has been introduced called 4DTV, which enables C-band customers to receive digital only satellite channels in addition to available analog programming.<sup>343</sup> 4DTV allows customers to receive four types of programming: (1) free, unscrambled analog channels and so-called “wild feeds;” (2) VideoCipher II Plus subscription services; (3) free DigiCipher II services; and (4) subscription-based DigiCipher II channels. The 4DTV digital receiver retails for approximately \$800, but that price is often significantly discounted with the purchase of a programming package.

### 3. Satellite-Based Advanced Services

66. **Broadband Satellite Services.**<sup>344</sup> DIRECTV offers high-speed Internet access to consumers via its two-way DIRECWAY service, for \$60 per month plus equipment costs.<sup>345</sup> DIRECTV states that this service is not competitive with terrestrial high-speed Internet offerings because it costs almost twice as much as available DSL and cable modem service.<sup>346</sup> EchoStar does not presently offer satellite-based broadband Internet service, and states that a successful rollout of satellite broadband nationwide will require spectrum resources in excess of what is now available to it.<sup>347</sup> EchoStar states that it will likely offer a satellite-based broadband Internet access product, using its current spectrum capacity, targeting selected areas beginning in early 2005.<sup>348</sup>

67. DBS providers continued to align themselves with local exchange carriers (LECs) to offer DSL services.<sup>349</sup> Both EchoStar and DIRECTV co-market their video services with these telephone

<sup>341</sup> See, e.g., National Programming Service, LLC, at <http://www.callnps.com/default.htm> (visited Jan. 14, 2005); Satellite Programming Service, Inc., at [http://www.satelliteprogramming.com/new/cgi-bin/sps\\_home.asp](http://www.satelliteprogramming.com/new/cgi-bin/sps_home.asp) (visited Jan. 14, 2005).

<sup>342</sup> GemStar-TV Guide International, Inc., *GemStar-TV Guide Completes Previously Announced Sale of Assets to EchoStar* (press release), Apr. 6, 2004. Superstar/Netlink previously maintained a joint venture with EchoStar under which Superstar customers were given the opportunity to switch to EchoStar’s DBS service. See EchoStar Communications Corp., *EchoStar Announces Exclusive Marketing Alliance with Superstar/Netlink Group* (press release), Nov. 2, 1999. Under the terms of the agreement, in exchange for an upfront \$10 million fee, EchoStar was given the exclusive opportunity to convert approximately 1.4 million existing and inactive C-band customers to its DBS service.

<sup>343</sup> 4DTV is Motorola’s proprietary digital television receive-only communications satellite receiver box and uses the Motorola DigiCipher II, or DCII, standard of signal encryption and compression. 4DTV receivers are also capable of receiving analog satellite transmissions. See Motorola, Inc., at <http://www.4dtv.com/> (visited Jan. 14, 2005). VideoCipher is the conditional access system used by most C-band receivers to decode subscription based and premium satellite TV channels. DigiCipher II, or DCII, is Motorola’s proprietary video distribution system that is used by most digital satellite channels.

<sup>344</sup> See *Fourth 706 Report*, 19 FCC Rcd at 20562.

<sup>345</sup> DIRECTV Comments at 23. DIRECTV is reported to be in talks to sell Hughes Network Systems, the parent company of DIRECWAY. See *DIRECTV Group, Apollo Near HNS Deal*, SATELLITE BUSINESS NEWS FAX UPDATE, Nov. 19, 2004.

<sup>346</sup> *Id.*

<sup>347</sup> EchoStar Comments at 16. See also SES Comments at i-ii.

<sup>348</sup> EchoStar Comments at 18. EchoStar states that the location, pricing and packaging of this service have not been established.

<sup>349</sup> See, e.g., Almar Latour and Peter Grant, *Bells Fight Cable With Satellite-TV Deals*, WALL STREET JOURNAL, Feb. 8, 2004. One analyst believes that LEC and DBS alliances are not temporary but are likely to be long-term as the LECs’ ability to offer video services over DSL and fiber-to-the-home present technical and regulatory issues. See

(continued....)

providers' data and voice services, at a discount and usually on a single bill. EchoStar has agreements with SBC, Sprint, and CenturyTel, in addition to Internet service provider Earthlink.<sup>350</sup> DIRECTV has agreements with SBC, Verizon, BellSouth, and Cincinnati Bell.<sup>351</sup>

68. **Advanced Services.** DIRECTV continues to offer satellite receivers with TiVo's dual tuner DVR functionality.<sup>352</sup> In 2005, DIRECTV expects to introduce a second DVR system made by another News Corp. subsidiary, NDS Group.<sup>353</sup> Of TiVo's 1.9 million total subscribers, approximately 1.11 million, or 60 percent, are DIRECTV customers.<sup>354</sup> DIRECTV's DVR receivers range in price from \$79 to \$999. EchoStar has developed its own DVR system for its satellite receivers. It offers two models with "standard" DVR functionality, meaning VCR-like ability to control programming being viewed. It also offers what it terms "DISH Player DVRs," which, in addition to supporting typical VCR-like functionality, also support EchoStar's video-on-demand service.<sup>355</sup> VOOOM does not presently offer set-top boxes with built-in DVR functionality but has announced its intention to offer a set-top box capable of recording both high-definition and standard definition channels.<sup>356</sup>

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Scott Cleland and Patrick Brogan, *Bells Need DBS Long-Term; Bells Face Big Regulatory Obstacles to Offer Video Over DSL/Fiber*, Precursor Group, Sept. 13, 2004.

<sup>350</sup> EchoStar recently ended its relationship with Qwest, the incumbent local exchange operator serving 14 states in the upper Midwest United States. Qwest had marketing relationships with EchoStar and DIRECTV. QWEST has stated that it will continue to offer bundles that include DBS, data services, and local and long distance phone service. DIRECTV has indicated it will pursue a stronger relationship with Qwest in the near future. *See EchoStar Ends Qwest Expansion Plans*, SATELLITE BUSINESS NEWS, Sept. 20, 2004. With respect to SBC, in July 2003, as part of a strategic partnership, SBC invested \$500 million in EchoStar in exchange for options to purchase 3 percent of EchoStar. SBC has not yet exercised those options. *See SkyReport, SBC, EchoStar Devise New Relationship*, July 22, 2003; SBC Communications, Inc., *SBC Communications, EchoStar Forge Strategic Partnership, Will Offer "SBC DISH Network" Television Service* (press release), July 21, 2003. As of the end of June 2004, SBC reported that it had 121,000 DISH Network subscribers, with 100,000 added in the second quarter. Sky Report, *DISH Raises the Roof with Altitude Deal*, July 23, 2004. With respect to CenturyTel, the agreement covers CenturyTel's 22 state telephone and data services territory, and an investment by CenturyTel in EchoStar of \$25 million in convertible notes. *EchoStar Gets New Phone Partner*, SATELLITE BUSINESS NEWS, Aug. 27, 2004.

<sup>351</sup> DIRECTV Comments at 23. DIRECTV states that consumers purchasing these bundles are eligible for pricing discounts, the amount of which depends on the amount of telecommunications services purchased. *Id.* *See also* DIRECTV Group, Inc., *Cincinnati Bell and DIRECTV Form New Marketing Alliance to Offer Consumers a Bundled Suite of Services that Include Calling, Internet and Digital Television Entertainment* (press release), Nov. 8, 2004.

<sup>352</sup> DIRECTV and TiVo established a business relationship in October 2000, and in February 2002, DIRECTV chose TiVo to integrate its Series 2 DVR platform into DIRECTV's next generation receivers. *See* DIRECTV Group, Inc., *DIRECTV Selects TiVo For Next Generation Digital Satellite Receiver with DVR* (press release), Feb. 21, 2002. The present agreement runs through 2007.

<sup>353</sup> Stuart Elliott and Ken Belson, *Stop Me If You've Seen This One Before*, NEW YORK TIMES, Aug. 9, 2004.

<sup>354</sup> *TiVo Readies for NDS Competition*, SATELLITE BUSINESS NEWS, Aug. 27, 2004. TiVo states that in the second quarter of 2004, it added 288,000 new customers, of which 225,000, or 78 percent, were DIRECTV customers.

<sup>355</sup> *See* EchoStar Communications Corp., at <http://www.dishnetwork.com/content/products/receivers/dvr/index.Shtml> (visited Jan. 14, 2005). The DISH Player-DVR 510 retails for \$299; the DISH Player-DVR 921 retails for \$999. EchoStar also offers on a lease-only basis the DISH Player-DVR 522. The standard DVR receivers 501/508 retails for \$299, and the DISH 721 receiver retails for \$549.

<sup>356</sup> Rainbow DBS Company LLC, at [http://www.voom.com/see\\_it/future.jsp](http://www.voom.com/see_it/future.jsp) (visited Jan. 14, 2005). VOOOM does not provide an expected date for introduction of this equipment.

69. DIRECTV continues to offer an HD programming package, which includes ESPN HD, Bravo HD+, Discovery HD Theater, HD Net and HDNet Movies.<sup>357</sup> In July, DIRECTV and NBC Universal Cable announced a long-term, multi-platform carriage agreement, which will allow the distribution of NBC network programming in HD format.<sup>358</sup> EchoStar offers an HD programming package that consists of five HD nonbroadcast channels, including TNT HD, ESPN HD, Discovery HD Theater, HDNet, and HDNet Movies, and offers a distant CBS HD network feed to qualified subscribers.<sup>359</sup> VOOM's primary sales and marketing focus is HD programming, and VOOM offers a total of 35 HD channels, including 21 HD channels only available to VOOM subscribers as well as nonexclusive channels, such as ESPN HD, Bravo HD+, TNT in HD, Discovery HD Theater, and Fox Sports Net Florida.<sup>360</sup> With respect to VOD, DBS operators do not presently offer real-time on-demand programming because they lack capacity on their satellites to store programming and provide feeds to individual subscribers. DIRECTV and EchoStar use their DVR set-top boxes to stream a limited number of programs to the DVR ahead of official broadcast date to allow playback on demand. In addition, EchoStar reserves a channel for its "Dish Home" service, through which a customer can access a number of interactive channels, such as news, weather, sports, games, and customer care features. EchoStar downloads updated information on a regular basis to the set-top box.<sup>361</sup>

### C. Broadband Service Providers

70. In our *2001 Report*, we addressed a new class of providers called BSPs.<sup>362</sup> We now recognize overbuilders (municipal, independent, and CLEC overbuilders alike) as BSPs because most, if not all, operate state-of-the-art networks capable of providing bundles of services (*i.e.*, voice, advanced video, and data services).<sup>363</sup> As we have noted previously, however, BSPs continue to face considerable

<sup>357</sup> DIRECTV Group, Inc. at [http://www.directv.com/DTVAPP/imagine/HDTV\\_package.dsp](http://www.directv.com/DTVAPP/imagine/HDTV_package.dsp) (visited Jan. 14, 2005). The DIRECTV HD Package costs \$10.99 per month. A customer requires an HD ready television set, a DIRECTV HD receiver and multi-satellite dish, and, in order to receive local HD broadcasts, an off-air HD antenna. According to DIRECTV's website, a DIRECTV HD receiver and multi-satellite dish retail for \$299.00, but requires a one year commitment to any DIRECTV Total Choice programming package. An HD television is not included in the package. DIRECTV also sells an HD DVR receiver, which retails for approximately \$999.

<sup>358</sup> David Lieberman, *NBC, DIRECTV Reach Deal on Fees, High-Definition Shows*, USA TODAY, July 28, 2004; DIRECTV Group, Inc., *NBC Universal Cable and DIRECTV Reach Long-Term Multi-Platform Agreement* (press release), July 28, 2004.

<sup>359</sup> EchoStar Comments at 21. EchoStar customers subscribing to HBO The Works and Showtime Unlimited also receive HBO HD and Showtime HD, respectively, for no additional cost. EchoStar also offers one HD PPV event channel. *Id.*

<sup>360</sup> VOOM's exclusive HD programming includes HD News (24-hour news channel), six channels of HD Cinema, HD Classic Movies, HD Epic movies, HD Gunslinger (western movies), Divine HD (gay and lesbian programming), HD Monsters (horror movies), Equator HD (world geography), WorldSport HD (world sporting events), Rush HD (extreme action sports), Rave HD (music videos), Ultra HD (fashion, beauty, and style programming), Auction HD (auction news, previews, and live auctions), Gallery HD (art, architecture and theater performance), MOOV HD (original non-narrative video art), and Animania HD (animation).

<sup>361</sup> According to EchoStar, the service is provided free to all of its subscribers, although subscribers must have a set-top box embedded with Open TV software to use the feature. See EchoStar Communications Corp., *Dish Network Launches New Interactive TV Programs: Buzztime's Trivia, Fantasy Cup Auto Racing* (press release), Apr. 12, 2004. See also at <http://www.dishnetwork.com/content/products/itv/index.shtml> (visited Jan. 14, 2005).

<sup>362</sup> We define broadband service providers (BSPs) here as, "newer firms that are building state-of-the-art facilities-based networks to provide video, voice and data services over a single network." The term BSP is not intended to imply anything with respect to Commission policy or proceedings that might involve broadband services. Usually, the services of a BSP can be purchased separately as well as in a bundle. *2001 Report*, 17 FCC Rcd at 1296-97 ¶ 3. See also *2002 Report*, 17 FCC Rcd at 26948-52 ¶¶ 102-11.

<sup>363</sup> *2003 Report*, 19 FCC Rcd at 1658-59 ¶ 78. See also NATOA Comments at attachments.

challenges, many of which are discussed below. As a result, competition to cable from BSPs is limited to very few markets.<sup>364</sup>

71. **OVS.** In 1996, Congress established the open video system (OVS) framework, one of four statutorily-recognized options for the provision of video programming services by LECs.<sup>365</sup> BSPs are the only significant holders of OVS certifications or local OVS franchises.<sup>366</sup> Among BSPs, however, those operating under the OVS framework are in the minority. BSPA reports that approximately eight percent of the 4.2 million homes passed by its members, or 336,000 homes, are passed by systems operating with an OVS certification.<sup>367</sup>

72. **BSP Overbuilders.** RCN Corporation is the nation's largest broadband overbuilder supplying voice, video, and high-speed Internet access services to residential subscribers over its own network in the Boston, New York, Chicago, San Francisco, Los Angeles, Washington, D.C, and Philadelphia and Lehigh Valley, Pennsylvania markets.<sup>368</sup> Currently, RCN is the 11th largest MVPD with 436,700 subscribers as of September 2003.<sup>369</sup> RCN filed for Chapter 11 bankruptcy in May 2004 as part of "a consensual balance sheet restructuring."<sup>370</sup> On December 21, 2004, RCN announced that it had consummated its reorganization plan and emerged from bankruptcy.<sup>371</sup> WideOpenWest (WOW) is the second largest overbuilder. WOW is the 15th largest MVPD and, as of September 2003, served 288,000 subscribers.<sup>372</sup> The third largest BSP is Knoxville, Tennessee-based Knology, which operates mainly in the Southeast. Knology has experienced significant growth since June 2003, primarily through acquisition of Verizon's overbuild properties in California and Florida,<sup>373</sup> although Knology later sold the Cerritos, California

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<sup>364</sup> 2003 GAO Report at 3-4.

<sup>365</sup> 47 U.S.C. § 571(a)(3)-(4); 1996 Report, 12 FCC Rcd at 4395-98 ¶¶ 68-71. Open video systems are subject to reduced regulation under Title VI. Among other things, an open video system's carriage rates are entitled to a presumption that they are just and reasonable where one or more unaffiliated video programming providers occupy channel capacity on the system at least equal to that of the open video system operator and its affiliates. We are not aware of any OVS operator carrying programming offered by an unaffiliated program packager. Open video systems are subject to, among others, the Commission's rules governing must carry, retransmission consent, program access, sports exclusivity, network nonduplication, syndicated exclusivity, and public, educational and governmental (PEG) access channels. *Id.* When it authorized the OVS framework, Congress abolished the Commission's video dialtone (VDT) framework under which LECs previously had offered video services.

<sup>366</sup> For a complete list of OVS certifications, see Current Filings For Certification of Open Video Systems, at <http://www.fcc.gov/mb/ovs/csovscer.html> (visited Jan. 14, 2005).

<sup>367</sup> BSPA Comments at 6-7. BSPA reports that its members represent two-thirds of the BSP industry segment, so this constitutes a lower-bound estimate of homes passed by OVS-certified. *Id.* at 7. Comparing the list of BSPA members to OVS certifications indicates that an even higher percentage of OVS operators are represented by BSPA.

<sup>368</sup> RCN Comments at i and 1. RCN agreed to buy out from Pepco Communications a 50 percent share of its Washington, D.C. system. RCN partnered with Pepco to launch in the Washington, D.C. market. See RCN, *RCN Elects To Acquire Remaining 50% Stake Of Washington, D.C. Operations* (news release), Oct. 19, 2004.

<sup>369</sup> NCTA, Cable Developments 2004.

<sup>370</sup> RCN Comments at 4. See RCN Corp., at <http://www.rcntomorrow.com> (visited Jan. 14, 2005) for details about the restructuring. On October 13, 2004, RCN filed a letter describing its Plan of Reorganization and informing the Commission that it has filed or is in the process of filing applications with the Commission to obtain those approvals necessary to implement the plan. See Letter from Jean L. Kiddoo and Edward S. Quill, Jr., Counsel for RCN Corporation, to Marlene H. Dortch, Secretary, FCC (Oct. 13, 2004). See also RCN Corporation, *RCN Corporation Announces Emergence From Bankruptcy* (press release), Dec. 21, 2004.

<sup>371</sup> *Id.*

<sup>372</sup> NCTA, Cable Developments 2004.

<sup>373</sup> Knology, Inc., *Knology Announces Agreement To Purchase Broadband Assets* (press release), July 18, 2003.

system.<sup>374</sup> As of June 2004, Knology was the 20th largest MVPD, and had 174,957 video subscribers, up from 132,163 video subscribers one year earlier.<sup>375</sup> Grande, which operates systems in several cities in Texas, experienced substantial growth over the past year, with video connections increasing from 49,000 to 78,000, and high-speed data increasing from 23,000 to 47,000, between June 2003 and June 2004.<sup>376</sup>

73. Last year we reported that many overbuilders were experiencing financial difficulties. These difficulties continued this year, and perhaps intensified with RCN's bankruptcy. The parent company of Seren Innovations, which operates in Minnesota, is now seeking to sell the BSP.<sup>377</sup> An additional trend in the past year is some consolidation among BSPs. As we reported above and last year, Knology acquired Verizon's overbuild systems. Additionally, Champion, which was formed when the founder of WideOpenWest left the company and purchased WideOpenWest's Denver system,<sup>378</sup> acquired Altrio, which serves more than 7,000 subscribers in Pasadena, Arcadia, and Monrovia, California.<sup>379</sup> Consolidation may help BSPs in financial difficulty improve their prospects, although the wide dispersal of BSP systems limits opportunities for clustering that have provided cost savings for incumbent cable operators.

74. **Competitive Responses.** BSPA and RCN highlight a 2004 General Accounting Office (GAO) study that examined overbuild video systems.<sup>380</sup> The report states that communities with overbuild competition experience lower rates (an average of 23 percent lower for basic cable) and higher quality service.<sup>381</sup> The Commission's Annual Survey of Cable Industry Prices reported similar findings, although it found smaller price differentials (6.4 percent in 2002) studying a larger sample and looking at the combined rate for the basic and most popular CPST.<sup>382</sup> Comcast notes that several BSPs have emerged, or soon will emerge, from bankruptcy with strengthened balance sheets.<sup>383</sup>

75. **Barriers to Competition.** As in previous years,<sup>384</sup> BSPs continue to report barriers to competition in the MVPD market. BSPA states that discrimination in access to and pricing of video programming and other digital content constitute a threat to BSP entry and competition.<sup>385</sup> Comcast

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<sup>374</sup> Knology Inc., *Knology Reports Second Quarter Results* (press release), July 27, 2004. Knology states that it will use proceeds from the sale to fund capital improvements to the Florida system acquired from Verizon.

<sup>375</sup> Knology Inc., *Knology Reports Second Quarter Results* (press release), July 27, 2004. For a full list of communities served, see Knology, Inc., <http://www.knology.com/services/cities.cfm> (visited Jan. 14, 2005).

<sup>376</sup> Grande Communications Holdings, Inc., *Grande Communications Holdings, Inc. Announces Results for the Second Quarter Ending June 30, 2004* (press release), Aug. 12, 2004.

<sup>377</sup> Xcel Energy, Inc., *Xcel Energy To Market Subsidiary Seren Innovations* (press release), Sept. 27, 2004.

<sup>378</sup> *2003 Report*, 19 FCC Rcd at 1660-61 ¶ 81.

<sup>379</sup> Champion Broadband, *Altrio Communications Sells Assets to Champion Broadband* (press release), Apr. 6, 2004.

<sup>380</sup> BSPA Comments at 7-9; RCN Comments at 7-9. See also SBC Comments at 2.

<sup>381</sup> GAO, *Telecommunications: Wire-Based Competition Benefited Consumers in Selected Markets*, Feb. 2004 (GAO 2004 Report).

<sup>382</sup> RCN Comments at 8, citing FCC, *FCC Releases Report on 2002 Cable Industry Prices* (FCC News Release), July 8, 2003. RCN also cites a report with similar information by the U.S. Public Interest Research Group, *The Failure of Cable Deregulation: A Blueprint for Creating a Competitive, Pro-Consumer Cable Television Marketplace*, Aug. 2003.

<sup>383</sup> Comcast Comments at 17-18. See also NCTA Reply Comments, an attachment entitled, "Survey of Incumbent Cable Operators in Overbuild Communities," for a list of communities in which overbuilding has occurred.

<sup>384</sup> See, e.g., *2003 Report*, 19 FCC Rcd at 1662-63 ¶ 84.

<sup>385</sup> BSPA Comments at 12-14 and Reply Comments at 7-12; RCN Comments at 9-10. Comcast, conversely, holds that competition has expanded to the point that the Commission should review its recent decision to extend the

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disputes these allegations, noting that exclusive access to content is common in other industries, and stating that competition would be enhanced by the elimination of regulations that prohibit exclusive carriage agreements between vertically-integrated programmers and cable operators.<sup>386</sup> BSPA also claims that cable operators are engaging in discriminatory pricing strategies, characterized as “targeted” or “predatory” pricing, and recommends that the Commission require cable operators to disclose all rates and promotions offered to any customer in a local franchise area.<sup>387</sup> BSPA also identifies exclusive long-term MDU access contracts as a barrier to entry. BSPA states that such contracts can lock MDU residents into receiving service from an incumbent MVPD provider with a less modern network, and urges the Commission to revisit its 2003 decision concerning perpetual and long term agreements for MDU access.<sup>388</sup> Finally, BSPA notes that difficulties remain for BSPs and other wireline MVPDs gaining access to utility poles at reasonable rates.<sup>389</sup>

## **D. Broadcast Television Service**

### **1. General Performance**

76. Broadcast networks and local stations supply video programming directly over the air to consumers. Consumers who do not subscribe to an MVPD service rely solely on over-the-air transmission of local broadcast television signals. Other households receive broadcast television programming over the air on those television receivers that they have chosen not to connect to an MVPD service. In addition, many consumers receive broadcast signals via their cable, DBS, or other MVPD service.

77. As we reported last year, broadcast television stations’ audience shares have continued to fall as cable and DBS penetration, the number of cable channels, and the number of nonbroadcast networks continue to grow. For the 2003-2004 television season, broadcast television stations accounted for a combined average 48 share of prime time viewing among all television households, compared to a 49 share in the previous season.<sup>390</sup> Similarly, broadcast stations achieved a 44 share of all-day (24-hour) viewing during the 2003-2004 season, down from a 45 share the previous season. In contrast, nonbroadcast channels’ collective audience share continues to grow. In the 2003-2004 television season, nonbroadcast channels<sup>391</sup> accounted for a combined average 52 share of prime time viewing among all

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program access rules for another five years, and either eliminate the prohibition against exclusive contracts between vertically integrated programmers and cable operators, or modify it so that it cannot be invoked by any MVPD with more than 10 million customers. Comcast Comments at 42.

<sup>386</sup> Comcast Reply Comments at 17-20. *See also* NCTA Reply Comments at 12-15.

<sup>387</sup> BSPA Comments at 14-18 and Reply Comments at 7. *See also* RCN Comments at 10. Comcast and NCTA dispute these allegations, and Comcast notes that aggrieved parties are free to seek remedial relief from the Department of Justice. Comcast Reply Comments at 20-23; NCTA Reply Comments at 10-12 (specifically responding to NATOA’s allegations of “anticompetitive practices”).

<sup>388</sup> BSPA Comments at 19-20; RCN Comments at 10.

<sup>389</sup> BSPA Comments at 20-22; RCN Comments at 10.

<sup>390</sup> Nielsen Media Research, *Broadcast Calendar (TV Season) Share of Audience Report, Prime Time and Total Day*, Sept., 2004. Nielsen reports audience shares that exceed 100 percent when totaled due to simultaneous multiple set viewing. We have normalized audience shares to equal 100 percent.

<sup>391</sup> Includes basic (BST and CPST) networks, as well as premium and PPV networks, distributed by MVPDs.

television households, up from the 51 share in the previous season.<sup>392</sup> For all day viewing, nonbroadcast channels accounted for a 56 share of all-day viewing, up from a 55 share in the previous season.

78. Since the *2003 Report*, the number of commercial and noncommercial television stations increased from 1,726 as of June 30, 2003, to 1,747 as of June 30, 2004.<sup>393</sup> Total television broadcast advertising revenues generally remained steady, increasing from \$42.1 billion in 2002, to \$42.4 billion in 2003.<sup>394</sup> Advertising revenue for the seven most widely distributed broadcast networks (ABC, CBS, Fox, NBC, PAX, UPN, and WB) was estimated at \$22.8 billion in 2003, a 3.6 percent increase over the \$22.0 billion earned in 2002.<sup>395</sup> In contrast, cable programming networks experienced a 15.6 percent increase in advertising revenue in 2003, earning \$14.0 billion in advertising revenue compared to \$12.1 billion in 2002.<sup>396</sup> In the *Notice*, we asked to what extent broadcasters receive additional revenues such as payments for retransmission consent.<sup>397</sup>

79. In the *Notice*, we asked to what extent cable television and DBS retransmission consent negotiations are providing broadcasters with an additional revenue source, either through direct compensation or through indirect benefits, such as, for example, contracts for the carriage of affiliated programming. If the compensation is not direct, how is it accounted for?<sup>398</sup> In response, Paxson states that for most local broadcasters, advertising revenue remains the primary revenue source and alternative revenues sources are non-existent.<sup>399</sup> Other broadcasters confirm, however, that through the retransmission consent process, broadcasters receive cash or consideration comparable to cash and thus partake of the two revenue streams traditionally associated with the cable television market. Thus, according to a paper filed on behalf of the Walt Disney Company it offers cable systems the right to carry its owned station for approximately \$0.70 to \$0.80 per subscriber per month, but that a retransmission consent transaction may involve a variety of “currencies.”<sup>400</sup> According to this filing: “The outcome of [retransmission consent] bargaining may result in a complex agreement. Cable operators often choose to provide alternative consideration such as carriage of nonbroadcast networks that are affiliated with the broadcaster in lieu of cash payment. Because the details of each negotiation vary from one cable operator to another, and because the specific details of these agreements are generally confidential, a market price for retransmission consent rights is not transparent.”<sup>401</sup>

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<sup>392</sup> We note that individual broadcast networks generally attract higher audience shares than individual nonbroadcast networks. For example, during the 2003-2004 television season, six of the seven broadcast networks attained average prime time audience shares greater than the average prime time audience share of the highest rated nonbroadcast networks. Nielsen Media Research.

<sup>393</sup> Compare Federal Communications Commission, *Broadcast Station Totals as of June 30, 2003* (FCC News Release), July 22, 2003, with Federal Communications Commission, *Broadcast Station Totals as of June 30, 2004* (FCC News Release), Aug. 20, 2004.

<sup>394</sup> Television Bureau of Advertising, *2003 TV Ad Revenue Figures*, at [http://www.tvb.org/rcentral/adrevenue/track/revenue/2003/ad\\_figures](http://www.tvb.org/rcentral/adrevenue/track/revenue/2003/ad_figures) (visited Sept. 17, 2004).

<sup>395</sup> *Id.*

<sup>396</sup> Robert J. Coen, *U.S. Advertising Volume 2000-2004*, Universal McCann, June 22, 2004.

<sup>397</sup> See *Notice*, 19 FCC Rcd at 10927 ¶ 57.

<sup>398</sup> *Id.*

<sup>399</sup> Paxson Comments at 4.

<sup>400</sup> Disney Reply Comments, Attachment 1, Exhibit 2, at 5. Disney includes The Walt Disney Company, ESPN (80 percent owned by Disney), Disney ABC Cable Networks Group (including The Disney Channel, ABC Family, Toon Disney and SOAPnet), The ABC Television Network and the ABC-owned television stations.

<sup>401</sup> *Id.* at 3.

## 2. Digital Television

80. Digital television (DTV) could enhance the ability of broadcasters to compete in the video marketplace.<sup>402</sup> DTV allows broadcasters to transmit a high-definition television (HDTV) signal, several standard definition television (SDTV) signals (multicasting), or ancillary services in addition to video programming.<sup>403</sup> As of September 2004, all of the 40 stations that make up the top-four network affiliates in the top ten television markets were broadcasting DTV service.<sup>404</sup> In television markets ranked 11-30, 79 stations were broadcasting DTV service.<sup>405</sup> More than 1,468 stations are on the air with DTV operation.<sup>406</sup> CEA notes, however, that despite the wide availability of DTV signals, some viewers still cannot receive many digital signals, because most stations are using less power than authorized for digital service.<sup>407</sup>

81. Analysts estimate that as of July 2004, 15.99 million households, or 14.75 percent of U.S. households, rely exclusively on over-the-air television for video programming.<sup>408</sup> As of year-end 2003, there were between 7.0 and 8.7 million households with DTV monitors, and by year-end 2004, there could be as many as 13 or 14 million.<sup>409</sup> NAB estimates that 88.8 percent of U.S. television households are in markets that have access to at least five over-the-air digital television signals, and 71.1 percent have access to at least eight or more digital television signals.<sup>410</sup> NCTA estimates that as of September 15, 2004, 90 million homes were passed by a cable system that offers programming in HD format, broadcast and/or nonbroadcast, and cable operators nationwide were carrying more than 454 digital broadcast stations.<sup>411</sup>

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<sup>402</sup> *2003 Report*, 19 FCC Rcd at 1670 ¶ 96.

<sup>403</sup> *Id.*

<sup>404</sup> *Summary of DTV Applications Filed and DTV Build Out Status*, at <http://www.fcc.gov/mb/video/files/dtvonairsum.html> (visited Jan. 14, 2005). Two stations in New York, WABC and WNBC, are not operating at full power with licensed DTV facilities, but instead are broadcasting with Special Temporary Authority (STAs) after their facilities were destroyed on September 11, 2001. STA File No. BMDSTA-20040419ACL and BEDSTA-20040614AHC.

<sup>405</sup> *Summary of DTV Applications Filed and DTV Build Out Status*, at <http://www.fcc.gov/mb/video/files/dtvonairsum.html> (visited Jan. 14, 2005).

<sup>406</sup> *Id.*

<sup>407</sup> CEA Comments at 6-7.

<sup>408</sup> Nielsen Media Research. In MB Docket No. 04-210, commenters note that as many as 19 percent, and as few as 13 percent, of U.S. households could be relying solely on over-the-air television for video programming. See NAB/MSTV Comments in MB Docket No. 04-210 at Appendix A at 7; CEA Comments in MB Docket No. 04-210 at 2-3.

<sup>409</sup> Kagan World Media, *Digital TV*, Media Trends 2004, at 104; Adam S. Parker, Colin McGranahan, Dupree, Jonathan Feldman, *Digital TVs-On Your Market, Get Set, Go*, Bernstein Research, Feb. 6, 2004, at 21. DTV monitors do not necessarily contain DTV tuners. It is estimated that less than two million households have DTV sets with integrated tuners. The remaining households must purchase a DTV tuner to receive digital television over the air or subscribe to an MVPD that provides digital signal.

<sup>410</sup> Telephone Conversation with Brian Savoie, Manager Television Membership, NAB (Nov. 12, 2004). See also NAB Reply Comments at 3; NAB, *NAB Legislative Issue Paper*, Mar. 2004, at 8.

<sup>411</sup> NCTA, *Cable's HDTV Deployment* at <http://www.ncta.com/images/HDTVkit-Deploy-final2.pdf> (visited Jan. 14, 2005); see also NCTA Comments at 31. This includes standard-definition and high-definition format programming.

**a. Programming**

82. Programmers are also offering an increasing amount of programming in high-definition (HD) format.<sup>412</sup> Analysts estimate that ABC, CBS, NBC, and WB currently offer most of their prime time programming in HD format, while Fox and UPN currently offer about 50 percent of their prime time programming in HD format.<sup>413</sup> Fox will soon begin offering substantial amounts of HD as well.<sup>414</sup> From May 30, 2003, to June 13, 2003, 921 programs were offered in HD format, as tracked daily by Titan TV.com.<sup>415</sup> An estimated 87 percent of those HD programs were originated by nonbroadcast networks; 802 programs were offered by nonbroadcast programmers HDNet, DiscoveryHD, HBO, DIRECTV HD PPV, and Showtime HDTV; 119 programs were offered by broadcast networks CBS, ABC, NBC, PBS, and WB.<sup>416</sup>

**(i) Multicasting**

83. Multicasting is the process by which multiple channels of standard definition television (SDTV) programming are transmitted at the same time over a single frequency. In its comments, Disney states that it offers *ABC News Now*, a 24/7 news channel offered to its local broadcast affiliates for transmission over their digital television signal as a multicast channel.<sup>417</sup> Launched in July 2004, *ABC News Now* was developed to provide expanded coverage of the Presidential election.<sup>418</sup> *ABC News Now* is currently still available and Disney has made no final decision to terminate the service.<sup>419</sup> All ten ABC-owned stations carry the service.<sup>420</sup>

**(ii) Datacasting and Subscription Services**

84. DTV also allows broadcasters to use part of their digital bandwidth for subscription multichannel video programming services and datacasting. These services can be provided simultaneously with HD or SD DTV programs in the same transmission, and can provide delivery of virtually any type of data, audio or video, including text, graphics, software, web pages, video-on-demand, and niche programming.<sup>421</sup>

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<sup>412</sup> The Commission has established a website to provide programming and other information on DTV. See *What's on DTV?*, at <http://www.dtv.gov> (visited Jan. 14, 2005). See also <http://www.checkhd.com/programming/> (visited Jan. 14, 2005).

<sup>413</sup> Richard Bilotti, Benjamin Swinburne, and Megan Lynch, *Building for HD: How Cable & Satellite Stay Ahead of the Bells*, Morgan Stanley, July 8, 2004, at 4.

<sup>414</sup> NAB Reply Comments at 4.

<sup>415</sup> Kagan World Media, *Digital TV*, Media Trends 2004, at 7, 110, 112. See also <http://www.titantv.com> (visited Jan. 14, 2005); see also <http://www.checkhd.com/programming/> (visited Jan. 14, 2005).

<sup>416</sup> Kagan World Media, *Digital TV*, Media Trends 2004, at 7, 110, 112. Some cable and DBS HD channels provide full-time 24-hour HD service. CEA Comments at 6.

<sup>417</sup> Disney Reply Comments, Attachment 4, at 5.

<sup>418</sup> *Id.*

<sup>419</sup> See *ABC News Now*, at <http://abcnews.go.com/Video/VideoLive> and <http://www.real.com/partners/abcnews/> (visited Jan. 14, 2005).

<sup>420</sup> Disney Reply Comments, Attachment 4, at 5.

<sup>421</sup> See NAB, *Destination Digital TV*, Sept. 2002.

85. Several companies are using broadcast spectrum for subscription video distribution via DTV streams.<sup>422</sup> U.S. Digital Television, Inc. (USDTV) uses local over-the-air DTV spectrum to offer a digital subscription service of broadcast and nonbroadcast programming for a monthly service fee of \$19.95.<sup>423</sup> USDTV is currently available in Salt Lake City, Las Vegas, and Albuquerque, with additional deployments by the end of 2004.<sup>424</sup> As of September 2004, USDTV had more than 10,000 subscribers.<sup>425</sup> Emmis Communications has announced an initiative to develop an over-the-air multichannel video programming service using DTV spectrum and is seeking participation by other broadcasters in this effort.<sup>426</sup> Disney uses digital spectrum to offer its data-cast movie service, MovieBeam, which provides a set-top box installed with 100 movies which are updated with ten new selections weekly via datacast.<sup>427</sup> Disney rents digital spectrum primarily from ABC and PBS affiliated stations to transmit movies weekly.<sup>428</sup>

86. iBlast and dotcast are two distribution networks that use the digital broadcast spectrum of local TV stations to distribute digital media content directly to home computers, set-top boxes, DVRs, vehicle entertainment systems, game consoles, PDAs and MP3 players.<sup>429</sup> Such media content includes video, games, music, and software.<sup>430</sup>

#### b. DTV Equipment.

87. The sale of DTV consumer electronics continues to accelerate. During 2003, more than four million DTV sets and displays had been shipped to retail outlets, nearly double the number that had been shipped in 2002.<sup>431</sup> During 2004, an estimated seven million DTV sets and displays will be shipped to retail outlets, and during 2005 it is expected that nearly 11 million DTV sets and displays will be shipped to retail outlets nationwide.<sup>432</sup> Pursuant to the Commission's tuner mandate, manufacturers now offer more than 100 models of HD-ready television sets with DTV tuners inside (integrated sets).<sup>433</sup> The tuner mandate phase-in plan requires 50 percent of all new DTV sets with screen sizes 36 inches and above to

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<sup>422</sup> Elisa Batista, *Datacasting Refuses to Die*, WIRED, Oct. 7, 2004, at <http://www.wired.com/news/print/0,1294,60716,00.html> (visited Jan. 14, 2005); Multicasting, Datacasting Give Local Broadcaster Expanded News Coverage, BROADCAST ENGINEERING, Feb. 4, 2004, at [http://www.broadcastengineering.com/news/broadcasting\\_multicasting\\_datacasting\\_give/](http://www.broadcastengineering.com/news/broadcasting_multicasting_datacasting_give/) (visited Jan. 14, 2005).

<sup>423</sup> U.S. Digital Television, Inc., *USDTV Company Information*, at [http://www.usdtv.com/company\\_info.php](http://www.usdtv.com/company_info.php) (visited Jan. 14, 2005).

<sup>424</sup> U.S. Digital Television, Inc., *USDTV Availability*, at [http://www.usdtv.com/why\\_usdtv-reception\\_maps.php](http://www.usdtv.com/why_usdtv-reception_maps.php) (visited Jan. 14, 2005).

<sup>425</sup> U.S. Digital Television, Inc., *USDTV Surpasses 10,000 Subscriber Milestone* (press release), Sept. 22, 2004.

<sup>426</sup> Emmis Communications, *Television Broadcasters Initiative Unveiled* (press release), Apr. 20, 2004, at <http://www.emmis.com/press/home.aspx?pn=2> (visited Jan. 14, 2005).

<sup>427</sup> MovieBeam Entertainment, at <http://www.moviebeam.com/flashindex.jsp> (visited Jan. 14, 2005).

<sup>428</sup> *Id.*

<sup>429</sup> See iBlast Inc., *What is iBlast?*, at <http://www.iblast.com/what.php3> (visited Jan. 14, 2005); see also Dotcast, Inc., at <http://www.dotcast.com/htdocs/home.htm> (visited Jan. 14, 2005).

<sup>430</sup> *Id.*

<sup>431</sup> *U.S. Consumer Electronics Sales & Forecasts*, CEA Market Research, June 2004, at 3; *Washington Insider Series: The HDTV Transition*, CEA, Apr. 2004, at 1. Not all DTV sets and displays can display HD format programming. No separate figures are available for HDTV-ready sets.

<sup>432</sup> *U.S. Consumer Electronics Sales & Forecasts*, CEA Market Research, June 2004, at 3.

<sup>433</sup> CEA, *DTV Product Guide, HDTV Summit, 2004*.

include DTV reception capability by July 1, 2004; 100 percent of DTV sets 13 inches and above must include DTV tuners by July 1, 2007.<sup>434</sup>

88. In its comments, Paxson Communications states that the Commission may need to revisit its tuner mandate<sup>435</sup> to enact more exacting specifications for the rule-compliant over-the-air DTV tuners.<sup>436</sup> It indicates that the quality and quantity of over-the-air DTV reception tuners seriously threatens local broadcasters' ability to compete.<sup>437</sup> It asserts that high quality over-the-air tuners must be available in sufficient numbers and at a low enough price to provide DTV reception that is equivalent to today's analog reception.<sup>438</sup> Paxson indicates that its transition to DTV is nearly complete, but it cannot attract viewers because few consumers have purchased DTV sets with over-the-air tuners.<sup>439</sup>

**c. DTV Transition.**

89. In our *2003 Report*, we noted several rulemaking orders and notices that the Commission adopted during 2003 towards accelerating or promoting the transition to DTV.<sup>440</sup> Among them were an inquiry regarding rules for digital low power television and television translator stations; the *Digital Broadcast Copy Protection* rules (also known as *Broadcast Flag*), including a second *Notice*; and the second *Report and Order on the Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment* (also known as the *Plug and Play Rules*), including a second *Notice* on navigation devices and compatibility issues.<sup>441</sup> These proceedings were a first step toward advancing the DTV transition. This year, we report on the numerous Commission actions and industry efforts aimed at accelerating and improving the DTV transition.

90. **Plug and Play.** In December 2002, the cable and consumer electronics industries put forth an agreement for a standard for integrated, unidirectional (*i.e.*, one-way) digital cable television receivers and digital cable products. In October 2003, the Commission adopted the *Plug and Play Rules*.<sup>442</sup> Since our last *Report*, the cable and consumer electronics industries, along with other interested parties, continue to work on the development of an agreement for two-way "plug and play" receivers that would eliminate the need for a set-top box to receive two-way advanced cable services.<sup>443</sup>

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<sup>434</sup> *Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, 17 FCC Rcd 15978, 15995-96 ¶¶ 39-40 (2002).

<sup>435</sup> *Id.*

<sup>436</sup> Paxson Comments at 16-17; *Digital Broadcast Copy Protection*, 18 FCC Rcd 23550 (2003) (*Broadcast Flag Order*); *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, 18 FCC Rcd 20885 (2003) (*Plug and Play Rules*) recon. pending.

<sup>437</sup> Paxson Comments at 16-17.

<sup>438</sup> *Id.*

<sup>439</sup> *Id.* at 8-14.

<sup>440</sup> *2003 Report*, 19 FCC Rcd at 1671-2 ¶¶ 98-102.

<sup>441</sup> *Id.* at 1671-2 ¶¶ 99-101. *Plug and Play Rules*, 18 FCC Rcd 20885; *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, 18 FCC Rcd 18365 (2003).

<sup>442</sup> See *Plug and Play Rules*, 18 FCC Rcd at 20886-7 ¶ 2. See also TiVo Reply Comments at 1-3; Gemstar Reply Comments at 6; and Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 11-13, 18-22, 24-27, 29-30.

<sup>443</sup> See SBCA Comments at 17. See also para. 39 *supra*, para. 187 *infra*.

91. **Broadcast Flag.** In its August 2004 *Broadcast Flag Order*, the Commission adopted digital copy protection rules to assure that DTV broadcast content will not be indiscriminately redistributed over the Internet, while protecting consumers' ability to view and record video content in a manner to which they have become accustomed.<sup>444</sup> In a related *Order*, the Commission approved thirteen digital output protection technologies and recording methods under the evaluative criteria established in the *Broadcast Flag Order*, subject to certain conditions.<sup>445</sup> The certification *Order* reiterates that the Commission's goal is to prevent the indiscriminate redistribution over the Internet of digital broadcast television content, while preserving the use and enjoyment of broadcast content.<sup>446</sup> The certification *Order* finds that each technology, as approved, is appropriate for use in DTV reception equipment to give effect to the broadcast flag.<sup>447</sup>

92. **DTV Periodic Review.** Also in August 2004, the Commission completed the first part of its *Second Periodic Review* of its rules and policies affecting the conversion to digital television.<sup>448</sup> The *Report and Order* implements several steps necessary for continued progress in the conversion to DTV.<sup>449</sup> Among them are channel election procedures; deadlines for replication and maximization; requirements that stations provide PSIP information to facilitate closed captioning, V-chip, channel numbering and other functionality; elimination of the simulcast requirement to permit the transmission of additional innovative programming on broadcast digital channels; clarification of interference protection measures for broadcasters; clarification of digital closed captioning rules; and agreement to consider individual deployments distributed transmission technologies on a case-by-case basis in the interim to a proceeding on the issue.<sup>450</sup> The Commission continues to work on matters related to the expiration of all broadcast licenses for analog television service on December 31, 2006, and the requirement in the Act that the Commission reclaim the spectrum unless certain conditions set forth in Section 309(j)(14)(B) are met.<sup>451</sup> In order to minimize the disruption to consumers when the switch-over to digital broadcasting occurs, the Media Bureau issued a *Public Notice* in May 2004, seeking comment on the number of households that rely exclusively on over-the-air broadcasting for their television service, and on potential options for minimizing the impact of the switch-over on these and other consumers.<sup>452</sup>

93. **Public Interest Obligations.** The Commission continues to work on public interest matters related to a 1999 *Notice of Inquiry* on public interest obligations in the digital era, as well as a 2000 *Notice of Proposed Rulemaking* on standardized and enhanced disclosure, both of which were addressed in the *Second Periodic Notice*.<sup>453</sup>

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<sup>444</sup> *Broadcast Flag Order*, 18 FCC Rcd 23550.

<sup>445</sup> *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876 (2004). See *Broadcast Flag Order*, 18 FCC Rcd 23550.

<sup>446</sup> *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876.

<sup>447</sup> *Id.*

<sup>448</sup> *Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 19 FCC Rcd 18279 (2004) (*Second Periodic Review Report and Order*).

<sup>449</sup> *Id.*

<sup>450</sup> *Id.* at 18355-7 ¶¶ 174-178.

<sup>451</sup> 47 U.S.C. § 309(j)(14). This issue will be addressed in the second part of the Second Periodic Review. See *Second Periodic Review Report and Order*, 19 FCC Rcd 18285-6 at ¶ 6.

<sup>452</sup> *Media Bureau Seeks Comment on Over-The-Air Broadcast Television Viewers*, 19 FCC Rcd 9468 (2004).

<sup>453</sup> *Public Interest Obligations of TV Broadcast Licensees*, 14 FCC Rcd 21633 (1999) (*Broadcast Public Interest NOI*); *Standardized and Enhanced Disclosure Requirements for Television Broadcast Licensee Public Interest Obligations*, 15 FCC Rcd 19816 (2000) (*DTV Public Interest Form NPRM*).

94. **Children's Programming.** In September 2004, the Commission resolved a number of issues regarding the obligation of television broadcasters to serve children in their audience.<sup>454</sup> The *Report and Order* addresses the obligation of television broadcast licensees to provide educational and informational programming and to protect children from excessive and inappropriate commercial messages. Although some of the rules and policies adopted apply to both analog and digital broadcasters, the *Report and Order* focuses on the application of children's television obligations to DTV broadcasting.<sup>455</sup>

95. **Low-Power Television and Television Translators.** In September 2004, the Commission established rules to allow for the digital conversion of low power television (*LPTV Rules*) and television translator systems.<sup>456</sup> The *Report and Order* adopts definitions and permissible use provisions for DTV translator and LPTV stations to mirror the analog operation of these stations.<sup>457</sup> The *Report and Order* furthers progress in the nationwide DTV transition, as LPTV and translator stations deliver over-the-air television service to millions of viewers in rural areas and discrete urban communities.<sup>458</sup>

96. **Ancillary and Supplementary Services.** In 2003, the Commission also released a *Public Notice* relating to the requirement that each commercial and noncommercial educational DTV broadcast station licensee to annually report whether its station provided ancillary or supplementary services at any time during the twelve-month period preceding September 30, 2003, using Form 317 (*Annual DTV Ancillary/Supplementary Services Report for Digital Televisions Stations*).<sup>459</sup> Form 317 was created pursuant to the statutory guidelines set forth in Section 336 of the Communications Act, which among other things, requires that the Commission ensure that licenses for advanced television services are consistent with the public interest, convenience and necessity; that the Commission collect fees from providers of ancillary or supplementary services to "recover for the public, a portion of the value of the public spectrum resource made available for commercial use. . ."; and to report to Congress on the implementation of the program required by Section 336(e).<sup>460</sup>

#### d. Educational Efforts

97. In addition to undertaking rulemaking actions to speed the digital transition, the Commission is undertaking a concerted consumer education effort. As of May 2004, only about 37 percent of all adults were somewhat or very familiar with HDTV, while about 87 percent of all adults in TV households were vaguely aware of HDTV.<sup>461</sup> To increase public awareness, on October 4, 2004, the Commission announced a DTV consumer education initiative.<sup>462</sup> The campaign is designed to inform the public about the DTV transition, and provide resources regarding the availability of HD and other digital programming, as well as to provide information on consumer equipment and retail outlets. A new FCC

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<sup>454</sup> *Children's Programming Obligations of Digital Television Broadcasters*, 19 FCC Rcd 22943 (2004).

<sup>455</sup> *Id.*

<sup>456</sup> *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, 19 FCC Rcd 19331 (2004) (*LPTV Report and Order*).

<sup>457</sup> *Id.*

<sup>458</sup> *Id.*

<sup>459</sup> *Filing of FCC Annual DTV Ancillary/Supplementary Services Report*, 18 FCC Rcd 23972 (2003).

<sup>460</sup> 47 U.S.C. § 336 (a), (e).

<sup>461</sup> CTAM, *HDTV: Consumers Getting the Picture*, CTAM Pulse, May/June 2004, at 2.

<sup>462</sup> *Chairman Powell Announces Major DTV Consumer Education Initiative* (FCC News Release), Oct. 4, 2004; *Chairman Powell to Kickoff Consumer Education Initiative on Transition to Digital* (press release), Sept. 28, 2004.

Internet web portal was created to serve as a one-stop source of information on the transition.<sup>463</sup> The announcement of the web portal was followed by a public forum that discussed HD content that is now, or soon will be available to consumers, and how consumers access this content.<sup>464</sup>

98. The Commission also announced a joint effort with CEA and Consumer Electronics Retail Coalition (CERC) on the creation and distribution of a DTV Tip Sheet that describes digital television equipment and provides a glossary of common DTV terms.<sup>465</sup> The tip sheet also explains that TV sets with only analog tuners will need a separate converter box in the future to receive over-the-air signals after broadcast stations turn off their analog signals.

99. In addition to its efforts with the Commission, CEA is working by itself and with retailers and cable companies to improve retailer and public knowledge of the transition. In its comments to this *Report*, CEA urges that more efforts throughout the industry are needed.<sup>466</sup> On its websites, CEA offers a wide range of information for consumers, retailers, and industry participants.<sup>467</sup> CEA also publishes numerous educational brochures and leaflets for consumers and retailers alike.<sup>468</sup> Among the materials CEA offers are several point-of-sale brochures that retailers can customize and distribute to consumers; a two-sided reference sheet for sales persons to use as a pocket guide when conversing with consumers; several direct-to-consumer print guides including: *HDTV: A Consumer's Guide to the Wonderful World of HDTV*; a *TV Guide* insert called *TV Guide Advertorial*, both of which explain HDTV to consumers; and *HDTV Guide*, which provides lists of DTV products, programming and cable carriage currently available.<sup>469</sup> CEA also produces educational DVDs jointly with Comcast for use by retail outlets to educate employees, as well as nationally pre-packaged video and radio news releases on the issue of DTV, and an online training program for DTV retailers. CEA also convenes conferences with local retailers, broadcasters and cable executives to discuss the DTV transition. This program has visited more than 25 television markets and four major buying groups.<sup>470</sup> CEA is also an exhibitor at home and trade shows, and conducts a "Media Tour" which visits 75 cities each year.<sup>471</sup>

100. CERC and its board member companies, Best Buy, Circuit City, Radio Shack, and Tweeter, conduct joint HDTV promotions with MVPDs and the Discovery Channel to educate consumers about DTV. CERC and its members also distribute materials directly to consumers, including advertising supplements, educational brochures, home theater product catalogs, and web portals. For example, Best Buy has issued information on DTV and HDTV, including a product primer and product descriptions.<sup>472</sup> Best Buy, Tweeter and Circuit City all offer "research guides" on their websites that provide basic

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<sup>463</sup> *Digital Television*, <http://www.dtv.gov>.

<sup>464</sup> *Chairman Powell Announces Major DTV Consumer Education Initiative* (FCC News Release) Oct. 4, 2004.

<sup>465</sup> *Id.*

<sup>466</sup> CEA Comments at 6.

<sup>467</sup> *Id.* See CEA, at [http://www.ce.org/about\\_cea/cea\\_initiatives/viewInitiativesOverview.asp?title=Transition%20to%20Digital%20Television&name=269](http://www.ce.org/about_cea/cea_initiatives/viewInitiativesOverview.asp?title=Transition%20to%20Digital%20Television&name=269) (visited Jan. 14, 2005).

<sup>468</sup> CEA Comments at 7.

<sup>469</sup> See CEA, at [http://www.ce.org/about\\_cea/cea\\_initiatives/viewInitiativesOverview.asp?title=Transition%20to%20Digital%20Television&name=269](http://www.ce.org/about_cea/cea_initiatives/viewInitiativesOverview.asp?title=Transition%20to%20Digital%20Television&name=269) (visited Jan. 14, 2005).

<sup>470</sup> *Id.*

<sup>471</sup> *Id.*

<sup>472</sup> Best Buy, *Best Buy Simplifies High-Definition For Consumers* (press release), Feb. 5, 2004.

information on HDTV, DTV, and the different types of video monitors currently available to consumers.<sup>473</sup>

101. NCTA offers information on its website regarding cable operator offerings of DTV, and an overview on digital cable that explains the difference between digital cable and HDTV.<sup>474</sup> CTAM, the cable industry marketing association, conducts a consumer awareness study annually to examine consumer awareness and familiarity with HDTV, products and features of DTV sets and HDTV sets, knowledge of HDTV programming, and HDTV programming preferences.<sup>475</sup> NAB operates a website called *Digital Zone*, dedicated to providing consumers access to information about the broadcast DTV transition.<sup>476</sup> The site includes tips for purchase of a digital set, diagrams explaining the difference between analog and digital television, information on DTV in local markets, and information on legislative and regulatory issues. In addition there is a Frequently Asked Questions section, and a Station Guide. NAB also publishes a newsletter entitled *Destination Digital* which is available on its website as well.<sup>477</sup>

102. SBCA indicates that the DBS industry is promoting HD through the offering of HD receivers and HD TV set packages and by offering special equipment packages to upgrade current customers to HD.<sup>478</sup> SBCA says that it has worked with members of Congress to be able to provide distant DTV signals to consumers in areas not served by DTV.<sup>479</sup> It has also worked with retailers to educate them on HDTV over DBS, and runs an advertising campaign to explain the benefits to consumers of HD.<sup>480</sup>

103. Individual companies are also taking steps to educate the public. Comcast says it heavily promotes HDTV through print ads, advertising availabilities on its own cable systems, and through a joint marketing campaign with CTAM, the cable industry's marketing association.<sup>481</sup> Comcast also has a team traveling throughout the United States, visiting retail stores to work with retailers at the point of sale and place advertisements in the stores.<sup>482</sup> Sony and Cox recently conducted a joint demonstration of HDTV at San Diego's baseball park, and Sony sponsored the HD broadcast of the Olympics.<sup>483</sup> EchoStar says it

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<sup>473</sup> Best Buy, *HDTV Information Center*, at <http://www.bestbuy.com/site/olspage.jsp?id=pcmcat8400050000&type=category> (visited Jan. 14, 2005); Tweeter Home Entertainment Group, at <http://www.tweeter.com/info/index.jsp?categoryId=1198415&infoPath=1139222> (visited Jan. 14, 2005); Circuit City Stores, Inc., at <http://www.circuitcity.com/rpsm/cat/-12867/edOid/105585/rpem/ccd/lookLearn.do> (visited Jan. 14, 2005).

<sup>474</sup> NCTA, <http://www.ncta.com/Docs/PageContent.cfm?pageID=91>; <http://www.ncta.com/Docs/PageContent.cfm?pageID=101>; <http://www.ncta.com/Docs/PageContent.cfm?pageID=104>; <http://www.ncta.com/images/HDTVkit-Programming-Final3.pdf> (visited Jan. 14, 2005).

<sup>475</sup> CTAM, *HDTV: Consumers Getting the Picture*, at <http://www.ctam.com/research/> (visited Jan. 14, 2005).

<sup>476</sup> NAB, [http://www.digitaltvzone.com/hdtv\\_programs\\_on\\_air/index.html](http://www.digitaltvzone.com/hdtv_programs_on_air/index.html) (visited Jan. 14, 2005).

<sup>477</sup> NAB, [http://www.nab.org/Newsroom/Issues/digitaltv/default.asp](http://www.nab.org/Newsroom/Issues/digitaltv/DDTV/ddtv.asp) (visited Jan. 14, 2005).

<sup>478</sup> SBCA Comments at 12.

<sup>479</sup> *Id.*

<sup>480</sup> *Id.*

<sup>481</sup> Comcast Corp., at <http://www.comcast.com> (visited Jan. 14, 2005).

<sup>482</sup> *Id.*

<sup>483</sup> *Cox, Sony, and Padres Play Ball*, Show Biz Data.com, July 6, 2004. The Padres have installed 250 Sony HDTV sets throughout Petco Park, while Cox has bought dozens of additional Sony sets to give away during Padres games. In addition, under an arrangement between Sony and Cox, San Diego consumers who buy a Sony HDTV set, receive

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uses mailers, commercials on its systems, and its website to disseminate information. It also utilizes an information truck at major events, and run seminars and workshops in retail locations to educate sales associates. Sinclair Broadcast Group Inc. has developed a series of public service announcements promoting HDTV on free television.<sup>484</sup>

#### E. Wireless Cable Systems

104. Wireless cable systems use Multipoint Distribution Service (MDS) and Instructional Television Fixed Service (ITFS) frequencies in the 2 GHz band to transmit video programming and provide broadband services to residential subscribers.<sup>485</sup> While these services were originally designed for the delivery of multichannel video programming, over the past several years licensees have focused their operations instead on providing two-way high-speed Internet access services. The number of wireless cable subscribers has declined steadily from a peak of 1.2 million in 1996 to approximately 200,000 as of April 2004.<sup>486</sup> Thus, wireless cable systems provide video competition to incumbent cable operators only on a limited basis.

105. In July 2004, the Commission issued a *Report and Order* and *Further Notice of Proposed Rulemaking (MDS/ITFS Order)* making several significant changes to the rules governing the MDS and ITFS bands, in order to provide greater flexibility and a more efficient band plan.<sup>487</sup> The new band plan for 2495-2690 MHz eliminates non-contiguous channel use by MDS and ITFS licensees and creates distinct band segments for operations such as video transmission and two-way fixed and mobile broadband applications. The *MDS/ITFS Order* also renamed the MDS and ITFS services the Broadband Radio Service (BRS) and Educational Broadband Service (EBS), respectively. In addition, the *MDS/ITFS Order* modified the original MDS-ITFS band plan by adding four MHz of spectrum at 2496-2500 MHz in order to provide room for the relocation of the MDS Channels 1 and 2, currently located in the 2.1 GHz band. The *MDS/ITFS Order* also established simpler and more flexible rules for licensees, including geographic area licensing and the ability to deploy the technology of their choice. The *MDS/ITFS Order* also lifted all non-statutory eligibility restrictions on BRS licenses, including those applicable to cable operators; however, cable operators are still prohibited from providing multichannel video programming distribution services using BRS licenses. In addition, the rules limiting EBS licenses to qualified educational institutions remain in effect. EBS licensees may continue to lease their spectrum to BRS licensees. Finally, the *MDS/ITFS Order* established a three-year plan for transitioning to the new band plan.

106. BRS and EBS licensees continue to focus their operations on delivering wireless broadband services rather than multichannel video service. Of the three largest BRS licensees - Nextel, Sprint, and BellSouth - BellSouth continues to provide video programming in the areas where it holds MMDS/BRS and ITFS/EBS licenses.<sup>488</sup> These three BRS licensees also have significant mobile wireless

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12 months of free HDTV programming from Cox. Sony, in turn, has purchased ads on Cox's high-definition channel, which carries 104 Padres games. *Id.*

<sup>484</sup> *Sinclair Launches HDTV PSA Campaign*, BROADCASTING & CABLE TV FAX, Aug. 27, 2004, at 1.

<sup>485</sup> This delivery technology also is known as multichannel multipoint distribution service (MMDS).

<sup>486</sup> NCTA Comments at 7.

<sup>487</sup> *Amendment of Parts 1, 21, 73, and 74 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, 19 FCC Rcd 14165 (2004).

<sup>488</sup> BellSouth Comments at 2. BellSouth currently provides cable service in 14 franchise areas in Alabama, Florida and Georgia. Comments of BellSouth Corp. and BellSouth Wireless Cable, Inc. in *Amendment of Parts 1, 21, 73,*

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operations in the cellular, broadband PCS, and Specialized Mobile Radio (SMR) bands. Nextel completed its acquisition of BRS licenses held by WorldCom in April 2004, and, in January 2004, filed applications with the FCC to acquire BRS licenses held by Nucentrix.<sup>489</sup> In April 2004, Nextel began offering wireless broadband service in Raleigh-Durham, North Carolina.<sup>490</sup> While the company is reportedly using broadband PCS spectrum for the Raleigh deployment, Nextel has stated that it may use its BRS licenses to deploy service to additional markets in the future.<sup>491</sup> Finally, in June 2004, a new wireless broadband company, Clearwire, announced plans to provide mobile broadband service in Jacksonville, Florida during 2004 using equipment and spectrum leased from EBS licensees. Clearwire plans to launch the mobile broadband service in additional U.S. markets over the next year.<sup>492</sup>

107. While BRS and EBS licensees continue to focus on delivering high-speed Internet access, Sprint is now offering two different video services on its mobile telephones. For about \$10 a month, Sprint customers can receive either real-time programming from a variety of networks on “MobiTV” or, specially produced short clips from major networks on the “Sprint TV” service.<sup>493</sup> MobiTV was offering news content, including the first presidential debate, on three different channels, ABC News Now, C-SPAN and C-SPAN2.<sup>494</sup> These mobile telephones do not actually have traditional television receivers in them. The television programs are “streamed” onto the phones via the Internet from servers that first convert the television signals into digital files.<sup>495</sup> Both services display video at six to 15 frames per second.<sup>496</sup> Sprint plans to rollout a much faster mobile telephone technology called EV-DO, which will be as fast as some wired home DSL connections.<sup>497</sup>

#### F. Private Cable Systems

108. Private cable operators (PCOs), also known as satellite master antenna television (SMATV) systems, are video distribution facilities that use closed transmission paths without using any public right-of-way.<sup>498</sup> PCOs acquire video programming and distribute it via terrestrial wiring in urban

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and 74 of the Commission’s Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, 19 FCC Rcd 14165 (2004).

<sup>489</sup> *Applications to Assign Wireless Licenses from WorldCom, Inc. (Debtor-in-Possession) to Nextel Spectrum Acquisition Corp.*, 19 FCC Rcd 6232 (2004); *Nucentrix Spectrum Resources, Inc. (Debtor-in-Possession) Seeks FCC Consent to the Assignment of Licenses to Nextel Spectrum Acquisition Corp.*, 19 FCC Rcd 2893 (2004). See also 2003 Report, 19 FCC Rcd at 1664 ¶ 87.

<sup>490</sup> Nextel Corp., *Nextel Expands Successful Broadband Trial to Include Paying Customers and Larger Coverage Area* (press release), Apr. 14, 2004.

<sup>491</sup> *Wireless*, COMM. DAILY, Feb. 9, 2004; Transcript, *Event Brief of Nextel Communications Earnings Conference Cal - Final*, FD (FAIR DISCLOSURE) WIRE, July 21, 2004 (quoting Barry West, Executive Vice President and Chief Technology Officer, Nextel Communications).

<sup>492</sup> Clearwire Corp., *Wireless Pioneer Craig McCaw Launches Clearwire; Broadband Wireless Venture to Improve the Availability and Consumer Satisfaction of Residential Phone and Data Services* (press release), June 2, 2004.

<sup>493</sup> Walter S. Mossberg, *Watching TV on Your Cellphone*, WALL STREET JOURNAL, Sept. 1, 2004, at D7.

<sup>494</sup> *Debates Make Way to VOD, Cell Phones*, MULTICHANNEL NEWS, Sept. 30, 2004, at 1.

<sup>495</sup> Walter S. Mossberg, *Watching TV on Your Cellphone*, WALL STREET JOURNAL, Sept. 1, 2004, at D7.

<sup>496</sup> Video is best viewed at 24-30 frames per second. *Id.*

<sup>497</sup> *Id.*

<sup>498</sup> 1996 Act, sec. 301(a)(2), 47 U.S.C. § 522(7). In addition, private cable and SMATV operators: (a) do not pay franchise and Federal Communications Commission subscriber fees; (b) are not obligated to pass every resident in a

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and suburban multiple dwelling units (MDUs), such as apartments and condominiums, and commercial multiple tenant units (MTUs), including hotels and office buildings. Traditionally, PCOs received nonbroadcast programming from resellers called aggregators using satellite master antenna systems atop the buildings they serve. PCOs usually combine this nonbroadcast video programming with local broadcast television signals that they receive using master antennas. Thus, the packages PCOs provide their subscribers are comparable to those of cable systems, and they directly compete with franchised cable operators.

109. Some PCOs are now partnering with DIRECTV and EchoStar to offer their customers a hybrid analog and digital video product.<sup>499</sup> Recent reports indicate that MDU builders and owners want more control over the design and operation of their communities, and PCOs provide an approach to MDUs that franchised cable operators cannot or will not provide, including revenue sharing. Franchised cable operators do not generally provide a bundled video, data, and voice service to a specific MDU property because the large cable operators tend to use uniform business models to serve all of their subscribers across the nation, while a PCO can almost always create a service to satisfy MDU demand.<sup>500</sup>

110. Currently, there are approximately 135 members in the Independent Multi-Family Communications Council (IMCC), the trade association that represents PCOs and MDUs.<sup>501</sup> This year, the PCO industry has begun rebounding from a recent economic downturn. New capital is available to PCOs, and interest in IMCC has increased.<sup>502</sup> PCOs range in size from large operators serving customers throughout the entire United States, to small operators that serve MDUs in as few as three communities. PCOs currently serve 1.1 million customers, down 100,000 subscribers from last year.<sup>503</sup>

111. In January 2003, the Commission issued the *Second Report and Order* on inside wiring, which made four revisions to its cable inside wiring rules.<sup>504</sup> The *Order* specified that: (1) wiring located behind sheet rock is “physically inaccessible” for purposes of the home run wiring rules; (2) incumbent providers must allow access to their wiring before the termination of services; (3) incumbent operators must share space in molding with competitors; and (4) the rules apply to all programming providers, including both franchised cable operators and PCOs. As a result of this decision, wiring installed behind sheet rock that runs from the customer’s unit to the demarcation point is “inside wiring”, and is under the customer’s control, instead of “home run wiring” which is under the provider’s control. The customer may use this wiring to receive service from another provider.<sup>505</sup> The rules governing the unit-by-unit disposition of inside wiring can be invoked when the MSO has no legally enforceable right to maintain the wiring dedicated to a particular subscriber’s residence in an MDU. Under this scenario, a competing

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given area; (c) are not subject to rate regulation; and (d) are not subject to must carry and local government access obligations. *1997 Report*, 13 FCC Rcd at 1085 n.296.

<sup>499</sup> Don Kent, *USDTV: Are They A Competitive Threat to Private Cable Operators?*, BROADBAND PROPERTIES, May 2004, at 6.

<sup>500</sup> Rich Muller, *Outside the Box: It’s Back! The MDU Biz Returns To Satellite*, SKYREPORT, June 23, 2004, at 4.

<sup>501</sup> In 2003, we reported that IMCC had 250 members operating throughout the United States. *See 2003 Report*, 19 FCC Rcd at 1666 ¶ 90. For a list of members, *see* Independent Multi-Family Communications Council’s website at <http://www.imcc-online.org/membership> (visited Aug. 18, 2004).

<sup>502</sup> Telephone conversation with Bill Burhop, Executive Director, IMCC, Oct. 5, 2004.

<sup>503</sup> NCTA Comments at 7.

<sup>504</sup> *Telecommunications Services Inside Wiring, Customer Premises Equipment, Implementation of the Cable Television Consumer Protection and Competition Act of 1992; Cable Home Wiring*, 18 FCC Rcd 1342 (2003) (*Cable Home Wiring*).

<sup>505</sup> *Id.* at 1362 ¶¶ 52, 53.

video provider may use the existing (home run) wiring to provide service to subscribers who choose a competitor's service over that of the incumbent MSO.<sup>506</sup> On February 17, 2004, the D. C. Circuit Court of Appeals held that the Commission's modification of the rules was not supported by substantial evidence and the case was remanded.<sup>507</sup> In response to the court's decision, the Commission issued a *Further Notice of Proposed Rulemaking* to examine the issue raised by this remand.<sup>508</sup>

112. There have been several recent challenges to the inside wiring rules. In October 2002, a New York District Court ruled that so long as the incumbent MSO retains at least one subscriber in an MDU, the owner may not invoke the FCC's unit-by-unit inside wiring rule to allow a competing PCO access to home run wiring (*CSC Holdings*).<sup>509</sup> In August 2003, a Kansas District Court rejected the *CSC Holdings* decision in *Time Warner Entertainment Co., L.P. v. Everest Midwest Licensee, L.L.P.* and held that the fact that the incumbent MSO has at least one subscriber in the building does not bar a competing PCO from using home run wiring dedicated to MDU residents who choose the PCO's service.<sup>510</sup> On August 21, 2003, in *CoxCom v. Picerne Real Estate Group*, the Rhode Island Superior Court ruled that the fact that the MSO retains subscribers in the MDU does not block the MDU owner from allowing a PCO to use the existing wiring to serve other residents.<sup>511</sup>

## G. Other Entrants

### 1. Internet Video

113. Over the past year, video provided over the Internet has grown and promises to become an increasingly strong participant in the market for the delivery of video programming.<sup>512</sup> In addition to video provided over the web, video is now being provided to subscribers' televisions set using Internet Protocol (known as IPTV).

114. *Streaming Video*. Most instances of video streamed over the web (sent from the content provider to the subscriber in real-time) however, are still not of broadcast quality.<sup>513</sup> Streaming video is

<sup>506</sup> 47 C.F.R. § 76.804(a)(b).

<sup>507</sup> *National Cable & Telecommunications Association v. F.C.C.*, 89 Fed. Appx. 743, 2004 WL 335201 (D.C. Cir. Feb. 17, 2004) (NO. 03-1140).

<sup>508</sup> See *Telecommunications Services Inside Wiring, Customer Premises Equipment*, 19 FCC Rcd 1498 (2004).

<sup>509</sup> *CSC Holdings, Inc. v. Westchester Terrace*, 235 F. Supp. 2d 243 (S.D.N.Y. 2002).

<sup>510</sup> *Time Warner Entertainment Co., L.P. v. Everest Midwest Licensee, L.L.C.*, 381 F. 3d 1039 (10<sup>th</sup> Cir. (Kan.), Aug. 27, 2004) No. 03-3005.

<sup>511</sup> *CoxCom, Inc. v. Picerne Real Estate Group*, 2003 WL 22048781 (R.I. Super. Aug. 21, 2003) (NO. CIV.A. PB 02-1537).

<sup>512</sup> *Internet TV on the Way, Powell Says*, BROADCASTING AND CABLE, Sept. 20, 2004, at 26; Tom Wolzien, Mark Mackenzie, *Disney, AOL Show Broadband Video Progress*, Bernstein Research, Mar. 5, 2004. A panel of streaming media companies attending the annual convention of the National Association of Broadcasters insists that streaming media is not currently competing with over-the-air broadcasters. *New Technologies*, COMM. DAILY, Apr. 23, 2004. Comcast indicates in its comments that the MVPD service delivered by video streaming provides consumers with additional options and, therefore, adds to competition. Comcast Reply Comments at 4-5.

<sup>513</sup> Video viewed on a personal computer, while larger in size and better in quality than a few years ago, is still confined to a relatively small portion of the screen, and still offers a very low quality picture as compared with traditional broadcasting. Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004, at B1; see also *Net TV: Next Killer App?*, BROADCASTING AND CABLE TV FAX, Sept. 16, 2004, at 3; *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; Paul Andrews, *Web's Video Progress is Slow Motion*, SEATTLE TIMES, July 26, 2004; John Borland and Jim Hu, *A Life-Saving Technology*, CNET NEWS.COM, July 26, 2004.

currently most viable when delivered over broadband networks, but some industry watchers believe that it will only become a fully competitive consumer application if connection speeds significantly increase over those achieved over cable and DSL broadband.<sup>514</sup> Today, some high-quality streaming applications are being transmitted over the Internet2 network, which can achieve very high speeds of transfer.<sup>515</sup> Internet2 was developed by a consortium of universities and technology companies in 1996 to provide higher connection speeds and a backbone of 10 Gbps.<sup>516</sup> By comparison, most of the public Internet today uses 2.5 Gbps links.<sup>517</sup> Many technologists believe Internet2 has the high-bandwidth, low-latency and high-reliability needed for such applications as distance learning and telemedicine where high quality is necessary.<sup>518</sup> The commercial deployment of applications over Internet2 has been slow because limitations remain in the connection between the home and the provider's central office.

115. Nevertheless, the overall number of homes with access to the Internet continues to grow, as does the number of Americans who access the Internet via a high-speed broadband connection as well as those who access streaming video content via the Internet. As of June 2004, there were approximately 30 million high-speed Internet access subscribers out of a total of about 64 million residential Internet subscription households.<sup>519</sup> In addition, as of January 2004, an average of 12 percent of all Americans watched some form of streaming video in the past month and approximately 23 percent of Americans had accessed streaming IPTV content at least once before.<sup>520</sup>

116. RealPlayer continues to offer a variety of streaming video products, including news clips and music videos.<sup>521</sup> RealNetworks has been providing ABCNews content to its subscribers since 2002, and recently signed a deal with ABC.com to provide video clips of ABC television shows to RealNetwork's SuperPass subscribers.<sup>522</sup> Comcast offers ABC News.com and children's programming content to its high-speed Internet subscribers for no additional cost.<sup>523</sup> MSN signed a deal with CinemaNow to provide movie information, reviews and trailers to its subscribers.<sup>524</sup> America Online (AOL) and CNN have an agreement that provides AOL subscribers with free access to streaming service,

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<sup>514</sup> *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; see May Wong, *Internet Video Headed for Homes*, ROCKY MOUNTAIN NEWS, Aug. 30, 2004. Some industry participants insist that Internet video will need speeds of 100 Mbps or more to the home before it will impact consumers. John Borland and Jim Hu, *A Life-Saving Technology*, CNET NEWS.COM, July 26, 2004. In Asia, connection speeds are such that the web can be used for standard, full-screen viewing. In Hong Kong, in particular, web-television providers offer subscribers a service similar to cable and satellite television services. Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004, at B1.

<sup>515</sup> John Borland and Jim Hu, *A Life-Saving Technology*, CNET NEWS.COM, July 26, 2004.

<sup>516</sup> Marguerite Reardon, *Internet2:2004 and Beyond*, CNET NEWS.COM, Aug. 24, 2004.

<sup>517</sup> *Id.*

<sup>518</sup> *Id.*

<sup>519</sup> See High-Speed Services Report at Table 3.

<sup>520</sup> Arbitron, Inc., *Internet and Multimedia 12: The Value of Internet Broadcasting Advertising*, Sept. 3, 2003, at 5.

<sup>521</sup> Comcast Comments at 14-16.

<sup>522</sup> Jim Hu, *ABC.com to Air on RealNetworks' SuperPass*, CNET NEWS.COM, Aug. 12, 2004; *RealNetworks, MSN sign VOD Deals*, CTAM SMARTBrief, Aug. 13, 2004.

<sup>523</sup> Frank Aherns, *Comcast Starts Disney Delivery Via Internet*, WASHINGTON POST, July 21, 2004, at E1; Reuters, *Comcast and Disney in High-Speed Internet Adventure*, NEW YORK TIMES, July 21, 2004; Peter Grant, *Comcast, Disney Team Up on Internet Deal*, WALL STREET JOURNAL, July 21, 2004, at B1.

<sup>524</sup> *RealNetworks, MSN sign VOD Deals*, CTAM SMARTBRIEF, Aug. 13, 2004.

CNN NewsPass, which provides access to dozens of video clips and reports.<sup>525</sup> AOL also made a deal with Warner Brothers TV to have the WB's new fall series *Jack and Bobby* premiere on the Internet to AOL's broadband subscribers.<sup>526</sup> In the summer of 2004, NBC offered archived video of the 2004 Olympics, where users were able to sort through hours of footage by sport and view highlights from the games, as a complement to their broadcast of the games.<sup>527</sup> Two major broadcast networks, CBS and ABC, provided full coverage of both the Democratic and Republican political conventions over the Internet.<sup>528</sup> CBS provided feeds of 37 NCAA basketball tournament games to be included in AOL's basic Internet service, and as a stand-alone subscription.<sup>529</sup> Similarly, SportsLine.com offered live webcasts of early-round NCAA basketball tournament games for a \$9.95 subscription fee; the service allowed subscribers to watch multiple games simultaneously, though viewers are prevented from having access to games broadcast on their local CBS affiliate.<sup>530</sup> As we have reported in the past, Major League Baseball makes its video content available on the Internet.<sup>531</sup>

117. AOL announced its intent to provide closed captioning for select streaming media content.<sup>532</sup> SnapStream Media offers a product called Beyond TV 3 which provides software and hardware for a personal computer that allows for its use as a DVR.<sup>533</sup> America Online updated its instant messaging software in 2004 to include video conferencing on its IM client; in an agreement with Apple Computer, AOL and iChat users will be able to video conference interoperably.<sup>534</sup>

118. *Downloadable Video.* Because most Internet connections do not yet reliably support data speeds needed to view broadcast-quality video as it is streamed, technologists expect that most near term use of the web to provide video will be for downloadable video.<sup>535</sup> As we reported last year, Movielink

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<sup>525</sup> Tom Wolzien and Mark Mackenzie, *Disney, AOL Show Broadband Video Progress*, Bernstein Research, Mar. 5, 2004.

<sup>526</sup> Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004.

<sup>527</sup> Kendra Mayfield, *Olympics: Coming to a PC Near You*, WIRED NEWS, July 12, 2004.

<sup>528</sup> Tom Wolzien, Michael Nathanson, Craig Moffett, Mark Mackenzie, Drew Borst, and Amelia Wong, *Weekend Media Blast #29: Networks Play Shrewd Politics With Internet Bypass*, Bernstein Research, July 16, 2004.

<sup>529</sup> Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004.

<sup>530</sup> Carl Bialik, *SportsLine to Offer Webcasts In 'March Madness' Package*, WALL STREET JOURNAL, Mar. 16, 2004, at D4.

<sup>531</sup> See 2003 Report, 19 FCC Rcd at 1675 ¶106; Comcast Comments at 14-16; Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004 at B1; Jim Hu, *Microsoft, America Online to Play MLB Games*, CNET NEWS.COM, Mar. 22, 2004; Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004.

<sup>532</sup> *New Technologies*, COMM. DAILY, Oct. 10, 2003, at 9.

<sup>533</sup> Walter S. Mossberg, *Cheaper Than TiVo: Souping Up Your Computer*, WALL STREET JOURNAL, Apr. 14, 2004. Picture quality is not considered to be comparable to broadcast quality video.

<sup>534</sup> Jim Hu, *AOL Links With Apple on Video IM*, CNET NEWS.COM, Feb. 5, 2004. Microsoft also announced a deal that will allow users of its corporate instant-messaging software to communicate with services from competitors AOL Instant Messenger and Yahoo Messenger. Daniel Nasaw, *Microsoft to Link Message System With Yahoo, AOL*, WALL STREET JOURNAL, July 15, 2004, at B5.

<sup>535</sup> See John Markoff, *New Service by TiVo Will Build Bridges From Internet to TV*, NEW YORK TIMES, June 9, 2004.

allows users to download movies to computer hard drives and store it for as long as 30 days, for a fee.<sup>536</sup> In late 2003, SBC joined Movielink to create a co-branded website of video downloads for subscribers to SBC Yahoo DSL.<sup>537</sup> America Online teamed up with Movielink in January 2004 for a promotion that offered its members full-feature film downloads through Movielink for 99 cents each.<sup>538</sup> In May 2004, Charter made an agreement with Movielink that offers movies to Charter's broadband subscribers.<sup>539</sup> Real Networks and Starz Encore Group launched an Internet movie subscription service called Starz! Ticket on Real Movies, which gives monthly subscribers access to about 100 movies available for download onto their computer hard drives.<sup>540</sup> Similarly, Disney's ESPN offers a service available for free through ESPN.com called ESPNMotion, which automatically downloads video using Microsoft's Media Player, including commercials, into the user's computer, and then advises the user when the video is ready.<sup>541</sup> In addition, portable devices have become available that download content stored on the personal computer and in some cases record programs directly from a television or VCR.<sup>542</sup> Among those offering the devices are Samsung, Creative Labs, RCA, Archos and Microsoft.

119. *Internet Protocol Television (IPTV)*. In addition to streaming and downloadable video provided over the web, video also is becoming available for download through a high-speed Internet connection directly to a set-top box to be viewed over the television, similar to MVPD video-on-demand services.<sup>543</sup> Some industry analysts call this technology "Internet Bypass" or "client-based server players."<sup>544</sup> In July 2004, TiVo introduced a new set of Internet-based services that allows users to

<sup>536</sup> *Antitrust Probe Clears Studios' Online Venture*, LOS ANGELES TIMES, June 4, 2004; see also *2003 Report*, 19 FCC Rcd at 1674 ¶ 106. Since our last *Report*, CinemaNow, a similar service to Movielink, joined the online rental market. Rob Pegoraro, *You Can Rent Movies Online, But Should You?*, WASHINGTON POST, Apr. 4, 2004, at F7.

<sup>537</sup> Stefanie Olsen, *SBC Calls Action for Movielink Rentals*, CNET NEWS.COM, Nov. 24, 2003.

<sup>538</sup> Comcast Comments at 14-16.

<sup>539</sup> Media & Marketing, *Movielink Sets Deal With Charter*, WALL STREET JOURNAL, May 24, 2004.

<sup>540</sup> Allison Linn, *Online Movie Service To Debut*, WASHINGTON POST, June 14, 2004, at A8; Comcast Comments at 14-16. In past Reports, we noted that to view video over the Internet, the video must be played using a media player. New Java technology now gives browsers the ability to play videos directly on a web page and run from regular servers, obviating the need for a separate media player. Stefanie Olsen and Mike Yamamoto, *Microsoft Just One Factor in Net Pioneer's Chaotic History*, CNET NEWS.COM, Mar. 4, 2004. See *2003 Report*, 19 FCC Rcd 1674-5 ¶¶ 106-107; see also *1998 Report*, 13 FCC Rcd 24349-50 ¶ 104.

<sup>541</sup> Tom Wolzien, Mark Mackenzie, *Disney, AOL Show Broadband Video Progress*, Bernstein Research, Mar. 5, 2004. Full-screen video is deemed VCR-quality. *Id.*

<sup>542</sup> Michael Marriott, *Is Portable Video Ready For Its Close-Up?*, NEW YORK TIMES, Sept. 2, 2004; David Colker and Jon Healey, *Portable Video Player Sales in Slow Motion*, LOS ANGELES TIMES, Sept. 2, 2004; Andy Sullivan, *PluggedIn: 'Video iPods' Bring Seinfeld on Subway*, YAHOO! NEWS, Aug. 3, 2004; John Gartner, *Movie, TV Fans Ogle Video To Go*, WIRED NEWS, July 13, 2004; Richard Shim, *Will Consumers Tune into Portable Video?*, CNET NEWS.COM, July 20, 2004. Computers with TV tuner cards or home networks connecting their computer with other home entertainment devices can record TV programs off the air and then download the programs to the portable device.

<sup>543</sup> Comcast Reply Comments at 6. Mike Landberg, *Forget A La Carte Cable Idea; The Future Is In Internet TV*, SAN JOSE MERCURY NEWS, July 23, 2004; *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; Lorenza Munoz, *Netflix and TiVo Shares Climb*, LOS ANGELES TIMES, Sept. 8, 2004.

<sup>544</sup> Tom Wolzien, *Media: Shift to Client-Server-Based Internet Bypass Player Could Offset PVR Losses*, Bernstein Research, May 25, 2004. A client-server player is a system for the streaming, downloading, recording and playback of content which may be stored locally on the devices but allows some central control by the provider, such as content updates or software updates. Video content can be downloaded or streamed to the subscriber through a high-speed connection to the Internet. Some industry analysts also call this system of client-server players, "Internet Bypass" or "IB Video." *Id.*

download movies to the hard drives of their TiVo video recorders.<sup>545</sup> TiVo and Netflix currently are near an agreement that would allow consumers to download movies from Netflix.<sup>546</sup> SBC and EchoStar are jointly developing their own set-top box with DVR capabilities that will allow users with broadband Internet connections to download movies for a fee.<sup>547</sup> Akimbo also plans to offer a DVR-like box that plugs into a television set and downloads video programming through a high-speed Internet connection.<sup>548</sup> Microsoft also is involved in the development of Internet video and other Internet-enhanced MVPD services.<sup>549</sup> In September 2004, it unveiled the MSN TV Internet receiver for accessing Internet content via the television, including content from sites like Movielink.<sup>550</sup> In addition to enabling consumers to download content from the Internet, several firms, including TiVo, plan to introduce technology that will allow subscribers to send recorded television shows over the Internet to as many as nine playback devices, provided all of the devices share the same TiVo customer account.<sup>551</sup>

## 2. Home Video Sales and Rentals

120. The sale and rental of home video, including videocassettes and DVDs, are considered part of the video marketplace because they provide services similar to the premium and pay-per-view offerings of MVPDs.<sup>552</sup> As such, they offer some level of competition to broadcast television, cable television and DBS for the consumer's time and money. Likewise, video-on-demand services provided by cable, DBS, and Internet providers also have emerged as competitive services to home video.<sup>553</sup>

121. VCR penetration is estimated at 91 percent of TV households in 2004.<sup>554</sup> DVDs also have made a significant impact on the home video market. As of July 2004, nearly 100 million DVD

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<sup>545</sup> Comcast Comments at 14-16. Mike Landberg, *Forget A La Carte Cable Idea; The Future Is In Internet TV*, SAN JOSE MERCURY NEWS, July 23, 2004.

<sup>546</sup> *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; Lorenza Munoz, *Netflix and TiVo Shares Climb*, LOS ANGELES TIMES, Sept. 8, 2004; John Markoff, *New Service by TiVo Will Build Bridges From Internet to TV*, NEW YORK TIMES, June 9, 2004. Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004. See paras. 122-123 *infra*.

<sup>547</sup> Almar Latour, Andy Pasztor, and Peter Grant, *SBC, EchoStar Plot Online Movie Venture*, WALL STREET JOURNAL Aug. 19, 2004, at B1; *In Cahoots*, CableFAX Daily, Aug. 20, 2004, at 2. SBC and EchoStar have not yet decided which movie-download service to partner with. *Id.*

<sup>548</sup> Comcast Comments at 14-16. Mike Landberg, *Forget A La Carte Cable Idea; The Future Is In Internet TV*, SAN JOSE MERCURY NEWS, July 23, 2004.

<sup>549</sup> Stefanie Olsen and John Borland, *Microsoft Video Tech Aims for Prime time*, CNET NEWS.COM, July 13, 2004.

<sup>550</sup> *Convergence, Yet Again*, BROADCASTING & CABLE, Sept. 20, 2004, at 10.

<sup>551</sup> Jube Shiver Jr., *FCC Approves TiVo Technology*, LOS ANGELES TIMES, Aug. 5, 2004; Jube Shiver Jr., *FCC Lets TiVo Send Shows Via Internet*, CHICAGO TRIBUNE, Aug. 5, 2004; Paul Davidson, *FCC Lets TiVo Users Send Shows 'Anywhere They Go'*, USA TODAY, at B3. TiVo Inc.'s TiVo Guard is among 13 technologies certified by the Commission to protect digitally transmitted television shows recorded off the air. TiVo says its system can electronically track subscriber activity to ensure that digital content is not widely distributed. *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876 (2004). See *Broadcast Flag Order*, 18 FCC Rcd 23550 (2003). See also para. 91 *supra*. The Commission's broadcast flag anti-piracy rules cover not just television tuners, but also personal computers and information technology products that are used for off-air digital reception. See *Broadcast Flag Order*, 18 FCC Rcd 23550 (2003).

<sup>552</sup> See *2003 Report*, 19 FCC Rcd at 1675 ¶ 108.

<sup>553</sup> See paras. 40-41, 52, 68-69, 118-119 *supra*.

<sup>554</sup> Television Bureau of Advertising citing Nielsen Media Research, at [http://www.tvb.org/nav/build\\_frameset.asp](http://www.tvb.org/nav/build_frameset.asp) (visited Jan. 14, 2005).

players had been sold and approximately 70 percent of TV households have a DVD player.<sup>555</sup> The average cost of a DVD player is \$120, a decline of 13 percent from the previous year.<sup>556</sup> More than 30,000 titles are available in DVD format for rental or sale, with nearly 30 titles exceeding sales of over five million copies in 2003 alone.<sup>557</sup> Home video sales significantly exceed movie ticket sales, as households spent \$22.5 billion annually on purchasing and renting DVDs and video cassettes compared with \$9.2 billion at movie theaters.<sup>558</sup> Sales of DVDs and video cassettes accounted for about 63 percent and rentals accounted for 37 percent of the \$22.5 billion spent on home video.<sup>559</sup>

122. The influence of DVDs is growing. For example, Netflix continues to be the leading online DVD movie rental service with just over two million subscribers as of June 2004, an 80 percent increase over last June.<sup>560</sup> Other companies, however, have entered the online movie rental business, such as Wal-Mart, which established a similar DVD-by-mail system in June 2003. Blockbuster Online will give subscribers two free rentals each month at its stores as well as access to 25,000 DVDs via the mail.<sup>561</sup> Other DVD mail-delivery upstarts struggle to breakout: DVDBarn in Scottsdale, Arizona; QwickFliks in Rancho Santa Fe, California; and, DVDOvernight.com in Philadelphia.<sup>562</sup>

123. Another home video technology gaining popularity is the digital video recorder (DVR).<sup>563</sup> Introduced in 1999, this device is capable of pausing, recording and rewinding live TV in digital form on an internal hard drive instead of videotape.<sup>564</sup> DVRs allow users watching recorded programs to fast forward through commercials. About two million DVRs have been sold to date.<sup>565</sup> Cable and DBS operators have incorporated DVR functionality into their set-top boxes.<sup>566</sup> For example, Comcast launched DVR service in its New Jersey, Pennsylvania, and Delaware systems, offering subscribers Motorola's single tuner. The service is available for \$9.95 per month.<sup>567</sup> Cox Cable subscribers will have access to DVR service in more than 95 percent of its markets by the end of 2004.<sup>568</sup> The largest DVR maker, TiVo, has over one million DIRECTV subscribers and about 800,000 stand-alone customers.<sup>569</sup> TiVo's DVR is currently offered at \$99 plus a monthly service fee of \$12.95, and is

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<sup>555</sup> See CEA Comments at 5. Other commenters have submitted DVD penetration levels lower than 70 percent. NCTA Comments at 21 project a 65 percent DVD penetration level and Comcast Comments at 16 indicates a 47 percent penetration level.

<sup>556</sup> See NCTA Comments at 21. Much of the sales of pre-recorded DVDs are a result of the market for ownership of entire prior seasons of broadcast and cable programming.

<sup>557</sup> *Id.*

<sup>558</sup> *Id.*

<sup>559</sup> Comcast Comments at 16.

<sup>560</sup> *Id.* at 17. Customers go online to rent a movie and the DVD is sent to the home for viewing and then returned through the mail.

<sup>561</sup> David Lieberman, *Blockbuster to Bust into Rent-by-Mail DVD Business*, USA TODAY, Aug. 11, 2004, at B1.

<sup>562</sup> NCTA Comments at 22.

<sup>563</sup> These devices also are referred to as personal video recorders (PVRs).

<sup>564</sup> See *1999 Report*, 15 FCC Rcd at 1035 ¶ 119.

<sup>565</sup> CEA Comments at 5.

<sup>566</sup> See paras. 42, 52, 62-69 *supra*.

<sup>567</sup> See *DVR*, CABLEFAX DAILY, Aug. 24, 2004, at 1.

<sup>568</sup> See *Cable*, COMM. DAILY, July 28, 2004, at 6.

<sup>569</sup> See Stuart Elliot and Ken Belson, *Stop Me If You've Seen This One Before*, NEW YORK TIMES, Aug. 9, 2004, at C1.

available at retail chains and websites, such as Amazon.com and Target.com.<sup>570</sup> TiVo and Netflix subscribers will soon be able to download digital movies from the Internet directly to their TiVo set-tops.<sup>571</sup>

## H. Local Exchange Carriers

124. The 1996 Act amended Section 651 of the Communications Act to permit local telephone common carriers to provide video services in their telephone service areas. The statute permitted common carriers to: (1) provide video programming to subscribers through radio communications under Title III of the Communications Act;<sup>572</sup> (2) provide transmission of video programming on a common carrier basis under Title II of the Communications Act;<sup>573</sup> (3) provide video programming as a cable system under Title VI of the Communications Act;<sup>574</sup> or (4) provide video programming by means of an open video system ("OVS").<sup>575</sup>

125. Incumbent LEC entry into the MVPD industry remains limited, but recent developments show new signs of LEC interest in providing video services.<sup>576</sup> In recent months, for example, several major LECs -- Bell South, Qwest, SBC, and Verizon -- have launched joint service with DBS service providers. These services were planned and announced last year. In addition, several LECs have recently reported plans to provide video service via asymmetric digital subscriber line (ADSL), very high-speed digital subscriber line (VDSL), or fiber to the home (FTTH).<sup>577</sup> These new developments may indicate an acceleration of LEC entry into video services.

126. **Cable Franchises.** Until recently, BellSouth was the only remaining large incumbent LEC to offer video service over franchised cable systems using traditional cable architecture.<sup>578</sup> It holds 20 cable franchises with the potential to pass 1.4 million homes and provides cable service in 14 of its franchise areas.<sup>579</sup> Verizon has announced that it has received two franchises to provide cable service in Beaumont, California, and Sachse, Texas, and that it plans to roll out cable services in other areas in 2005.<sup>580</sup>

127. **VDSL, ADSL, FTTP, and FTTN.** Qwest, SBC, and a number of smaller incumbent LECs are offering, or preparing to offer, MVPD service over existing telephone lines using very high-

<sup>570</sup> *Id.* See also TiVo, at <http://www.tivo.com/0.0.asp> (visited Oct. 27, 2004).

<sup>571</sup> See *New Technologies*, COMM. DAILY, Sept. 9, 2004, at 13. See para. 119 *supra*.

<sup>572</sup> 47 U.S.C. § 571(a)(1).

<sup>573</sup> 47 U.S.C. § 571(a)(2).

<sup>574</sup> 47 U.S.C. § 571(a)(3).

<sup>575</sup> 47 U.S.C. § 571(a)(3)-(4). See also para. 71 *supra*.

<sup>576</sup> *2003 Report*, 19 FCC Rcd at 1678 ¶ 114. See also Letter from Stephen Pastorkovich, Director of Business Development, OPATSCO, to Marlene H. Dortch, Secretary, FCC, Nov. 10, 2004, at 2-4, 6-9.

<sup>577</sup> See *Fourth 706 Report*, 19 FCC Rcd at 20555-57. Some LECs are not deploying full FTTH, but instead are deploying fiber-to-the node (FTTN), which provides fiber facilities to the neighborhood node, and coaxial cable from the neighborhood node to the residence.

<sup>578</sup> BellSouth Comments at 1-2.

<sup>579</sup> *2003 Report*, 19 FCC Rcd at 1678 ¶ 116. See also *2002 Report*, 17 FCC Rcd at 26946 ¶ 96 n.338. Subsequently, Verizon sold these systems to Knology, Inc., a broadband service provider. See Knology, Inc., *Knology Announces Agreement To Purchase Broadband Assets* (press release), July 18, 2003.

<sup>580</sup> Almar Latour, *Showdown of the Giants*, WALL STREET JOURNAL, Nov. 8, 2004, at B1; *Franchise Score*, CABLEFAX DAILY, Nov. 10, 2004, at 3; *Verizon Franchise*, CABLEFAX DAILY, Dec. 10, 2004, at 2.

speed digital subscriber line (VDSL) or asymmetric digital subscriber line (ADSL) technologies.<sup>581</sup> Qwest offers video, high-speed Internet access and telephone service over existing copper telephone lines using VDSL in the Phoenix, Arizona, metropolitan area and in Denver and Boulder, Colorado, and over a hybrid fiber-coaxial system in Omaha, Nebraska.<sup>582</sup> Small LECs also continue to deploy VDSL for the purpose of video service delivery. At least 307 rural LECs provide video using coaxial cable, hybrid networks, DSL, or fiber to the premises.<sup>583</sup> Small LECs indicate that discriminatory practices, such as exclusive programming contracts, higher prices for programming, and discriminatory pricing, by incumbent cable operators and programmers impede competition in small, rural markets.<sup>584</sup>

128. In June 2004, SBC announced plans to develop both Fiber to the Node (FTTN) and Fiber to the Premises (FTTP) IP networks to deliver video and other services to small business and residential customers.<sup>585</sup> SBC plans to deliver its video programming to customers using a DSL-based service it calls “Lightspeed.”<sup>586</sup> SBC will not offer the service commercially until year-end 2005, but it is currently testing the service in field trials.<sup>587</sup> SBC hopes to eventually reach as many as 18 million homes nationwide.<sup>588</sup> BellSouth has built a fiber network that passes 1.1 million homes with the hopes of offering video services, and it expects to add 200,000 more homes by the end of 2004.<sup>589</sup> Verizon is currently building an FTTP IP network, and expects to pass one million homes by the end of 2004 and an additional two million homes by the end of 2005, offering a variety of broadband services.<sup>590</sup> Verizon comments that it supports a deregulatory national broadband policy, and the Commission should adopt open standards that do not favor any particular technology.<sup>591</sup> In this regard, Verizon filed two petitions with the Commission regarding its deployment of fiber-to-the-premises (FTTP) infrastructure.<sup>592</sup> The first petition requests that the Commission either issue a declaratory ruling regarding broadband service provided via FTTP or, alternatively, waive its common carrier and Title II rules for an interim period in the same manner as currently applied to cable modem services.<sup>593</sup> In its second petition, Verizon requests that, in the absence of a declaratory ruling, the Commission should exercise its forbearance

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<sup>581</sup> See *Fourth 706 Report*, 19 FCC Rcd at 20555-57.

<sup>582</sup> Qwest Communications International, Inc., <http://www.qwest.com/residential/products/tvservices/index.html>, (visited Sept. 24, 2004).

<sup>583</sup> OPASTCO Reply Comments at 3.

<sup>584</sup> *Id.* at 4-6.

<sup>585</sup> SBC Communications Inc., *SBC Communications Announces Advances In Initiative To Develop IP-Based Residential Network For Integrated Video, Internet, VoIP Services* (press release), June 22, 2004; See also *Fourth 706 Report*, 19 FCC Rcd at 20555-57.

<sup>586</sup> Ken Belson and Matt Richtel, *SBC to Start Project to Send TV Over Lines*, NEW YORK TIMES, Nov. 17, 2004, at C1; Matt Stump, *Lightspeed Ahead for SBC*, MULTICHANNEL NEWS, Nov. 11, 2004; Leslie Cauley, *SBC to Offer Net TV, Phone Service*, USA TODAY, Nov. 16, 2004, at B1.

<sup>587</sup> *Id.*

<sup>588</sup> *Id.*

<sup>589</sup> Ken Belson, *A Stodgy Style, but BellSouth Starts to Loosen Its Top Button*, NEW YORK TIMES, Sept. 13, 2004

<sup>590</sup> Verizon Communications, *Verizon Signs TV Exec to Guide Video Projects* (press release), Sept. 15, 2004

<sup>591</sup> Verizon Comments at 5-17.

<sup>592</sup> See *Pleading Cycle Established for Comments on Verizon’s Petition for a Declaratory Ruling or, Alternatively, Interim Waiver and Verizon’s Conditional Petition for Forbearance Under 47 U.S.C. 160(c) with Regard to Broadband Services Provided via Fiber to the Premises*, 19 FCC Rcd 12262 (2004).

<sup>593</sup> *Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises* (filed June 28, 2004).

authority<sup>594</sup> and provide interim regulatory relief for such services until an appropriate regulatory framework for broadband services has been established.<sup>595</sup>

129. **Joint Ventures with DBS.** In the past year, several LECs have entered into joint ventures with DBS operators to offer packages of video programming service. While these agreements and services do not represent new, facilities-based competition, they may allow both LECs and DBS operators to become more competitive with cable operators' bundled offerings. SBC claims that partnering with DBS accounts for much of the admittedly limited progress that LECs have made in attempting to enter the video market.<sup>596</sup>

130. BellSouth, SBC, Qwest, and Verizon sell DBS service as part of a telecommunications package. In March 2004, SBC and EchoStar jointly launched a service throughout SBC's service area that they co-branded as "SBC DISH Network," with DISH prices starting at \$29.99 per month for SBC telephone customers. This service allows SBC customers to receive a package of high-speed Internet, local and long distance telephone, wireless telephone, and EchoStar video service on one bill with one order.<sup>597</sup> As of October 2004, SBC indicated that it had 226,000 DISH Network customers.<sup>598</sup> In August 2004, BellSouth and DIRECTV launched a similar joint service that allows Bell South customers to receive a bundle of high-speed Internet, local and long distance telephone, wireless telephone, and DIRECTV video service on one bill with one order.<sup>599</sup> As of September 2004, BellSouth served over 90,000 DIRECTV customers.<sup>600</sup> In January 2004, Verizon and DIRECTV introduced a service in Rhode Island that packages DIRECTV with Verizon by offering discounts on DIRECTV to Verizon customers.<sup>601</sup> In March 2004, Verizon and DIRECTV expanded this service to their New England and New York regions,<sup>602</sup> and in August 2004 they expanded this service to their Mid-Atlantic region. Verizon and DIRECTV expect to have coordinated billing later this year.<sup>603</sup> Finally, Qwest announced agreements with both DIRECTV and EchoStar to offer packaged services in separate markets.<sup>604</sup> As of September 2004, customers of Qwest's Choice DSL with MSN Premium service in 14 states could receive a \$5 per month discount on satellite television services from their choice of either DIRECTV or

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<sup>594</sup> See 47 U.S.C. § 160(c) *et seq.*

<sup>595</sup> *Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. 160(c) with Regard to Broadband Services Provided via Fiber to the Premises* (filed June 28, 2004).

<sup>596</sup> SBC Comments at 4.

<sup>597</sup> SBC Communications Inc. and EchoStar Communications Corporation, *SBC Communications Adds New 'DISH' To The Menu, Launches 'Quadruple Play' Bundle With Satellite TV* (press release), Mar. 3, 2004.

<sup>598</sup> SBC Communications, Inc., *SBC Communications Reports Strong Third-Quarter Results, Accelerates DSL Gains Delivers Second Consecutive Quarter of Revenue Growth* (press release), Oct. 21, 2004; *see also SBC Hails EchoStar Marketing Performance*, SATELLITE BUSINESS NEWS, July 23, 2004.

<sup>599</sup> BellSouth Corp. and DIRECTV, Inc., *BellSouth Launches DIRECTV® Service Across The Southeast In Money Saving Bundles* (press release), Aug. 3, 2004.

<sup>600</sup> BellSouth Corp., *BellSouth Reports Third Quarter Earnings* (press release), Sept. 30, 2004.

<sup>601</sup> Verizon Communications and DIRECTV, Inc., *Verizon Adds DIRECTV Programming, Creating the Most Comprehensive, Top-Quality Service Bundle in the Market* (press release), Jan. 29, 2004.

<sup>602</sup> Verizon Communications and DIRECTV, Inc., *From Marblehead to Tonawanda to Orient Point -- Verizon Adds DIRECTV's Programming to Calling Services, Internet Packages in New England and New York* (press release), Mar. 8, 2004.

<sup>603</sup> Verizon Communications and DIRECTV, Inc., *Verizon Invites Mid-Atlantic Customers to Cut the Cable and Integrate Calling, Internet and DIRECTV Programming* (press release), Aug. 5, 2004.

<sup>604</sup> Qwest Communications International, Inc., *Qwest Forges Agreement with EchoStar to Offer Satellite Services as Part of Communications Bundle* (press release), July 21, 2003.

DISH Network if they ordered these services from Qwest.<sup>605</sup> In June 2004, Sprint announced that customers in its local-telephone operating territory could receive a \$5 per month discount from DISH Network if they also subscribe to Sprint DSL and/or telephone services.<sup>606</sup> In August 2004, CenturyTel and EchoStar announced a strategic partnership that would allow CenturyTel to package DISH Network service as part of its telecommunications offerings in exchange for a \$25 million investment in EchoStar by CenturyTel in the form of a convertible note. CenturyTel expects to be able to offer these services as part of a single-bill, single-point-of-contact service by the end of the year.<sup>607</sup>

## I. Electric and Gas Utilities

131. Electric and gas utilities possess certain assets that have long made them good candidates as entrants into the MVPD market, including access to public rights of way, ownership and operation of various infrastructures amenable to the provision of network services, and well-established relationships with customers.<sup>608</sup> Some utilities continue to move forward with ventures involving multichannel video programming distribution, though their services are still not widespread in either the telecommunications or video distribution markets. Utilities do, however, continue to provide competition in scattered localities, most beneficially in rural areas.<sup>609</sup>

132. As previously reported, utilities provide voice, video, and data services by overbuilding incumbent cable systems with fiber optic networks. Some utilities have built systems on their own, but the most prominent utilities involved in the video distribution market are engaged in joint ventures with other companies.<sup>610</sup> We previously reported on Starpower, a joint venture between RCN and Potomac Electric and Power Company (PEPCO) operating in the Washington, D.C., area.<sup>611</sup> In December 2004, the companies announced that RCN had completed its previously-announced acquisition of PEPCO's share of the system.<sup>612</sup> Cinergy Broadband, a Cincinnati-based utility, and Current Communications, have formed a joint venture that aims to bring broadband over power lines to 20 million customers. Municipalities, in some cases, also provide voice video and high-speed Internet access services in competition with incumbent cable operators, or when others are unwilling to provide such services.<sup>613</sup> For example, municipal utilities in Glasgow, Kentucky; Lebanon, Ohio; Ashland, Oregon; Paragould,

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<sup>605</sup> Qwest Communications International, Inc., <http://www.qwest.com/residential/products/tvservices/index.html> (visited Sept. 24, 2004).

<sup>606</sup> Sprint Corp., *Sprint Expands Portfolio with DISH Network Satellite TV Service* (press release), June 1, 2004.

<sup>607</sup> CenturyTel, Inc. and EchoStar Communications Corporation, *CenturyTel and EchoStar Sign Strategic Partnership Agreement to Offer CenturyTel | DISH Network Satellite TV Services* (press release), Aug. 26, 2004.

<sup>608</sup> *See 1996 Report*, 12 FCC Rcd at 4410-11 ¶¶ 95-96.

<sup>609</sup> *See paras. 72-73 supra*. *See also* NATOA Comments at attachments.

<sup>610</sup> *See 2003 Report*, 19 FCC Rcd at 1606 ¶ 119.

<sup>611</sup> *Id.*

<sup>612</sup> *See* RCN, *RCN Elects to Acquire Remaining 50% Stake of Washington, D.C. Operation* (press release), Oct. 19, 2004; RCN, *RCN Corporation Announces Emergence From Bankruptcy* (press release), Dec. 21, 2004. *See also paras. 72-73 supra*.

<sup>613</sup> *See* Glasgow EPB, at <http://www.glasgow-ky.com/epb/faq01.htm> (visited Jan. 12, 2005); City of Lebanon, at <http://www.ci.lebanon.oh.us/departments/service.html> (visited Jan. 12, 2005); Ashland Fiber Network, at <http://www.ashlandfiber.net> (visited Jan. 12, 2005); City Light Water and Cable, at <http://www.clwc.com/profile.htm> (visited Jan. 12, 2005); Grant County Public Utilities District, at <http://www.gcpud.org> (visited Jan. 12, 2005); Click Networks, at <http://www.cityoftacoma.org> (visited Jan. 12, 2005); Cedar Falls Utilities, at <http://www.cfu.net>; Newnan Utilities, at <http://www.newnanutilities.org/>; Hometown Utilicom, at <http://www.hometownutilicom.org> (visited Jan. 12, 2005); *See also* NATOA Reply Comments at 6.

Arkansas; Grant County and Tacoma, Washington; Cedar Falls, Iowa; Newnan, Georgia; and Kutztown, Pennsylvania, all provide voice, video, and Internet access services for their residents.<sup>614</sup> The American Public Power Association (APPA), an association of municipalities, surveyed its members at the end of 2003, finding that 570 public power entities offer some kind of broadband services. Of those, 109 offered video service, 76 offered high-speed Internet access, and 43 offered local telephone service.<sup>615</sup>

133. **Broadband Over Powerline.**<sup>616</sup> Several utility companies have been experimenting with a technology called “broadband-over-power-line (BPL)” service, which uses power lines to carry high-speed data signals the “last mile” to the home.<sup>617</sup> BPL uses fiber optic lines or another traditional medium to deliver data to the power line. While the primary objective of this technology is to provide high-speed Internet access services, some companies have expressed plans to offer video streaming services, but not traditional video services.<sup>618</sup> Four utilities, the City of Manassas, Virginia; Cinergy in Cincinnati, Ohio; Pennsylvania Power & Light; and Central Virginia Cooperative, have implemented commercial BPL this year.<sup>619</sup> The Comcast Corporation and the National Cable and Telecommunications Association have filed comments citing examples of growing sources of video competition through BPL.<sup>620</sup> NATOA has cited Cedar Falls, Iowa, as an example where an advanced municipal communications system has stimulated economic development.<sup>621</sup>

134. On October 14, 2004, the Commission adopted a *Report and Order* to encourage the development of BPL.<sup>622</sup> The Commission stated that this new medium offers the potential for the establishment of a significant new medium for extending broadband access given that power lines reach virtually every home and business.

### III. MARKET STRUCTURE AND CONDITIONS AFFECTING COMPETITION

#### A. Horizontal Issues

135. The video programming market is comprised of a downstream market for the distribution of multichannel video programming to households, and an upstream market for the purchase of video programming by MVPDs.<sup>623</sup> In this section we review changes in the market for the distribution of video programming, including changes in the level of competition in that market between June 2003 and June 2004. We then review the market for the purchase of video programming by MVPDs, and examine the

<sup>614</sup> *Officials: Broadband Investments Pay Off For Localities*, TR DAILY, Sept. 26, 2003.

<sup>615</sup> APPA, *Public Power: Powering the 21<sup>st</sup> Century with Community Broadband Services* (fact sheet), May 2004, at <http://www.appanet.org/files/PDFs/TelecomFlyer1204.pdf?sn.ItemNumber=9965&tn.ItemNumber=10000> (visited Jan. 14, 2005). See also NATOA Comments at 3.

<sup>616</sup> See *Fourth 706 Report*, 19 FCC Rcd at 20561-62.

<sup>617</sup> Ken Brown, *The Web's New Outlet*, WALL STREET JOURNAL, Mar. 2, 2004.

<sup>618</sup> For example, Cinergy Broadband and Current Communications Group have formed a joint venture that aims to bring broadband over power lines to 20 million customers. This BPL initiative would include voice, data, and eventually video. See BROADBAND DAILY, Aug. 16, 2004. See also paras. 113-117 *supra*.

<sup>619</sup> *In Broadband Over Power Lines Gains Steam*, PCWORLD, Aug. 23, 2004.

<sup>620</sup> See Comcast Comments at 18; NCTA Comments at 43.

<sup>621</sup> NATOA Comments at 3.

<sup>622</sup> *Amendment of Part 15 Regarding New Requirements and Measurement Guidelines for Access Broadband Over Power Line Systems, Carrier Current Systems, Including Broadband Over Power Line Systems*, ET Docket Nos. 04-37, 03-104, FCC 04-245 (rel. Oct. 28, 2004).

<sup>623</sup> See, e.g., *2003 Report*, 19 FCC Rcd at 1681 ¶ 123.

effects that changes in concentration among MVPDs at the regional and national levels have had on this market in the last year.

### 1. Competitive Issues in the Market for the Distribution of Video Programming

136. DBS, the major wireless MVPD technology that is available to subscribers nationwide, saw its share of MVPD subscribers increase between June 2003 and June 2004, from 22.7 percent of the market to 25.1 percent.<sup>624</sup> Relatively few consumers, however, have a second wireline alternative, such as an overbuild cable system.<sup>625</sup> Of the 33,760 cable community units nationwide, 1,241, or approximately 3.7 percent, have been certified by the Commission as having effective competition<sup>626</sup> as a result of consumers having a choice of more than one wireline MVPD, or because DBS penetration was above 15 percent.<sup>627</sup> In cases where incumbent cable operators face competition from a new wireline entrant, BSPs report benefits to consumers, such as restraint in cable price increases and increased access to advanced services, citing several studies.<sup>628</sup> A 2003 GAO study found that where wire-based competition is available, cable rates are lower by about 15 percent. GAO further found that in markets where DBS companies provide local broadcast stations, cable rates are only slightly lower, but cable operators are more likely to improve the quality of their service in response to DBS competition.<sup>629</sup> NCTA, on the other hand, submitted a white paper concluding that the price drops resulting from overbuilding are not sustainable.<sup>630</sup> Several other MVPD technologies, such as private cable systems and wireless cable systems, offer consumers alternatives to incumbent cable services, but only in limited areas.

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<sup>624</sup> See Appendix B, Table B-1. See also NCTA Comments at 8. Previous year numbers in Table B-1 have been revised due to improved data sources.

<sup>625</sup> See New Jersey Comments at 8.

<sup>626</sup> Under Section 76.907, a cable operator (or other interested party) may petition the Commission for a determination of effective competition pursuant to Commission's procedural rules in Section 76.7. See 47 C.F.R. §§ 76.7, 76.907. In its petition, a cable operator must provide evidence that it meets one of the statutory tests for the existence of effective competition. See 47 U.S.C. § 543 (1)(1)(A)-(D). See also 47 C.F.R. § 76.905(b). Based on the evidence provided in the petition and any opposition received, the Commission determines whether to grant effective competition status within a franchise area. Where effective competition exists, a local franchising authority (LFA) may not regulate basic service rates. See 47 C.F.R. § 76.905 (a). If an LFA believes that a Commission finding of effective competition is no longer valid, it may file a petition for recertification pursuant to Section 76.916 of the Commission's rules. 47 C.F.R. § 76.916. If the Commission grants the petition, the LFA's certification to regulate basic service tier rates will be reinstated.

<sup>627</sup> Of the 1,241 communities where effective competition status was granted, 936 were based on DBS competition. We note that there may be more communities that meet this test of effective competition; grants of effective competition are made at the request of the provider to a community, so the Commission does not have information about communities in which the provider has not sought designation that effective competition exists. We note further that, according to NCTA, in 41 states, DBS penetration exceeds the 15 percent threshold that is the first part of one of four statutory tests for the existence of effective competition in a local market. The entire test is that at least two MVPDs serve 50 percent or more of households and at least 15 percent of those households take service other than from the largest MVPD. See 47 U.S.C. § 543(1)(1)(B). In most, if not all areas, at least 50 percent of households can receive DBS service.

<sup>628</sup> See para. 74 *supra*.

<sup>629</sup> See 2003 GAO Report, at 3-4. See also U.S. General Accounting Office, *Telecommunications: The Effect of Competition From Satellite Providers on Cable Rates*, GAO/RCED-00-164 (July 2000).

<sup>630</sup> NCTA Reply Comments at Attachment A.

137. The percentage of MVPD subscribers served by cable operators has dropped steadily, both in national percentages, as well as in most local markets.<sup>631</sup> Most consumers may choose between over-the-air broadcast, one cable provider, at least two DBS providers, and, in limited cases, an overbuilder or other delivery technology.<sup>632</sup> Nonetheless, according to some commenters, certain barriers to full competition exist, including: (a) cable operator exclusive access to programming, especially sports programming; (b) anti-competitive “predatory pricing”; (c) limited access to MDUs; (d) limited access to utility poles; and (e) consumer electronics standards that create a disparity among delivery technologies.<sup>633</sup> NCTA and Comcast dispute these allegations.<sup>634</sup> Comcast responds that competition from DBS and other sources constitutes effective competition and thus all regulations established pursuant to the 1992 Cable Act should be reviewed and removed as appropriate.<sup>635</sup>

138. ***Competitive Developments in the MDU Market.*** Multiple dwelling units (MDUs) comprise a separate segment of the MVPD market because alternative video providers may have difficulty offering service in MDUs in competition with an incumbent provider.<sup>636</sup> Non-incumbent MVPD commenters raise a number of issues that they contend adversely affect their ability to serve the MDU market.<sup>637</sup>

139. Exclusive contracts are those that specify that video service in an MDU will be provided only by a particular MVPD. Perpetual contracts are those which grant an MVPD the right to provide service for an indefinite or very long period of time, or which have automatic renewal provisions (sometimes referred to as “evergreen” clauses). Competitive entrants into the MVPD market have raised concerns with these kinds of contracts for the past several years. As it did last year, BSPA states that these kinds of contracts block potential entry into MDUs, and lock tenants and building owners into outdated networks and services.<sup>638</sup> BSPA alleges that incumbent cable operators use long-term contracts as “an anticompetitive weapon,” by responding to impending competitive entry through negotiating exclusive contracts with MDU owners.<sup>639</sup> DIRECTV reiterates its comment from last year that the over-the-air-reception devices (OTARD) rules should be extended to renters and owners who do not have exclusive use of areas suitable for satellite reception.<sup>640</sup>

<sup>631</sup> See Appendix B, Table B-1. As of June 2004, approximately 72 percent of MVPD subscribers were served by cable operators. In June 2003, approximately 74 percent of MVPD subscribers were served by cable operators.

<sup>632</sup> Some sources indicate, however, that some percentage of households cannot receive one or both DBS providers due to line of sight issues. See *2002 Report*, 17 FCC Rcd at 26952 ¶ 113 n.385.

<sup>633</sup> BSPA Comments at 12-22 and Reply Comments at 7-12; RCN Comments at 9-10; SBCA Comments at 16-19; DIRECTV Comments at 9-11 and Reply Comments at 4-5; ACA Comments at 3-6; EchoStar Comments at 10-13; Verizon Comments at 16-20 and Reply Comments at 5-6; NTCA Comments at 3-4.

<sup>634</sup> Comcast Reply Comments at 12-29; NCTA Reply Comments at 10-15.

<sup>635</sup> Comcast Comments *generally*. NCTA Comments at 6-28.

<sup>636</sup> The incumbent provider is not necessarily the incumbent cable operators. Often private cable operators are incumbents for many MDUs.

<sup>637</sup> Inside wiring is an important issue for MVPDs serving the MDU market. For a discussion of inside wiring, see paras. 111-112 *supra*.

<sup>638</sup> BSPA Comments at 19. See also Weston Comments at 2, 4, 5-7; Advocate Reply Comments at 1-3.

<sup>639</sup> *Id.*

<sup>640</sup> DIRECTV Comments at 10. See also SBCA Comments at 19 (adding that DBS MDU penetration is much lower than DBS penetration to single-family homes. The OTARD rules prohibit restrictions that impair the installation, maintenance or use of antennas used to receive video programming. The rule applies to video antennas including direct-to-home satellite dishes that are less than one meter (39.37") in diameter (or of any size in Alaska), TV antennas, and wireless cable antennas. The rule prohibits most restrictions that: (1) unreasonably delay or prevent

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## 2. Competitive Issues in the Market for the Purchase of Video Programming

140. Buyers in the market for the purchase of video programming are MVPDs, including cable operators and other video programming providers. The sellers are primarily nonbroadcast programming networks.<sup>641</sup> This market tends to be regional or national since programmers seek to reach a much broader audience than could be provided by a local franchise area. For example, some programming services are intended for nationwide audiences (e.g., CNN, USA) while others seek a regional audience (e.g., New England Sports Channel).

### a. The Regional Programming Market

141. Cable operators continue to pursue a regional strategy of “clustering” their systems. Many of the largest MSOs have concentrated their operations by acquiring cable systems in regions where the MSO already has a significant presence, while giving up other holdings scattered across the country.<sup>642</sup> This strategy is accomplished through purchases and sales of cable systems, or by system “swapping” among MSOs.

142. ***System Mergers and Acquisitions, and Clusters.*** Between July 2003 and June 2004, a total of 22 transactions were announced. Together these transactions were valued at approximately \$1.4 billion and affected 616,402 subscribers.<sup>643</sup> At the end of 2003, there were 108 clusters with approximately 53.6 million subscribers compared to 109 clusters and approximately 51 million subscribers at the end of 2002.<sup>644</sup> In the largest cluster size category (over 500,000 subscribers), the number of clusters remained constant at 29 between 2002 and 2003.<sup>645</sup>

### b. The National Programming Market

143. ***Buyers of National Video Programming.*** Cable and DBS operators are the primary purchasers of multichannel video programming targeted to a national audience.<sup>646</sup> As of June 2004, cable

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installation, maintenance or use; (2) unreasonably increase the cost of installation, maintenance or use; or (3) preclude reception of an acceptable quality signal. Effective January 22, 1999, the Commission amended the rule so that it also applies to rental property where the renter has an exclusive use area, such as a balcony or patio. *See* 47 C.F.R. § 1.400.

<sup>641</sup> In this section, we refer to programming that is packaged as one or more 24-hour video programming network(s), rather than the individual shows and series that nonbroadcast networks and broadcast networks purchase and package into 24-hour networks. Purchasing content and packaging it into networks represent two steps in the process of delivering programming to consumers which, when combined with a means of distribution, results in the programming choices consumers have. Video programming also is purchased from program producers and suppliers by nonbroadcast networks as well as broadcast stations and networks, but we do not address that market here because this report is focused on the MVPD market.

<sup>642</sup> *See* New Jersey Comments at 8.

<sup>643</sup> Kagan World Media, *Cable System Sales Summary*, CABLE TV INVESTOR, Aug. 18, 2004, at 13; Jan. 31, 2004, at 11; and Aug. 28, 2003, at 13.

<sup>644</sup> *See* Appendix B, Table B-2. We note that merging clusters can cause the total number of clusters to drop.

<sup>645</sup> *See id.*

<sup>646</sup> In this context that Congress adopted Section 613(f) of the Communications Act as part of the 1992 Cable Act to address the consequences of horizontal concentration and vertical integration in the cable television industry. Section 613(f) was adopted as Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460, codified at 47 U.S.C. § 533(f). In *Time Warner Entertainment Co. v. FCC* (240 F.3d 1126 (D.C. Cir. 2001)), the United States Court of Appeals for the D.C. Circuit reversed and remanded the Commission's rules implementing Section 613(f). The Commission has an ongoing proceeding to

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operators served approximately 71.6 percent of MVPD subscribers.<sup>647</sup> Other MVPDs, however, have continued to increase their share of the MVPD market. For example, the two largest DBS providers now serve 25 percent of the total market. While inter-modal competition has been growing, the market share of the largest MVPDs has decreased slightly since our last report.<sup>648</sup> In 2004, the four MVPDs with the largest subscribership served 58 percent of all MVPD subscribers,<sup>649</sup> while in 2003, the top four served 59 percent of all subscribers.<sup>650</sup> The share of subscribers served by the top ten MVPDs also decreased from approximately 86 percent in 2003 to 84 percent in 2004.

144. To compare market concentration for the purchase of programming over a period of time, we have traditionally used the Herfindahl-Hirschman Index (HHI).<sup>651</sup> We recognize that the HHI is not an indicator of “competition” in the market for purchase of video programming, and that it is not being used in the same way that it would be for purposes of antitrust analysis. For purposes of this report, however, the HHI is a useful tool to follow trends in the dispersion of MVPD size from year to year. We use the reported MVPD subscriber shares to calculate HHI figures. In March 2004, the HHI for the national market for the purchase of programming was 1097. This represents a marginal decline from the revised June 2003 MVPD HHI of 1134.<sup>652</sup> This declining HHI reflects the fact that the DBS providers grew more quickly than the largest cable providers, thereby decreasing the difference in the market shares of the largest providers.

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respond to the ruling of the court. *See Implementation of Section 11 of the Cable Television Consumer Protection and Competition Act of 1992*, 16 FCC Rcd 17312 (2001).

<sup>647</sup> *See* Appendix B, Table B-1.

<sup>648</sup> *See id.* at, Tables B-3, B-4. The percentages reported in these tables are derived from publicly available data and are not the result of application of the Commission’s attribution rules. There is no double counting of subscribers. If a cable operator is partially owned by more than one MSO, its subscribers are assigned to the largest MSO in terms of subscribership and may not include subscribers that are affiliated with the entity either through equity, debt, or other such investments or management duties. For example, Comcast holds investments in Time Warner Cable, Bresnan Broadband Holdings LLC, Insight Midwest LP, Texas Cable Partnerships, Kansas City Cable Partners, Parnassos Communications LP, Midcontinent Communications, US Cable of Costal Texas LP, and Century-TCI Communications LP, all of which were acquired in its purchase of AT&T, which had previously obtained these assets when it purchased TCI Communications. Cox Communications holds an investment in TCA Cable TV. Charter Communications holds investments in Renaissance Media, Avalon Cable, Falcon Cable Communications, and Fanch. In addition, Cablevision has investments in various cable television subsidiaries in New York, Connecticut, and New Jersey.

<sup>649</sup> *See* Appendix B, Table B-4. In this section, reported statistics for 2004 are based on March data since June data comparable to that used in previous years were unavailable.

<sup>650</sup> *Id.*

<sup>651</sup> *1998 Report*, 13 FCC Rcd at 24363 n.562. The HHI is a measure of concentration that is calculated by summing the squared market shares of the participants in the market. It is a measure of concentration that takes account of the distribution of the size of firms in the market. The HHI varies with the number of firms in the market and degree of inequality among firm size. Generally, the HHI increases when there are fewer and unequal sized firms in the market. HHI is usually employed to examine concentration in markets in which products are sold directly to consumers, not intermediate markets like the market for cable programming networks, but a comparison of HHIs from previous years shows a general trend in ownership concentration. The HHI calculation is based on the MVPD shares of cable companies serving over 91 percent of all subscribers and the two largest DBS operators. The addition of the shares of other cable operators and smaller MVPDs would change the HHI only a small fraction.

<sup>652</sup> In the *2003 Report*, we reported a 2003 HHI of 1031. *See* 19 FCC Rcd at 1689-90, 1721 ¶ 140, Appendix B, Table B-3. We have revised the 2003 HHI for this *Report* due to a revision of previous years’ cable industry and MVPD subscribers to allow for use of a consistent data source in the tables in Appendix B.

## B. Vertical Integration and Other Programming Issues

### 1. Status of Vertical Integration

145. Our examination of vertical integration in the MVPD industry focuses on ownership affiliations between video programming distributors and video programming suppliers. These vertical relationships may have beneficial effects,<sup>653</sup> or they may deter competitive entry in the video marketplace and/or limit the diversity of programming.<sup>654</sup> Since our last *Report*, the total number of national networks has increased. In 2004, we identified 388 satellite-delivered national programming networks, an increase of 49 networks over the 2003 total of 339 networks. Of the 388, 89 networks (23 percent) were vertically-integrated with at least one cable operator in 2004.<sup>655</sup> Last year, 110 networks were vertically-integrated (33 percent) of the 339 total.<sup>656</sup>

146. Four of the top six cable operators (*i.e.*, Comcast, Time Warner, Cox, and Cablevision) hold ownership interests in satellite-delivered national programming networks. If we count iN Demand as one network, one or more of these companies has an interest in the 54 vertically-integrated satellite-delivered national programming networks.<sup>657</sup> Comcast has an ownership interest in ten national programming networks; Time Warner has an ownership interest in 29 national programming networks; Cox has an ownership interest in 16 national programming networks; and Cablevision, through its programming affiliate Rainbow Media, has an ownership interest in five national programming networks.<sup>658</sup>

147. In the *Notice*, we sought information regarding the ownership of national satellite-delivered programming networks by media entities other than cable operators.<sup>659</sup> We specifically requested information to identify programming networks owned by DBS or other MVPD operators, broadcast networks, broadcast stations, and newspapers.<sup>660</sup> We have identified 103 programming

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<sup>653</sup> Beneficial effects can include efficiencies in the production, distribution, and marketing of video programming, and providing incentives to expand channel capacity and create new programming by lowering the risks associated with program production ventures. *See, e.g.*, H.R. Rep. No. 862, 102nd Cong., 2d Sess. 56 at 41-43 (1992).

<sup>654</sup> Possible detrimental effects can include unfair methods of competition, discriminatory conduct, and exclusive contracts that are the result of coercive activity. *See 1995 Report*, 11 FCC Rcd at 2135 ¶ 157; *Implementation of Section 11(c) of the Cable Television Consumer Protection and Competition Act of 1992 Vertical Ownership Limits*, 10 FCC Rcd 7364, 7365 ¶ 4 (1995). *See also* Consumers Union Reply Comments at 1.

<sup>655</sup> We count each unique programming service of a multiplexed package separately. We do not, however, count services that are not unique, as in a multiplexed programming service that is merely time shifted. *See 1998 Report*, 13 FCC Rcd at 24376, n.661. *See also 2000 Report*, 16 FCC Rcd at 6079, n.579. *See also* Appendix C, Table C-1.

<sup>656</sup> *2003 Report*, 19 FCC Rcd at 1690 ¶ 141. The drop in the percent of vertically integrated networks is explained, in part, by Liberty Media spinning off its ownership interest in Liberty Media International, Inc. (LMI) and no longer holding an interest in Cablevision of Puerto Rico. Liberty Media Corporation, *Liberty Media Corporation Completes Spin Off of Liberty Media International, Inc.* (press release), June 7, 2004.

<sup>657</sup> Traditionally, the Commission has counted each channel of several multiplexed networks separately (*e.g.*, 35 channels for iN Demand and 33 channels for TVN Entertainment Corporation) for the total number of networks and for these calculations. *See* Appendix C, Table C-1.

<sup>658</sup> In addition, Advance Newhouse, owner of the Bright House Networks cable systems, has ownership interests in 13 national nonbroadcast networks and Insight Communications owns one programming network, Source Suite. *See* Appendix C, Table C-1.

<sup>659</sup> *Notice*, 19 FCC Rcd at 10914 ¶ 15.

<sup>660</sup> *Id.* With respect to newspaper ownership of programming networks, we find that the newspaper owners we have identified also are broadcast television station licensees.

networks that do not have cable ownership interests, but that are owned by one or more of these media entities.<sup>661</sup> These networks represent 27 percent of the 388 total networks identified, and 34 percent of the 299 networks that are not affiliated with a cable operator. Thus, we have identified 196 national nonbroadcast networks, representing 51 percent of the total of 388 networks, which are not affiliated with any cable operators, or other media entities identified above.<sup>662</sup>

148. There are 89 national satellite-delivered nonbroadcast networks, not also owned by a cable operator, that are owned by one or more national broadcast networks (*i.e.*, Fox, ABC, CBS, NBC-Universal, Univision).<sup>663</sup> These networks represent 23 percent of the 388 total networks identified, and 30 percent of the 299 networks that are unaffiliated with a cable operator. With respect to national broadcast network ownership of nonbroadcast networks, News Corporation, which holds a 34 percent interest in DIRECTV, has ownership interests in 12 national nonbroadcast networks, or three percent, through its Fox subsidiary, which also operates the Fox television network.<sup>664</sup> ABC, through its parent company Disney, has ownership interests in 20 national networks, or five percent of all national programming networks, including 16 in partnerships with other media entities.<sup>665</sup> Viacom, the parent company of the CBS and UPN broadcast networks, has ownership interests in 39 national nonbroadcast networks, or ten percent of all national programming networks.<sup>666</sup> NBC-Universal, through its parent company, General Electric, has ownership interests in 17 nonbroadcast networks, or four percent of all national programming networks, including five networks owned jointly with Disney and Hearst and one with Paxson Communications.<sup>667</sup> Univision, a Spanish language network and station licensee, has ownership interests in eight networks, representing two percent of the 388 total networks.<sup>668</sup> We also have identified programming networks affiliated with broadcast television station licensees. Hearst, in joint ventures with Disney and NBC-Universal, has ownership interests in 14 programming networks.<sup>669</sup> E.W. Scripps holds ownership interests in six national programming networks. The Trinity Broadcasting Network owns four programming networks. Landmark Communications owns The Weather Channel and Weatherscan. The New York Times has a 50 percent interest in Discovery Times and an interest in

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<sup>661</sup> See Appendix C, Table C-3.

<sup>662</sup> There are 192 networks affiliated with either a cable operator or other media entity (89+103=192). Thus, there are 196 networks that are unaffiliated (388-192=196). See Appendix C, Tables C-1, C-3.

<sup>663</sup> The WB network, through its parent company Time Warner, has ownership interests in 63 national nonbroadcast networks, or 16.5 percent of the 388 total networks. See Appendix C, Table C-1. UPN (United Paramount Network) is owned by Viacom, also the parent of CBS. See Viacom, <http://www.viacom.com/business.tin> (visited Dec. 16, 2004).

<sup>664</sup> Fox Comments at Attachment A; DIRECTV Comments at Exhibit E.

<sup>665</sup> Disney Reply Comments at 1-3. Disney's has ownership interests in two networks with Comcast (E! Entertainment and Style), five networks with NBC-Universal and Hearst (A&E, Biography, History, History Channel in Español, and History International) and nine with Hearst (six ESPN-branded networks and three Lifetime-branded networks).

<sup>666</sup> Viacom Comments at 4-5.

<sup>667</sup> NBC-Universal, [http://www.nbcuni.com/AboutNBC\\_Universal/Company\\_Overview/overview02.shtml](http://www.nbcuni.com/AboutNBC_Universal/Company_Overview/overview02.shtml) (visited Dec. 16, 2004). The networks jointly owned with Disney and Hearst are A&E, Biography, History Channel, History Channel in Español, and History International.

<sup>668</sup> Univision Communications Inc., <http://www.univision.net/corp/en/mp/jsp> (visited Dec. 16, 2004); TuTv, [http://tutv.tv/tutv/en/our\\_company.jsp](http://tutv.tv/tutv/en/our_company.jsp) (visited Dec. 16, 2004).

<sup>669</sup> See *fn.* 665 *supra*.

Ovation.<sup>670</sup> The Tribune Company, Paxson Communications, and Daystar Television Network each have ownership interests in one programming network.<sup>671</sup> DBS operator EchoStar holds an interest in G4techTV, along with Comcast. In addition, Liberty Media, which has an ownership interest in News Corp., is affiliated with 34 national programming networks (counting Starz! Superpack as one network), including 12 networks it owns jointly with one or more cable operators (*i.e.*, the Discovery-branded networks with Cox and Advance Newhouse and Court TV with Time Warner).<sup>672</sup>

149. In 2004, we found 96 regional networks, an increase of 12 networks over the 84 regional programming networks in 2003.<sup>673</sup> Many, but not all, are satellite delivered. These networks provide programming of local or regional interest and are distributed to subscribers of one or more MVPDs in an area. A significant number of regional networks offer local news or sports programming, but some provide more general programming, such as religious or ethnic programming. Of the 96 regional networks, 46 networks, or 48 percent, were vertically-integrated with at least one MSO. Cablevision has ownership interests in 16, or 17 percent, of the regional networks. Time Warner has ownership interests in 12, or 12.5 percent, of the regional networks. Comcast also has ownership interests in 12, or 12.5 percent, of the regional networks. Cox also has ownership interests in five, or five percent, of the regional networks. In addition, Charter and Adelphia each have ownership interest in one, or one percent, of the regional networks. Fox, an affiliate of News Corporation, has ownership interests in 22, or 23 percent of the regional networks.<sup>674</sup>

150. Vertically-integrated programming networks tend to attract the largest number of subscribers. Currently, seven of the top 20 nonbroadcast video programming networks (ranked by subscribership) are vertically-integrated with a cable operator.<sup>675</sup> Of the remaining 13 networks, one is C-SPAN, which is funded but not directly owned or controlled by MVPDs, and the other 12 are affiliated with non-cable media entities. This figure represents a slight decrease from 2003 when nine of the top 20 networks were vertically-integrated.<sup>676</sup> Additionally, it appears that there is diverse ownership of the most popular networks: 10 different entities own all or part of the top 20 programming networks in terms of subscribership.<sup>677</sup>

151. Vertically-integrate networks also tend to be the most highly rated.<sup>678</sup> Three of the top 15 prime time non-broadcast video networks are vertically-integrated with a cable operator (Time Warner owns 100 percent of TNT and TBS while Cox and Advance Newhouse each owns 25 percent of The

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<sup>670</sup> Discovery Times is a joint venture of the New York Times and Discovery Communications (owned by Cox, Advance Newhouse, and Liberty Media). See New York Times Company, <http://www.nytc.com/subsites/nyttv/about-dtc.html> (visited Jan. 14, 2005); Ovation, <http://www.ovationtv.com> (visited Jan. 14, 2005).

<sup>671</sup> See Appendix C, Table C-3. See also FCC, Broadcast Radio and Television Electronic Filing System, [http://www.fcc.gov/e-file/support\\_table.html](http://www.fcc.gov/e-file/support_table.html) (visited Jan. 14, 2005); Daystar Television Network, <http://daystar.com/about.htm> (visited Jan. 14, 2005).

<sup>672</sup> See Appendix C, Table C-3.

<sup>673</sup> 2003 Report, 19 FCC Rcd at 1732-1734, Appendix C, Table C-4.

<sup>674</sup> Fox Comments at Appendix A.

<sup>675</sup> See Appendix C, Table C-6.

<sup>676</sup> See 2003 Report, 19 FCC Rcd at 1741, Appendix C, Table C-6.

<sup>677</sup> They include: Time Warner, Cox, Disney, General Electric (NBC-Universal), Hearst, Liberty Media, Advance Newhouse, Viacom Landmark Communications, and C-SPAN (National Cable Satellite Corporation). See <http://www.cjr.org/tools/owners> (visited July 20, 2004).

<sup>678</sup> See Consumers Union Reply Comment at 2 (stating that of the 90 most popular networks, broadcasters have majority ownership of 40 percent and cable operators have interests in an additional 20 percent).

Discovery Channel).<sup>679</sup> The remaining 12 networks are owned by other media entities. Disney has ownership interests in The Disney Channel, ESPN, Toon Disney, Lifetime, The History Channel, and A&E. Hearst has ownership interests in ESPN, Lifetime, The History Channel, and A&E. NBC has ownership interests in The History Channel, A&E, and USA Network. Viacom has ownership interests in Nickelodeon, Nick At Nite, and MTV. Fox has ownership interests in Fox News Channel and FX.

152. This year, we found 78 programming services that have been planned but are not yet operational, an increase of 17 over last year.<sup>680</sup> The planned-services count includes some overlap from previous years because it can often take several years from the announcement of a new programming network to its initiation of service. Moreover, we include in this list programming networks that have been announced, but which are in various stages of development.<sup>681</sup>

## 2. Other Programming Issues

153. In this section, we discuss a number of programming issues apart from vertical integration and the status of existing and planned programming services. These issues include comments we received about the effectiveness of our program access, program carriage, and channel occupancy rules that govern the relationships between cable operators and programming providers, and issues relating to the carriage of local broadcast stations pursuant to must carry and retransmission consent. We also address other matters related to programming, including local and regional channels, public education and governmental (“PEG”) channels; compliance with the DBS public interest programming obligations; locally-originated programming, children’s, news and community affairs programming; programming in languages other than English; packaging of programming; and access to video programming by persons with disabilities.

### a. Regulatory Issues

154. **Program Access and Carriage Rules.** The Commission’s rules concerning competitive access to cable programming seek to promote competition and diversity in the multichannel video programming market by preventing vertically-integrated programming suppliers from favoring affiliated video distributors over unaffiliated MVPDs in the sale of satellite-delivered programming.<sup>682</sup> The program access rules apply to cable operators and to programming vendors that are affiliated with cable operators and deliver video programming via satellite to an MVPD. The rules prohibit any cable operator that has an attributable interest in a satellite cable programming vendor from improperly influencing the decisions of the vendor with respect to the sale or delivery, including prices, terms, and conditions of sale or delivery, of satellite-delivered programming to any competing MVPD. The rules also prohibit vertically-integrated satellite programming distributors from discriminating in the prices or terms and conditions of sale of satellite-delivered programming to cable operators and competing MVPDs.<sup>683</sup> In

<sup>679</sup> See Appendix C, Table C-7.

<sup>680</sup> See Appendix C, Table C-5. See also *2003 Report*, 19 FCC Rcd at 1735, Appendix C, Table C-4.

<sup>681</sup> See *1995 Report*, 11 FCC Rcd at Appendix H, Tables 3 and 4; *1996 Report*, 12 FCC Rcd at Appendix G, Tables 3 and 4; *2003 Report* 19 FCC Rcd at 1693 ¶ 146.

<sup>682</sup> 47 U.S.C. § 548.

<sup>683</sup> As a condition of the News Corp.-Hughes transaction, News Corp. is required to offer its existing and future cable programming services on a non-exclusive basis and on non-discriminatory terms and conditions, for as long as the Commission’s program access rules are in effect. See *News Corp Order*, 19 FCC Rcd at 523-4, 525-6, 531-2 ¶¶ 107-108, 113-115, 127. These conditions also extend to any broadcast station that News Corp. owns or operates, or on whose behalf it negotiates retransmission consent. See *News Corp Order*, 19 FCC Rcd at 572-575 ¶¶ 218-222. For MVPDs with fewer than 5000 subscribers, News Corp. is required to either elect “must-carry” status or negotiate retransmission consent for its owned and operated stations without any requirements for cash

(continued....)

addition, cable operators generally are prohibited from entering into exclusive distribution arrangements with vertically-integrated programming vendors. The Commission has concluded that the statutory access requirements apply only to satellite-delivered programming and not to terrestrially-delivered programming.<sup>684</sup>

155. As in previous years, a number of commenters address the statutory exemption for terrestrially-delivered programming in the existing program access rules.<sup>685</sup> Several commenters again express concerns over incumbent cable operators' ability to restrict competing MVPDs' access to programming due to the terrestrially-delivered exemption in the existing program access rules, which puts competing MVPDs at a competitive disadvantage.<sup>686</sup> DIRECTV and EchoStar argue that the terrestrial exemption continues to be used by cable-affiliated programmers to foreclose noncable MVPDs' access to popular programming, such as regional sports networks.<sup>687</sup> Verizon also states that the terrestrial exemption in the program access rules hampers effective competition in video services because, without access to "must have" networks that are terrestrially delivered, new entrants are at a serious disadvantage when competing against incumbent cable companies.<sup>688</sup> Comcast states that neither DIRECTV nor EchoStar have provided any evidence that the terrestrially-delivered exemption has prevented them from competing successfully.<sup>689</sup> We are not aware of any comprehensive source for determining the delivery mode for each of the national and regional networks. In light of the entry of providers using fiber, this is an issue of interest, and we believe such information is necessary to monitor the use of terrestrial delivery.<sup>690</sup>

156. A number of commenters, including ACA, Verizon, RCN, and NATOA recommend changes to the program access requirements.<sup>691</sup> RCN and Verizon ask the Commission to inform

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(...continued from previous page)

compensation or carriage of programming other than the broadcast signal. *See News Corp. Order*, 19 FCC Rcd at 575 ¶ 224.

<sup>684</sup> *See Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Petition for Rulemaking of Ameritech New Media, Inc. Regarding Development of Competition and Diversity in Video Programming Distribution and Carriage*, 13 FCC Rcd 15822, 15856-7 ¶¶ 70-71 (1998).

<sup>685</sup> We did not receive comments on the program carriage and channel occupancy rules.

<sup>686</sup> *See e.g.*, SBCA Comments at 18; Verizon Comments at 16-17; DIRECTV Comments at 18-19; EchoStar Comments at 11-12.

<sup>687</sup> EchoStar Comments at 11; DIRECTV Reply Comments at 4-5. EchoStar cites the refusal of Comcast to make the Philadelphia sports programming it controls available to DBS operators. It also states that the detrimental effect of this conduct on MVPD competition is well documented as evidenced by the below national average market penetration of DBS providers in areas where such programming is withheld. *Id.* DIRECTV states that C-SET, a sports network serving North and South Carolina, will be carried exclusively on Time Warner cable systems and will not be made available via satellite services. DIRECTV argues that Time Warner has offered C-SET a "premium" to grant it exclusive rights to C-SET programming, otherwise C-SET would not forgo satellite affiliate fees and additional advertising revenue. DIRECTV believes the arrangement with C-SET is indicative of Time Warner's market power in the North and South Carolina MVPD market. *See* DIRECTV Reply Comments at 5. We note that C-SET's corporate website indicates that C-SET will only be available on Time Warner cable systems in North and South Carolina, that the company is in negotiations with other cable operators for carriage, and that C-SET will not be available on satellite systems. *See* C-SET, at <http://www.c-set.tv/faqs.asp> (visited Jan. 14, 2005).

<sup>688</sup> Verizon Comments at 16-17.

<sup>689</sup> Comcast Reply Comments at 19-20.

<sup>690</sup> *See* paras. 125, 127-128 *supra*.

<sup>691</sup> *See, e.g.*, ACA Comments at 18-19; Verizon Comments at 16-17; RCN Comments at 10; NATOA Comments at 23.

Congress of the need to expand the program access rules to include terrestrially-delivered programming.<sup>692</sup> SBCA also advocates expansion of the rules to include such programming.<sup>693</sup> In addition, DIRECTV requests that the Commission closely monitor cable operators' use of the terrestrial-delivery exemption and be prepared to redress any competitive distortion in the marketplace.<sup>694</sup> RCN states that the Commission should strictly enforce its program access rules and, where necessary, make changes that will ensure competitors nondiscriminatory access to critical programming under reasonable rates, terms, and conditions.<sup>695</sup> Comcast states that only one program access complaint has been filed in the last four years, with the Commission finding that complaint to be without merit, thus suggesting that few parties believe they have meritorious complaints about program access violations.<sup>696</sup>

157. Commenters also address other matters related to access to programming. For example, NATOA states that competitive operators face the danger of being unable to access essential programming due to clustering of cable systems, which increases an incumbent cable operator's ability to secure exclusive distribution of programming.<sup>697</sup> DIRECTV also contends that clustering has enabled MSOs to concentrate their subscribers and achieve market share levels throughout many of the largest DMAs that they previously enjoyed only in their individual franchise areas, thus becoming virtually indispensable to local and regional programmers seeking distribution.<sup>698</sup> BSPA states that fair access to content means that all competing distributors should have the same access to content as cable incumbents at the same prices.<sup>699</sup> BSPA states that BSPs are dependent on program suppliers that are either partially or fully owned by the incumbent cable operators with which BSPs compete for customers, thus giving these suppliers the incentive to discriminate against BSPs and other non-cable operators with respect to providing fair and equal access to programming and content.<sup>700</sup> BSPA and RCN argue that the ability to compete effectively is not limited to access to video programming but should extend to all forms of content, in particular digital content.<sup>701</sup>

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<sup>692</sup> RCN Comments at 9-10; Verizon Comments at 16-17.

<sup>693</sup> SBCA Comments at 4.

<sup>694</sup> DIRECTV Comments at 23.

<sup>695</sup> RCN Comments at 9.

<sup>696</sup> Comcast Reply Comments at 19, citing *Complaint by Everest Midwest Licensee, L.L.C. v. Kansas City Cable Partners*, DA 03-4077 (Dec. 24, 2003). On October 8, 2004, Rainbow DBS Company LLC, operating as VOOM, filed a program access complaint against iN DEMAND, LLC. In its complaint, VOOM accuses iN DEMAND of unfair competitive practices by a satellite cable programming vendor in which cable operators have an attributable ownership interest, the result of which prevents VOOM from providing HDTV programming to its satellite customers on commercially reasonable terms. The complaint is under review. *See* Program Access Complaint, Rainbow DBS Company LLC, filed Oct. 8, 2004.

<sup>697</sup> NATOA Comments at 19-21.

<sup>698</sup> DIRECTV Reply Comments at 3. DIRECTV provides approximate market shares for the dominant cable operator in nine DMAs: Philadelphia (Comcast) – 79 percent; San Francisco/Oakland (Comcast) – 78 percent; Seattle/Tacoma (Comcast) – 80 percent; St. Louis (Charter) – 87 percent; Raleigh/Durham (Time Warner) – 71 percent; Milwaukee (Time Warner) – 74 percent; West Palm Beach (Adelphia) – 77 percent; Norfolk/Portsmouth (Cox) – 80 percent; and Las Vegas (Cox) – 90 percent. *Id.*

<sup>699</sup> BSPA Comments at 13.

<sup>700</sup> *Id.*

<sup>701</sup> *Id.* at 12-14. BSPA cites as an example of “digital content” a movie that can be delivered as part of a broadcast schedule, as a pay-per-view option, as part of a cable operator's video-on-demand offering, as streaming video on the Internet, or as a downloadable file for later viewing on a computer. *See also* BSPA Reply Comments at 9-11; RCN Comments at 10.

158. Comcast states that differentiating program offerings is a legitimate competitive response and enhances competition among producers and distributors, and it urges the Commission to acknowledge that competition in the MVPD marketplace would be enhanced by allowing the marketplace to operate freely without the constraints of rules prohibiting exclusivity.<sup>702</sup> Indeed, DIRECTV notes that it uses its agreement for the *NFL Sunday Ticket* programming to differentiate its service from incumbent cable operators.<sup>703</sup> Comcast argues that the Commission should consider eliminating the prohibition on exclusive contracts for satellite cable or broadcast programming between vertically integrated programming vendors and cable operators because of the significant and accelerated growth of DBS and its use of exclusive programming to attract subscribers.<sup>704</sup>

159. Commenters also suggest several regulatory changes they contend would ensure fair access to programming. ACA recommends that the Commission undertake regulation of programmers' distribution agreements with MVPDs and prohibit non-cost-based pricing. ACA also proposes that the Commission require programmers to report on prices, terms, and conditions of wholesale pricing agreements regularly. In turn, it states that the Commission should report to Congress on prices, competition, and diversity in the provision of wholesale programming.<sup>705</sup> According to EchoStar, despite the significant growth in its subscriber base, there are still discrepancies in the terms and conditions under which vertically-integrated programmers make programming available to EchoStar and to cable operators, but the discrepancies are not founded upon legitimate competitive factors.<sup>706</sup> Explaining its concerns, EchoStar states that the Commission should penalize discriminatory tying of programming services and the imposition of penetration requirements by vertically-integrated programmers.<sup>707</sup>

160. In the *Notice*, we asked for comment on the experiences of new networks and their ability to successfully launch.<sup>708</sup> The America Channel, an independent programming network that is currently trying to obtain carriage on MVPDs, describes reasons it believes account for its inability to secure carriage. It states that these reasons include the practice of tying carriage of one network to carriage of several other networks; the market power of large cable operators, which lessens the incentive for these carriers to strive to find new and diverse content; the penetration requirements, preferential dispensations from so-called "delete rights" provisions,<sup>709</sup> and unfavorable contractual terms imposed by large programmers.<sup>710</sup> The America Channel suggests that the Commission request periodic reports from cable operators on the criteria used to determine whether to provide carriage to an independent programmer, an MSO-owned network, and a conglomerate-owned network, and to submit semi-annual reports describing

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<sup>702</sup> Comcast Reply Comments at 17-18.

<sup>703</sup> DIRECTV Comments at 20-21. DIRECTV notes that exclusive programming arrangements are not *per se* disfavored. In the case of the *NFL Sunday Ticket*, an unaffiliated programmer sells its programming on an arms' length basis, and the MVPD in turn uses exclusivity to differentiate itself from entrenched competitors.

<sup>704</sup> Comcast Comments at 42 (referring to the Commission's extension of this prohibition until Oct. 5, 2007, in *Sunset of Exclusive Contracts*, 17 FCC Rcd 12124 (2002)).

<sup>705</sup> ACA Comments at 18.

<sup>706</sup> EchoStar Comments at 13.

<sup>707</sup> *Id.* at 8-9.

<sup>708</sup> *Notice*, 19 FCC Rcd at 108914-15 ¶ 17.

<sup>709</sup> "Delete rights" refers to contractual rights maintained by an MSO to terminate all distribution of an independent network at any time for any reason. The America Channel argues that all networks should be subject to delete rights and not just independent networks. The America Channel Comments at 7.

<sup>710</sup> *Id.* at 6-7. The America Channel does not describe how penetration requirements hurt its ability to obtain carriage, nor does it detail what contractual terms cause it to be disadvantaged vis-à-vis other nonbroadcast networks.

new distribution inquiries cable operators receive from independent networks and the status of such inquiries.<sup>711</sup> It believes these reports will allow the Commission to determine how many independent networks have received carriage and to develop a “scoreboard” measuring the ease or difficulty with which independent programmers gain access to MSO platforms.<sup>712</sup> Comcast disagrees, stating that there is no statutory basis for these proposed reporting requirements, and notes that cable operators do not routinely discriminate in favor of affiliated networks and against independent networks.<sup>713</sup>

161. ***Must Carry and Retransmission Consent.*** Under Sections 614 and 615 of the Communications Act, cable operators must set aside up to one third of their channel capacity for the carriage of commercial television stations and additional channels for noncommercial stations depending on the system’s channel capacity.<sup>714</sup> Pursuant to the SHVIA, DBS operators may provide local-into-local broadcast television service.<sup>715</sup> Unlike cable operators, which are required to carry local television stations in every market they serve, a DBS operator must carry all stations in any market where it chooses to carry any local television station (“carry-one, carry-all”).<sup>716</sup> In both the cable and DBS contexts, commercial broadcasters may elect to be carried pursuant to must-carry status or retransmission consent.<sup>717</sup> Where a station elects must-carry it is generally guaranteed carriage, but it is prohibited from receiving compensation for this carriage.<sup>718</sup> Under retransmission consent, the broadcaster and cable or DBS operator negotiate an agreement that may involve compensation in return for permission to retransmit the broadcast signal. The current rules apply to the carriage of analog television stations only.

162. Several commenters address the issue of retransmission consent agreements that require MVPDs to carry certain nonbroadcast networks in return for the right to carry local broadcast signals (*i.e.*, tying). EchoStar states that its ability to negotiate for retransmission consent of local broadcast network affiliates is often hampered by tying requirements imposed by entities that control these stations as well as nonbroadcast programming.<sup>719</sup> EchoStar urges the Commission to strictly enforce the retransmission consent rules and to closely examine disputes involving MVPDs that lack market power.<sup>720</sup>

163. Fox disagrees with MVPDs that complain about retransmission consent agreements that require carriage of nonbroadcast programming. Fox states that, in the initial retransmission consent negotiations, the cable industry made clear that it would not pay cash for the carriage of broadcast signals. Therefore, many broadcasters negotiated instead for cable systems to carry the broadcasters’ affiliated nonbroadcast programming.<sup>721</sup> Similarly, NAB states that cable systems and satellite carriers often choose the tying option because such agreements provide substantial benefits to local stations at relatively modest out-of-pocket costs to MVPDs.<sup>722</sup> In particular, Fox asserts, tying arrangements maximize

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<sup>711</sup> *Id.* at 1.

<sup>712</sup> *Id.*

<sup>713</sup> Comcast Reply Comments at 27.

<sup>714</sup> 47 U.S.C. §§ 534(b), 535(b). *See also* 47 C.F.R. § 76.56.

<sup>715</sup> Pub.L. No. 106-113, 113 Stat. 1501, 1501A-526 to 1501A-545 (Nov. 29, 1999).

<sup>716</sup> 47 C.F.R. § 76.66.

<sup>717</sup> 47 C.F.R. § 76.64.

<sup>718</sup> 47 C.F.R. § 76.60.

<sup>719</sup> EchoStar Comments at 10.

<sup>720</sup> *Id.* at 10-11. EchoStar does not provide specific examples where the Commission has failed to enforce the retransmission consent rules.

<sup>721</sup> Fox Comments in MB Docket No. 04-207 at 21-22 (Fox A La Carte Comments).

<sup>722</sup> NAB Reply Comments at 12.

consumer, programmer and cable system welfare, and demonstrate that benefits accrue when government permits the marketplace to determine the most efficient and cost-effective way to distribute video programming.<sup>723</sup> Fox also contends that MVPDs' carriage of broadcasters' affiliated programming networks have led to tangible public interest benefits by contributing additional content to the marketplace and fostering an environment in which new content can emerge and thrive. Fox indicates that broadcasters continue to offer cable systems multiple options in exchange for retransmission consent, maintaining that marketplace negotiations have led to the creation of a number of vibrant, diverse, and new nonbroadcast programming networks.<sup>724</sup>

164. On December 8, 2004, the Satellite Home Viewer Extension and Reauthorization Act of 2004 (SHVERA) was enacted.<sup>725</sup> SHVERA extended certain provisions of the SHVIA, primarily pertaining to the distant signal copyright license and retransmission consent negotiations for five years and added some new provisions to the law pertaining to the retransmission by DBS of distant broadcast signals.<sup>726</sup> In particular, SHVERA: (1) extends and revises the rules governing DBS retransmission of distant analog broadcast stations; (2) establishes terms and conditions under which DBS operators can retransmit distant digital broadcast signals; (3) imposes on DBS and cable a good faith retransmission consent negotiation obligation comparable to the existing obligation imposed on broadcasters and extends until 2010 the sunset of these reciprocal good faith negotiations provisions and the ban on exclusive retransmission consent agreements; (4) gives satellite carriers 18 months to phase out its practice of requiring two dishes to receive a full complement of local broadcast stations; and (5) allows satellite carriers to offer "significantly viewed" stations out of market. SHVERA also subjects DBS to the same subscriber privacy rules that currently apply to cable and adds several new notice provisions.

165. In the pending *DTV Must-Carry Proceeding*, the Commission is considering issues relating to the carriage of digital television signals.<sup>727</sup> Reiterating previously filed comments, Paxson argues that the Commission should adopt multicast must-carry rules that would require cable operators to carry multiple streams of programming offered over a single digital channel.<sup>728</sup> Cable and satellite providers oppose mandatory carriage of broadcasters' digital multicast streams of programming. Comcast states that channel capacity remains constrained, and decisions regarding the carriage of multicast programming should be left to the cable operator, who is capable of deciding which programming will best serve its customers' needs.<sup>729</sup> SBCA argues that multicast must-carry should never be forced upon DBS due to its limited spectrum resources, which could require DBS to cease transmission of large amounts of local-into-local programming.<sup>730</sup> NAB disputes the DBS commenters'

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<sup>723</sup> Fox A La Carte Comments at 22. We note that as a condition of its acquisition of DIRECTV, for MVPDs with fewer than 5000 subscribers, News Corp. is required to either elect "must-carry" status or negotiate retransmission consent for its owned and operated stations "without any requirements for cash compensation or carriage of programming other than the broadcast signal." *See News Corp. Order*, 19 FCC Rcd at 575 ¶ 224. *See also* fn. 683 *supra*.

<sup>724</sup> *Id.* at 21-24.

<sup>725</sup> Pub. L. No. 108-447, 118 Stat. 2809 (2004). SHVERA was enacted as Title IX of the Consolidated Appropriations Act, 2005.

<sup>726</sup> Local-into-local service is affected only in that the two-dish carriage approach used by EchoStar in some markets must be discontinued within 18 months, and local-into-local service in Alaska and Hawaii is revised to phase in dual must carry over 30 months. Several commenters addressed issues relating to the pending re-authorization of SHVIA in this proceeding. *See, e.g.,* SCBA Comments at 14; NAB Reply Comments at 1.

<sup>727</sup> *Carriage of Digital Broadcast Signals*, 16 FCC Rcd 2598 (2001).

<sup>728</sup> Paxson Comments at 5. *See also 2003 Report*, 19 FCC Rcd at 1699 ¶ 157.

<sup>729</sup> Comcast Comments at 28.

<sup>730</sup> SBCA Comments at 3.

claims of capacity constraints, stating that many options exist for DBS operators to expand their capacity to deliver local signals, including local digital and HD signals.<sup>731</sup>

### b. Sports Programming

166. We continue to monitor the availability of sports programming, which is an important segment of programming for all MVPDs.<sup>732</sup> There are 38 regional networks devoted to sports programming, an increase from the 27 we identified last year.<sup>733</sup> Regional sports networks now represent approximately 40 percent of the 96 regional networks.<sup>734</sup> Fox continues to be the leader in the distribution of regional sports networks, owning or holding an ownership interest in 19, or 50 percent, of all regional sports networks.<sup>735</sup> This year several professional sports franchises and organizations created regional sports and entertainment networks. In March 2004, the parent company of the NBA Denver Nuggets, NHL Colorado Avalanche, and other Denver-area professional and amateur sports teams created a regional television network called Altitude, which will provide exclusive sports coverage of those teams throughout the Rocky Mountain States.<sup>736</sup> Prior to the debut of this network, those teams' games were telecast on News Corp.'s Fox Sports Net Rocky Mountain, which is available on cable and DBS systems. In October 2004, The New York Mets, Time Warner Cable and Comcast announced the creation of a new regional sports network providing coverage of Mets' regular-season games throughout the New York metropolitan area beginning in 2006.<sup>737</sup> On October 1, 2004, Comcast launched a new sports network featuring the games of local Chicago teams The Cubs, The White Sox, The Blackhawks and The Bulls.<sup>738</sup>

<sup>731</sup> NAB Reply Comments at 9.

<sup>732</sup> See *General Motors Corporation and Hughes Electronics Corporation, Transferors, and The News Corporation Limited, Transferee, For Authority to Transfer Control*, 19 FCC Rcd 473 (2004).

<sup>733</sup> *2003 Report*, 19 FCC Rcd at 1700 ¶ 158.

<sup>734</sup> See Appendix C, Table C-3.

<sup>735</sup> The Commission remains cognizant that Fox's ownership of numerous regional sports programming networks may pose a public harm when combined with DIRECTV's nationwide distribution platform. The Commission imposed conditions on News Corp. requiring it to enter into arbitration where negotiations fail to produce a mutually acceptable set of prices, terms and conditions. In addition, News Corp. cannot offer any existing or future regional programming services on an exclusive basis to any MVPD and shall make such services available to all MVPDs on a non-exclusive basis. See *News Corp Order*, 19 FCC Rcd at 531-2, 543, 552-555, 626, ¶¶ 127, 147-48, 172-79, 366.

<sup>736</sup> NHL.com Network, *KSE Regional Sports Network Named Altitude Sports & Entertainment*, Mar. 11, 2004; Chris Walsh, *Kroenke Sports Network Signs First Deal*, ROCKY MOUNTAIN NEWS, May 13, 2004. As of November 7, 2004, Altitude had carriage agreements with Comcast, DIRECTV, EchoStar, Adelphia Communications in Colorado Springs and several smaller cable operators, for a total of 250,000 subscribers. See Jason Blevins, *Altitude Takes Shot at Comcast Talks*, DENVER POST, Oct. 4, 2004; DIRECTV Group, Inc., *DIRECTV and Altitude Sports & Entertainment Reach Multi-Year Carriage Agreement* (press release), Oct. 29, 2004; Comcast Corp., *Comcast Adds Altitude Sport & Entertainment to Lineup* (press release), Nov. 7, 2004.

<sup>737</sup> Richard Sandomir, *Mets Decide the Time is Right for a Cable Network of Their Own*, NEW YORK TIMES, Oct. 13, 2004. Carriage on Time Warner Cable and Comcast provides the network with distribution to approximately 3.1 million cable households. The Mets had a television broadcast rights agreement with Cablevision's MSG Network and Fox Sports New York, but paid a termination fee of \$54 million to be released from that agreement. The Mets are reported to own 60 percent of the network, Time Warner 40 percent, and Comcast will operate the network. Peter Grant, *New York Mets, Cable Operators Launch Network*, WALL STREET JOURNAL, Oct. 13, 2004.

<sup>738</sup> The network will be available initially on Comcast's Chicago system, which covers approximately 1.5 million homes. Comcast stated its intention to negotiate carriage agreements with other cable and satellite providers. See Comcast Corp., *Comcast SportsNet Chicago to Launch October 1, 2004* (press release), Dec. 2, 2003. Comcast shares ownership of the network with the teams' owners. Jeremy Mullman, *Comcast SportsNet Expands Reach*, CHICAGO BUSINESS, Oct. 1, 2004. In addition to SportsNet Chicago, Comcast serves customers in the Philadelphia

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It also announced plans to launch similar networks in Detroit and in California. On October 16, 2004, Carolina Sports Entertainment Television Network (C-SET) launched on Time Warner cable systems serving North and South Carolina.<sup>739</sup> Time Warner will offer C-SET as a digital basic channel.<sup>740</sup> A notable exception to the growth of new regional networks is the short life of Victory Sports One. In October 2003, the owners of the Minnesota Twins Major League Baseball team launched Victory Sports One, which would provide exclusive distribution of Minnesota Twins baseball games as well as other local sports franchises. Victory Sports One, which was unaffiliated with any distribution company, signed carriage agreements with 30 small cable operators serving Minnesota, but it could not reach agreement with EchoStar, DIRECTV, Charter, Comcast and Time Warner, the largest MVPDs operating in Minnesota, and it ceased operations in May 2004.<sup>741</sup>

167. In February 2004, Time Warner Cable of Kansas City and Kansas City broadcaster KCTV initiated an agreement whereby Time Warner would replace KCTV's sports department with programming from its own Metro Sports Channel.<sup>742</sup> Under this arrangement, Metro Sports functions as a separate cable channel on Time Warner's systems, with a full range of programming, and during KCTV's regular evening newscasts, Metro Sports delivers a sports newscast originating from Metro Sports studios. Time Warner has an agreement with Comcast to distribute Metro Sports to areas not served by Time Warner Cable, but Time Warner has not made the channel available to DBS operators.<sup>743</sup>

168. This year, cable operators continue to package sports networks into sports tiers or packages.<sup>744</sup> Comcast states that it offers several optional sports packages to its digital cable subscribers, including NASCAR IN CAR, MLB Extra Innings, Major League Soccer Direct Kick, ESPN GamePlan, NHL Center Ice, and NBA League Pass.<sup>745</sup> Small cable operators state that sports channels are the most costly services they distribute, with annual wholesale rate increases in excess of inflation. According to ACA, contractual distribution restrictions and tie-ins with what it terms "weaker channels" increase the

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region with Comcast SportsNet, which reaches 2.9 million subscribers, and in the Baltimore/Washington, D.C. region with Comcast SportsNet Mid-Atlantic, which serves 4.5 million customers. In addition, Comcast has partnered with Charter Communications to offer regional sports programming to 11 million subscribers in southeastern states on Comcast/Charter Sports Southeast. See Comcast Comments at 27.

<sup>739</sup> Tim Whitmire, *Bobcats Launch New TV Network; C-SET Offers More Than NBA to Fans in the Carolinas*, SUN-NEWS (Myrtle Beach, South Carolina), Oct. 16, 2004. C-SET is owned by Robert Johnson, who owns the professional men's basketball team The Charlotte Bobcats and professional women's basketball team the Charlotte Stings. The network will operate 24-hours-a-day, seven days a week and feature these teams' games as well as regional college football games and will develop original programming. See also, R. Thomas Umstead, *Carolinas on Their Minds*, MULTICHANNEL NEWS, Aug. 9, 2004.

<sup>740</sup> C-SET, at <http://www.c-set.tv/faqs.asp>, and at <http://www.c-set.com/about.htm> (visited Jan. 14, 2005). According to C-SET, Time Warner has approximately 600,000 digital basic subscribers in North and South Carolina.

<sup>741</sup> *Cold Minnesota Shoulder for Twins Baseball*, SKYREPORT, Apr. 26, 2004; Mike Reynolds and R. Thomas Umstead, *Twins Rights Victory for Fox*, MULTICHANNEL NEWS, May 17, 2004. The team's owners signed a multi-year carriage agreement with Fox Sports Network. *Id.*

<sup>742</sup> Aaron Barnhart, *KCTV5 to Outsource Its Sports; Metro Sports Will Handle Coverage on Telecasts*, KANSAS CITY STAR, Nov. 7, 2003. The programming is delivered via a fiber optic line from Metro Sports' studios to KCTV's broadcasting facility.

<sup>743</sup> Time Warner Cable, at <http://www.kcmetrosports.com/info/faq.asp> (visited Jan. 14, 2005).

<sup>744</sup> See 2003 Report, 19 FCC Rcd 1706-7 ¶¶ 175-76.

<sup>745</sup> Comcast Comments at 27.

aggregate cost of sports channels.<sup>746</sup> DIRECTV maintains that clustering is the reason that obtaining exclusive arrangements for valuable regional sports networks has become an increasingly viable and attractive proposition for cable operators.<sup>747</sup>

### c. News Programming

169. We requested comment on the extent to which MVPDs provide local news and community affairs programming.<sup>748</sup> This year, of the 96 regional programming networks identified, 40, or 42 percent, are regional news networks.<sup>749</sup> In July 2004, Time Warner Cable and Belo Corp., a broadcast station owner, dissolved their joint venture that operated 24-hour cable news channels in Houston and San Antonio, Texas, and Charlotte, North Carolina.<sup>750</sup> In September, Belo announced that it was assessing whether to discontinue its Texas Cable News channel, citing an inability to obtain analog carriage on Time Warner's cable systems in Houston, San Antonio and Austin, Texas, or any carriage at all from other cable systems operating in Texas, in particular those owned by Cox Communications.<sup>751</sup>

### d. Other Programming

170. **PEG Programming:** Local franchising authorities may request, as part of the franchising process, that operators devote a certain amount of channel capacity and equipment to PEG programming.<sup>752</sup> PEG channels are intended to provide community-specific information, such as bulletin boards for local activities, local civic meetings, and local governmental activities. There are approximately 5,000 public, educational and government access channels in the United States, which are divided among 1,500 access operations with some cable systems providing as many as twelve channels for PEG programming and others providing one channel for all three purposes.<sup>753</sup> Approximately 85 percent of all PEG channels are not operated by cable companies, but instead are operated by non-profit entities, government agencies and educational institutions.<sup>754</sup> Comcast reports that it carries more than 2,400 PEG channels across the country and spends \$100 million in direct support for PEG channels.<sup>755</sup>

171. **DBS Public Interest Programming:** DBS operators are required to reserve four percent of their channel capacity for "noncommercial programming of an educational or informational nature."<sup>756</sup> To qualify as a public interest channel on a DBS system, programmers must be organized for a non-commercial, non-profit purpose, be a national educational programming supplier, and be responsible for 50 percent of the direct costs incurred by the DBS operator in making the channel available.

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<sup>746</sup> ACA Comments at 23.

<sup>747</sup> DIRECTV Reply Comments at 4.

<sup>748</sup> See Notice, 19 FCC Rcd 10916 ¶ 21.

<sup>749</sup> See Appendix C, Table C-3.

<sup>750</sup> *Time Warner Cable, Belo Dissolve Venture*, ASSOCIATED PRESS, July 23, 2004. The joint venture had been formed in September 2000.

<sup>751</sup> Belo Corp., *Belo Updates Investment Community on Operating Strategy* (press release), Sept. 29, 2004.

<sup>752</sup> 47 U.S.C. § 531. Local franchise authorities are allowed to establish procedures under which the cable operator may utilize unused PEG channel capacity for other services. 47 U.S.C. § 531(d)(1).

<sup>753</sup> NATOA Comments at 30.

<sup>754</sup> *Id.*

<sup>755</sup> Comcast Comments at 24.

<sup>756</sup> See *Implementation of Section 25 of the Cable Television Consumer Protection and Competition Act of 1992, Direct Broadcast Satellite Public Interest Obligation*, 19 FCC Rcd 5647 (2004).

Furthermore, the programming offered by such programmers must contain no advertisements, be of an educational or informative nature, and be available on a regular schedule.<sup>757</sup> DIRECTV provides 12 public interest channels.<sup>758</sup> EchoStar provides 21 channels of public interest programming.<sup>759</sup> To ensure that the programming is commercial-free and educational or informational in content, EchoStar claims that it conducts a limited review of the content, but given the constraints of reviewing hundreds of programs and the desire to avoid interfering with programmers' rights to editorial control, EchoStar does not undertake an in-depth review.<sup>760</sup>

172. Although DBS providers are subject to the public interest channel reservation requirements discussed above, NATOA asserts that they should have additional access requirements. NATOA argues that even though DBS can deliver local-into-local signals, in order for public interest programmers to gain access to DBS, they are required to pay to be carried. NATOA argues that DBS providers should be held to the same standards as cable operators and provide public interest programming to the local community.<sup>761</sup>

173. **Non-English Programming:** SBCA states that the DBS industry provides international and non-English speaking households with programming offerings in other languages including Spanish, Chinese, Korean, Urdu, Arabic, and Polish.<sup>762</sup> DBS operators have long focused on international programming. EchoStar added an additional 14 Chinese channels to its Chinese programming lineup to create the Great Wall TV Package featuring 17 total channels.<sup>763</sup> EchoStar also introduced a new Arabic programming package called Arabic Elite Super Pack, which is offered on a mini-tier basis for \$39.99 per month.<sup>764</sup> This year, DIRECTV introduced Vietnamese language programming to its lineup.<sup>765</sup> Comcast reports that it reorganized its digital cable package targeting Hispanic viewers in the United States, offering ten digital networks and eight audio channels that are targeted to Hispanic audiences. Comcast

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<sup>757</sup> See 47 U.S.C. § 25.701.

<sup>758</sup> DIRECTV Comments at Exhibit H. DIRECTV states that when faced with a capacity constraint, it must choose the most qualified programming, which will make its overall service offering as attractive and compelling for viewers as possible. DIRECTV attaches a copy of its instructions to programmers applying for access to its channel capacity. See DIRECTV Comments at Exhibit I.

<sup>759</sup> EchoStar Comments at 14. EchoStar segments its programming into the following categories: seven educational, one arts, one multicultural, two news, three religious, one family, two social/political/cultural, one workplace learning, one Spanish educational, one NASA channel, and one health. In terms of how it selects its public interest programming, EchoStar states that a committee comprised of five or six EchoStar employees reviews all applications and make recommendations, which result in final selections by senior management. *Id.*

<sup>760</sup> *Id.* at 14-15.

<sup>761</sup> NATOA Comments at 31-32. According to NATOA, the most cost effective solution to accomplish funding of public interest programming by DBS operators is to subject them to the same regime cable operators are subject, by which local cable franchise authorities collect five percent of gross revenue receipts which are then directed to funding public interest programming facilities. *Id.* at 32.

<sup>762</sup> SBCA Comments at 12.

<sup>763</sup> *Programming: DISH Grows Chinese Programming*, SKY REPORT, Oct. 4, 2004. The service costs \$29.99 per month and is available as an a la carte offering. The package requires customers to use EchoStar's SuperDISH system, which is capable of processing medium-power Ku-band and high-power DBS signals.

<sup>764</sup> *EchoStar Adds International Channels*, SATELLITE BUSINESS NEWS, Oct. 1, 2004. The package includes Al Arabiya, NBN, New TV, Noursat, Iqraa, Al Jazeera, ART America and MBC.

<sup>765</sup> *International: DIRECTV Adds Vietnamese Content*, SKYREPORT, Oct. 7, 2004. The channel is called VietnameseDirect and is the result of a joint venture involving International Channel Networks and Saigon Broadcasting Network. Most content is produced in the United States and consists of news, talk shows, sports, children's programs, cultural, history, and general entertainment programs.

adds that it plans to introduce Hispanic VOD content.<sup>766</sup> In addition, Comcast offers five international specialty channels.<sup>767</sup> In July 2004, in a move designed to counter DBS operators' strong international programming fare, Comcast assumed ownership of The International Channel.<sup>768</sup> Other cable operators offering non-English language programming include Time Warner, which offers programming in Spanish, Chinese, Hindi and several other South Asian languages.<sup>769</sup> Cox offers programming in Spanish, Arabic, Korean, Vietnamese, Filipino, and other South Asian languages.<sup>770</sup> Cablevision offers programming in Russian, Chinese, Korean, German, Portuguese, Indian/Southeast Asian, Japanese, Italian, and Polish on certain systems in New York City.<sup>771</sup> Additionally, in May 2004, the History Channel launched a U.S. Spanish-language version of the History Channel.<sup>772</sup>

174. ***Locally-Originated and Community-Oriented Programming:*** We requested information on the extent to which locally-originated programming is delivered to consumers by broadcasters and MVPDs, and the factors affecting production of and availability of locally-originated programming.<sup>773</sup> NCTA states that cable operators are active in promoting local and regional programming ventures that provide coverage of state and local events.<sup>774</sup> Distribution includes dedicated cable television channels, shared cable television channels, over-the-air broadcasting, and Internet streaming and archived media, but public affairs and government networks rely principally on cable distribution.<sup>775</sup> Approximately 20

<sup>766</sup> Comcast Comments at 26. The ten networks include Discovery en Espanol, CNN en Espanol, Fox Sports Espanol, Toon Disney Espanol, MTV Espanol, VH Uno, TVE Internacional, Cinelatino, Utilisima, and HTV Musica.

<sup>767</sup> Comcast Comments at 27. The channels include TV5, an international French language channel; RAI, an Italian network; CTI Zhong Tian, a 24-hour Mandarin-Chinese channel; Zee TV, an Indian satellite channel; and RTN, a 24-hour Russian language network. Comcast also reports that it now provides WKTV-Korean American Television to subscribers served by the MSO's Maryland systems. *Id.* at 28.

<sup>768</sup> Seth Arenstein, *Q&A With International Channel Networks' Steve Smith; Comcast Battles Satellite With Ethnic Programming*, CABLEWORLD, Oct. 7, 2004. Comcast stated that it would direct The International Channel's programming at Asian demographic groups. In June 2004, The International Channel also made an investment in Television Korea 24, which planned to launch in Los Angeles in the fourth quarter of 2004. The channel is a Korean-language digital basic cable or satellite network featuring news, dramas, movies, sports, business, health, music, children's programming, and game shows, with selected shows subtitled in English. *Korean Channel to Launch in L.A.*, BROADCASTING AND CABLE TV FAX, June 2, 2004.

<sup>769</sup> See Time Warner Cable, at <http://www2.twnyc.com/index2.cfm?c=dtv/channel> (visited Jan. 7, 2005).

<sup>770</sup> See Cox Communications, at <http://www.cox.com/fairfax/digitalcable/digitalchannellineup.asp> (visited Jan. 7, 2005).

<sup>771</sup> See Cablevision Systems Corp., at <http://www.io.tv/index.jhtml?pageType=international> (visited Jan. 7, 2005).

<sup>772</sup> *History Readies Spanish-Language Version*, BROADCASTING & CABLE TV FAX, Feb. 24, 2004.

<sup>773</sup> See Notice, 19 FCC Rcd at 10916 ¶ 21.

<sup>774</sup> NCTA Comments at 46. State public affairs networks in California, Michigan, and Pennsylvania are funded almost entirely by the cable television industry and receive wide scale distribution within those states. The California Channel is available in 5.6 million households, or 89 percent of all California cable households; Pennsylvania Cable Network is available in 3 million homes, or 85 percent of cable television households; and Michigan's MGTV reaches 1.6 million households, or about 75 percent of Michigan's cable television households. Radio and Television News Directors Foundation, *A Look at Regional News Channels and State Public Affairs Networks (RTNDF Study)*, Feb. 2004, at 23.

<sup>775</sup> *RTNDF Study* at 22. Some statewide networks share time with local government access cable channels that typically feature programming produced by city or county government agencies. For example, in Detroit, the Detroit Cable Commission, a city-controlled agency, shares time on its dedicated cable channel with Michigan Government Television. Some state networks, such as Florida Channel, are distributed by public broadcast networks and through access-channel arrangements with cable operators. Washington State's TVW uses the

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million homes have access to state public affairs television coverage.<sup>776</sup> Twenty-five states feature televised coverage of government activities and events, and another ten or more state channels are in development.<sup>777</sup> The coverage varies from a few hours of daily state House and Senate coverage during legislative sessions to professionally staffed networks providing 24-hour daily coverage of executive, legislative and judicial activities.<sup>778</sup> Some state networks have begun to broaden their programming beyond retransmission of government meetings; for example, in addition to state public affairs coverage, the Pennsylvania Cable Network offers original documentary programming, book review discussions and high school sports coverage.<sup>779</sup> In addition, Comcast reports that it distributes a regional news, sports and entertainment channel - CN8 - to households in Delaware, Maryland, New Jersey, New England and Pennsylvania.<sup>780</sup>

175. **Children’s Programming:** Nonbroadcast networks are attracting a growing audience share for their children’s programming. Total day viewing by children aged 2-11 of advertising-supported nonbroadcast networks increased from a 28.3 share in 1993/1994 to a 53.6 share during the 2003/2004 television season.<sup>781</sup> In June 2004, Comcast, the Public Broadcasting System, and programmers Sesame Street Workshop and HIT Entertainment were reported to be in discussion to develop a 24-hour, commercial-free nonbroadcast network dedicated to preschool aged children.<sup>782</sup>

176. **Access to Programming by Persons with Disabilities:** Under the Commission’s rules, video programming distributors are currently required to provide at least 1,350 hours of captioned “new” nonexempt programming on each channel during each calendar quarter.<sup>783</sup> In addition, a video

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Internet to distribute content, by placing digital recordings of hearings on its website. Some statewide networks distribute programming via Internet archiving, sometimes in conjunction with state universities. For example, Michigan State University stores unedited footage of state legislative debates and proceedings to be used by researchers and historians. *Id.* at 24-25.

<sup>776</sup> *RTNDF Study* at 17. According to the report, in February 2004, several state public affairs networks incorporated a not-for-profit trade association, the National Association of Public Affairs Networks, to foster the advancement of public affairs channels. For purposes of the report, a state public affairs television network is defined as an organization that produces and makes available to citizens ongoing televised coverage of activities, events and proceedings of the state government, including coverage of the legislative, executive and/or judicial branches. *Id.* at 18.

<sup>777</sup> *Id.*

<sup>778</sup> For example, according to the report, in Washington State, cameras are allowed within the state Supreme Court chambers, and about five percent of the 2,200 hours of television produced annually by TVW, the state’s public affairs network, consists of oral arguments before the court. That is contrasted with the California Channel, which has no access to the state’s Supreme Court, and concentrates mainly on legislative and regulatory agency hearings and activities in the state capital to make up its six-and-a-half hours of daily programming. *Id.* at 20-21.

<sup>779</sup> *Id.* at 21.

<sup>780</sup> Comcast Comments at 48.

<sup>781</sup> NCTA Comments at 46.

<sup>782</sup> Dennis K. Berman, *Comcast Plans to Create 24-Hour Network – For Toddlers*, WALL STREET JOURNAL, June 9, 2004.

<sup>783</sup> 47 C.F.R. § 79.1(b)(1) (phase-in schedule for programming “new” programming which is defined as programming first published or exhibited on or after January 1, 1998). Video programming first published or exhibited for display on television receivers equipped for display of digital transmissions or formatted for such transmission is defined as “new” as of July 1, 2002. 47 C.F.R. § 79.1(a)(6)(ii). See *Closed Captioning Requirements for Digital Television Receivers*, 15 FCC Rcd 16788, 16808-09 ¶ 60 (2000) (*Digital Captioning Order*). As of January 1, 2006, 100 percent of all new, nonexempt video programming must be provided with

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programming distributor must include captioning in 30 percent of its “pre-rule” nonexempt programming on each channel during each calendar quarter.<sup>784</sup> The rules exempt several specific classes of programming from the closed captioning requirements.<sup>785</sup> Video programming providers may also petition the Commission for an exemption from the closed captioning rules if the requirements would impose an undue burden.<sup>786</sup> The closed captioning rules specified in Section 79.1 are enforced through a complaint process, with the complaint initially directed to the video programming distributor responsible for compliance with the rules.<sup>787</sup>

177. We sought comment on many issues relating to programming providers’ and consumers’ experiences with closed captioning, including whether programming providers are complying with the existing requirements and updated information on the cost of captioning.<sup>788</sup> In response, we received approximately 220 informal comments from consumers regarding the amount and quality of captioning. The vast majority of commenters express their appreciation for the existing captioning and their desire to have all television programming captioned, including commercials.<sup>789</sup> Many commenters described how important captioning is for their enjoyment of television, for news and other information, or for learning for children who are deaf.<sup>790</sup> While numerous commenters note that closed captioning has improved recently, many mention, and often complain about, the continuing problems with quality, accuracy, placement, and missing or delayed captions. The accuracy of captions ranges from excellent to undecipherable, with many spelling errors.<sup>791</sup> Commenters express frustration with captions that fall behind the spoken words, or are cut off when scenes switch, there are commercial breaks, or before the end of a show.<sup>792</sup> Another concern is captions that block a speaker’s face or name, textual material or the action in a sporting event.<sup>793</sup> There is also incomplete or inaccurate captioning information in television program guides and listings.<sup>794</sup> Some commenters point out that programs may be captioned on the first showing, although not when the program is repeated and sometimes episodes of a usually captioned series do not appear with captions.<sup>795</sup> Commenters are especially concerned that all or part of their local

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captions. 47 C.F.R. § 79.1(b)(iv). A separate phase-in schedule applies for Spanish programming. 47 C.F.R. § 79.1(b)(3)-(4).

<sup>784</sup> 47 C.F.R. § 79.1(b)(2) (phase-in schedule for “pre-rule” programming). *See also* 47 C.F.R. § 79.1(a)(6) (definition of pre-rule programming).

<sup>785</sup> 47 C.F.R. § 79.1(d).

<sup>786</sup> 47 C.F.R. § 79.1(f).

<sup>787</sup> 47 C.F.R. § 79.1(g).

<sup>788</sup> *Notice*, 19 FCC Rcd at 10917 ¶ 23.

<sup>789</sup> *See, e.g.*, Letters from Richard S. Nealy (Aug. 23, 2004); Barbara and Bob Rummel (June 25, 2004); Steve Barber (July 12, 2004).

<sup>790</sup> *See, e.g.*, Letters from Christopher Parkes (July 12, 2004); Marcia Breese (June 25, 2004); Deborah Culp Hook (July 12, 2004).

<sup>791</sup> *See, e.g.*, Letters from Barbara Curtis (June 23, 2004); Paul Hammerschlag (July 9, 2004); Carolyn Wilson (July 15, 2004).

<sup>792</sup> *See, e.g.*, Letters from Barbara Curtis (July 23, 2004); Clifford Cleary (July 12, 2004); Patricia Raswant (July 14, 2004).

<sup>793</sup> *See, e.g.*, Letters from Liz Peterson (July 9, 2004); Don Senger (June 25, 2004); Jenni Tiziani (July 13, 2004).

<sup>794</sup> *See, e.g.*, Letters from William D. Sager (July 14, 2004); Karen Hearn (July 19, 2004); Liz Peterson (July 9, 2004).

<sup>795</sup> *See, e.g.*, Letters from Nancy Rosenberg (June 23, 2004); Carolyn Wilson (July 15, 2004); Jim Grennan (Aug. 23, 2004).

newscasts, especially the weather reports, remain uncaptioned, yet they are not sufficiently visual to provide necessary information, and commenters ask that real-time captioning be required for local news and emergency information.<sup>796</sup>

178. TDI submits a previously filed Petition for Rulemaking requesting that the Commission initiate a proceeding to establish additional enforcement mechanisms to better implement the closed captioning rules.<sup>797</sup> In its petition, TDI specifically requests that the Commission: (1) create a database with updated contact information for video programming providers and a captioning complaint form; (2) establish a compliance reporting requirement and undertake audits to ensure effective implementation of the captioning requirements and to improve accountability; (3) revise its complaint rules to require responses to consumer complaints regarding issues other than the captioning benchmarks (*e.g.*, captioning quality) within 30 days; (4) establish fines or penalties for noncompliance with the captioning rules; (5) require continuous monitoring of captioning by video programming providers to ensure that technical problems are remedied promptly; (6) require video programming providers to reformat edited or compressed captioning; (7) require that for a program to be captioned under the rules, it must meet minimum standards for completeness, accuracy, readability and synchronicity with the audio portion of the program; and (8) adopt nontechnical quality standards to ensure that video programming is fully accessible to persons with hearing disabilities.<sup>798</sup>

179. NAD supports TDI's petition and further addresses our request for comment on whether the procedures for applying for an exemption based on an undue burden are sufficient.<sup>799</sup> NAD argues that the procedures are not adequate because they do not provide for initial review of sufficiency of the petition for such an exemption before it is put out on public notice for comments and opposition.<sup>800</sup> NAD also claims that a program provider who files a petition for exemption, regardless of the merits, is effectively exempt from the captioning rules for at least two years while the petition remains pending before the Commission.<sup>801</sup> NAD recommends that the Commission adopt procedures to provide for preliminary review for sufficiency and that it reject those petitions that are insufficient, before posting a Public Notice. It further recommends that the Commission reduce the administrative delay in processing petitions for exemption.<sup>802</sup>

180. DIRECTV reports that it passes along all NTSC closed captioning.<sup>803</sup> With respect to advanced digital closed captioning, DIRECTV states that it is unaware of any HD programming currently being transmitted with native CEA-708B (*i.e.*, digital) closed captioning, but it has tested its receivers using in-house produced CEA-708B closed captioning, and they have all functioned properly.<sup>804</sup> Fox

<sup>796</sup> See, *e.g.*, Letters from Lois Smith (July 19, 2004); Richard S. Nealy (Aug. 23, 2004); Julia Olson (July 12, 2004).

<sup>797</sup> See *Closed Captioning of Video Programming – Implementation of Section 305 of the Telecommunications Act of 1996 Video Programming Accessibility*, (filed July 23, 2004) (TDI Petition). The Media Bureau placed this Petition, RM No. 11065, on public notice on September 2, 2004, Report No. 2670, and is reviewing comments in anticipation of making recommendations to the Commission.

<sup>798</sup> TDI Reply Comments at 2-3. See generally TDI Petition.

<sup>799</sup> Notice, 19 FCC Rcd at 10917 ¶ 23.

<sup>800</sup> NAD Comments at 2. NAD states that a review of the petitions filed in 2004 indicate that many petitioners fail to provide information addressing the undue burden criteria in the rules. *Id.* at 45. See also 47 C.F.R. § 79.1(f)(2).

<sup>801</sup> NAD Comments at 2, 5-7. See also NAD Comments, Exhibits 1-3 (detailing the history of undue burden petitions).

<sup>802</sup> NAD Comments at 7.

<sup>803</sup> DIRECTV Comments at 17.

<sup>804</sup> *Id.* at 17-18.

provides information on the costs of captioning its originally-produced broadcast and nonbroadcast programming, noting that it uses several vendors and that costs vary widely depending on whether the programming is live or on tape.<sup>805</sup> For example, Fox's regional sports networks spend between \$105 and \$365 to caption a single hour of programming, with the higher fee associated with live sports events. For its National Geographic channel, Fox indicates that it typically costs \$165 to caption an hour of original programming. Fox further states that, when it purchases programming from a third party, the cost of captioning is included in the overall cost of the programming.

181. With respect to video description, in August 2000, the Commission adopted rules requiring certain larger broadcasters and video programming distributors to include "video descriptions" with a small amount of their programming to increase their accessibility to persons with visual disabilities.<sup>806</sup> On November 8, 2002, the U.S. Court of Appeals for the D.C. Circuit vacated the Commission's video description rules, finding that they exceeded the Commission's authority.<sup>807</sup> In light of this decision, video description currently is provided by programmers on a voluntary basis.

182. In 1996, we reported that, with the exception of PBS, there were no video described programs distributed by broadcasters and TBS provided one movie a week with video description.<sup>808</sup> Today, we see some programming with video description on both broadcast and nonbroadcast networks.<sup>809</sup> Examples of prime time broadcast television programs that include video description are: PBS' *American Experience*, *Masterpiece Theatre*, *Mystery*, *Nature*, and *Nova*; *CSI: Crime Scene Investigation*, *JAG*, and some movies on CBS; NBC's *Law and Order* and some movies; *The Bernie Mac Show*, *That 70's Show*, and *The Simpsons* on Fox; and some movies on ABC. In addition, broadcasters distribute children's programming containing video description, such as: *Sesame Street*, *Barney and Friends*, and *Mr. Rogers' Neighborhood* on PBS; and *Reading Rainbow*, *Rugrats*, *Blue's Clues* and *Dora the Explorer* on CBS and also on co-owned Nickelodeon; *Scout Safari*, *Kenny the Shark*, and *Endurance* on NBC; and Fox's *Magic School Bus*. Nonbroadcast networks, TCM, TBS, TNT, Lifetime and USA offer movies with video description, with TCM showing at least one video described movie almost every day. In addition to movies, several nonbroadcast networks include video description when they rerun programs that were previously shown on broadcast networks. Examples of such programs are: *Law & Order* and *Homicide: Life on the Street* on TNT; *JAG* on USA; *CSI: Crime Scene Investigation* on Spike; and *Ripley's Believe it or Not* on TBS. Moreover, numerous websites provide consumers with daily listings of the availability of video described programming, some specific to particular local markets.<sup>810</sup>

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<sup>805</sup> Fox Comments at 4-5.

<sup>806</sup> Video descriptions are aural descriptions of key visual elements in a television program, inserted into the natural pauses in the program's audio and distributed in the program's second audio channel. See *Implementation of Video Description of Video Programming*, 15 FCC Rcd 15230 (2000), on recon., 16 FCC Rcd 1251 (2001).

<sup>807</sup> *Motion Picture Association of America v. FCC*, 309 F.3d 796 (D.C. Cir. 2002).

<sup>808</sup> See *Closed Captioning and Video Description of Video Programming, Implementation of Section 305 of the Telecommunications Act of 1996, Video Programming Accessibility*, 11 FCC Rcd 19214, 1926-61 ¶¶ 112-13, 116 (1996).

<sup>809</sup> See, e.g., The Metropolitan Washington Ear, <http://www.washear.org/dailylogs.htm> (visited Jan. 14, 2005); WGBH – Media Access Group, <http://main.wgbh.org/wgbh/pages/mag/services/description/ontv/> (visited Jan. 14, 2005); and Turner Broadcasting, <http://www.tnt.tv/dvs?network=all> (visited Oct. 28, 2004). See also Letter from Elizabeth Goodwin (July 12, 2004) (urging the widespread adoption of video description).

<sup>810</sup> See, e.g., The Metropolitan Washington Ear, <http://www.washear.org/dailylogs.htm> (visited Jan. 14, 2005); WGBH, <http://wgbh.org/schedules/daytv> (visited Jan. 14, 2005); and Arts Access (Raleigh, North Carolina), <http://www.artsaccessinc.org/AAvideodeodesc.html> (visited Oct. 28, 2004).

183. In its comments, DIRECTV notes that programmers may use the Secondary Audio Programming (SAP) channel for video descriptions.<sup>811</sup> DIRECTV states that it carries a SAP channel on 39 nonbroadcast channels, and on over 200 broadcast channels, but it leaves the decision on how to employ the SAP channel to the programmers themselves, and it does not monitor the SAP channels systematically.<sup>812</sup>

e. **Packaging of Programming Services**

184. Generally, MVPDs continue to offer packages or tiers of service that include a large number of programming networks.<sup>813</sup> DIRECTV offers certain programming, such as pay per view events and international sports offerings, on an a la carte basis, and it offers five “mini-tiers.”<sup>814</sup>

185. Cable and DBS operators complain of contractual restrictions requiring them to include programming in basic or expanded basic tiers.<sup>815</sup> With the proliferation of digital platforms, many cable operators are choosing to locate new digital cable channels on digital tiers, in many cases built around a theme, such as sports or family programming.<sup>816</sup> Small cable operators claim that large programmers are demanding that they distribute second tier channels to all digital subscribers, thereby undermining the ability to provide digital theme-tiers.<sup>817</sup> EchoStar describes as “pervasive” the practice of having to carry programming networks that it would not normally carry or carry programming on a tier it would not normally choose, if not for a tie-in requirement with an essential broadcast station or nonbroadcast network.<sup>818</sup> EchoStar states that this practice prevents it from offering programming on a la carte and tiered basis, requiring it to bundle must-have programming with programming its consumers do not want.<sup>819</sup> Large programmers argue that bundling of programming services is an economically efficient way to deliver video programming with maximum choice and minimum inconvenience to potential

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<sup>811</sup> DIRECTV Comments at 18.

<sup>812</sup> *Id.*

<sup>813</sup> *See, e.g.*, Comcast Comments at Appendix A, listing 11 separate program packages and tiers on its Arlington, Virginia system. Comcast offers a “Limited Basic” package of 32 channels, an “Expanded Basic” package of 45 channels, five separate digital packages, Cable Latino, an Hispanic language tier, a Sports Tier, “HDTV Channels Package” of 14 HD channels, and premium channels offered on a stand alone basis, although some premium services, such as HBO, have multiple channels of programming.

<sup>814</sup> DIRECTV Comments at 13-14. The mini tiers consist of an HBO package, a Cinemax package, a Showtime package, a STARZ! package, and a sports package. DIRECTV subscribers can purchase their first such package for \$12 per month, the second for \$11 per month, the third for \$10 month, the fourth for \$8 per month and the fifth for \$7 per month. DIRECTV states that it has no immediate plans to add further mini-tiers.

<sup>815</sup> *See, e.g.*, ACA Comments at 11; EchoStar Comments at 4-5; BSPA Comments at 23-24.

<sup>816</sup> *See, e.g.*, R. Thomas Umstead, *Diginets Hit the Screen*, MULTICHANNEL NEWS, Dec. 8, 2003; R. Thomas Umstead, *CSTV Continues Fight for Acceptance*, MULTICHANNEL NEWS, Apr. 12, 2004; Crown Media Holdings, Inc., *Crown Media Announces Hallmark Movie Channel* (press release), Nov. 11, 2003; For a description of Cable One’s “Digital Value Pak” and “Digital Faith and Family Pak” *see* Cable One, Inc., at <http://www.cableone.net/default.asp?logout=true> (visited Jan. 14, 2005).

<sup>817</sup> *See, e.g.*, ACA Comments at 13. ACA states that some programmers are demanding migration of affiliated channels from digital tiers to analog expanded basic, using that as a lever to broaden distribution of their affiliated channels on the expanded basic tier.

<sup>818</sup> EchoStar Comments at 4-5.

<sup>819</sup> *Id.* at 5. According to EchoStar, it faces contractual provisions requiring bundling of local stations with nonbroadcast programming, bundling of nonbroadcast networks, and market penetration requirements that prevent it from placing programming on specialty tiers or offering it on an a la carte basis. *Id.* at 6.

viewers, because it reduces transaction costs to consumers as well as MVPDs' and networks' costs, particularly costs of equipment and marketing.<sup>820</sup>

### C. Competitive Issues in Small and Rural Markets

186. In the Notice, we requested information and comment regarding issues specific to video programming distribution in rural and smaller markets.<sup>821</sup> NTCA, a trade association for rural telecommunications providers, reports that a significant portion of its members are providing video service, but that their efforts are hampered due to an inability to receive terms similar to those that large cable MSOs receive, and due to tying requirements by programmers.<sup>822</sup> OPASTCO, a trade association representing rural telephone companies, reports that half its members operate small cable television companies, and others offer video service via DSL, sometimes overbuilding neighboring service territories.<sup>823</sup> Still others provide video satellite services, or have deployed fiber to the home. OPASTCO indicates that bundling of video services with other advanced services increases penetration rates and thus spurs further investment in advanced services in rural areas. OPASTCO also states, however, that the higher prices rural video providers pay for programming and retransmission consent agreements that require carriage of additional channels on the basic tier, raise costs and impede market entry. OPASTCO recommends that video providers have the option of providing programming on an la carte basis so its members can provide video in a manner that matches the needs of customers.<sup>824</sup> ACA, which represents small cable operators, states that more than half of its members currently offer digital cable service, more than half offer cable modem service, and more are planning on providing these services in the next 12 months.<sup>825</sup> ACA also reports difficulties with high programming costs, programming tying arrangements, and retransmission consent agreements, recommends allowing more flexibility for small video providers in packaging video programming, and supports some legislative changes to the retransmission consent and program access laws to address the problems ACA raises.<sup>826</sup> For example, ACA reports that some companies acquiring systems from major MSOs estimate that programming costs increase up to 30 percent, solely because a smaller company acquired ownership.<sup>827</sup> Citing a study by the Carmel Group, ACA notes that 53 percent of the small cable operators surveyed allocated between 35 and 49 percent of total expenses to programming costs, and 20 percent of respondents allocated more than 50 percent.<sup>828</sup>

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<sup>820</sup> See, e.g., Fox Comments at 2-4. See also Fox Comments Statement of Gustavo Bamberger at 1-2, that bundling of programming products by programmers and by MVPDs generally reduces costs and is economically efficient.

<sup>821</sup> Notice, 19 FCC Rcd 10919-20 ¶ 30.

<sup>822</sup> See NTCA Comments, *generally*. NTCA refers specifically to tying requirements under which a large programmer will require carriage of less popular networks it owns as a condition for carriage of its most popular network(s). See paras. 161-63 *supra* for further discussion of programming tying requirements and issues surrounding retransmission consent.

<sup>823</sup> See also *Fourth 706 Report*, 19 FCC Rcd at 20570.

<sup>824</sup> See OPASTCO Reply Comments, *generally*.

<sup>825</sup> ACA Comments at Exhibit 2.

<sup>826</sup> *Id.* at Exhibit 1. ACA does not advocate Commission intervention to enable operators to offer their programming on an la carte basis.

<sup>827</sup> *Id.* at 39.

<sup>828</sup> *Id.*

## D. Technical Issues

### 1. Navigation Devices

187. As mentioned previously, the Commission's *Plug and Play Rules* allow for television sets to be built with one-way "plug-and-play" functionality (e.g., premium channels).<sup>829</sup> Consumers still need a set-top box to receive two-way services (e.g., video-on-demand), while the cable and consumer electronics industries continue to work on an agreement for two-way "plug-and-play" functionality.<sup>830</sup> Since our last *Report*, more than 60 models of Digital Cable Ready (DCR) televisions by 11 different manufacturers are now certified for retail sale.<sup>831</sup> As of August 2004, the top 10 cable operators had deployed CableCARDS<sup>832</sup> to the approximately 5,000 subscribers nationwide that have thus far requested them.<sup>833</sup> The cable industry indicates that it has begun to educate consumers about the retail availability of CableCARDS and unidirectional digital cable products by working with local retailers and training their customer service representatives, and by providing consumers with educational material directly via websites, monthly bills, brochures, and advertisements.<sup>834</sup>

188. **OpenCable.** In July 2004, the OpenCable Applications Platform (OCAP) was approved by the American National Standards Institute (ANSI) to standardize cable set-top box software applications.<sup>835</sup> Many cable operators have begun to develop applications using the OCAP standard, which are designed to run on a variety of set-top boxes and should facilitate the growth of interactive television.<sup>836</sup> For example, Comcast and Time Warner have announced the creation of OCAP Development, LLC, a joint venture dedicated to creating an OCAP middleware implementation. The joint venture expects that its middleware will accelerate the development of OCAP-compliant software and help hasten the development of various applications.<sup>837</sup> Also, Time Warner announced plans to strip out the existing interactive program guides (IPG) from Scientific-Atlanta and Pioneer set-top boxes, and

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<sup>829</sup> 47 U.S.C. § 549. *Plug and Play Rules*, 18 FCC Rcd 20885 (2003). See Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 11-13, 18-22, 24-27, 29-30.

<sup>830</sup> *Plug and Play Rules*, 18 FCC Rcd 20885 (2003).

<sup>831</sup> CableLabs, *CableLabs Verifies Three DTVs, More Than 60 Models Now Approved* (press release), Aug. 24, 2004.

<sup>832</sup> See fns. 157, 173 *supra*. The OpenCable specification is designed to support the retail sale of advanced digital set-top boxes and other devices such as CableCARDS. See CableLabs, at <http://www.cablelabs.com/news/glossary.html#C> (visited Oct. 5, 2004).

<sup>833</sup> Letter from Neal M. Goldberg, General Counsel, NCTA, to Marlene H. Dortch, Secretary, FCC (Nov. 19, 2004) (NCTA Nov. 19 Ex Parte, Docket No. 97-80), at 2. See also Letter from Neal M. Goldberg, General Counsel, NCTA, to Marlene H. Dortch, Secretary, Federal Communications Commission (Sept. 30, 2004), Attachment (Memorandum) at 1.

<sup>834</sup> Letter from Neal M. Goldberg, General Counsel, NCTA, to Marlene H. Dortch, Secretary, Federal Communications Commission (Sept. 30, 2004), Attachment (Memorandum) at 1. See also TiVo Reply Comments *generally*.

<sup>835</sup> Society of Cable Telecommunications Engineers, *SCTE Standard on CableLabs OCAP Specification Achieves ANSI Approval* (press release), July 1, 2004.

<sup>836</sup> See Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 10-13, 16-19, 22, 25-27, 29-31.

<sup>837</sup> Time Warner Cable, *Comcast and Time Warner Cable Partner to Deliver OCAP Middleware* (press release), Aug. 10, 2004.

replace them with an OCAP-based navigation system, which will be able to handle VOD, subscription VOD, and other OCAP applications.<sup>838</sup>

189. On October 21, 2004, Samsung Electronics was the first to enter into agreements with CableLabs allowing Samsung to implement OCAP compliant middleware on their interactive digital television sets and set-top boxes. This agreement is seen by most in the cable industry as a significant advance for making interactive two-way cable products available at retail.<sup>839</sup> On November 12, 2004, representatives from the cable and consumer electronics industries met with the Commission to report on the status of two-way plug-and-play negotiations. Industry representatives said that progress continues to be made at scheduled bi-weekly meetings, though no target date for completion was expressed.<sup>840</sup>

190. In October 2003, the Advanced Television Systems Committee (ATSC) announced that it had successfully coordinated its DTV Application Software Environment (DASE) specifications with OCAP to create the Advanced Common Applications Platform (ACAP), which provides broadcasters with the same advantages that OCAP provides for cable operators.<sup>841</sup> In November 2004, Starz Encore Group LLC demonstrated a satellite television feed paired with an application designed to run on OCAP. The transmission was successful and the results were verified by CableLabs. This was the first “out-of-lab” use of OCAP, making Starz the first programmer to embed OCAP functionality within a U.S. broadcast.<sup>842</sup> News Corp. owns approximately 77 percent of NDS Group plc, a supplier of conditional access systems, and approximately 41 percent of Gemstar-TV Guide International, the leading provider of EPGs and IPGs.<sup>843</sup> Gemstar states that improvements in software, coupled with the introduction of open cable platforms, has permitted the development of new EPGs and their rapid deployment by MVPDs.<sup>844</sup>

## 2. Emerging Technologies

191. ***Fiber to the Premises (FTTP)***.<sup>845</sup> The number of telephony and broadband operators deploying or testing fiber-to-the-premises (FTTP) networks continues to grow monthly.<sup>846</sup> The two major

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<sup>838</sup> Jeff Baumgartner, *Time Warner Looks Inside for IPG Guidance*, CED BROADBAND DIRECT, May 19, 2004.

<sup>839</sup> CableLabs, *Samsung Electronics First to Sign CableLabs Licenses for Two-Way Digital Cable Products* (press release), Oct. 21, 2004.

<sup>840</sup> See NCTA Nov. 19, 2004 Ex Parte, Docket No. 97-80.

<sup>841</sup> Advanced Television Systems Committee, Inc., *ATSC Publishes New Interactive “ACAP” Candidate Standard* (press release), Oct. 2, 2003.

<sup>842</sup> Starz Encore Group, LLC, *Starz Hosts First Satellite Transmission Using OCAP Platform* (press release), Nov. 1, 2004.

<sup>843</sup> NDS Group plc, *Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended June 30, 2004*, at 7; Gemstar-TV Guide International Inc., *Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Quarterly Period Ended September 30, 2004*, at 10. See also *News Corp Order*, 19 FCC Rcd at 479, 576 ¶¶ 7, 227.

<sup>844</sup> Gemstar Reply Comments at 6. Gemstar reports that it has arrangements with Comcast and Time Warner that allow the cable operators to combine Gemstar technology with that of other vendors; it has a non-exclusive licensing agreement with its affiliate, DIRECTV; and a non-exclusive agreement with EchoStar that allows it to use Gemstar technology for its EPG. *Id.* at 7-9. See also *News Corp Order*, 19 FCC Rcd 576-81, 284-5 ¶¶ 227-241, 247-250.

<sup>845</sup> See *Fourth 706 Report*, 19 FCC Rcd 20555-57. As of May 2004, carriers have deployed FTTH Technology to 128 communities in 32 states. In addition, companies plan to deploy FTTH further in the future. For example, Verizon has accelerated its FTTH deployment with the goal of passing 1 million homes by the end of 2004. SBC has also announced plans to implement a limited FTTH deployment . . . in 2004, and to implement FTTH to approximately 300,000 premises in 2005. *Id.* See also paras. 127-128 *supra*.

<sup>846</sup> Jeff Baumgartner, *Sizing up the Fiber Smorgasbord*, CED MAGAZINE.COM, Oct. 5, 2004.

optical techniques employed over fiber networks are active and passive. The passive technique operates over two different types of architectures: Broadband Passive Optical Network (BPON) and Gigabit PON (GPON). Standards are in force for these technologies as ITU-T recommendations G.983 and G.984, respectively.<sup>847</sup> Verizon, Bell South, and SBC Communications currently use BPON. Verizon states that the passive nature of BPON will provide huge savings on plant maintenance because the architecture does not use electronics in the field except at the customer location.<sup>848</sup> Verizon and SBC have launched multibillion dollar efforts to roll out fiber lines that can deliver Internet service, voice, and video through a single connection.<sup>849</sup>

192. Active networks, on the other hand, use active electronic devices (e.g., amplifiers, splitters) and the platform enables sending only the channel the subscriber is watching, preventing signal theft from rogue set-top boxes. Makers of active FTTP architectures are entering into agreements primarily with smaller telephone companies, municipalities, and utilities. For example, the Utah Telecommunication Open Infrastructure Agency (UTOPIA) and iProvo are using active FTTP architecture. UTOPIA is connecting 50,000 premises in Salt Lake City. iProvo is building out a network that reaches 27,000 homes and 4,100 businesses.<sup>850</sup>

193. **Distributed Television Transmission (DTx).** A DTV distributed transmission system employs multiple synchronized transmitters spread around a station's service area. Each transmitter broadcasts the station's DTV signal on the same channel, relying on the performance of "adaptive equalizer" circuitry in DTV receivers to cancel or combine the multiple signals plus any reflected signals to produce a single signal. Such distributed transmitters are considered to be similar to analog TV booster stations, a secondary, low power service used to "fill in" gaps in the parent station's coverage area, but DTV technology has the potential to enable this type of operation in a much more efficient manner than its analog predecessor.<sup>851</sup> The Commission approved such systems in principle and has agreed to begin a proceeding on the necessary rules, allowing use of the technology on a case-by-case basis in the interim.<sup>852</sup>

194. **Digital Video Recording Technologies.** In August 2004, the Commission approved 13 content protection technologies for use with the Broadcast Flag, of which, several facilitate new uses of digital television content.<sup>853</sup> The Digital Rights Management (DRM) technologies allow consumers to securely share digital video files within a home network environment and on portable media players.<sup>854</sup> One DRM technology also allows a user to securely share digital video files outside the home with a

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<sup>847</sup> BPON uses ATM as a bearer protocol for transmitting in both directions. It originally supported 155 Mbps in both directions, but the latest version supports downstream rates of 622 Mbps and upstream of 155 Mbps. GPON is a new standard that carries gigabit rate streams. It is capable of up to 2.5 Gbps in each direction and supports legacy ATM infrastructure.

<sup>848</sup> *Id.*

<sup>849</sup> Almar Latour, *Showdown of the Giants*, WALL STREET JOURNAL, Nov. 8, 2004, at B1.

<sup>850</sup> *Id.*

<sup>851</sup> The Commission's Spectrum Policy Task Force has recommended that digital television broadcasters be permitted to operate single frequency low power distributed transmission systems within their present service areas. *See Spectrum Policy Task Force Report*, ET Docket No. 02-135 (Nov. 2002), at 64, <http://www.fcc.gov/sptf/reports.html> (visited Jan. 14, 2005).

<sup>852</sup> *Id.* at paras. 177-8. *See also* para. 92 *supra*.

<sup>853</sup> *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876 (2004). *See also* para. 91 *supra*.

<sup>854</sup> The approved DRM technologies are TiVoGuard, Helix DRM, Microsoft Windows DRM, and SmartRight. *Id.* at ¶¶ 19, 46-60.

limited number of devices registered on the user's account.<sup>855</sup> Several other technologies allow users to store digital video onto new portable media formats.<sup>856</sup> In addition, high-definition DVRs have begun to appear on the market, which will further facilitate delivery of digital video content.<sup>857</sup>

195. **Home Networking and Wi-Fi.**<sup>858</sup> Several cable operators are beginning to offer home networking services for their subscribers. Home networking allows cable operators to connect multiple devices in the consumer's home (e.g., set-top boxes, television sets, personal computers) to a central processing device (e.g., set-top box, cable modem).<sup>859</sup> Currently, the most common application for home networking is to connect multiple computers in the home to cable modem services, but the service can be used to transmit video such as downloaded VOD movies. Comcast, Time Warner and Cox all offer home networking using a wireless system based on CableLabs' CableHome specifications, connecting as many as five computers in the home.<sup>860</sup>

196. In addition to CableHome technology, some cable operators are reportedly conducting trials of the power industry's Home Plug technology.<sup>861</sup> HomePlug can be used to send data between cable modems, computers and other devices throughout the household at speeds of up to 14 Mbps using the electrical wiring already in the household.<sup>862</sup>

197. Cable operators also are forming alliances with wireless hotspot providers to offer their subscribers high-speed data access via Wi-Fi hotspots.<sup>863</sup> Comcast, for example, offers to sign up its high-speed Internet access subscribers with Wi-Fi enabled laptops for T-Mobile subscription HotSpot service.<sup>864</sup> Cox has joined Intel and Arizona State officials to offer a Wi-Fi hotspot service known as

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<sup>855</sup> *Id.* at ¶ 19.

<sup>856</sup> MagicGate Type-R allows storage on Minidisc and MemoryStick media. CPRM allows storage onto DVD-R/RW Secure CompactFlash, Microdrive media, and SD Memory Cards. Vidi allows storage onto DVD+R/RW, D-VHS allows storage on VHS cassettes. *Id.* at ¶¶ 24, 36, 30, 41.

<sup>857</sup> See, e.g., Motorola, Inc., *Motorola: Never Miss a Play with Motorola HD DVR*, <http://broadband.motorola.com/getdvr/> (visited Nov. 11, 2004); DIRECTV Group Inc., *DIRECTV HD DVR*, [http://www.directv.com/DTVAPP/imagine/TiVo\\_HD.dsp](http://www.directv.com/DTVAPP/imagine/TiVo_HD.dsp) (visited Dec. 3, 2004).

<sup>858</sup> See *Fourth 706 Report*, 19 FCC Rcd at 20557-58.

<sup>859</sup> CableLabs, *CableHome Home*, <http://www.cablelabs.com/projects/cablehome/> (visited Dec. 3, 2004).

<sup>860</sup> Alan Breznick, *Cable Operators Explore HomePlug for High-Speed Data, Home Networks*, CABLE DATACOM NEWS, June 2004. CableLabs has been developing a new home networking specification called CableHome. CableLabs now has 10 Cable Home 1.0 certified products and three CableHome 1.1 certified products. See CableLabs, *CableHome Home*, <http://www.cablelabs.com/projects/cablehome/> (visited Dec. 3, 2004).

<sup>861</sup> Alan Breznick, *Cable Operators Explore HomePlug for High-Speed Data, Home Networks*, CABLE DATACOM NEWS, June 2004. See Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 9, 25, 32.

<sup>862</sup> Alan Breznick, *Cable Operators Explore HomePlug for High-Speed Data, Home Networks*, CABLE DATACOM NEWS, June 2004. See paras. 133-134 *supra*.

<sup>863</sup> Wi-Fi is an interoperability certification for wireless local area network (LAN) products based on the Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard. A hotspot is a place where the public can access Wi-Fi service, either for free or for a fee. Hotspots can be found at coffeeshops, airport lounges, train stations, convention centers, hotels or any other public meeting areas. Corporations, campuses, local governments also are implementing hotspots to provide wireless Internet access to their visitors and guests. Wi-Fi Alliance, <http://www.wi-fi.com/OpenSection/glossary.asp?TID=2> (visited Jan. 14, 2005).

<sup>864</sup> Alan Breznick, *MSOs Explore Data Connections Outside The Home*, CABLE DATACOM NEWS, Mar. 2004.

Public Online Wireless Electronic Resource (POWER), which provides free wireless broadband service to members of the public in Arizona.<sup>865</sup>

198. Consumer demand of the home gateway along with the evolution of IEEE standards and CableLabs specifications continues to enhance innovation in the home networking segment.<sup>866</sup> Many companies including Intel, Cisco, D-Link, and Motorola, have recently delivered products based upon the newly revised IEEE 802.11n, CableHome 1.1, and PacketCable 1.1 standards.<sup>867</sup> These new devices provide connectivity in the home powerful enough for VoIP and/or Wi-Fi hotspots to be supplied by Comcast and Time Warner.<sup>868</sup>

199. **Interactive Television (ITV).** As we have reported previously, ITV services are services that support subscriber-initiated choices or actions that are related to one or more video programming streams (e.g., t-commerce, data enhancements, interactive gaming, VOD, DVRs, and EPGs).<sup>869</sup> Cable operators, DBS operators, application developers, and technology manufacturers continue to explore a variety of ITV services in order to increase revenue and subscribership, and to reduce MVPD churn.

200. CableLabs continues to host events in which the developers of ITV services can test products to run over any cable television system. Under the OpenCable standard, applications written by independent content developers can run successfully on OpenCable compliant consumer devices, and manufacturers can develop products that will support all services delivered by cable operators.<sup>870</sup> In August 2004, CableLabs conducted an interoperability event in which application developers demonstrated a wide variety of ITV applications (e.g., an airline travel reservation system, a medical advisor application, t-commerce applications, an advanced real-time and local weather application), and 11 different manufacturers presented OpenCable compliant hardware platforms.<sup>871</sup>

201. **WiMAX.** WiMAX is a developing wireless standard that is expected to become a last mile solution for cable operators, broadband providers, and others.<sup>872</sup> The technology, embodied in IEEE Standard 802.16, has the potential to reach rural customers outside of the range of today's infrastructure and can also be implemented to provide an entire metropolitan area with high-speed Internet access. With speeds up to 75 Mbps at ranges as far as 30 miles, WiMAX technology is a crucial step towards a transition to IP communication entirely without wires.<sup>873</sup>

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<sup>865</sup> *Id.*

<sup>866</sup> Satish Gupta, *Design Challenges for Home Gateway Devices*, CED MAGAZINE, Mar. 2003. The home gateway provides consumer benefits such as broadband Internet sharing, VPN, firewall security, voice/video-over-IP and home automation.

<sup>867</sup> Wi-Fi Alliance, *IEEE 802.11n QA Final*, <http://www.wi-fi.org> (visited Nov. 9, 2004).

<sup>868</sup> Craig Kuhl, *Does it Take Two (or More) to Tango?*, CED MAGAZINE, Nov. 2004.

<sup>869</sup> See *2003 Report*, 19 FCC Rcd at 1712-5 ¶¶ 187-192. See also *Nondiscrimination in the Distribution of Interactive Television Services Over Cable*, 16 FCC Rcd 1321 (2001) (*ITV NOI*).

<sup>870</sup> CableLabs, *Twenty Four Firms Participate in CableLabs OCAP Interoperability Event* (press release), Aug. 18, 2004.

<sup>871</sup> *Id.*

<sup>872</sup> See *Fourth 706 Report*, 19 FCC Rcd at 20557. See also Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 23, 31; Jeff Baumgartner, *RF Magic Conjures Up Comcast Investment*, CED MAGAZINE, Oct. 26, 2004.

<sup>873</sup> Intel Corp., *Broadband Wireless Access: IEEE 802.16 and WiMAX White Paper*, 2003.

202. **Next Generation Network Architecture LLC (NGNA).** NGNA is an undertaking by Comcast, Cox, and Time Warner to help the transition to the all-digital network without undergoing expensive rebuilds. NGNA released a Request for Information (RFI) early this year. Some of the many topics under analysis are advanced codecs, such as MPEG-4 and Windows Media 9, solutions to migrate to an alternative conditional access system while still supporting the legacy, all-digital migration devices that can be used to convert digital signals to analog signals at or in a subscriber's home with as much transparency as possible and advanced codec transcoders, which could accept streams based on advanced codecs and convert them to MPEG-2. It is expected that NGNA initiative will be operated by CableLabs in the near future.<sup>874</sup>

203. **Advanced Compression Techniques.** These techniques can increase the number of video streams that can be transmitted in a given amount of spectrum by at least 2:1 and commonly closer to 3:1 compared to the current standard MPEG-2.<sup>875</sup> Advanced codecs such as MPEG-4/H.264 and Microsoft's VC-1 (formerly Windows Media 9/VC-9) have approximately the same technical capabilities. The differences between the two are primarily in the licensing models, with MPEG-4 fees based on actual usage of the codec, rather than on a per-device basis.<sup>876</sup> Both MPEG-4 and VC-1 were recently added to the HD-DVD and Blu-Ray BD-ROM high-definition disc specifications along with MPEG-2.<sup>877</sup> Incorporation of advanced codecs into the ATSC standard for use in the main DTV video stream is not likely in the near future, as the MPEG-2 decoders present in all ATSC tuners are not capable of decoding the advanced codecs. The ATSC is, however, evaluating MPEG-4 and VC-1 for use in the Enhanced-VSB mode.<sup>878</sup> Use of advanced codecs is currently limited to IPTV, VOD and services developed within the last few years. MPEG-2 users may transition into MPEG-4, first by launching new services utilizing advanced codecs to get the hardware on the market.<sup>879</sup>

204. **Cellular Video.**<sup>880</sup> Texas Instruments recently introduced a chip for mobile phones called "Hollywood" that will support high quality digital broadcast TV for the wireless industry. The chip will use both the Digital Video Broadcasting – Handheld (DVB-H) standard from Europe and the Integrated Services Digital Broadcasting – Terrestrial (ISDB-T) standard from Japan. The DVB-H standard is expected to be extended to North America. Additional infrastructure must be deployed, as these standards require a dedicated wireless network,<sup>881</sup> although this requirement may be relaxed as IBOC datacasting, capable of carrying the video programming, becomes more prevalent.<sup>882</sup> Crown Castle has deployed a single-frequency DVB-H test site in Pittsburgh, Pennsylvania, using spectrum in

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<sup>874</sup> Jeff Baumgartner, *NGNA: A Sneak-Peek At Cable's Battle Plan For The Future*, CED MAGAZINE, May 2004.

<sup>875</sup> Envivio, Inc., *About H.264*, <http://www.envivio.com/products/h264.html> (visited Nov. 9, 2004).

<sup>876</sup> Chris Forrester, *IBC Agonizes Over Standards*, SATMAGAZINE.COM, Oct. 20, 2004, at 19.

<sup>877</sup> Martyn Williams, *Blu-Ray Disc to Support MPEG-4, VC-1*, PCWORLD, Sept. 2, 2004.

<sup>878</sup> Advanced Television Systems Committee, Inc., *ATSC Approves Enhancements to DTV Standard* (press release), July 20, 2004. E-VSB adds additional forward error correction layers to a portion of the data stream, creating a more robust but low payload capacity fallback stream.

<sup>879</sup> Ina Fried, *Comcast Taps Microsoft for Seattle Set Tops*, CNET NEWS.COM, Nov. 8, 2004. For example, Comcast's partnership with Microsoft puts VC-1 capable set-top boxes in subscriber's homes.

<sup>880</sup> See also para. 107 *supra*.

<sup>881</sup> Texas Instruments, *Texas Instruments Brings Live Digital TV to Your Cell Phone* (press release), Oct. 21, 2004.

<sup>882</sup> Junko Yoshida, *Cell Phone Video Gets Real*, EE TIMES, Sept. 20, 2004.

the 1440-1790 MHz band.<sup>883</sup> The service will provide video at 24-30 frames per second, with the first mass deployments expected in 2007.<sup>884</sup>

### 3. Cable Modems

205. Cable modems allow cable subscribers to access high-speed data services, over hybrid fiber-coaxial (HFC) cable plant.<sup>885</sup> Cable operators began offering high-speed data services using cable modems in order to better compete with other providers of video programming, such as DBS, which has not widely deployed two-way facilities-based high-speed Internet access services.<sup>886</sup> High-speed data services provided using cable modems now enable emerging video services such as Internet video and video-on-demand.<sup>887</sup>

206. Cable modem deployment continues to increase, with manufacturers shipping approximately 2.3 million cable modems in North America during the second quarter of 2003.<sup>888</sup> Internet access subscribers using cable modems also continues to increase. By June 2004, there were approximately 18.5 million cable modem subscribers in the United States.<sup>889</sup>

207. **DOCSIS.** We continue to report on the progress of the CableLabs Certified Cable Modem Project (also known as Data Over Cable Service Interface Specification or DOCSIS).<sup>890</sup> DOCSIS defines interface requirements for cable modems used for high-speed data distribution over cable television networks.<sup>891</sup> As a result of this standard, DOCSIS certified modems are compatible with and interchangeable across similarly certified DOCSIS-equipped cable systems.<sup>892</sup> Industry analysts note that DOCSIS is the foundation of essentially all of CableLabs' specification initiatives.

208. The first specification, DOCSIS 1.0, allows cable operators to deliver high-speed Internet services on a "best effort" basis simultaneously over the same plant as video services.<sup>893</sup> To date, CableLabs has certified 241 DOCSIS 1.0 modems.<sup>894</sup> The next specification, DOCSIS 1.1, was designed

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<sup>883</sup> *Id.*

<sup>884</sup> Texas Instruments, *Texas Instruments Brings Live Digital TV to Your Cell Phone* (press release), Oct. 21, 2004.

<sup>885</sup> As described above, cable modem service is primarily residential service, but may also include some small business service. See fn. 137 *supra*. See also *Fourth 706 Report*, 19 FCC Rcd at 20553; See also Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 5-6, 15, 17, 25-27, 32.

<sup>886</sup> See paras. 45-49, 52, 66-7 *supra*.

<sup>887</sup> See paras. 113-119 *supra*.

<sup>888</sup> Kinetic Strategies, *Cable Modem Market Stats & Projections*, CABLE DATACOM NEWS, Sept. 1, 2004, at <http://www.cabledatcomnews.com/cm/cmic/cm16c.html> (visited Sept. 17, 2004).

<sup>889</sup> See High-Speed Service Report at Table 3.

<sup>890</sup> CableLabs, *Cable Modem/DOCSIS: Cable Modem Home*, <http://www.cablemodem.com> (visited Sept. 17, 2004). See Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 5-6, 15, 17, 25-27, 32. See also *Fourth 706 Report*, 19 FCC Rcd at 20553-54; Douglas Shapiro, *CableLabs Financial Analyst Day*, Banc of America Securities, May 20, 2004, at 3-6.

<sup>891</sup> CableLabs, *Cable Modem/DOCSIS: Cable Modem Home*, <http://www.cablemodem.com> (visited Sept. 17, 2004).

<sup>892</sup> *Id.*

<sup>893</sup> Best effort is a term for a quality of service class with no specified parameters and with no assurances that the traffic will be delivered across the network to the target device. Newton's Telecom Dictionary, 17<sup>th</sup> Edition, at 88.

<sup>894</sup> CableLabs, *DOCSIS Certified Products*, at [http://www.cablemodem.com/downloads/Certified\\_Products.pdf](http://www.cablemodem.com/downloads/Certified_Products.pdf) (visited Sept. 17, 2004).

to provide quality of service (QoS) functionality allowing operators to offer such products as IP telephony and tiered services.<sup>895</sup> To date, CableLabs has certified 124 high-speed cable modems that comply with the DOCSIS 1.1 specification.<sup>896</sup> The DOCSIS 2.0 standard is designed to address issues concerning the upstream portion of the cable plant (the transmission from the consumer to the Internet), and allow a network to operate at 30 Mbps capacity in both directions.<sup>897</sup> To date, CableLabs has certified 62 high-speed cable modems that comply with the DOCSIS 2.0 specification.<sup>898</sup> As of September 2004, 403 DOCSIS modems have received certification under DOCSIS.<sup>899</sup> All DOCSIS 2.0 updates are compatible with earlier versions of DOCSIS products.<sup>900</sup>

209. Since our *2003 Report*, CableLabs has discontinued its plan to create a new DOCSIS 2.x specification that would have mandated support for additional features via software upgrades to cable modem equipment.<sup>901</sup> Instead, Cable Labs will add many of the planned features to the existing DOCSIS 2.0 specification through routine “Engineering Change Requests,”<sup>902</sup> and save other changes for the DOCSIS 3.0 specification.<sup>903</sup> DOCSIS 3.0 is a much higher standard that will enable advanced services such as Internet video by making it possible to deliver hundreds of Mbps to a single DOCSIS device.<sup>904</sup>

210. As we reported last year, most operators continue to improve their high-speed Internet access service, increasing data transfer speeds and offering additional tiers of service.<sup>905</sup> Cable operators are also experimenting with lower-priced tiers of service, some for as low as \$25 a month.

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<sup>895</sup> CableLabs, *CableLabs Certifies Two DOCSIS 2.0 Modems* (press release), Aug. 16, 2004. QoS guarantees network bandwidth and availability for applications. Any real-time media needs to be given prioritized traffic management treatment in order to assure the best user-perceived quality. NCTA, *Glossary of Cable & Telecommunications Terms*, CABLE DEVELOPMENTS 2004, at 335.

<sup>896</sup> CableLabs, *DOCSIS Certified Products*, at [http://www.cablemodem.com/downloads/Certified\\_Products.pdf](http://www.cablemodem.com/downloads/Certified_Products.pdf) (visited Sept. 17, 2004).

<sup>897</sup> CableLabs, *CableLabs Certifies Two DOCSIS 2.0 Modems* (press release), Aug. 16, 2004.

<sup>898</sup> CableLabs, *DOCSIS Certified Products*, at [http://www.cablemodem.com/downloads/Certified\\_Products.pdf](http://www.cablemodem.com/downloads/Certified_Products.pdf) (visited Sept. 17, 2004).

<sup>899</sup> *Id.*

<sup>900</sup> CableLabs, *CableLabs Certifies Two DOCSIS 2.0 Modems* (press release), Aug. 16, 2004.

<sup>901</sup> Alan Breznick, *CableLabs Drops DOCSIS 2.x Plans, Eyes DOCSIS 3.0 Spec*, CABLE DATACOM NEWS, Sept. 2004.

<sup>902</sup> An Engineering Change Request (ECR) is the first step in the procedure to change CableLabs specifications. CableLabs posts the proposed change to their website and sends the ECR to a subject area working group mail list for work on the proposed change. CableLabs then posts an Engineering Change Order (ECO) to their website with indication of an ECO Comment Deadline. The final step in the procedure to change specifications is called an Engineering Change Notice (ECN), in which the proposed change is officially considered to be part of the specification that it modifies. CableLabs, *Glossary*, at <http://www.cablelabs.com/news/glossary.html#E> (visited Sept. 17, 2004).

<sup>903</sup> Alan Breznick, *CableLabs Drops DOCSIS 2.x Plans, Eyes DOCSIS 3.0 Spec*, CABLE DATACOM NEWS, Sept. 2004.

<sup>904</sup> *Id.*; Douglas Shapiro, *CableLabs Financial Analyst Day*, Banc of America Securities, May 20, 2004, at 3-6.

<sup>905</sup> See para. 48 *supra*. See also Alan Breznick, *MSOs Boost Data Speeds Again, Add Low-Priced Options*, CABLE DATACOM NEWS, Sept. 2004.

211. **PacketCable.** PacketCable, another CableLabs project, is the specification standard developed for delivering advanced, real-time multimedia services over two-way cable plant.<sup>906</sup> PacketCable uses IP technology to enable a wide range of services, including IP telephony, multimedia conferencing, interactive gaming, and general multimedia applications.<sup>907</sup> As of August 2004, 11 PacketCable-embedded multimedia terminal adapter devices were certified by CableLabs.<sup>908</sup>

#### IV. FOREIGN MARKETS

212. In the *Notice*, the Commission invited comment on the status of competition in foreign markets for the delivery of video programming that would provide insights regarding the nature of competition in the United States.<sup>909</sup> We requested information regarding the differences between the United States and other markets with respect to video programming distribution and advanced services provision that would be instructive as to the efficiency of market structures and regulations within the United States. Although none of the commenters responded to our request for data analysis or case studies of video delivery in foreign markets, we continue to believe that insights may be derived from examining such developments. In this section, we report on some interesting developments in foreign markets, covering video over IP broadband, the digital television transition, and terrestrial, cable and satellite competition, that we find relevant to our examination of video programming in the United States. In particular, we have chosen to examine video provided via IP broadband (also known as IPTV) in Hong Kong, Italy, and the United Kingdom. We also report on the transition to digital television in Germany and the United Kingdom, in order to provide insight into the relative efficiency of market structures and regulations within the United States.

##### A. Video Over IP Broadband

213. As discussed above, a potential source of new video competition is video offered over broadband Internet service.<sup>910</sup> Connection speeds are needed, however, such that standard full-screen viewing is possible. In the densely populated Hong Kong market, Now Broadband TV, a subsidiary of PCCW, the incumbent wireline telecommunications operator in Hong Kong, offers subscribers a service similar to cable and satellite television services using DSL connections on copper phone lines.<sup>911</sup> According to company reports, this 24-hour service has 62 programming channels, distributed as true a la

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<sup>906</sup> Cable Labs, *PacketCable Home*, <http://www.packetcable.com> (visited Sept. 17, 2004). See *Fourth 706 Report*, 19 FCC Rcd at 20554; Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 7-8, 25.

<sup>907</sup> Cable Labs, *PacketCable Home*, <http://www.packetcable.com> (visited Sept. 17, 2004).

<sup>908</sup> CableLabs, *PacketCable Certified Products*, at [http://www.packetcable.com/downloads/Certified\\_Products.pdf](http://www.packetcable.com/downloads/Certified_Products.pdf) (visited Sept. 17, 2004); CableLabs, *PacketCable Qualified Products* [http://www.packetcable.com/downloads/Qualified\\_Products.pdf](http://www.packetcable.com/downloads/Qualified_Products.pdf) (visited Sept. 17, 2004). An embedded multimedia terminal adapter (E-MTA) is a device used to enable voice services over a cable modem.

<sup>909</sup> *Notice*, 19 FCC Rcd at 10933 ¶ 76.

<sup>910</sup> See paras. 113-116 *supra*.

<sup>911</sup> See fn. 514 *supra*. See also *Fourth 706 Report*, 19 FCC Rcd at 20579-20582. In terms of absolute numbers of broadband subscribers, the United States leads the world. See *id.* Chart 13.

carte service with subscribers paying only for the channels they select to watch.<sup>912</sup> As of October 2004, the service had 370,000 subscribers.<sup>913</sup>

214. Another leader, outside of the United States, in the provision of video content over a non-traditional broadband system is the FastWeb/e.Biscom system that provides service in a number of large Italian cities, including Milan, Rome, Genoa, Turin, Naples, and Bologna. The FastWeb/e.Biscom system provides voice, data, and over 120 channels of video service to residential and business customers over a combination of fiber-to-the-home and DSL technology. The DSL technology enables reception speeds of up to 4 Mbps.<sup>914</sup> At the end of June 2004, the system had approximately 151,000 video subscribers, up 116 percent from the previous year.<sup>915</sup> Approximately 43 percent of customers were directly connected to the fiber optic network, with the remaining 57 percent connected via DSL.<sup>916</sup>

215. A basic television subscription is 10 Euros per month (\$12) for mainly free channels, but there is a menu of extra channels and VOD options. Many subscribers take the television service as part of a triple bundle of television, Internet, video conferencing and telephone, which costs 110 Euros per month (\$142). Without television and video communication, the service is 85 Euros/month (\$110). New films on the VOD service cost 6 Euros (\$8) per 24 hours, older movies cost 4 Euros (\$5) per 24 hours.<sup>917</sup>

216. In the United Kingdom, several companies are developing broadband-based video services, spurred on in part by a reduction in the cost of securing unbundled local loop connections.<sup>918</sup> The first provider to enter the UK market was HomeChoice, which offers conventional TV channels, VOD, BBC programming, and highly popular BSkyB sports and movie channels.<sup>919</sup> HomeChoice's network reaches approximately 1.25 million homes through 73 telephone exchanges, but the company is reported to have only 3,300 subscribers.<sup>920</sup> BT has initiated trials of a digital set-top box that allows users to download television programs on pay-per-view basis over broadband, with a projected commercial deployment in summer 2005.<sup>921</sup> Wanadoo UK, a France Telecom subsidiary, plans to launch television

<sup>912</sup> See PCCW Ltd. *Now Broadband TV*, <http://www.nowbroadbandtv.com/eng/> (visited Jan. 14, 2005). See also Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004, at B1; Dan Gillmor, *Future of TV Looks a Lot Like Broadband*, MERCURY NEWS, Dec. 7, 2003.

<sup>913</sup> PCCW Ltd, *Now Broadband TV Wins CASBAA Chairman's Award* (press release), Oct. 31, 2004.

<sup>914</sup> Between 1.5 Mbps and 3.8 Mbps are thought to be necessary for good standard definition picture quality.

<sup>915</sup> E.Biscom, *Revenues Rise 77% in the First Half of 2004 to Euro 336.7 Million* (press release), Aug. 27, 2004.

<sup>916</sup> *Id.*

<sup>917</sup> See e.Biscom, <http://www.ebiscom.it/index.php?sid=64> (visited Oct. 10, 2004).

<sup>918</sup> See United Kingdom Office of Communications, *Ofcom Publishes Wholesale Price Proposals for Competitive Broadband Market* (press release), Aug. 26, 2004. Ofcom initiated its price review in May 2004. The final price adjustments are expected to take place in December 2004. *Id.* See also United Kingdom Office of Communications, *Review of the Wholesale Local Access Market Explanatory Statement and Notification*, Aug. 26, 2004, at <http://www.ofcom.org.uk/consult/condocs/rwlam/rwlam/> (visited Jan. 14, 2005).

<sup>919</sup> See United Kingdom Office of Communications, *The Communications Market – October 2004 Quarterly Update (Ofcom Report)*, at 46. HomeChoice offers approximately 80 channels of broadcast and on demand programming. The company offers service packages priced according to the download speed of the service: 512 Kbps (£27.50 per month, or \$51.00), 1 Mbps (£35.00 per month, or \$65.00), or 2 Mbps (£45.00 per month, or \$83.00). See Video Networks Ltd., *Home Choice*, [http://www.homechoice.co.uk/our\\_tv\\_broadcast.html](http://www.homechoice.co.uk/our_tv_broadcast.html) (visited Dec. 3, 2004).

<sup>920</sup> *Id.*

<sup>921</sup> Graeme Weardon, *BT Video Trials to Fuel Broadband Speed Race*, ZDNet UK, Sept. 20, 2004. BT was granted a broadcasting license in March 2002, giving it the right to transmit television and video in the UK. *Id.* The set-top boxes are an enhanced version of BT's Freeview set-top boxes which receive digital terrestrial television signals. *Ofcom Report* at 46. See also Sean Byrne, *BT Trials a Video-On-Demand Service Over Broadband*, CD

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and VOD services on its broadband platform sometime in 2005 using a wireless broadband gateway platform.<sup>922</sup> Finally, Ofcom, the UK communications regulator, has proposed to create a new “Public Service Publisher,” which would distribute public interest programming, of the type presently required of the BBC, in a digital format through broadband networks, networked DVRs, and mobile networks.<sup>923</sup>

217. Other incipient DSL-based video service offerings have been started in such places as Taipei, Taiwan; Monaco; Saskatchewan, Canada; Stavanger, Norway; and Canberra, Australia.<sup>924</sup> Notwithstanding these efforts, video over DSL faces a number of serious obstacles, including lack of technical standards, entrenched competition from cable, satellite, and digital terrestrial television,<sup>925</sup> the lack of a well developed business model, and difficulties in obtaining rights to distribute programming because of intellectual property and digital copyright issues.<sup>926</sup>

## B. Digital Television Transition in Foreign Markets

218. Several European countries are switching from analog to digital transmission.<sup>927</sup> There are operational platforms in the United Kingdom, Sweden, Spain, Finland, Netherlands, and Italy. France, Switzerland, Austria and Norway are expected to initiate digital television transitions beginning in 2005.<sup>928</sup> Generally, European regulatory authorities plan to switch off analog broadcast transmissions between 2006 and 2012.<sup>929</sup> For an overview of overall foreign markets’ transition to digital platforms, including terrestrial, cable and satellite, see Table 7.

219. In our last *Report* we noted the successful completion of the digital television broadcasting transition in the Berlin-Brandenburg television market in Germany. This experience was the subject of a subsequent report issued by the General Accountability Office (formerly the General Accounting Office).<sup>930</sup> Over the course of the last year, further geographic “islands” of analog terrestrial

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FREAKS.COM, Sept. 21, 2004; John Delaney, *TV and Video Over Broadband: BT May be Setting the Bar Too High*, Ovum Research, Sept. 1, 2004.

<sup>922</sup> *Ofcom Report* at 46. See also Wanadoo, *Wanadoo Launches LiveBox* (press release), July 19, 2004.

<sup>923</sup> United Kingdom Office of Communications, *Hypothetical Tender Document for a Public Service Publisher*, Nov. 3, 2004, at <http://www.ofcom.org.uk/consultations/current/psp/psp.pdf?a=87101> (visited Dec. 3, 2004).

<sup>924</sup> See, e.g., Point Topic Ltd., *Video-on-Demand*, at <http://www.point-topic.com/content/bmm/profiles/video+on+demand.htm>; Kevin Fitchard, *Canadian Telcos Pave Road to Telco TV*, TELEPHONY, Oct. 11, 2004.

<sup>925</sup> Generally, throughout Europe, the term “terrestrial” is used to refer to over-the-air analog and digital broadcasting. For example, to describe new digital broadcasting, most European countries refer to digital terrestrial television, or DTT, whereas in the United States we use the term digital television or DTV.

<sup>926</sup> Vince Vittore, *Video Over DSL: Loud But Not Clear*, TELEPHONY, Mar. 8, 2004; Research and Markets, *Tough Challenges Ahead for Europe’s Video-Over Broadband Providers*, June 2004, at <http://www.researchandmarkets.com/reports/219736/> (visited Dec. 4, 2004); Amber Chung, *Video Offerings the Next Star Attraction for ISPs*, TAIPEI TIMES, June 24, 2004, at 10; *European Video-Over-Broadband Arrives, Profits Lag Behind*, ELECTRONIC NEWS, Aug. 6, 2004.

<sup>927</sup> See, e.g., Eric Pfanner, *Will Digital TV Hit Jackpot in Europe? Stay Tuned*, INTERNATIONAL HERALD TRIBUNE, Nov. 1, 2004.

<sup>928</sup> Alexander Shulzycki, *DTV in Europe: Overview and Assessment*, Presentation to DigiTAG Seminar, Oct. 2004, at <http://www.digitag.org/lateupdate/globupdate.htm> (visited Jan. 14, 2005) (*Shulzycki Presentation*).

<sup>929</sup> *Id.* at 3. See also *Teething Troubles for DTT in Europe*, European Broadcasting Union, DIFFUSION, 2004, at <http://www.ebu.ch/en/union/publications/diffusion/index.php> (visited Dec. 3, 2004).

<sup>930</sup> U.S. General Accounting Office, *German DTV Transition Differs From US Transition in Many Respects, But Certain Key Challenges are Similar*, GAO-04-926T (July 2004).

television have completed the transition process in Germany. This experience, and the apparent ease with which the population accepted it, has triggered a search for lessons that might be transferred to the United States.

220. At the outset, it is obvious that there are significant differences in market and regulatory conditions that suggest that the German transition cannot be immediately or entirely replicated within the U.S. First, the German market does not distribute high-definition programming content, and thus the digital conversion results in more programming becoming available rather than higher quality versions of the same programming. Second, satellite service, beyond the initial cost of the reception equipment, is essentially free of direct charges for a significant quantity of programming and thus is for many a ready substitute for terrestrial service. Third, digital to analog conversion equipment (set-top-boxes) could be made readily available in Germany at a reasonably low cost due to the absence of any need to convert HD service content and the existing market for very similar devices elsewhere in Europe (*e.g.*, U.K.). And fourth, providers of terrestrial broadcast content do not have their own distribution facilities (either terrestrial transmitters, cable or satellite) and must, subject to governmental carriage regulations, arrange for each mode of distribution.<sup>931</sup>

221. Notwithstanding these critical differences, the ability of the German DTV transition to move forward may share with the U.S. the fact that members of the public already receiving either cable or satellite service could continue to receive either analog or digital service after the transition without significant disruption. Prior to the Berlin-Brandenburg transition, members of the public in the area each received a letter from the local media authority responsible for the transition that included the following language:

Therefore, most important for everyone is: Those affected by the change are only households that receive their television programming using an antenna, roof-top antennas or room antennas. Households that exclusively receive television via cable or satellite (also via secondary or tertiary devices) are not affected.<sup>932</sup>

222. In the United Kingdom, digital television penetration was estimated to have reached over 55 percent of households by the end of June 2004, thus making the UK the most highly penetrated digital television market in the world.<sup>933</sup> The principal driver of digital television penetration is Freeview, a free service allowing the reception of 30 digital broadcast channels, which accounts for close to four million of the total 13.7 million digital households.<sup>934</sup> Nevertheless, the UK government has determined that market forces alone would not be sufficient to compel consumers to switch to digital service and thus

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<sup>931</sup> For a detailed discussion of Berlin's experience, see Berlin Media Authority, *Berlin Goes Digital: The Switchover of Terrestrial Television from Analogue to Digital Transmission in Berlin-Brandenburg – Experiences and Perspectives*, at [http://www.mabb.de/bilder/Projektbericht\\_engl.pdf](http://www.mabb.de/bilder/Projektbericht_engl.pdf) (visited Jan. 14, 2005). See also Oliver Werner, Alfred Riedel and Stefan Wirts, *Switchover – the German Approach*, EBU TECHNICAL REVIEW, Oct. 2004; Ed Wilson, *Digital Terrestrial Television Rollout in Europe: Case Study – Germany*, Presentation to DigiTAG Seminar, Oct. 2004, at <http://www.digitag.org/lateupdate/globupdate.htm> (visited Jan. 14, 2005).

<sup>932</sup> Letter to television viewers from Dr. Hans Hege, Director for the Media Institute Berlin-Brandenburg.

<sup>933</sup> *Ofcom Report* at 45.

<sup>934</sup> Alan Jay, *55% of UK Households Receive Digital Television*, DIGITAL SPY, Sept. 17, 2004, at <http://www.digitalspy.co.uk/article/ds15789.html> (visited Jan. 14, 2005). The remaining digital households are cable and satellite subscribers. Freeview requires a set-top box that connects to existing televisions and analog antennas, and which retails for approximately £60 (\$111), but there is no subscription fee once installed. See Freeview, at <http://www.freeview.co.uk/> (visited Jan. 14, 2005).

instituted a formal process towards that end, expected sometime in 2012.<sup>935</sup> In March 2004, Finland adopted an analog to digital transition plan whereby all television broadcast transmissions would convert to digital by August 2007.<sup>936</sup> The transition is being conducted on a geographic basis, with major cities converting first and, by the end of 2004, approximately 94 percent of the Finnish population will live within range of the digital broadcast network.<sup>937</sup> Following a failed attempt to launch a pay model for digital television, Spain has launched a new effort to transition to digital using the Freeview model presently finding success in the UK. In July 2004, free digital television service was launched in the Maresme region near Barcelona, covering approximately 170,000 homes and delivering four digital channels and an interactive channel.<sup>938</sup> Sweden launched digital terrestrial television in 1999, and it is available to 90 percent of the 4.2 million Swedish households, but penetration stands at approximately 300,000 television households.<sup>939</sup> In March 2004, Sweden adopted legislation establishing a February 2008 deadline for its analog to digital transition.<sup>940</sup>

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<sup>935</sup> See United Kingdom Office of Communications, *Driving Digital Switchover: A Report to the Secretary of State*, Apr. 5, 2004. Switch overs are expected to take place on a regional basis and will begin in 2007. The bulk of switchovers are expected between 2008 and 2011. See Richard Lindsay-Davies, Director of Public Affairs of DTG UK, Presentation to the DigiTAG Seminar, October 2004.

<sup>936</sup> See Digitv.fi, *Parliamentary Working Group: Finland Will Switch Over to Digital Television in 2007* (press release), Dec. 8, 2003.

<sup>937</sup> For detailed information on the roll-out of the digital broadcast network, see Digitv.fi, Digital TV Coverage Area, at <http://www.digitv.fi/sivu.asp?path=9;4710> (visited Jan. 14, 2005). Finland has approximately 2.4 million television households. See Digitv.fi, *Introduction to Digital Finish Digital Terrestrial Television*, Sept. 2004, at <http://www.digitv.fi/binary.asp?page=4644&file=attachments\2004\9\1134146118891\Digitv%20stationary.pdf> (visited Jan. 14, 2005).

<sup>938</sup> *Shulzycki Presentation* at 8.

<sup>939</sup> *Id.* at 6 and 11.

<sup>940</sup> Per Mellberg, *Swedish DTT Roll-Out*, Presentation to DigiTAG Seminar, October 2004, at <http://www.digitag.org/lateupdate/globupdate.htm> (visited Jan. 14, 2005). See also Christina Jutterstrom, Lisa Soderberg, Christina Bjork, *Digital in Sweden*, DIFFUSION, 2004, at <http://www.ebu.ch/en/union/publications/diffusion/index.php> (visited Jan. 14, 2005).

Table 7: Digital TV Households by Platform in Selected Countries in 2003<sup>941</sup>

Country	Total TV HHs	Total Digital TV HH		Cable Digital TV HH		Satellite Digital TV HH		Over-the-Air Digital TV HH	
	(mil.)	(mil.)	Percent	(mil.)	Percent	(mil.)	Percent	(mil.)	Percent
Australia <sup>942</sup>	7.8	0.41	5.25%	-		-		-	
Austria	3.2	0.55	17.1%	0.05	1.6%	0.5	15.5%	0	0.0%
Belgium	4.2	0.18	4.3%	0.16	3.8%	0.02	0.5%	0	0.0%
Canada <sup>943</sup>	11.1	4.11	37.02%	2.12	19.1%	1.99	17.8%	No data	<0.1%
Denmark	2.3	0.35	15.5%	0.08	3.5%	0.27	11.9%	0	0.0%
Finland	2.3	0.21	9.2%	0.02	0.9%	0.1	4.4%	0.09	3.9%
France	24.4	4.62	18.9%	0.92	3.8%	3.7	15.2%	0	0.0%
Germany	36.6	5.16	14.1%	1.63	4.5%	3.15	8.6%	0.38	1.0%
Greece	3	0.25	8.4%	0	0.0%	0.25	8.4%	0	0.0%
Ireland	1.3	0.46	35.1%	0.1	7.6%	0.36	27.4%	0	0.0%
Italy	20.9	2.85	13.6%	0	0.0%	2.85	13.6%	0	0.0%
Japan <sup>944</sup>	48.5	12.17	25.1%	4.0	8.24%	6.2	12.8%	No data	No data
Luxembourg	0.2	0.01	5.3%	0	1.0%	0.01	4.2%	0	0.0%
Netherlands	7.1	0.69	9.7%	0.11	1.6%	0.55	7.8%	0.03	0.4%
Portugal	3.1	0.51	16.2%	0.02	0.6%	0.49	15.6%	0	0.0%
Spain	12.6	2.38	18.9%	0.15	1.2%	2.06	16.4%	0.17	1.3%
Sweden	4.5	1.25	28.0%	0.17	3.8%	0.88	19.7%	0.2	4.5%
U.K.	24.4	13.14	53.8%	2.29	9.4%	8.04	32.9%	2.81	11.5%
U.S. <sup>945</sup>	106.6	41.75	40.0%	21.5	20.2%	20.25	19.0%	0.85	0.8%

### C. Terrestrial, Cable, and Satellite Competition

223. In contrast to the United States, the majority of European households continue to receive television by terrestrial means, with 46 percent receiving television via terrestrial means only, 32 percent receiving it via cable only, and 13 percent receiving it via satellite only. Greece has the highest terrestrial penetration rate, with 94 percent, followed by Spain at 83 percent, and Italy at 78 percent. In terms of cable penetration, Netherlands maintains the highest penetration, at 93 percent of households, followed by Belgium at 90 percent and Luxemburg at 70 percent. Greece has no cable penetration. Germany maintains the highest satellite penetration of households, reaching 38 percent, followed by Austria at 33 percent and the United Kingdom at 19 percent. Finally, seven percent of EU households overall receive programming by some combination of terrestrial, cable and satellite.

<sup>941</sup> Unless otherwise noted, data is from Commission of the European Communities, *Ninth Report on the Implementation of the Telecommunications Regulatory Package*, Nov. 19, 2003, Technical Annex 1, at 100.

<sup>942</sup> Data for Australia is from *Digital Broadcasting Australia Newsletter*, Sept.-Oct. 2004, at <http://www.dba.org.au/newsletter/ib-sepoc04-full>.

<sup>943</sup> Data for Canada is from *the CRTC Broadcasting Monitoring Report*, Dec. 2003 (digital cable TV includes MDS subscribers); total TV households from ITU statistics.

<sup>944</sup> Data for Japan is from *Digiworld 2003: The European Way to Think the Digital World* (2004), at 114.

<sup>945</sup> Total television household and cable household data for the United States is from *NCTA 2003 Year-end Industry Overview*, at 6. Satellite household data is from *2003 Report*, 19 FCC Rcd at 1718. Over the air digital households data is based on the Consumer Electronics Association estimate for the number of DTV receivers sold to date.

Table 8. Television and Means of Reception – 2003 - 2004<sup>946</sup>

	Percent of Terrestrial Only HH		Percent of Cable Only HH		Percent of Satellite Only HH		Percent of HH with Two or More		Percent of HH with None at all	
	2003	2004	2003	2004	2003	2004	2003	2004	2003	2004
<b>EU Average</b>	47	46	32	32	12	13	7	7	2	2
<b>Austria</b>	19	14	34	37	32	33	11	13	2	1
<b>Belgium</b>	2	3	92	90	2	2	1	2	2	3
<b>Denmark</b>	19	16	66	68	3	6	10	9	2	2
<b>Finland</b>	52	46	30	42	9	3	4	2	4	5
<b>France</b>	72	65	10	11	9	12	6	8	3	4
<b>Germany</b>	7	5	56	53	32	38	4	2	1	2
<b>Greece</b>	94	94	0	0	2	2	4	3	1	1
<b>Ireland</b>	36	33	42	43	12	15	8	6	1	3
<b>Italy</b>	80	78	3	4	5	6	9	8	2	2
<b>Luxembourg</b>	5	6	69	70	16	15	8	9	1	1
<b>Netherlands</b>	3	2	90	93	3	3	3	2	1	1
<b>Portugal</b>	62	65	31	28	5	5	2	2	0	0
<b>Spain</b>	81	83	7	6	6	2	6	8	0	0
<b>Sweden</b>	27	25	47	51	9	11	13	10	3	2
<b>U.K.</b>	52	49	14	13	17	19	16	16	1	2

## V. ADMINISTRATIVE MATTERS

224. This *2004 Report* is issued pursuant to authority contained in sections 4(i), 4(j), 403, and 628(g) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 403, and 548(g).

225. It is ORDERED that the Office of Legislative Affairs shall send copies of the *2004 Report* to the appropriate committees and subcommittees of the United States House of Representatives and the United States Senate.

226. It is FURTHER ORDERED that the proceeding in MB Docket No.04-227 IS TERMINATED.

<sup>946</sup> Data is from Ispos, Telecoms Services Indicators, Report Produced for the European Commission, DG Information Society 2004.

227. *Accessible Formats.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an e-mail to [fcc504@fcc.gov](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary

**APPENDIX A****LIST OF COMMENTERS****Initial Comments**

The America Channel  
American Cable Association (ACA)  
BellSouth Corporation (BellSouth)  
Broadband Service Providers Association (BSPA)  
City of Weston, Florida and the Town Foundation, Inc. (Weston)  
Comcast Corporation (Comcast)  
Consumer Electronics Association (CEA)  
The DIRECTV Group, Inc. (DIRECTV)  
EchoStar Satellite L.L.C. (EchoStar)  
Fox Cable Networks Group (Fox)  
National Association of Telecommunications Officers and Advisors and the Alliance for Community Media (NATOA)  
National Association of the Deaf (NAD)  
National Cable & Telecommunications Association (NCTA)  
National Rural Telecommunications Cooperative (NRTC)  
National Telecommunications Cooperative Association (NTCA)  
New Jersey Board of Public Utilities (New Jersey)  
Paxson Communications Corporation (Paxson)  
RCN Corporation (RCN)  
Satellite Broadcasting and Communications Association (SBCA)  
SBC Communications, Inc. (SBC)  
SES Americom, Inc. (SES)  
The Verizon Telephone Companies (Verizon)

**Reply Comments**

Advocate Communications, Inc. d/b/a Advanced Communication (Advocate)  
The America Channel  
Broadband Service Providers Association (BSPA)  
Comcast Corporation (Comcast)  
Consumers Union  
The DIRECTV Group, Inc. (DIRECTV)  
EchoStar Satellite L.L.C. (EchoStar)  
Gemstar-TV Guide International, Inc. (Gemstar)  
National Association of Broadcasters (NAB)  
National Association of Telecommunications Officers and Advisors and the Alliance for Community Media (NATOA)  
National Cable & Telecommunications Association (NCTA)  
Organization for the Promotion and Advancement of Small Telecommunications Companies (OPASTCO)  
Paxson Communications Corporation (Paxson)  
Telecommunications for the Deaf, Inc. (TDI)  
TiVo Inc.  
The Verizon Telephone Companies (Verizon)  
Viacom  
The Walt Disney Company (Disney)

## APPENDIX B

TABLE B-1

Assessment of Competing Technologies<sup>(i)</sup>

Technology Used	June 00	June 01	June 02	June 03	June 04
(1) TV Households	100,801,720	102,184,810	105,444,330	106,641,910	108,410,160
Percent Change	1.41%	1.37%	3.19%	1.14%	1.66%
(2) MVPD Households <sup>(ii)</sup>	82,973,717	86,062,074	87,562,641	89,772,191	92,295,766
Percent Change	4.38%	3.72%	1.74%	2.52%	2.81%
Percent of TV Households	82.31%	84.22%	83.04%	84.18%	85.14%
(3) Cable Subscribers	66,250,000	66,732,000	66,472,000	66,050,000 <sup>(i)</sup>	66,100,000
Percent Change	1.51%	0.73%	-0.39%	-0.63%	0.08%
Percent of MVPD Total	79.84%	77.54%	75.91%	73.58%	71.62%
(4) MMDS Subscribers	700,000	700,000	490,000	200,000	200,000
Percent Change	-14.74%	0.0%	-30.00%	-59.18%	0.00%
Percent of MVPD Total	0.84%	0.81%	0.56%	0.22%	0.22%
(5) SMATV Subscribers	1,500,000	1,500,000	1,600,000	1,200,000	1,100,000
Percent Change	3.45%	0.0%	6.67%	-25.00%	-8.33%
Percent of MVPD Total	1.81%	1.74%	1.83%	1.34%	1.19%
(6) HSD Subscribers	1,476,717	1,000,074	700,641	502,191	335,766
Percent Change	-17.20%	-32.28%	-29.94%	-28.32%	-33.14%
Percent of MVPD Total	1.78%	1.16%	0.80%	0.56%	0.36%
(7) DBS Subscribers	12,987,000	16,070,000	18,240,000	20,360,000	23,160,000
Percent Change	28.86%	23.74%	13.50%	11.62%	13.75%
Percent of MVPD Total	15.65%	18.67%	20.83%	22.68%	25.09%
(8) OVS Subscribers <sup>(iii)</sup>	60,000	60,000	60,000		
Percent Change	0.00%	0.00%	0.00%		
Percent of MVPD Total	0.07%	0.07%	0.07%		
(9) BSP Subscribers <sup>(iv)</sup>				1,460,000	1,400,000
Percent Change				N/A	-4.11%
Percent of MVPD Total				1.63%	1.52%

**Notes:**

- (i) Some numbers have been rounded, and we have revised a number of the household and subscriber numbers based on improved data sources and to make consistent our use of data sources. In particular, we revised the 2003 Cable Subscriber number downward in order to allow consistent use of a source throughout the series.
- (ii) The total number of MVPD households is likely to be somewhat less than the given figure since some households subscribe to the services of more than one MVPD. See *1994 Report*, 9 FCC Rcd at 7480. However, the number of households subscribing to more than one MVPD is expected to be low. Hence the given total can be seen as a reasonable estimate of the number of MVPD households.
- (iii) Beginning in 2003, we combined OVS subscribers with BSP subscribers. We are no longer therefore, reporting a separate number for OVS subscribers.
- (iv) This number includes some, if not all, OVS subscribers, and may double count some cable subscribers from newer cable overbuild systems. We started reporting this number last year and thus we do not have

subscribers for years previous to 2003. Obviously, the number did not increase from nothing, or 60,000 (the OVS subscribers) to 1.4 million in one year, but we lacked data to estimate the number previous to 2003.

**Sources:**

- (1) Television households: All years, *Nielsen Media Research*.
- (2) Total MVPD households: The sum of the total number of subscribers listed under each of the categories of the various technologies. See note (ii) above.
- (3) Cable subscribers: All years, Kagan Research, LLC, *Kagan's 10-Pay TV Subscriber History*, Broadband Cable Financial Databook 2004, July 2004, at 9.
- (4) MMDS subscribers: 2000 from NCTA Comments for the *2000 Report* at 9; 2001 from NCTA Comments for the *2001 Report* at 7; 2002 from NCTA Comments for the *2002 Report* at 12; 2003 from NCTA Comments for the *2003 Report* at 8; 2004 from NCTA Comments at 7, fn. 12.
- (5) SMATV subscribers: 2000 subscribers from NCTA Comments for the *2000 Report* at 9; 2001 subscribers from NCTA Comments for the *2001 Report* at 9; 2002 subscribers from NCTA Comments for the *2002 Report* at 12; 2003 subscribers from NCTA Comments for the *2003 Report* at 8; 2004 subscribers from NCTA Comments at 7, fn. 12.
- (6) HSD subscribers: 2000 from SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm); 2001 from SBCA Comments for the *2001 Report*, Table 1 at 4; 2002 from SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm); 2003 from SBCA Comments for the *2003 Report* at 4; 2004 from para. 64 *supra*.
- (7) DBS subscribers: 2000 from SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm); 2001 from SBCA Comments for the *2001 Report*, Table 1 at 4; 2002 from SkyReport.com at [http://www.skyreport.com/dth\\_us.htm](http://www.skyreport.com/dth_us.htm); 2003 from SBCA Comments for the *2003 Report* at 4; 2004 from paras. 54-55 *supra*.
- (8) BSP subscribers: 2003 subscribers from NCTA Comments for the *2003 Report* at 8; 2004 Subscribers from BSPA Comments at 6 and FCC estimates.

TABLE B-2

**Number and Subscriber Size of Major Cable System Clusters  
(Cumulative Figures)**

Range of Clustered Subscribers (thousands)	2000		2001		2002		2003	
	Clusters	Subscribers (millions)						
100-199	26	3.6	30	4.3	31	4.5	34	4.9
200-299	13	3.2	17	4.2	18	4.4	18	4.4
300-399	22	7.4	18	6.1	21	7.1	17	5.7
400-499	13	5.9	10	4.4	10	4.4	10	4.4
>500	34	34.3	32	33.3	29	31.0	29	34.3
<b>Total</b>	108	54.4	107	52.3	109	51.3	1088	53.6

**Sources:**

2000 from Kagan World Media, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2001 at 36; 2001 from Kagan World Media, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2002 at 38; 2002 from Kagan World Media, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2003, at 39; and 2003 from Kagan Research, LLC, *Major Cable TV Systems/Clusters*, Broadband Cable Financial Databook 2004, at 39-40.

TABLE B-3

2004 Concentration in the National Market for Purchase of Video Programming<sup>(1)</sup>

Rank	Company	Percent of Subscribers <sup>(2)</sup>
1	Comcast	23.37
2	DirecTV	12.10
3	Time Warner	11.87
4	EchoStar	10.63
<b>Top 4</b>		57.97
5	Cox	6.92
6	Charter	6.73
7	Adelphia	5.88
8	Cablevision	3.19
<b>Top 8</b>		80.69
9	Bright House	2.37
10	Mediacom	1.66
<b>Top 10</b>		84.72
<b>Top 25</b>		90.41
<b>Top 50</b>		92.32
	<b>HHI</b>	1097 <sup>(3)</sup>

**Notes:**

- (1) MSO subscriber totals as of March 2004, and reported in Top Cable System Operators as of March 2004, Kagan World Media, *Cable TV Investor*, July 29, 2004, at 16-17. There is no double counting of subscribers. If a cable operator is partially owned by more than one MSO, its subscribers are assigned to the largest MSO. Subscribers for DirecTV and EchoStar are based on the company's 10-Q filings.
- (2) The total number of MVPD subscribers used to calculate the HHI is 92,295,766 from Table B-1. This figure is for June 2004, whereas individual company subscriber total come from March. As a result, 1097 probably is slightly higher than the HHI in March.
- (3) The HHI is calculated on the basis of market shares for the top 65 companies. Because all of the remaining MVPDs have very small shares of the market, an HHI calculation that included all cable system operators could only be slightly higher (no more than 2-3 points) than the given HHI.
- (4) Due to a revision of cable and MVPD subscribers for 2003, the market shares of some of the top providers, particularly DirecTV and EchoStar, may have appeared to have shrunk, when, in fact, they grew since last year.

TABLE B-4

**Concentration in the National Market for the Purchase of Video Programming  
2001-2004\***

Market Share	Percent of MVPD Subscribers			
	2001	2002	2003	2004
Top Share	16.44	14.75	23.80	23.37
Top 2	30.79	29.04	36.72	35.47
Top 3	42.11	41.03	48.90	47.34
Top 4	51.64	50.48	58.71	57.97
Top 10	84.29	84.44	85.94	84.72
Top 25	89.70	90.26	91.72	90.41
Top 50	91.38	92.05	93.65	92.32
HHI	905	884	1134	1097

\* -- Reported statistics for 2001-2003 are based on June data. For 2004, March data were used since June data are unavailable.

**Sources:**

Data for 2001 through 2002 were taken from *Reports, 2001-2002*. Data for 2003 have been revised to use consistent data sources. Data for 2004 are from Table B-3.

## APPENDIX C

TABLE C-1

**National Video Programming Services  
Affiliated With One or More Cable MSO**

Programming Service	Launch Date	MSO Ownership (%)
Action Max	Aug-80	Time Warner (100)
American Movie Classics (AMC)	Oct-84	Cablevision (60)
Animal Planet	Oct-96	Cox (25), Advance Newhouse (25)
@Max	May-01	Time Warner (100)
Boomerang		Time Warner (100)
Cartoon Network	Oct-92	Time Warner (100)
Cinemax	Jun-98	Time Warner (100)
CNN	Jun-80	Time Warner (100)
CNN En Español	Mar-97	Time Warner (100)
CNN Headline News	Jan-82	Time Warner (100)
CNN International	Jan-95	Time Warner (100)
Court TV	Jul-91	Time Warner (50)
Discovery Channel	Jun-85	Cox (25), Advance Newhouse (25)
Discovery En Español	Oct-98	Cox (25), Advance Newhouse (25)
Discovery Health Channel	Jul-98	Cox (25), Advance Newhouse (25)
Discovery HD Theatre	Jun-02	Cox (25), Advance Newhouse (25)
Discovery Home Channel	Oct-96	Cox (25), Advance Newhouse (25)
Discovery Kids Channel	Oct-96	Cox (25), Advance Newhouse (25)
Discovery Times	Oct-96	Cox (12.5), Advance Newhouse (12.5)
Discovery Wings: The Aviation and Adventure Network	Jul-98	Cox (25), Advance Newhouse (25)
E! Entertainment	Jun-90	Comcast (60.5)
5StarMax	May-02	Time Warner (100)
FITTV	Jan-04	Cox (25), Advance Newhouse (25)
Fuse	Jul-94	Cablevision (60)
Fuse On Demand	Jun-03	Cablevision (60)
G4techTV	Jun-02	Comcast (83.5)
Golf Channel	Jan-95	Comcast (99.85)

Programming Service	Launch Date	MSO Ownership (%)
HBO (Home Box Office)	Nov-72	Time Warner (100)
HBO 2	Oct-98	Time Warner (100)
HBO Comedy	May-99	Time Warner (100)
HBO Family	Oct-98	Time Warner (100)
HBO Latino	Nov-00	Time Warner (100)
HBO Signature	Oct-98	Time Warner (100)
HBO Zone	May-99	Time Warner (100)
iN Demand 35 multiplexed channels	Nov-85	Comcast (54.1), Time Warner (30.3), Cox (15.6)
iN Demand HD1	Sep-03	Comcast (54.1), Time Warner (30.3), Cox (15.6)
iN Demand HD2	Sep-03	Comcast (54.1), Time Warner (30.3), Cox (15.6)
Independent Film Channel	Sep-94	Cablevision (60)
International Channel	Jul-90	Comcast (100)
MoreMAX	Jun-98	Time Warner (100)
Outdoor Life Network	Jul-95	Comcast (100)
OuterMax	May-01	Time Warner (100)
Ovation: The Arts Network	Apr-96	Time Warner (5.1)
Science Channel	Oct-96	Cox (25), Advance Newhouse (25)
Source Suite	Nov-93	Insight Communications (100)
Style	Oct-98	Comcast (60.5)
TBS	Dec-76	Time Warner (100)
TLC (The Learning Channel)	Nov-80	Cox (25), Advance Newhouse (25)
Thriller Max	Jun-98	Time Warner (100)
TNT (Turner Network Television)	Oct-88	Time Warner (100)
Travel Channel	Feb-87	Cox (25), Advance Newhouse (25)
TCM (Turner Classic Movies)	Apr-94	Time Warner (100)
TV One	Jan-04	Comcast (38.8)
WE	Jan-97	Cablevision (60)
WMAX	May-01	Time Warner (100)

**Sources:**

NCTA, *Directory of Program Services*, Cable Developments 2004, at 43-206.  
COLUMBIA JOURNALISM REVIEW, <http://www.cjr.org/tools/owners/timewarner.asp> (visited July 20, 2004).  
American Cable Association Comments at 10, 12.  
Comcast Comments at 24-28; Reply Comments at 11.  
Time Warner Co., <http://www.timewarner.com> (visited Sept. 14, 2004).  
Cartoon Network, <http://www.schedule.cartoonnetwork.com> (visited Sept. 20, 2004).  
Liberty Media Corporation, *Liberty Media and Comcast Complete Exchange of Liberty Shares for Programming Assets and Approximately \$545 Million* (press release), July 28, 2004.  
Comcast, *Comcast Agrees to Purchase TechTV* (press release), March 25, 2004.  
New York Times, <http://www.nytc.com/subsites/nyttv/about-dtc.html> (visited Dec. 16, 2004).  
*Cable*, COMM. DAILY, July 26, 2004, at 6.  
*Discovery Communications*, THE WASHINGTON POST, Nov. 15, 2004, at E2.

TABLE C-2

**National Video Programming Services  
Not Affiliated With a Cable MSO**

Programming Service	Launch Date
A&E (Arts & Entertainment)	Feb-84
ABC Family	Apr-77
ACNTV (America's Collectibles Network)	Oct-93
AIT (African Independent Television)	2003
America's Store	Sep-86
ANA Television Network	Dec-91
Anime Network	Dec-02
AYM Sports	Nov-03
Bandamax	May-03
ART (Arab Radio & Television)	1999
BBC America	Mar-98
BET (Black Entertainment Television)	Jan-80
BET Gospel	Jul-02
BET Hip Hop	Jul-02
BET Jazz: The Jazz Channel	Jan-96
Biography Channel	Nov-98
Black Family Channel (formerly MBC Network)	Nov-99
Black STARZ!	Feb-97
Bloomberg Television	Jan-95
B Mania	Nov-00
Boston Kids & Family TV	Oct-03
Bravo	Dec-80
Bridges TV	Nov-04
Buzztime Entertainment	1984
Canal 24 Horas	Jun-99
CCTV-4 (China Central Television)	1995
Celtic Vision	1995
Channel One Russian Worldwide Network	2003
Chronicle DTV	Jan-03

Programming Service	Launch Date
Church Channel	Jan-02
Cine Latino	Jun-94
Classic Arts Showcase	May-94
CMT (Country Music Television)	Mar-83
CNBC	Jul-89
CNBC World	Apr-89
CNC Columbia	May-99
College Entertainment Network	Jan-97
Comedy Central	Apr-91
Crime Channel	Jul-96
C-SPAN*	Mar-79
C-SPAN2*	Jun-86
C-SPAN3*	Sep-97
CSTV (College Sports Television)	Apr-03
CTI Zhon Tian Channel (formerly Power TV Zhon Tian Channel)	1995
Daystar Television Network	Dec-98
De Pelicula	May-03
De Pelicula Classico	May-03
Deep Dish TV	Jan-86
Destiny Channel	Dec-98
Disney Channel	Apr-83
DIY (Do-It-Yourself Network)	Dec-94
Dream Network	Dec-94
Ecology Communications	Nov-94
Encore	Apr-91
Encore HD	Mar-04
Encore Action	Sep-94
Encore Love Stories	Jul-94
Encore Mystery	Jul-94
Encore True Stories	Sep-94
Encore WAM! America's Youth Network	Sep-94
Encore Westerns	Jul-94
ESPN	Sep-79
ESPN Classic	May-95

Programming Service	Launch Date
ESPN Deportes	Jan-04
ESPN2	Oct-93
ESPN HD	Mar-03
ESPNEWS	Nov-96
EWTN: Global Catholic Network	Aug-81
Familyland Television Network	Nov-99
Family Net	May-00
Filipino Channel (ABS-CBN)	Feb-98
Fine Living	Mar-02
Flix	Aug-92
Food Network	Nov-93
Fox Movie Channel	Nov-94
Fox News Channel	Oct-96
Fox Sports Digital Nets	Nov-96
Fox Sports World	Nov-97
Fox Sports en Español	Nov-96
FX	Jun-94
Fuel	Jul-03
FSTV (Free Speech TV)	Jun-95
Galavision	Oct-79
GSN (Game Show Network)	Dec-94
German TV	Apr-02
Gol TV	Mar-03
Golden Eagle Broadcasting	Nov-98
Goodlife Television Network	Feb-85
Grandes Documentales	1996
Great American Country	Dec-95
Hallmark Channel	Sep-98
Hallmark Movie Channel	Jan-04
HDNET	Sep-01
HDNET Movies	Jan-03
Health TV Channel	Apr-03
Here! TV	Oct-04
History Channel	Jan-95
History Channel en Español	May-04

Programming Service	Launch Date
History International	Nov-98
Home & Garden Television (HGTV)	Dec-94
Home Shopping Network	Jul-85
Horse Racing TV	Dec-02
Hot Net	Mar-99
Hot Zone	Mar-99
HTV	Aug-95
Hustler TV	Apr-04
Imaginasian TV	Aug-04
Infinito	2003
Inspirational Life Television (I-LIFETV)	Jun-98
Inspirational Network (INSP)	Apr-90
JCTV	Nov-02
Jewelry Television by ACN	Oct-93
La Familia Network	May-02
LATV	Dec-03
Liberty Channel	Sep-01
Lifetime Movie Network	Jul-98
Lifetime Real Women	Aug-01
Lifetime Television	Feb-84
Locomotion Channel	Nov-96
MAVTV-Mav'rick Entertainment Network	Oct-04
MBC America (MUNHWA Broadcasting Corporation)	2002
Meadow Racing Network	Nov-84
MoviePlex	Oct-94
MSNBC	Jul-96
MTV Español	Aug-98
MTV Hits	May-02
MTV Jams	May-02
MTV: Music Television	Aug-81
MTV 2	Dec-98
Mun <sup>2</sup>	Oct-01
Music First	Unknown
My Pet TV	Sep-96
NASA Television	Jul-91
National Geographic Channel	Jan-01

Programming Service	Launch Date
National Iranian Television (NITV)	2003
National Jewish Television	May-81
NBA TV	Nov-99
Newsworld International	Sep-94
NFL Network	Nov-03
NFL On Demand	Nov-03
Nick 2	May-98
Nickelodeon Gas-Games & Sports Network	Mar-99
Nickelodeon/Nick at Nite	Apr-79
Nicktoons	Jan-99
Noah's World International	May-03
Noggin/The N	Feb-99
Oasis TV	Sep-97
Outdoor Channel	Apr-93
Oxygen Media	Feb-00
Pax TV	Aug-98
Pentagon Channel	May-04
Playboy TV Networks	Nov-82
Pleasure	Jun-99
Praise Television	Dec-96
PIN (Product Information Network)	Apr-94
Puma TV	1997
QTV (Q Television Network)	Jul-04
QVC	Nov-86
RAI International	1999
Rang-A-Rang	2003
Ritmoson Latino	May-03
Russian Television Network of America (RTN)	Aug-00
Rx Channel	May -03
Saigon Broadcasting Network	Feb-02
Sci-Fi Channel	Sep-92
SCOLA	Aug-87
Shop at Home	Jun-86
Shop NBC	Oct-91
Short TV	Jan-99
Showtime	Jul-76

Programming Service	Launch Date
Showtime Beyond	Sep-99
Showtime PPV (formerly Showtime Event Television, SET)	1979
Showtime Extreme	1998
Showtime Family Zone	Mar-01
Showtime Next	Mar-01
Showtime Showcase	Jul-01
Showtime Too	2001
Showtime Women	Mar-01
SiTV	Feb-04
Skyview World Media	1992
S   Networks	May-03
Sorpressa	Mar-03
SoapNet	Jan-00
Speed Channel	Jan-96
Spice 1	May-89
Spice 2	Unknown
Spike TV	Mar-83
Sportsman Channel	Apr-03
Starz!	Mar-94
Starz! Cinema	May-99
Starz! Family	May-99
Starz! HD	Dec-03
Starz! Kids	Mar-94
Starz! On Demand	May-01
Starz! Super Pack (13 movie channels)	May-99
Starz! Theater	Mar-96
Sun TV	Aug-96
Sundance Channel	Feb-96
Sur	Aug-91
TBN (Trinity Broadcasting Network)	May-73
TBN Enlace USA	May-02
Telefe Internacional	Apr-90
Telefutura	Jan-02
Telehit	May-03
Telemundo	Jan-87
Telemundo Internacional	Mar-00

Programming Service	Launch Date
The Erotic Network (TeN)	Sep-98
TeN on Demand	Mar-99
TeN BLOX	Jan-03
TeN Blue	Jan-03
TeN Clips	May-00
Tennis Channel	May-03
Tenxsty	Feb-98
TFN (The Football Network)	Sep-03
TMC (The Movie Channel)	Dec-79
TMC HD	Dec-03
TMC XTRA	1997
True Blue	Feb-98
Toon Disney	Apr-98
Totally Broadway TV	Jun-02
Totally Hollywood TV	Jun-02
TR!O	Sep-94
TV 5 – USA Inc.	Jan-98
TV Asia	Jul-91
TVG Network	Sep-04
TV Games Network	Jul-94
TV Japan	Jul-91
TVN Entertainment Corporation (33 digital pay-per-view channels)	Feb-98
TVN Direct	Jan-96
TV Guide Channel	Jan-88
TV Guide Interactive	Oct-96
TV Internacional	2003
TV Land	Apr-96
TV Polonia	2003
UBC (Urban Broadcasting Company)	Apr-03
Univision	Sep-96
Utilisima Satelitel	Mar-96
USA Network	Apr-80
VH1 (Music First)	Jan-85
VH1 (Classic)	May-00
VH1 Soul	Aug-98
VH1 Country	Aug-98

Programming Service	Launch Date
VH1 Megahits	May-02
VH Uno	Nov-99
Video Rola	Jan-01
Vivid TV	Mar-99
VTV: Varsity Television	Jan-03
VTV On Demand	Jan-03
Weather Channel	May-82
Weatherscan	Oct-99
WGN	Nov-78
Wisdom Television	Jul-97
Word Network	Feb-00
Worship Network	Sep-92
ZEE TV	1999

**Note:**

\* The National Cable Satellite Corporation (C-SPAN) derives 97 percent of its revenues from affiliate fees (*i.e.*, subscriber fees from MVPDs). The remaining three percent is provided by various investments. Affiliates have no ownership or program control interests in C-SPAN.

**Sources:**

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*Cable*, COMM. DAILY, Oct. 7, 2004, at 14.  
*Cable*, COMM. DAILY, Nov. 18, 2004, at 13.

TABLE C-3

**National Video Programming Services  
Affiliated With a Media Entity\***

Programming Service	Ownership
A&E (Arts & Entertainment)	Disney, NBC-Universal, Hearst
ABC Family	Disney
ACNTV (America's Collectibles Network)	
Action Max	Time Warner
AIT (African Independent Television)	
American Movie Classics (AMC)	Cablevision
America's Store	
ANA Television Network	
Animal Planet	Cox, Advance Newhouse, Liberty Media
Anime Network	
@Max	Time Warner
AYM Sports	
ART (Arab Radio & Television)	
Bandamax	Univision
BBC America	Viacom
BET (Black Entertainment Television)	Viacom
BET Gospel	Viacom
BET Hip Hop	Viacom
BET Jazz: The Jazz Channel	Viacom
Biography Channel	Disney, NBC-Universal, Hearst
Black Family Channel (formerly MBC Network)	
Black STARZ!	Liberty Media
Bloomberg Television	
B Mania	
Boomerang	Time Warner
Boston Kids & Family TV	
Bravo	NBC-Universal
Bridges TV	
Buzztime Entertainment	
Canal 24 Horas	
Cartoon Network	Time Warner

Programming Service	Ownership
CCTV-4 (China Central Television)	
Celtic Vision	
Channel One Russian Worldwide Network	
Chronicle DTV	
Church Channel	Trinity Broadcasting Network
Cine Latino	
Cinemax	Time Warner
Classic Arts Showcase	
CMT (Country Music Television)	Viacom
CNBC	NBC-Universal
CNBC World	NBC-Universal
CNC Columbia	
CNN	Time Warner
CNN En Español	Time Warner
CNN Headline News	Time Warner
CNN International	Time Warner
College Entertainment Network	
Comedy Central	Viacom
Court TV	Time Warner, Liberty Media
Crime Channel	
C-SPAN**	
C-SPAN2**	
C-SPAN3**	
CSTV (College Sports Television)	
CTI Zhon Tian Channel (formerly Power TV Zhon Tian Channel)	
Daystar Television Network	Daystar Television
De Pelicula	Univision
De Pelicula Classico	Univision
Deep Dish TV	
Destiny Channel	
Discovery Channel	Cox, Advance Newhouse, Liberty Media
Discovery En Español	Cox, Advance Newhouse, Liberty Media
Discovery Health Channel	Cox, Advance Newhouse, Liberty Media

Programming Service	Ownership
Discovery HD Theater	Cox, Advance Newhouse, Liberty Media
Discovery Home Channel	Cox, Advance Newhouse, Liberty Media
Discovery Kids	Cox, Advance Newhouse, Liberty Media
Discovery Times	Cox, Advance Newhouse, Liberty Media, New York Times
Discovery Wings: The Aviation and Adventure Channel	Cox, Advance Newhouse, Liberty Media
Disney Channel	Disney
DIY (Do-It-Yourself Network)	E.W. Scripps
Dream Network	
E! Entertainment	Comcast, Disney
Ecology Communications	
Encore	Liberty Media
Encore HD	Liberty Media
Encore Action	Liberty Media
Encore Love Stories	Liberty Media
Encore Mystery	Liberty Media
Encore True Stories	Liberty Media
Encore WAM! America's Youth Network	Liberty Media
Encore Westerns	Liberty Media
ESPN	Disney, Hearst
ESPN Classic	Disney, Hearst
ESPN Deportes	Disney, Hearst
ESPN2	Disney, Hearst
ESPN HD	Disney, Hearst
ESPNEWS	Disney, Hearst
EWTN: Global Catholic Network	
Familyland Television Network	
Family Net	
Filipino Channel (ABS-CBN)	
Fine Living	E.W. Scripps
5StarMax	Time Warner
FITTV	Cox, Advance Newhouse
Flix	Viacom
Food Network	E.W. Scripps

Programming Service	Ownership
Fox Movie Channel	Fox
Fox News Channel	Fox
Fox Sports Digital Nets	Fox
Fox Sports World	Fox
Fox Sports en Español	Fox
FX	Fox
Fuel	Fox
FSTV (Free Speech TV)	
Fuse	Cablevision
Fuse On Demand	Cablevision
G4techTV	Comcast, EchoStar
Galavision	Univision
GSN (Game Show Network)	Liberty Media
German TV	
Gol TV	
Golden Eagle Broadcasting	
Golf Channel	Comcast
Goodlife Television Network	
Grandes Documentales	
Great American Country	E.W. Scripps
Hallmark Channel	Liberty Media
Hallmark Movie Channel	Liberty Media
HBO (Home Box Office)	Time Warner
HBO 2	Time Warner
HBO Comedy	Time Warner
HBO Family	Time Warner
HBO Latino	Time Warner
HBO Signature	Time Warner
HBO Zone	Time Warner
HDNET	
HDNET Movies	
Health TV Channel	
Here! TV	
History Channel	Disney, NBC-Universal, Hearst
History Channel en Español	Disney, NBC-Universal Hearst

Programming Service	Ownership
History International	Disney, NBC-Universal, Hearst
Home & Garden Television (HGTV)	E.W. Scripps
Home Shopping Network	
Horse Racing TV	
Hot Net	
Hot Zone	
HTV	
Hustler TV	
Imaginasian TV	
iN Demand (35 multiplexed channels)	Comcast, Time Warner, Cox
iN Demand HD1	Comcast, Time Warner, Cox
iN Demand HD2	Comcast, Time Warner, Cox
Independent Film Channel	Cablevision
Infinito	
Inspirational Life Television (I-LIFETV)	
Inspirational Network (INSP)	
International Channel	Comcast
JCTV	Trinity Broadcasting Network
Jewelry Television by ACN	
La Familia Network	
LATV	
Liberty Channel	
Lifetime Movie Network	Disney, Hearst
Lifetime Real Women	Disney, Hearst
Lifetime Television	Disney, Hearst
Locomotion Channel	
MAVTV-Mav'rick Entertainment Network	
MBC America (MUNHWA Broadcasting Corporation)	
Meadow Racing Network	
MoreMAX	Time Warner
MoviePlex	Liberty Media
MSNBC	NBC-Universal
MTV Español	Viacom
MTV Hits	Viacom

Programming Service	Ownership
MTV Jams	Viacom
MTV: Music Television	Viacom
MTV 2	Viacom
Mun <sup>2</sup>	NBC-Universal
Music First	
My Pet TV	
NASA Television	
National Geographic Channel	Fox
National Iranian Television (NITV)	
National Jewish Television	
NBA TV	
Newsworld International	
NFL Network	
NFL On Demand	
Nick 2	Viacom
Nickelodeon Gas-Games & Sports Network	Viacom
Nickelodeon/Nick at Nite	Viacom
Nicktoons	Viacom
Noah's World International	
Noggin/The N	Viacom
Oasis TV	
Outdoor Channel	
Outdoor Life Network	Comcast
OuterMax	Time Warner
Ovation: The Arts Network	Time Warner, New York Times
Oxygen Media	
Pax TV	NBC-Universal, Paxson Communications
Pentagon Channel	
Playboy TV Networks	
Pleasure	
Praise Television	
PIN (Product Information Network)	
Puma TV	
QTV (Q Television Network)	

Programming Service	Ownership
QVC	Liberty Media
RAI International	
Rang-A-Rang	
Ritmoson Latino	Univision
Russian Television Network of America (RTN)	
Rx Channel	
Saigon Broadcasting Network	
Science Channel	Cox, Advance Newhouse
Sci-Fi Channel	NBC-Universal
SCOLA	
Shop at Home	E.W. Scripps
Shop NBC	NBC-Universal
Short TV	
Showtime	Viacom
Showtime Beyond	Viacom
Showtime PPV (formerly Showtime Event Television, SET)	Viacom
Showtime Extreme	Viacom
Showtime Family Zone	Viacom
Showtime Next	Viacom
Showtime Showcase	Viacom
Showtime Too	Viacom
Showtime Women	Viacom
SITV	
Skyview World Media	
S   Networks	
Sorpressa	
SoapNet	Disney
Source Suite	Insight Communications
Speed Channel	Fox
Spice 1	
Spice 2	
Spike TV	Viacom
Sportsman Channel	
Starz!	Liberty Media
Starz! Cinema	Liberty Media
Starz! Family	Liberty Media

Programming Service	Ownership
Starz! HD	Liberty Media
Starz! Kids	Liberty Media
Starz! On Demand	Liberty Media
Starz! Super Pack (13 movie channels)	Liberty Media
Starz! Theater	Liberty Media
Style	Comcast, Disney
Sun TV	
Sundance Channel	Viacom
Sur	
TBN (Trinity Broadcasting Network)	Trinity Broadcasting Network
TBN Enlace USA	Trinity Broadcasting Network
TBS	Time Warner
Telefe Internacional	
Telefutura	Univision
Telehit	Univision
Telemundo	NBC-Universal
Telemundo Internacional	NBC-Universal
The Erotic Network (TeN)	
TeN on Demand	
TeN BLOX	
TeN Blue	
TeN Clips	
Tennis Channel	
Tenxsty	
TFN (The Football Network)	
TLC (The Learning Channel)	Cox, Advance Newhouse Liberty Media
Thriller Max	Time Warner
TMC (The Movie Channel)	Viacom
TMC HD	Viacom
TMC XTRA	Viacom
TNT (Turner Network Television)	Time Warner
True Blue	
Toon Disney	Disney
Totally Broadway TV	
Totally Hollywood TV	

Programming Service	Ownership
Travel Channel	Cox, Advance Newhouse Liberty Media
TCM (Turner Classic Movies)	Time Warner
TR!O	NBC-Universal
TV 5 – USA Inc.	
TV Asia	
TVG Network	
TV Games Network	Fox
TV Japan	
TVN Entertainment Corporation (33 digital pay-per-view channels)	
TVN Direct	
TV Guide Channel	Fox
TV Guide Interactive	Fox
TV Internacional	
TV Land	Viacom
TV One	Comcast
TV Polonia	
UBC (Urban Broadcasting Company)	
Univision	Univision
Utilisima Satelitel	
USA Network	NBC-Universal
VH1 (Music First)	Viacom
VH1 (Classic)	Viacom
VH1 Soul	Viacom
VH1 Country	Viacom

Programming Service	Ownership
VH1 Megahits	
VH Uno	
Video Rola	
Vivid TV	
VTV: Varsity Television	
VTV On Demand	
WE	Cablevision
Weather Channel	Landmark Communications
Weatherscan	Landmark Communications
WGN	Tribune Company
Wisdom Television	
WMAX	Time Warner
Word Network	
Worship Network	
ZEE TV	

**Note:**

\* Media entity is defined as a cable operator, broadcast network, or broadcast television station licensee. Liberty Media programming interests are also listed due to its ownership in News Corp. (Fox).

\*\* The National Cable Satellite Corporation (C-SPAN) derives 97 percent of its revenues from affiliate fees (*i.e.*, subscriber fees from MVPDs). The remaining three percent is provided by various investments. Affiliates have no ownership or program control interests in C-SPAN.

**Sources:**

See Sources Tables C-1 and C-2.

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TABLE C-4

## Regional Video Programming Services

Programming Services	Launch Date	MSO Ownership (%)
Altitude Sports & Entertainment	Sep-04	
Arabic Channel	Apr-91	
Arizona News Channel	Nov-96	Cox (50)
Bay News 9	Sep-97	Time Warner (100)
Bay TV	1994	
Bravesvision (Atlanta)	Jul-03	Comcast (100)
California Channel	Feb-91	
Capital News 9-Albany New York		Time Warner (100)
Central Florida News 13 (CFN 13)	Oct-97	Time Warner (50)
ChicagoLand Television News (CLTV)	Jan-93	
Carolinas Sports Entertainment Television	Oct-04	
CN8 – The Comcast Network	Oct-97	Comcast (100)
Comcast Local (Detroit)	Aug-04	Comcast (100)
Comcast SportsNet (Philadelphia)	Oct-97	Comcast (78.34)
Comcast SportsNet Chicago	Oct-04	Comcast (30)
Comcast SportsNet Mid Atlantic	Apr-84	Comcast (100)
Comcast SportsNet West	Nov-04	Comcast (100)
Comcast / Charter Sports Southeast (CSS)	Apr-84	Comcast (69.1), Charter (23)
County Television Network San Diego	Jul-96	
Cowboys TV (Dallas)	Sep-04	Comcast (100)
Cox Sports Television	Oct-02	Cox (100)
Ecumenical Television Channel	1983	
Empire Sports Network	Dec-90	Adelphia (67)
Falconvision (Atlanta)	Sep-04	Comcast (100)
Florida's News Channel	Sep-98	
Fox Sports Net Arizona	Sep-96	
Fox Sports Net Bay Area	Apr-90	Cablevision (60)
Fox Sports Net Chicago	Jan-84	Cablevision (60)
Fox Sports Net Detroit	Sep-97	
Fox Sports Net Florida	1989	Cablevision (60)
Fox Sports Net Midwest	Sep-97	
Fox Sports Net New England	Jan-88	Cablevision (30)
Fox Sports Net New York	1989	Cablevision (60)

Programming Services	Launch Date	MSO Ownership (%)
Fox Sports Net North	Mar-89	
Fox Sports Net Northwest	Nov-88	
Fox Sports Net Ohio	Feb-89	Cablevision (60)
Fox Sports Net Pittsburgh	Apr-86	
Fox Sports Net Rocky Mountain	Nov-88	
Fox Sports Net South	Aug-90	
Fox Sports Net Southwest	Jan-83	
Fox Sports Net West	Oct-85	
Fox Sports Net West 2	Jan-97	
Game Bank	Nov-95	
Gwinnet News & Entertainment Television	May-97	
Hip Hop Network	Jan-97	
International Television Broadcasting (ITV)	Apr-86	
Las Vegas One News	Apr-98	
Local News on Cable (LNC) – Hampton	Feb-97	
Madison Square Garden Network (MSG)	Oct-69	Cablevision (60)
MediaOne News	Dec-95	
MetroSports – Kansas City, Mo.	Feb-04	Time Warner (100)
Metro Stories	Aug-98	Cablevision (60)
Metro Traffic and Weather	Aug-98	Cablevision (60)
Metro TV	Aug-98	Cablevision (60)
Michigan Government Television	Jul-96	
Neighborhood News 12	Unknown	Cablevision (75)
New England Cable News (NECN)	Mar-92	Comcast (50)
New England Sports Network (NESN)	Mar-84	
New York 1 News (NY1 News)	Sep-92	Time Warner (100)
NY 1 Noticias	Jun-03	Time Warner (100)
News 10 Now – Syracuse, N. Y.	Nov-03	Time Warner (100)
News 12 Connecticut	Jun-95	Cablevision (75)
News 12 Long Island	Dec-86	Cablevision (75)
News 12 New Jersey	Mar-96	Cablevision (75)
News 12 Bronx	Jun-97	Cablevision (75)
News 12 Westchester	Nov-95	Cablevision (75)
News 8 Austin	Sep-99	Time Warner (100)
News Channel 5+	Sept-96	

Programming Services	Launch Date	MSO Ownership (%)
News 14 Carolina (Charlotte)	Mar-02	Time Warner (100)
News 14 Carolina (Raleigh)	Mar-02	Time Warner (100)
News Now 53	Jun-97	Cox (50)
News on One	Oct-97	Cox (50)
News Watch 15 (New Orleans)	Oct-99	
News Channel 8	Oct-91	
NGTV (National Greek Television)	Dec-87	
Nippon Golden Network	Jan-82	
North West Cable News (NWCN)	Dec-95	
Ohio News Network (ONN)	May-97	
Orange County Newschannel (OCN)		
PASS Sports (Pro-Am Sports System)	Apr-84	
Pennsylvania Cable Network (PCN)	Sep-79	
Pittsburgh Cable News Channel (PCNC)	Jan-94	Comcast (30)
Rarities Exchange	Dec-98	
Regional News Network (RNN)	Dec-95	
Rhode Island News Channel	Sep-98	Cox (50)
R News – Rochester, N. Y.	Jul-95	Time Warner (100)
San Diego's News Channel 15	Jan-97	
Six News Now	Jul-95	
Soundtrack Channel (STC)	Mar-02	
Sunshine Network	Mar-88	
Texas Cable News	Jan-99	
Tri-State Media News (TSM News)	Apr-99	
Turner South (STC)	Oct-99	Time Warner (100)
TV33	Dec-95	
Washington Korean TV (WKTV)	1985	
Yankee Entertainment Sports Network (YES)	Mar-02	

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<http://www.freep.com/money/business> (visited Oct. 29, 2004)

TABLE C-5

## Planned Programming Services

Programming Service	Planned Launch Date, If Announced
Africast Television Network	2004
America Channel	2004
American David	Sep-05
America National Network	Mar-05
AMC's American Pop	TBA
Anti-Aging Network	3Q05
Asia Channel	2004
Auto Channel	Sep-05
BET World Music Beat	TBA
Bingo TV	TBA
Black Belt TV/The Martial Arts Network	2004
Black Education Network	2004
Black Entertainment Network	TBA
Blue Highways TV	2005
Boating Channel	TBA
BOB: Brief Original Broadcasts	2004
Booknet	TBA
Box TV	May-05
California Channel	2005
Casino & Gaming Television	2004
Classified Channel TV	2004
Collectors Channel	TBA
CSN (Cable Science Network)	TBA
Destiny Channel	2004
Documentary Channel	3Q05
Edge TV	2005
Election Channel	2004
Employment Channel	1Q06
ESPNU	2005
ESPN2 HD	Jan-05
Fad TV (Fashion & Design Television)	2004
Fifth Avenue Channel	TBA

Programming Service	Planned Launch Date, If Announced
Film Festival Channel	2004
Florida Channel	2004
Fox Enhanced TV	TBA
Gambling Channel	2004
GETV Program Network	2004
Global Village Network	TBA
Government Channel	TBA
Home Improvement Channel	2004
Honey Vision	2004
Ice Channel	4Q05
Imagination Channel	2005
Investment TV	TBA
JTV (Jewish TV)	1Q05
Las Vegas Channel	2005
Local News Network	TBA
Local News TV	2005
Local Sports TV	2005
Logo	Feb-05
Major League Baseball	2005
Moore TV Network	TBA
Mountain West TV	4Q06
Moviewatch	2Q05
Native American Nations Program Network	2004
New York Channel	2005
New York Mets	2006
Orb TV	TBA
Outdoor Channel 2	2005
Premiere Horse Network	TBA
Puppy Channel	4Q05
RadioTV Network	4Q05
Real Estate Channel	2004
Real Estate Network (TREN)	TBA
Reality Central	2004
Scream Channel	2005

Programming Service	Planned Launch Date, If Announced
SCTV (Stand-Up Comedy Television)	1Q05
Senior Citizens Television Network	2004
Simulation Channel	2005
Sundance Documentary Channel	TBA
Theater Channel	TBA
Tickets On Demand (The Ticket Channel)	2005
Tourist Channel	2005
U.S. Military Television Network	2004
Vegas Channel	2005
Voy Network	TBA
Wine Network TV	2004
World Cinema	TBA

**Sources:**

NCTA, *Planned Services*, Cable Developments 2004, at 247-274.

*An Unfunny Thing Happened on the Way to New Orleans*, CABLEFAX DAILY, May 3, 2004 at 2-3.

*Cable*, COMM. DAILY, Aug. 11, 2004, at 9; Aug. 23, 2004, at 7, Sept. 14, 2004, at 11.

*ESPN to Launch College Net*, BROADCASTING & CABLE TV FAX, Sept. 8, 2003, at 3.

TABLE C-6

## Top 20 Programming Services by Subscribership

Rank	Programming Network	Number of Subscribers (Millions)*	Ownership Interest in Network
1	Discovery Channel	88.6	Cox, Advance Newhouse, Liberty Media
2	ESPN	88.4	Disney, Hearst
3	CNN	88.2	Time Warner
3	TNT	88.2	Time Warner
4	TBS	88.1	Time Warner
4	USA Network	88.1	NBC Universal
7	Nickelodeon	87.9	Viacom
8	C-SPAN	87.8	National Cable Satellite Corporation**
9	A&E	87.7	Disney, Hearst, NBC-Universal
10	Lifetime Television	87.5	Disney, Hearst
10	The Weather Channel	87.5	Landmark
12	Spike TV	87.2	Viacom
13	TLC	87.0	Cox, Advance Newhouse, Liberty Media
14	ABC Family Channel	86.8	Disney
14	ESPN2	86.8	Disney, Hearst
16	MTV	86.7	Viacom
17	CNN Headline News	86.5	Time Warner
18	VH1	86.3	Viacom
19	CNBC	86.2	NBC Universal
20	The History Channel	85.8	Disney, Hearst, NBC Universal

**Note:**

\* - In addition to cable systems, other MVPDs such as DBS (direct broadcast satellite) systems, wireless cable (or MMDS) systems, PCOs (private cable operators or SMATV) services, and HSD (home satellite dish) program providers may distribute these signals. Subscriber figures may include these non-cable services.

\*\* - The National Cable Satellite Corporation (C-SPAN) derives 97 percent of its revenues from affiliate fees (*i.e.*, subscriber fees from MVPDs). The remaining three percent is provided by various investments.

**Sources:**

NCTA, *Top 20 Cable Networks*, Cable Developments 2004, at 39-40.

Disney Reply Comments at 2; Fox Comments, Attachment A; Viacom Comments at 4, 5.

TABLE C-7

## Top 15 Programming Services by Prime Time Rating

Rank	Programming Service	Ownership Interest in Network
1	TNT	Time Warner
2	Nickelodeon	Viacom
3	USA Network	NBC Universal
4	Nick At Nite	Viacom
5	Disney	Disney
6	ESPN	Disney, Hearst
7	Toon Disney	Disney
8	Lifetime	Disney, Hearst
9	Fox News Channel	Fox
10	TBS	Time Warner
11	MTV	Viacom
12	FX	Fox
13	History Channel	Disney, Hearst, NBC Universal
14	Discovery Channel	Cox, Advance Newhouse, Liberty Media
15	A&E	Disney, Hearst, NBC Universal

**Sources:**

Kagan World Media, *Day Part Ratings Averages, Prime Time (May)*, CABLE PROGRAM INVESTOR, July 16, 2004, at 6.

Disney Reply Comments at 2.

Fox Comments, Attachment A.

Viacom Comments at 4, 5.

**SEPARATE STATEMENT OF  
CHAIRMAN MICHAEL K. POWELL**

*Re: Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*

As evidenced by this year's *Report*, at the forefront of the digital migration taking root in every sector of the communications landscape and bringing vast benefits to Americans across the country, stands the television industry. Whether one focuses on distribution or programming, today's video marketplace is the most competitive and diverse in our nation's history. The good news for the viewing public does not, however, end here. The continued proliferation of emerging broadband digital platforms and services promise a future of more competition, diversity, localism and personalization in the video marketplace.

The past decade has brought great change to the video distribution marketplace. A blip on the radar screen ten years ago, direct broadcast satellite (DBS) now serves one in four pay television subscribers. Almost every household in the country can enjoy video programming from a multitude of providers including over-the-air local broadcasters, one cable operator (and in several communities a cable over-builder) and at least two DBS providers.

The analog systems of yesteryear are giving way to digital platforms, as over 1,400 broadcast stations are broadcasting in digital, and almost all cable systems and DBS providers deliver some or all video programming digitally. The digital migration in the video distribution market is also bringing new players into the market. The major incumbent local exchange carriers have announced plans to offer video service over new, fiber-based distribution platforms. Broadcasters such as Emmis and USDTV are leveraging their digital assets to offer low-cost pay-television services to several communities across the country. Continuing advances in broadband Internet speeds and compression technologies are allowing thousands of channels to emerge on the Internet, offering streaming video to millions of PCs at both home and work. Finally, this next year promises to bring more video to mobile devices, offering the public the ability to get their news, information and entertainment anywhere, anytime.

The power of digital video services and technologies to enhance consumers' ability to enjoy and participate in the video marketplace is greater than ever and only increasing. Personal video recorders continue to flood the marketplace, making the viewer, not the executive, the programmer. This year promises advances in long-awaited interactive television services, giving the public more control over their viewing experiences. Even more important, individuals are using video and the Internet to be active programmers—some creating their own documentaries or entertainment programs and finding distribution on the Internet. Most exciting in this area may be the proliferation of Vblogs—the evolution of web logs is now going video.

We stand at a remarkable time in the development of the video marketplace. A time at which we can say with great confidence that the monopolies of the past have given way to the most competitive video marketplace at any point in history; yet continuing developments in the video marketplace will ensure that today is also the least competitive the marketplace will ever be. A bevy of new platforms, services, devices and programming options promise infinite new choices for Americans in the days, months and years to come.

**JOINT STATEMENT OF  
COMMISSIONERS MICHAEL J. COPPS AND JONATHAN S. ADELSTEIN  
CONCURRING**

*Re: Implementation of Section 3 of the Cable Television Consumer Protection and Competition Act of 1992; Statistical Report on Average Rates for Basic Service Cable Programming Service and Equipment*

*Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*

In Sections 623(k) and 628(g), Congress charged the Commission with reporting annually on cable rates and on the status of competition in the market for the delivery of video programming. As the government's expert agency, Congress expected the Commission to gather comprehensive data and subject it to in-depth analysis in these reports. Unfortunately, in these reports, the Commission gathers less than adequate data and conducts less analysis than it did even a few years ago. At a time of significant increases in rates year after year, Congress and consumers deserve a better effort from the FCC.

We took issue with our Report on cable rates last year because we believed the analysis was insufficient. At that time, the Commission recognized the report's shortcomings, noting that "in several previous surveys, we included an econometric analysis of the survey results." The Commission further stated its "plan to resume the econometric analysis in subsequent reports." Yet, this year, the Commission again fails to conduct this analysis which in the past has provided information on specific factors that influence rate increases and the extent of that influence. Moreover, the Commission once again did not audit any of its results, notwithstanding problems with our methodology disclosed in a recent report from the General Accounting Office.

We remain concerned that this year's competition report continues to serve mainly as a recitation of the record rather than providing an in-depth analysis of the status of competition. As with last year's version, this report fails to examine adequately the circumstances that distinguish those places where competition is occurring and those where it is not, and to evaluate barriers to greater competition. And it fails to consider sufficiently many of the important issues raised in the Notice, such as the impact of increasing vertical and horizontal consolidation of our media. In sum, the report seldom delves beneath the surface.

In part, the fault lies with the limited data we received in response to our notices. But it is also incumbent on the Commission to undertake a pro-active and comprehensive information-gathering effort and then to commit the resources necessary to analyze the data.

We recognize that there have been some positive steps in these reports in response to previous criticisms. For example, we are pleased that we have at long last begun to analyze what is happening in other countries. In addition, we are also pleased that we have added a separate section that focuses specifically on video program distribution in rural areas. In future years, we would like to see us build on the discussions here.

Finally, notwithstanding the concerns we have expressed with our reports, none of our comments should take away from the large investments that have been made by those that deliver video programming. Nor do our concerns with the reports diminish the benefits American consumers receive as new services are deployed. These investments and services come not only from existing participants in the market but also from telephone companies and others that are expanding their efforts to deliver video programming. But these reports serve as the factual foundation for many Commission decisions as well

as providing Congress with statutorily-mandated information that can inform the national policy debate. We have an obligation to do more to gather accurate and complete data as well as provide the information and analysis that Congress required.